

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

**AIR FORCE INSTRUCTION 11-2E-3,
VOLUME 2**



23 FEBRUARY 2012

Flying Operations

E-3 – AIRCREW EVALUATION CRITERIA

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-Publishing website at www.e-Publishing.af.mil

RELEASABILITY: There are no releasability restrictions on this publication

OPR: ACC/A3CA

Certified by: AF/A3O-A
(Col James W. Crowhurst)

Supersedes: AFI11-2E3V2,
22 February 2008

Pages: 158

This volume implements AFPD 11-2, *Aircraft Rules and Procedures*; AFPD 11-4, *Aviation Service*; and AFI 11-202, Volume 1, *Aircrew Training*. It establishes the minimum Air Force standards for qualifying personnel performing duties in the E-3. It applies to all E-3 units including Air Force Reserve Command (AFRC) Units. This publication does not apply to the Air National Guard (ANG). Major Commands (MAJCOMs), Direct Reporting Units (DRU) and Field Operating Agencies (FOA) are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to AF/A3O-AI, through ACC/A3TO for approval prior to publication IAW AFPD 11-2. Copies of approved and published supplements will be provided by the issuing office to ACC/A3TO, and the user MAJCOM/DRU/FOA offices of primary responsibility (OPR). Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA OPR for publication record. **Note:** The above applies only to those DRUs/FOAs that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360, *Publications and Forms Management*, section 3F. See paragraph **1.3** for guidance on submitting comments and suggesting improvements to this publication. This publication requires the collection and or maintenance of information protected by the Privacy Act of 1974. System of Records Notice F011 AF XO A, Aviation Resource Management system (ARMS) covers required information. The authority for maintenance of ARMS is Title 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 93-294 (Aviation Career Incentive Act of 1974), and Executive Order 9397 as amended by Executive Order 13478, Amendments to Executive Order 9397 Relating to Federal Agency Use of Social Security Numbers, November 18, 2008. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management*

of Records, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in Air Force Records Information Management System (AFRIMS) on the AF Portal: <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>. Contact supporting records managers as required.

SUMMARY OF CHANGES

This volume contains substantial changes that update and clarify evaluation requirements. Of note: **Chapter 2:** Clarifies requisite requirements for periodic and initial instructor evaluations. Clarifies EPE evaluation requirements. Added a sub-area to Pilot Area 29, “E-3 Self-Defense Procedures”. **Chapter 3:** Significant changes were made to the Co-pilot eval criteria. Added critical area Airmanship to multiple crew position evaluation criteria. **Chapter 5:** Added Close Air Support (CAS) and Time Sensitive Targeting (TST) to the mission sets for Air Weapons Officers (AWOs) to be evaluated on.

Chapter 1—GENERAL INFORMATION	5
1.1. General.	5
1.2. Waivers.	5
1.3. Procedures.	5
1.4. Grading Policies:	6
Chapter 2—EVALUATION REQUIREMENTS	7
2.1. General.	7
2.2. Ground Phase Requisites.	7
Table 2.1. Requisites.	8
2.3. Flight Simulator Evaluation Procedures.	8
2.4. Mission Evaluation:	9
2.5. Instructor Evaluation.	9
2.6. Cockpit/Crew Resource Management (CRM).	12
Chapter 3—FLIGHT CREW EVALUATIONS	14
3.1. General.	14
3.2. Instructor Pilot/Pilot/First Pilot/Copilot Qualification and Instrument Flight Evaluations	14
Table 3.1. Consolidated Performance Data Limits.	28
Table 3.2. Pilot/First Pilot/Copilot Evaluation Matrix.	28
3.3. Navigator Qualification Flight Evaluations:	30
Table 3.3. Navigator Evaluation Matrix.	38
3.4. Flight Engineer Qualification Flight Evaluations:	40

Table 3.4.	Consolidated Performance Data Limits.	46
Table 3.5.	Flight Engineer Evaluation Matrix.	46
Chapter 4—MISSION CREW COMMANDER EVALUATIONS		49
4.1.	General.	49
4.2.	Evaluation Criteria.	49
Table 4.1.	Mission Crew Commander Evaluation Matrix.	57
Chapter 5—WEAPONS EVALUATIONS		60
5.1.	General.	60
5.2.	Senior Director Evaluation Objectives:	61
5.3.	Senior Director Evaluation Criteria.	69
5.3.	28 The following areas are applicable for all crewmembers during all evaluations.	69
Table 5.1.	Senior Director Evaluation Matrix.	69
5.4.	Air Weapons Officers Qualification Flight Evaluations:	70
5.5.	AWO Evaluation Objectives:	71
5.6.	AWO Evaluation Criteria.	72
Table 5.2.	Air Weapons Officer Evaluation Matrix.	80
Chapter 6—SURVEILLANCE EVALUATIONS		83
6.1.	General.	83
6.2.	Air Surveillance Officer (ASO) Qualification Flight Evaluations:	83
Table 6.1.	Air Surveillance Officer Evaluation Matrix.	93
6.3.	Senior Surveillance Technician Qualification and Mission Flight Evaluations: ...	94
Table 6.2.	Senior Surveillance Technician Evaluation Matrix.	102
6.4.	Air Surveillance Technician Qualification and Mission Flight Evaluations:	103
Table 6.3.	Air Surveillance Technician Evaluation Matrix.	110
Chapter 7—ELECTRONIC COMBAT OFFICER EVALUATIONS		112
7.1.	General.	112
7.2.	Evaluation Objectives:	112
7.3.	Criteria.	112
Table 7.1.	Electronic Combat Officer Evaluation Matrix.	120
Chapter 8—BATTLE DIRECTOR TECHNICIAN QUALIFICATION FLIGHT EVALUATIONS		122
8.1.	General.	122
8.2.	Evaluation Objectives:	122

	8.3.	Criteria.	122
Table	8.1.	Battle Director Technician Evaluation Matrix.	128
Chapter 9—AIRBORNE TECHNICIAN EVALUATIONS			131
	9.1.	General.	131
	9.2.	Airborne Communications Specialist Qualification Flight Evaluations:	131
Table	9.1.	Airborne Communication Specialist Evaluation Matrix.	137
	9.3.	Computer Display Maintenance Technician Qualification Flight Evaluations:	138
Table	9.2.	Computer Display Maintenance Technician Evaluation Matrix.	144
	9.4.	Airborne Radar Technician Qualification Flight Evaluations:	145
Table	9.3.	Airborne Radar Technician Evaluation Matrix.	150
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION			152

Chapter 1

GENERAL INFORMATION

1.1. General. This volume, in conjunction with AFI 11-202V2, provides both flight examiners and aircrew members with procedures and evaluation criteria that will be used during flight evaluations. It is a reference document and a standard for training and operational purposes. Adherence to these procedures and criteria will ensure an accurate assessment of the proficiency and capabilities of aircrew members.

1.2. Waivers. Waiver authority for this publication is the MAJCOM/A3, IAW AFI 11-202 Vol 2. Waivers will be requested from the parent MAJCOM Stan/Eval through appropriate channels. Waiver authority for supplemental guidance will be as specified in the supplement and approved through the higher level coordination authority.

1.3. Procedures.

1.3.1. Aircrew Flight Evaluation Procedures.

1.3.1.1. Prior to Flight. The Stan/Eval Flight Examiner (SEFE) will explain the purpose of the flight and how it will be conducted. The examinee will accomplish all mission planning appropriate for the type of evaluation.

1.3.1.2. During Flight. The SEFE will evaluate the examinee's performance for each graded area and note discrepancies when deviations from prescribed performance criteria occur during the flight evaluation.

1.3.1.3. Post Flight. The SEFE will compare the examinee's performance with the grading criteria and will assign an appropriate grade for each area. The SEFE will consider cumulative momentary deviations. If flight manuals/instructions/publications recommend a specific range for performance, the SEFE will apply the grading criteria to the upper and lower limits of that range. The judgment of the SEFE will be the determining factor in assigning an overall grade for the examinee's performance. The SEFE will thoroughly critique all aspects of the evaluation. During this critique, the SEFE will review the examinee's overall rating, specific deviations, area grades assigned, and any additional training which the examinee will be required to complete. All initial qualification or initial instructor evaluations resulting in EQ, Q2, or Q3 will be debriefed with the examinee's squadron commander/operations officer (or designated representative), flight commander (or designated representative), and a representative from the gaining squadron.

1.3.1. 4 The Flight examiner should not occupy a primary crew position during evaluations, but may do so if conditions warrant.

1.3.1.5. Pilots unqualified in the crew position in which they are being evaluated will have a qualified IP/SEFE in the other pilot position during engine start, taxi, takeoffs, air refueling, instrument approaches, and landings. The SEFE will disregard minor deviations from tolerances for the purpose of clearing conflicting traffic provided the examinee initiates timely corrective action. When VMC, see and avoid responsibilities are paramount.

1.3.2. Acceptance of evaluations from outside parent MAJCOM.

1.3.2.1. Evaluations from North Atlantic Treaty Organization (NATO) are not valid and require a current US E-3 evaluation with accompanying AF Form 8, *Certificate of Aircrew Qualification*, IAW AFI 11-202V2 and current MAJCOM supplement. Prior to evaluation, NATO returnees must accomplish applicable difference training IAW AFI 11-2E-3V1, *E-3 Aircrew Training*.

1.3.2.2. Evaluations will be accepted between ACC, AFRC and PACAF E-3s.

1.3.2.3. Evaluations from Royal Saudi Air Force will not be accepted.

1.3.3. Administering evaluations outside MAJCOM. Unit flight examiners may give evaluations outside of their organization, to include administering evaluations outside of their MAJCOM. If administering evaluations outside of the flight examiner's MAJCOM, the evaluation will be specifically requested by the MAJCOM stan/eval organization of the examinee and approved by the MAJCOM stan/eval organization of the examiner IAW AFI 11-202V2.

1.3.4. SEFE Objectivity Evaluations will be accomplished at the discretion of the applicable OG/CC to ensure standardization among evaluators. SEFE Objectivity evaluations will be documented as "SPOT" evaluations in the Mission/Check block of the Flight Phase of the AF Form 8 with further description added in the Mission Description section of the Comments block.

1.4. Grading Policies:

1.4.1. Standardization/Evaluation Flight Examiners (SEFEs) will use the grading policies contained in AFI 11-202V2, and the evaluation criteria in this instruction for conducting all E-3 AWACS aircrew flight evaluations. Use of these criteria will ensure standard and objective evaluations are administered to aircrew members. SEFEs and crewmembers will be thoroughly familiar with the prescribed grading criteria in this regulation. A three-level grading system (Q, Q-, or U) will be used for all areas except those designated as CRITICAL, in which case a two-grading system (Q or U) will be used.

1.4.2. Critical Grading Areas. Critical grading areas have been established for aircrew flight evaluations. Critical areas are defined as events that require adequate accomplishment by the examinee in order to successfully achieve the mission objectives and complete the evaluation. If an examinee receives a "U" grade in any critical area, the overall grade for the evaluation will also be unqualified. Critical areas are identified by "(CRITICAL)" following the applicable area title.

Chapter 2

EVALUATION REQUIREMENTS

2.1. General. All evaluations will follow the guidelines set in AFI 11-202V2. Evaluation requirements are depicted in each crew position's evaluation criteria section.

2.1.1. Required Evaluation Areas. The SEFE will evaluate the examinee's performance in all required areas annotated with an "R". Schedule all required areas on the same sortie when possible. When a required area cannot be evaluated in-flight because of equipment malfunctions, weather conditions, operational requirements, or lack of adequate operating airspace, the area may be graded using simulation or a verbal evaluation. SEFEs will make every effort to evaluate all required areas during the flight before resorting to this alternative. If this alternative is used, an explanation will be included in the appropriate section on the back of the AF Form 8. This explanation will identify which areas/parts of areas were not evaluated in-flight.

2.2. Ground Phase Requisites. The following qualification (QUAL) evaluation requisites are common to all crew positions and will be accomplished IAW AFI 11-202V2 and unit directives. The examinee must satisfy all ground phase requisites within their eligibility period to complete recurring evaluations or within six months of initial QUAL evaluations. These requisites (with the exception of the publications check) will be recorded under the Ground Phase area, Section II of the AF Form 8. **Table 2.1** list requisites that must be completed by evaluation type.

2.2.1. Closed Book Requisite Exam. Closed book questions will come from Master Question File (MQFs)/ Local Operating Procedures (LOP). These questions will emphasize system knowledge and information necessary for safe flight and mission accomplishment. CSOs and/or CTs will only test in the position for which they are qualified. Dual qualified CSOs/CTs and those completing CET will test on both the CSO and CT positions.

2.2.2. Bold Face (Pilots only). This exam must consist of one question concerning each critical action emergency procedure applicable to the individual's specialty. The answer must contain all critical action items in proper sequence. Verbatim responses are required.

2.2.3. Open Book Requisite Exam. Open book questions will come from publications containing information pertinent to the operation of the aircraft and performance of the assigned mission. The open book subject areas and the publications used to generate the exam will be made available to aircrew. Units may use a secure question bank (SQB) as the source for some or all of the open book examination questions. **Note:** Open and closed book test requirements will be based on the qualification level of the examinee. CSOs and/or CTs will only test in the position for which they are qualified. Dual qualified CSOs/CTs and those completing CET will test on both the CSO and CT positions.

2.2.4. Publications Check. A thorough publications check will be accomplished on all publications required for the mission. Publications are identified IAW local OGV directives.

2.2.5. Emergency Procedures Evaluation (EPE). Reference AFI 11-202V2, an EPE is required for all aircrew members within the eligibility period for required flight evaluations.

2.2.5.1. Pilot and flight engineer EPEs will be conducted in the simulator IAW paragraph **2.3**.

2.2.5.2. Navigator and all mission crewmember EPEs will be evaluated in-flight or verbally. Evaluators will use Emergency Procedures and Equipment grading criteria to evaluate this event. Downgrades in the Emergency Procedures and Equipment Area for Navigators and mission crewmembers will be documented as a Ground (EPE) discrepancy.

2.2.6. Pilots and Navigators must complete the requisite Instrument Examination requirement IAW AFMAN 11-210, *Instrument Refresher Program (IRP)*.

Table 2.1. Requisites.

Test Type	Pilot		Navigator	FE	Mission Crew (excluding Techs)		Technicians (CSO, CT, CDMT, ART, BDT)
	QUAL	INSTM			QUAL	QUAL	
OPEN BOOK	R		R	R	R		R
CLOSED BOOK	R		R	R	R		R
INSTRUMENT EXAM		R	R				
EPE	R		R	R	R	R ¹	R
BOLD FACE	R						
R = Required 1 = IAW AFI 11-202V2, a single EPE may be used for separate evaluations (e.g. a MSN and QUAL eval) as long as the combined EPE is of a scope and duration to cover required areas and is conducted within the requisite zone for each evaluation.							

2.3. Flight Simulator Evaluation Procedures. For pilots and flight engineers, the EPE will be conducted in the Operational Flight Trainer (OFT). For pilots only, the instrument/qualification evaluation may also be conducted in the OFT. Normally, the EPE will be conducted separately from the INSTM/QUAL simulator, but may be combined as desired. All evaluations will be conducted IAW the criteria in **Chapter 3**, and will be administered by a SEFE. Units will outline local procedures/profiles to accomplish all simulator evaluation requirements below.

2.3.1. Emergency Procedure Evaluation (EPE – pilots and flight engineer). During the EPE, the following requirements will be accomplished. Units will develop local procedures/profiles to accomplish these requirements.

2.3.1.1. Unusual attitudes.

2.3.1.2. Initial buffet/stick shaker recovery.

2.3.1.3. Low visibility approach and landing (grade under Precision Approach and Landing).

2.3.1.4. Systems operation, normal/emergency (minimum of eight systems).

2.3.1.5. Three-engine-Rudder Boost Out (RBO) **or** two-engine approach, to a landing **or** go-around (FP/AC/IP only)

2.3.2. When a simulator is not available, the EPE may be conducted in a cockpit procedural trainer, or through verbal discussion on the ground.

2.4. Mission Evaluation:

2.4.1. Mission Profiles. Mission profiles will accomplish the following: reflect unit daily training mission and unit tasking, provide realistic assessment of examinee capabilities, and provide assessment of the application of current tactics. Evaluation profile sorties will be defined by the unit and will include a scenario, and other pertinent information that would normally be available in theater (Air Tasking Order (ATO), Airspace Control Order (ACO), Operational Tasking Data Links (OPTASKLINK), intelligence data such as air and ground order of battle, political assessment, etc.). Qualification and mission evaluations may be combined into a single evaluation IAW AFI 11-202V2.

2.4.2. Evaluations will be accomplished on mission/combat training sorties, or theater sorties (if deployed, with Detachment Commander (DETCO) approval and a back-up plan in case of evaluation failure) to the maximum extent possible. The examinee will demonstrate knowledge and abilities in all required areas on E-3 specified mission profiles IAW **Chapter 3** of this instruction. If all required areas cannot be evaluated on a single sortie, remaining areas will be evaluated in the simulator, on a subsequent sortie, or with verbal evaluation in a ground evaluation scenario.

2.4.2.1. Mission Simulator Evaluation Procedures. The mission simulators or sim-over-live in-flight may be used to administer any portion of a flight evaluation not requiring a specific live scenario. Simulation may be used to complete flight evaluations, accomplish additional training, or conduct reevaluations. The SEFE's judgment will be the determining factor in the effective use of simulation.

2.4.3. IAW AFI 11-202V2, the mission evaluation is waived for the following E-3 positions: Pilots, Flight Engineer, Navigator, Communications System Operator, Communications Technician, Computer Display Maintenance Technician, Airborne Radar Technician, and Battle Director Technician.

2.4.3.1. Combat Mission Ready (CMR) and Basic Mission Capable (BMC) aircrew waived from mission evaluation will be verbally evaluated on E-3 Self-Defense procedures under their respective Areas for Emergency Procedures and Equipment criteria. CMR pilots will be verbally evaluated on E-3 Self-Defense procedures under **Area 29 - Systems Operations (Normal/Emergency)**.

2.5. Instructor Evaluation. All flying personnel selected for instructor duty must be evaluated to determine their judgment, technical knowledge, instructor ability (including error analysis of student activity), and use of grading documents as well as proficiency in their aircrew specialty. To initially qualify as an instructor, a crewmember must successfully complete an initial instructor evaluation. Initial instructor evaluations may be conducted in conjunction with the examinee's periodic qualification evaluation and should be accomplished on actual instructional missions whenever possible. Periodic evaluation of the ability of aircrew members to instruct will be conducted during all subsequent periodic evaluations.

2.5.1. Instructors must demonstrate proficiency by instructing a student (or qualified individual acting as a student). The examiner may require the examinee to present verbal

explanations of equipment operations, procedures, and techniques pertinent to their crew position duties and responsibilities.

2.5.2. Instructor Qualified Pilot Evaluations. In addition to all pilot qualification/instrument requirements in this instruction, instructor pilot evaluations will include the following:

2.5.2.1. Air refueling envelope demonstration (accomplish in-flight).

2.5.2.2. Touch and go landing (as pilot flying or not flying).

2.5.2.3. Abnormal flap landing or landing attitude demonstration.

2.5.2.4. Aircraft.

2.5.2.4.1. Initial instructor evaluations will be administered with the examinee in the copilot position. An IP/SEFE will be in the pilot position for those maneuvers that require IP/SEFE supervision.

2.5.2.4.2. Recurring evaluations may be administered with a student, pilot, first pilot, copilot, IP, or SEFE occupying the other pilot position. The examinee may occupy either the pilot or copilot position on recurring evaluations unless a specific position is desired by the SEFE. The SEFE will particularly note the instructor's ability to recognize student difficulties and provide effective, timely corrective action. Recurring evaluations will be administered in conjunction with required qualification flight evaluations and will include all areas using both qualification and instructor criteria.

2.5.2.5. Simulator.

2.5.2.5.1. Initial Instructor evaluations will include all areas on pilot evaluations IAW para 3.2.1.3. The examinee will be required to accomplish a takeoff, precision approach, and touch-and-go landing from the copilot position.

2.5.2.5.2. Recurring evaluations the examinee may occupy either pilot or copilot position unless a specific position is desired by the SEFE. The SEFE will particularly note the instructor's ability to recognize student difficulties and provide effective, timely corrective action. Recurring evaluations will be administered in conjunction with required qualification flight evaluations and will include all areas using both qualification and instructor criteria.

2.5.3. Other Aircrew Instructor Flight Evaluations. Instructor flight evaluations will be conducted with a student occupying the applicable aircrew position whenever possible. The student will perform those duties prescribed by the instructor for the mission being accomplished. The instructor examinee will monitor all phases of flight from an advantageous position and be prepared to demonstrate or explain any area or procedure. The SEFE will particularly note the instructor's ability to recognize student difficulties and provide effective, timely corrective action. Recurring evaluations will be administered in conjunction with required qualification flight evaluations and will include all areas using both qualification and instructor criteria.

2.5.3.1. During qualification evaluations of qualified instructors, the examinee must assume the seat position for a period of time of sufficient length to demonstrate proficiency in the crew position. The determination of what represents a sufficient length

of time is left to the judgment of the SEFE. The portion of the mission during which the examinee will occupy the seat position can be determined by the SEFE during mission planning or during the course of the mission.

2.5.4. All instructors will be graded using the following criteria:

2.5.4.1. Instructional Ability:

2.5.4.1.1. **Q.** Demonstrated ability to communicate effectively. Provided appropriate corrective guidance when necessary. Planned ahead and made timely decisions.

2.5.4.1.2. **Q-** Demonstrated difficulty in communicating with student. Provided untimely or inappropriate corrective guidance in minor areas or managed time poorly. These minor deviations did not adversely affect safety or mission accomplishment, or adversely affect student progress.

2.5.4.1.3. **U.** Demonstrated an inability to effectively communicate with student. Did not provide corrective guidance where necessary. Did not plan ahead or anticipate student problems. Deviations adversely affected safety or mission accomplishment, or adversely affected student progress.

2.5.4.2. Briefings/Critique:

2.5.4.2.1. **Q.** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Displayed ability during the critique to reconstruct the flight, offer mission analysis, and provide corrective guidance where appropriate. Completed all training documents IAW prescribed directives. Training syllabi grades reflected actual performance of student relative to standard. Provided complete, comprehensive comments on training documentation. Correctly identified student's strengths and weaknesses. Pre-briefed the student's next mission.

2.5.4.2.2. **Q-** Minor errors or omissions in briefings, critique and/or training documents did not affect student progress.

2.5.4.2.3. **U.** Briefings were marginal or nonexistent. Did not review student's training folder or past performance. Failed to adequately critique student or provide complete mission analysis. Training syllabi grades did not reflect actual performance of student. Comments in training documentation were incomplete. Strengths and weaknesses were not identified. Overlooked or omitted major discrepancies in the documentation. Incomplete or nonexistent pre-briefing of student's next mission.

2.5.4.3. Demonstration and Performance:

2.5.4.3.1. **Q.** Effectively demonstrated procedures and/or techniques on the ground and/or in-flight, making clear distinctions between them. Demonstrated thorough knowledge of aircraft systems, procedures, and all applicable publications and regulations.

2.5.4.3.2. **Q-** Demonstration of procedures and/or techniques not always effective. Did not always distinguish between procedures and techniques. Minor discrepancies in knowledge of aircraft systems, procedures, and/or applicable publications and

regulations. Minor discrepancies did not affect safety or adversely affect student progress.

2.5.4.3.3. **U.** Did not demonstrate correct procedures and/or techniques. Did not or could not distinguish between procedures and techniques. Insufficient knowledge of aircraft systems, procedures, and/or applicable publications and regulations. These deviations could affect safety or adversely affect student progress.

2.6. Cockpit/Crew Resource Management (CRM). IAW AFI 11-202V2, CRM skills will be evaluated for all crewmembers. CRM is an encompassing term that can be separated into seven specific skills. Those skills and further guidance on CRM can be found in AFI 11-290, *Cockpit/Crew Resource Management Training Program*. Although various crew positions require various requirements for these skills, the four skills listed below will be evaluated for all E-3 crewmembers:

2.6.1. Situational Awareness (CRITICAL):

2.6.1.1. **Q.** Conducted the flight with a sense of understanding and comprehension. Recognized the need for action. Aware of performance of self and other crew members. Aware of on-going mission status. Recognized, verbalized and/or acted on unexpected events.

2.6.1.2. **U.** Did not recognize the need for action. Not aware of performance of self or other crew members. Not aware of on-going mission status. Failed to recognize, verbalize and act on unexpected events.

2.6.2. Crew Coordination (CRITICAL):

2.6.2.1. **Q.** Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay. Provided direction/information when needed. Adapted to meet new situational demands and focused attention on the task. Asked for inputs and motivated crew members as needed.. Demonstrated operational knowledge of other crew members' duties and responsibilities.

2.6.2.2. **U.** Failed to coordinate which jeopardized mission accomplishment. Did not provide direction/information when needed. Did not adapt to meet new situational demands and focus attention on the task. Did not ask for inputs. Did not ask questions or motivate crew members as needed. Unsatisfactory knowledge of other crew members' duties and responsibilities negatively affected mission accomplishment or safety of flight.

2.6.3. Risk Management/Decision Making:

2.6.3.1. **Q.** Identified contingencies and alternatives. Gathered and cross checked relevant data before deciding. Investigated doubts and concerns of other crew members. Clearly stated problems and proposed solutions. Used facts to come up with solution. Involves and informs necessary crewmembers when appropriate. Clearly stated decisions and received acknowledgement. Provided rationale for decisions.

2.6.3.1.1. Aircraft Commander coordinated flight deck activities to establish proper balance between command authority and crewmember participation, and acted decisively when the situation required.

2.6.3.1.2. Mission Crew Commander coordinated mission crew activities to establish proper balance between command authority and crewmember participation, and acted decisively when the situation required.

2.6.3.2. **Q-**. Partially identified contingencies and alternatives. Made little effort to gather and cross check relevant data before deciding. Did not clearly state problems and propose solutions. Did not consistently use facts to come up with solution. Did not effectively inform necessary crewmembers when appropriate.

2.6.3.2.2. Aircraft Commander did not effectively coordinate flight deck activities to establish a proper balance between command authority and crewmember participation, and acted indecisively at times.

2.6.3.2.2. Mission Crew Commander did not effectively coordinate mission crew activities to establish a proper balance between command authority and crewmember participation, and acted indecisively at times.

2.6.3.3. **U**. Failed to identify contingencies and alternatives. Made no effort to gather and cross check relevant data before deciding. Did not inform necessary crewmembers when appropriate. Did not use facts to come up with solution. Avoided or delayed necessary decisions which jeopardized mission effectiveness.

2.6.3.3.2. Aircraft Commander did not coordinate flight deck activities to establish a proper balance between command authority and crewmember participation; acted indecisively.

2.6.3.3.2. Mission Crew Commander did not coordinate mission crew activities to establish a proper balance between command authority and crewmember participation; acted indecisively.

2.6.4. **Task Management:**

2.6.4.1. **Q**. Correctly prioritized multiple tasks. Used available resources to manage workload. Asked for assistance when overloaded. Clearly stated problems and proposed solutions. Accepted better ideas when offered. Used facts to come up with solution. Demonstrated high level of vigilance in both high and low workload conditions. Prepared for expected or contingency situations. Avoided the creation of self-imposed workload/stress. Recognized and reported work overloads in self and others.

2.6.4.2. **Q-**. Did not consistently and correctly prioritize multiple tasks. Did not effectively use available resources to manage workload. Did not clearly communicate and acknowledge workload and task distribution. Did not consistently demonstrate high level of vigilance in both high and low workload conditions. Slow to prepare for expected or contingency situations. Created some self-imposed workload/stress due to lack of planning. Slow to recognize and report work overloads in self and others.

2.6.4.3. **U**. Failed to correctly prioritize multiple tasks. Did not use available resources to manage workload. Did not communicate and acknowledge workload and task distribution. Did not demonstrate high level of vigilance in both high and low workload conditions. Extremely slow to prepare for expected or contingency situations. Created self-imposed workload/stress due to lack of planning. Failed to recognize and report work overloads in self and others.

Chapter 3

FLIGHT CREW EVALUATIONS

3.1. General. This chapter contains the task oriented criteria for all evaluations IAW AFI 11-202V2 and AFI 11-401, *Aviation Management*. Evaluation requirements are outlined in matrices for Instructor Pilot/Pilot/First Pilot/Copilot (IP/P/FP/CP), Navigator (N), and Flight Engineer (FE).

3.2. Instructor Pilot/Pilot/First Pilot/Copilot Qualification and Instrument Flight Evaluations

3.2.1. General. This section contains the task-oriented criteria for qualification and instrument evaluations of Instructor Pilot (IP), Pilot (P), First Pilot (FP), and Copilot (CP), to include instrument/qualification flight evaluations.

3.2.1.1. Instrument/qualification (INSTM/QUAL) evaluations will encompass all areas identified in the evaluation matrix except as noted below. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.2.1.1.1. First pilots and copilots may accomplish an air refueling spot evaluation (Area 16, Air Refueling), to become air refueling qualified. Once qualified, all subsequent instrument/qualification evaluations will require full evaluation of Area 16.

3.2.1.1.2. For Initial Qualification Training FP candidates, initial air refueling qualification (Area 16, Air Refueling) will be deferred. FP candidates who successfully demonstrate proficiency in AAR may accomplish the initial air refueling qualification as part of their flight evaluation at the discretion of the 966 AACs/CC. When the initial air refueling qualification is deferred, FPs must successfully accomplish the initial air refueling qualification no later than their next instrument/qualification evaluation.

3.2.1.1.3. Copilots will not be evaluated in Area 25, Simulated Engine(s) Out Pattern/Landing or Area 26, Simulate Engine(s) Out Go-Around.

3.2.1.2. Instrument/qualification evaluations may be conducted on either pilot proficiency sorties (P-sortie) or mission sorties (combat training sorties, surveillance sorties, etc.). If conducted on a sortie where Area 11, On-Station Procedures, is not performed, this area will be verbally evaluated.

3.2.1.3. Use of Flight Crew OFT for Flight Phase portions of the Evaluation.

3.2.1.3.1. Flight Phase areas evaluated under standard EPE profile. Area 17, Holding is normally accomplished only in the OFT due to time/mission constraints and will be graded as part of the EPE unless seen on a live sortie or in an OFT sortie separate from the EPE. If there is a discrepancy in any of these areas during the EPE, it will be documented in the AF Form 8 in Section IV, paragraph B (Discrepancies), under "Ground Phase."

3.2.1.3.2. Except for areas listed in paragraph **3.2.1.3.3** of this instruction, Flight Phase areas may be evaluated in the OFT IAW AFI 11-202 V2. Areas evaluated in the OFT to finish an incomplete aircraft evaluation, will be documented in Section II of the AF Form 8 under Flight Phase as a “SIM-INSTM/QUAL”. In Section IV, the mission description will be documented as “Second Sortie (ATD)”.

3.2.1.3.3. For initial/re-qualification evaluations, the following areas will be evaluated during a live sortie: Area 7, Takeoff; Area 16, Air Refueling; Area 23, VFR Approach (Base, Final Turn, Final Approach); and Area 24, Landing.

3.2.1.3.4. For recurring evaluations, the following area will be evaluated during a live sortie: Area 16, Air Refueling. **Note:** Area 16 – Air Refueling may be evaluated in the OFT for non-AAR qualified copilots.

3.2.2. Evaluation Objectives:

3.2.2.1. Instrument Evaluation. The examinee must demonstrate the ability to operate the aircraft under instrument flight conditions using appropriate flight manuals, directives, and operating procedures.

3.2.2.2. Qualification Flight Evaluation. The examinee must demonstrate the ability to accomplish the mission and operate the aircraft and systems using appropriate flight manuals, directives, and operating procedures.

3.2.3. Ground Phase Requisites are listed in paragraph **2.2**.

3.2.4. Criteria. All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

3.2.4.1. **Area 1--Mission Planning:**

3.2.4.1.1. **Q.** Clearly defined the mission overview and goals. Provided specific information on what needed to be done. Pre-planned mission activities by determining mission tasking and rules of engagement (ROE) from planning/tasking documents. Solicited feedback to check understanding of mission requirements. Obtained and analyzed maintenance status of aircraft and determined impact on mission objectives. Coordinated plans with mission crew. Checked all factors applicable to flight (weather, notice to airmen (NOTAMS), International Civil Aviation Organization (ICAO) procedures, alternate airfields, flight logs, performance data, fuel requirements, maps, etc.) IAW AFI 11-202V3, *General Flight Rules*, flight manuals, General Planning Flight Information Publications (FLIP), and other applicable directives. Thoroughly critiqued plans to identify potential problem areas. Remained aware of alternates available if flight could not be completed as planned. Checked understanding of possible contingencies. Read and initialed for all items in the flight crew information files (FCIF) and read files.

3.2.4.1.2. **Q-** Partially defined the mission overview and goals. Directed and performed mission planning with errors or omissions that did not jeopardize mission accomplishment. Knowledge of performance capabilities or approved operating procedures/rules was marginal in some areas.

3.2.4.1.3. **U.** Did not define the mission overview and goals. Directed and performed mission planning with errors or omissions that jeopardized mission

accomplishment. Faulty knowledge of operating data or procedures. Failed to read and initial for all items in the FCIF and read files. **NOTE:** Area 1 will not be graded for EPEs

3.2.4.2. Area 2--Takeoff and Landing Data:

3.2.4.2.1. **Q.** Fully knowledgeable of takeoff and landing performance data. Ensured required takeoff and landing data is computed within tolerances of Column A, **Table 3.1.**

3.2.4.2.2. **Q-.** Computed required takeoff and landing data within tolerances of Column B, **Table 3.1.** Limited knowledge of takeoff and landing data.

3.2.4.2.3. **U.** Did not ensure takeoff and landing data card was completed. Computations exceeded Q- criteria. Inadequate knowledge of performance data.

3.2.4.3. Area 3—Briefings/Debriefings:

3.2.4.3.1. **Q.** Established and maintained team concept and environment for open communications, listened with patience, did not interrupt or “talk over,” did not rush the briefing, and made eye contact as appropriate. Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives. Ensured the aircrew was thoroughly briefed on all aspects of the mission. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback. Provided feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

3.2.4.3.2. **Q-.** Did not effectively establish nor maintain team concept or environment for open communications. Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings and/or ensured the aircrew was thoroughly briefed on all aspects of the mission with errors or omissions that did not jeopardize mission accomplishment.

3.2.4.3.3. **U.** Failed to establish and maintain team concept and environment for open communications, did not listen with patience, interrupted or “talked over” when not appropriate, rushed the briefing which led to confusion or lack of clarity. Failed to attend all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that jeopardized mission accomplishment. Failed to ensure the aircrew was thoroughly briefed on all aspects of the mission.

3.2.4.4. Area 4--Pre-mission Requirements:

3.2.4.4.1. **Q.** Possessed all required personal/professional equipment and publications IAW applicable directives. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.2.4.4.2. **Q-.** Possessed required personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Publications posted with errors or omissions that did not jeopardize mission accomplishment.

3.2.4.4.3. **U.** Failed to possess all required personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Publications posted with errors or omissions that jeopardized mission accomplishment.

3.2.4.5. Area 5--Pre-takeoff:

3.2.4.5.1. **Q.** Established and adhered to start engine, block/taxi, and takeoff times as required, to ensure thorough pre-flight, crew/passenger briefings, etc. Performed all checks and procedures prior to takeoff IAW checklists and directives. Fully aware of aircraft's readiness for flight.

3.2.4.5.2. **Q-** Performed pre-takeoff procedures with errors or omissions that did not jeopardize mission accomplishment.

3.2.4.5.3. **U.** Did not use the checklist or omitted major item(s). Failed to accurately determine readiness of aircraft for flight. Performed pre-takeoff procedures with errors or omissions that jeopardized mission accomplishment.

3.2.4.6. Area 6--Air Traffic Control (ATC) Clearance:

3.2.4.6.1. **Q.** Promptly complied with all controlling agency instructions and made required reports.

3.2.4.6.2. **Q-** Slow to comply with controlling agency instructions or unsure of reporting requirements.

3.2.4.6.3. **U.** Accepted clearance that could not be complied with, or did not understand clearance. Did not comply with clearance or make required reports.

3.2.4.7. Area 7--Takeoff:

3.2.4.7.1. **Q.** Aircraft control was smooth throughout takeoff. Performed takeoff IAW flight manual procedures.

3.2.4.7.1.1. Airspeed -5/+10 knots.

3.2.4.7.1.2. Heading +/- 5 degrees.

3.2.4.7.2. **Q-** Deviations from published procedures did not affect safety of flight. Control was rough or erratic. Hesitant in application of procedures/corrections.

3.2.4.7.2.1. Airspeed -5/+15 knots.

3.2.4.7.2.2. Heading +/- 10 degrees.

3.2.4.7.3. **U.** Liftoff potentially dangerous. Exceeded aircraft/systems limitations. Failed to establish proper climb attitude. Over-controlled the aircraft. Violated flight manual procedures or exceeded Q- limits. **NOTE:** Takeoffs may be evaluated on initial takeoff or subsequent touch and go takeoffs.

3.2.4.8. Area 8--Departure/Climb:

3.2.4.8.1. **Q.** Performed departure as published/directed and complied with all instructions. Applied course/heading corrections promptly. Visually cleared the area and demonstrated appropriate procedural knowledge.

3.2.4.8.1.1. Altitude +/- 100 feet.

3.2.4.8.1.2. Airspeed +/- 10 knots or +/- .04 Mach.

3.2.4.8.1.3. Course/Heading +/- 5 degrees (when assigned or specified).

3.2.4.8.2. **Q-** Performed departure as published/directed and complied with all restrictions. Slow to apply course/heading corrections. Visually cleared the area, but slow in applying procedural knowledge.

3.2.4.8.2.1. Altitude +/- 200 feet.

3.2.4.8.2.2. Airspeed +/- 15 knots or +/- .07 Mach.

3.2.4.8.2.3. Course/Heading +/- 10 degrees (when assigned or specified).

3.2.4.8.3. **U.** Failed to comply with published/directed departure instructions or exceeded Q- limits. Failed to visually clear the area. Lack of procedural knowledge resulted in a loss of situational awareness or jeopardized mission accomplishment.

3.2.4.9. Area 9--Level Off:

3.2.4.9.1. **Q.** Leveled off smoothly at specified altitude. Established proper cruise airspeed promptly. Visually cleared the area.

3.2.4.9.1.1. Altitude +/- 100 feet.

3.2.4.9.1.2. Course/Heading +/- 5 degrees.

3.2.4.9.2. **Q-** Level off was slightly erratic. Some difficulty in maintaining proper altitude. Slow in establishing proper cruise airspeed. Visually cleared the area.

3.2.4.9.2.1. Altitude +/- 200 feet.

3.2.4.9.2.2. Course/Heading +/- 10 degrees.

3.2.4.9.3. **U.** Level off was erratic, exceeded Q- limits. Delayed excessively or failed to establish proper cruise airspeed. Failed to clear the area.

3.2.4.10. Area 10--Cruise/Navigation:

3.2.4.10.1. **Q.** Displayed knowledge of Global Positioning System Integrated Navigation System (GINS) operations/procedures. Ensured navigational aids (NAVAIDs) were properly tuned, identified, and monitored (when available). Aware of exact position at all times. Visually cleared the area.

3.2.4.10.1.1. Altitude +/-100 feet.

3.2.4.10.1.2. Airspeed +/- 5% or 5 knots, whichever is greater (not lower than selected min maneuver speed).

3.2.4.10.1.3. Course +/- 5 nautical miles (NM).

3.2.4.10.1.4. Heading +/- 5 degrees.

3.2.4.10.1.5. Point-to-Point +/- 2 miles.

3.2.4.10.2. **Q-** Displayed knowledge of GINS operations/procedures with errors or omissions that did not jeopardize mission accomplishment. Some deviations in

tuning, identifying, and monitoring NAVAIDS. Had difficulty in establishing exact position. Visually cleared the area.

3.2.4.10.2.1. Altitude +/- 200 feet.

3.2.4.10.2.2. Airspeed +/- 10% or 10 knots, whichever is greater (not lower than selected min maneuver speed).

3.2.4.10.2.3. Course +/- 10 NM.

3.2.4.10.2.4. Heading +/- 10 degrees.

3.2.4.10.2.5. Point-to-Point +/- 4 miles.

3.2.4.10.3. **U.** Displayed major errors in GINS operations/procedures that jeopardized mission accomplishment, or to the extent that position was unreliable. Exceeded Q- limits. Did not visually clear the area.

3.2.4.11. Area 11--On Station Procedures:

3.2.4.11.1. **Q.** Complete knowledge of on-station procedures and requirements. Maintained situational awareness of mission activities. Coordinated effectively with ATC agencies for orbit entry and exit.

3.2.4.11.1.1. Target ground speed +/- 50 knots (unless indicated airspeed (IAS) compromises flight safety).

3.2.4.11.1.2. Altitude +/- 100 feet.

3.2.4.11.1.3. Course +/- 5 NM.

3.2.4.11.2. **Q-** Adequate knowledge of on-station procedures and requirements with discrepancies that did not jeopardize mission accomplishment. Momentary lapses of mission situational awareness. Clumsy orbit coordination with ATC agencies.

3.2.4.11.2.1. Target ground speed +/- 70 (unless IAS compromises flight safety).

3.2.4.11.2.2. Altitude +/- 200 feet.

3.2.4.11.2.3. Course +/- 10 NM.

3.2.4.11.3. **U.** Lack of on-station procedural knowledge resulted in a loss of situational awareness or reduced mission effectiveness. Exceeded Q- limits. Accomplished changeover procedures/ATC orbit coordination with errors or omissions that jeopardized safety or mission accomplishment.

3.2.4.12. Area 12--In-flight Checks:

3.2.4.12.1. **Q.** Adhered to briefed/directed minimum fuel requirements IAW local directives and performed in-flight checks as required. Ensured all systems were properly monitored.

3.2.4.12.2. **Q-** Performed in-flight checks with errors or omissions that did not jeopardize mission accomplishment.

3.2.4.12.3. **U.** Did not adhere to minimum fuel requirements, perform in-flight checks, or monitor systems to a degree that an emergency condition could develop if allowed to continue. Errors or omissions jeopardized mission accomplishment.

3.2.4.13. Area 13--Communications/Identification, Friend or Foe (IFF)/Selective Identification Feature (SIF):

3.2.4.13.1. **Q.** Complete knowledge of and compliance with correct Communications/IFF/ SIF procedures. Transmissions were concise with standard terminology. Complied with and acknowledged all required instructions and communications.

3.2.4.13.2. **Q-** Occasional deviations from correct procedures that required retransmissions or resetting codes. Slow in initiating or missed several required radio calls. Transmissions contained excessive, extraneous matter, were not in proper sequence, or contained nonstandard terminology. Erroneous IFF/SIF codes utilized. Marginal knowledge of IFF/SIF equipment or special use codes.

3.2.4.13.3. **U.** Incorrect procedures or poor performance caused confusion and jeopardized mission effectiveness. Omitted numerous radio calls, required checks or procedures. No attempt to use precise, standard terminology or acknowledged little to few communications.

3.2.4.14. Area 14--Initial Buffet/Stick Shaker Recovery (Simulator Only):

3.2.4.14.1. **Q.** Timely and accurate recognition of initial buffet. Recovery was smooth and positive. Applied correct recovery procedures.

3.2.4.14.2. **Q-** Slow to recognize initial buffet. Recovery was not always smooth and positive. Applied correct recovery procedures.

3.2.4.14.3. **U.** Failed to recognize initial buffet. Aircraft progressed to stalled condition before recovery was initiated. Recovery was erratic or jeopardized safety of flight. Applied improper recovery procedures. **NOTE:** At least one of the following three profiles must be evaluated: Orbit, Traffic Pattern Maneuvering, or Final Approach.

3.2.4.15. Area 15--Unusual Attitudes (Simulator Only):

3.2.4.15.1. **Q.** Recovery to level flight was smooth and positive. Used correct recovery procedures.

3.2.4.15.2. **Q-** Slow to analyze attitude or erratic in recovery to level flight. Used correct recovery procedures.

3.2.4.15.3. **U.** Unable to determine attitude, or used improper recovery procedures.

3.2.4.16. Area 16--Air Refueling:

3.2.4.16.1. **Q.** Established and maintained proper refueling position. Aircraft control was positive and smooth. Complete knowledge of rendezvous and closure procedures. Correct application of emergency separation procedures.

3.2.4.16.1.1. Altitude +/- 100 feet (level off (L/O) to 1 mile).

3.2.4.16.1.2. Airspeed +/- 10 knots (L/O to ½ mile).

3.2.4.16.1.3. Contact Time 10 minutes.

3.2.4.16.1.4. Not more than one inadvertent disconnect.

3.2.4.16.2. **Q-** Slow to recognize and apply needed corrections to establish and maintain proper refueling position. Aircraft control was not always positive and smooth, but adequate to maintain refueling position. Accomplished rendezvous and closure with errors or omissions that did not jeopardize safety of flight or the successful completion of air refueling. Minor errors, deviations, or omissions in emergency separation procedures.

3.2.4.16.2.1. Altitude +/- 200 feet (L/O to 1 mile).

3.2.4.16.2.2. Airspeed +/- 15 knots (L/O to 1/2 mile).

3.2.4.16.2.3. Contact Time: 10 minutes.

3.2.4.16.2.4. Not more than three inadvertent disconnects-

3.2.4.16.3. **U.** Erratic or dangerous in the pre-contact/refueling position. Errors or omissions jeopardized safety of flight or the successful completion of air refueling. Exceeded Q- limits. Major errors, deviations, or omissions in emergency separation procedures. **NOTE:** A/P On contact time may be reduced (after at least 5 continuous minutes) if the examinee demonstrates the ability to maintain a smooth, stable receiver platform. Time spent performing air refueling envelope demonstration counts towards the 5 minute minimum. FP/CPs will be evaluated on performance of duties during rendezvous and refueling operations. FP/CPs must establish and maintain a stable pre-contact position (approximately 5 minutes). During an initial air refueling qualification described in paragraph 3.2.1.1.1. and during all subsequent qualification evaluations, FP/CPs must demonstrate the specified contact time requirements.

3.2.4.17. **Area 17--Holding:**

3.2.4.17.1. **Q.** Entry and holding procedures IAW AFMAN 11-217V1, *Instrument Flight Procedures*, and applicable directives; remained within airspace limits.

3.2.4.17.1.1. Altitude +/- 100 feet.

3.2.4.17.1.2. Airspeed +/- 10 knots.

3.2.4.17.1.3. Leg Timing: +/- 15 seconds or TACAN +/- 2NM

3.2.4.17.2. **Q-** Improper entry and holding procedures but remained within airspace limits.

3.2.4.17.2.1. Altitude +/- 200 feet.

3.2.4.17.2.2. Airspeed +/- 15 knots.

3.2.4.17.2.3. Leg Timing: +/- 20 seconds or TACAN +/- 3NM

3.2.4.17.3. **U.** Exceeded airspace or Q- limits.

3.2.4.18. **Area 18--Instrument Penetration/Enroute Descent (Initial Approach Fix to Final Approach Fix/Descent Point):**

3.2.4.18.1. **Q.** Performed the penetration/enroute descent and approach as published/directed and IAW applicable flight manuals. Complied with all restrictions. Made smooth and timely corrections.

3.2.4.18.1.1. Altitude +/- 100 feet (level off).

3.2.4.18.1.2. Airspeed +/- 10 knots (if applicable).

3.2.4.18.1.3. Course/Heading +/- 5 degrees (when assigned or specified).

3.2.4.18.2. **Q-** Performed the penetration/enroute descent and approach with minor deviations. Complied with all restrictions. Slow to make corrections.

3.2.4.18.2.1. Altitude +/- 200 feet (level off).

3.2.4.18.2.2. Airspeed +/- 15 knots (if applicable).

3.2.4.18.2.3. Course/Heading +/- 10 degrees (when assigned or specified).

3.2.4.18.3. **U.** Performed penetration/enroute descent and approach with major deviations that jeopardized mission accomplishment or compromised safety. Did not accomplish required checks. Failed to visually clear the flight path. Exceeded Q-limits.

3.2.4.19. Area 19--Instrument Flight Rules (IFR) Traffic Pattern (Prior to Final Approach Fix (FAF)):

3.2.4.19.1. **Q.** Procedures and checklist items required by the flight manual and applicable directives were accomplished. Followed controller instructions and complied with all restrictions. Made smooth and timely corrections.

3.2.4.19.1.1. Altitude +/- 100 feet.

3.2.4.19.1.2. Airspeed -5/+10 knots.

3.2.4.19.1.3. Course/Heading +/- 10 degrees.

3.2.4.19.1.4. Tactical Air Navigation (TACAN) Arc +/- 2 miles.

3.2.4.19.2. **Q-** Procedures and checklist items required by the flight manual and applicable directives were accomplished with errors or omissions that did not jeopardize mission accomplishment. Slow or hesitant to follow controller's instructions. Over controlled slightly or occasionally slow in making corrections.

3.2.4.19.2.1. Altitude +/- 200 feet.

3.2.4.19.2.2. Airspeed -5/+20 knots.

3.2.4.19.2.3. Course/Heading +/- 15 degrees.

3.2.4.19.2.4. TACAN Arc +/- 3 miles.

3.2.4.19.3. **U.** Procedures and checklist items required by the flight manual and applicable directives were accomplished with errors or omissions that jeopardized mission accomplishment. Failed to comply with controller's instructions. Exceeded Q-limits.

3.2.4.20. Area 20--Non-precision Approach (FAF/Descent Point to Missed Approach Point):

3.2.4.20.1. **Q.** Performed procedures as published/directed and IAW the flight manual. Made smooth and timely corrections. . Position would have permitted safe landing.

3.2.4.20.1.1. Altitude -0/+100 feet (after reaching MDA and prior to VDP or MAP).

3.2.4.20.1.2. Airspeed -5/+10 knots.

3.2.4.20.1.3. Course/Heading +/- 5 degrees or less than half scale course deviation indicator (CDI) deflection.

3.2.4.20.1.4. Computed/adjusted timing to determine Missed Approach Point (when applicable).

3.2.4.20.2. **Q-** Performed procedures with deviations that did not jeopardize mission accomplishment or compromise safety. Slow to make corrections. Position would have permitted safe landing.

3.2.4.20.2.1. Altitude -50/+100 feet (after reaching MDA and prior to Missed Approach Point).

3.2.4.20.2.2. Airspeed -5/+15 knots.

3.2.4.20.2.3. Course/Heading +/- 10 degrees or less than full scale CDI deflection.

3.2.4.20.2.4. Computed/adjusted timing to determine Missed Approach Point (when applicable).

3.2.4.20.3. **U.** Performed procedures with major deviations. Erratic corrections. Exceeded Q- limits. . Position would not have permitted safe landing. Failed to compute or adjust timing to determine Missed Approach Point.

3.2.4.21. Area 21--Precision Approach (Glide Slope to Decision Height):

3.2.4.21.1. **Q.** Performed procedures as directed and IAW the flight manual. Smooth and timely response to controller's instructions. Established initial glide path and adjusted for deviations throughout the approach and glide slope. Complied with decision height. Position would have permitted a safe landing.

3.2.4.21.1.1. Airspeed -5/+10 knots.

3.2.4.21.1.2. Heading within 5 degrees of controller's instructions.

3.2.4.21.1.3. Glide Slope within 1 dot.

3.2.4.21.1.4. Course within 1 dot.

3.2.4.21.2. **Q-** Performed procedures with some deviations. Slow to respond to controller instructions. Slow to establish initial glide path and adjust for deviations throughout the approach. Complied with decision height. Position would have permitted a safe landing.

3.2.4.21.2.1. Airspeed -5/+15 knots.

3.2.4.21.2.2. Heading within 10 degrees of controller's instructions.

3.2.4.21.2.3. Glide Slope within 2 dots above and 1 below.

3.2.4.21.2.4. Course within 2 dots deflection.

3.2.4.21.3. **U.** Performed procedures with major deviations. Erratic corrections. Exceeded Q- limits. Did not comply with decision height and/or position would not have permitted a safe landing.

3.2.4.22. Area 22--Missed Approach:

3.2.4.22.1. **Q.** Executed missed approach as published/ directed. Completed all procedures IAW the flight manual.

3.2.4.22.1.1. Level Off Altitude +/- 100 feet.

3.2.4.22.1.2. Airspeed -5/+15 knots.

3.2.4.22.1.3. Course/Heading +/- 5 degrees.

3.2.4.22.1.4. TACAN Arc +/- 2 miles.

3.2.4.22.2. **Q-** Executed missed approach with deviations that did not jeopardize mission accomplishment or compromise safety. Slow to comply with published procedures, controller instructions or flight manual procedures.

3.2.4.22.2.1. Level Off Altitude +/- 200 feet.

3.2.4.22.2.2. Airspeed -5/+20 knots.

3.2.4.22.2.3. Course/Heading +/- 10 degrees.

3.2.4.22.2.4. TACAN Arc +/- 3 miles.

3.2.4.22.3. **U.** Executed missed approach with major deviations that jeopardized mission accomplishment or compromised safety. Failed to comply with published procedure, controller's instructions or flight manual procedures.

3.2.4.23. Area 23--Visual Flight Rules (VFR) Approach (Weather & traffic permitting, includes Base to Final, VFR Traffic Pattern or Visual Approach. Evaluate by alternative means on re-occurring evaluations if not observed):

3.2.4.23.1. **Q.** Performed the traffic pattern, turn, and/or visual approach IAW procedures outlined in the flight manual and local directives. Established initial glide path and adjusted for deviations throughout the approach and glide path. Maintained centerline control and adjusted for deviations throughout the approach. Complied with appropriate altitude restrictions. Position would have permitted a safe landing. Aircraft control was smooth and positive. Constantly cleared area of intended flight. Did not over/undershoot final approach.

3.2.4.23.1.1. Altitude +/- 100 feet.

3.2.4.23.1.2. Airspeed -5/+10 knots.

3.2.4.23.1.3. Final Approach +/- 1 mile of recommended length or as appropriate.

3.2.4.23.2. **Q-** Performed the traffic pattern, turn, and/or visual approach with some deviations from procedures outlined in the flight manual and local directives. Slow to

establish initial glide path and adjust for deviations throughout the approach. Slow to correct deviations in centerline control throughout the approach. Complied with appropriate altitude restrictions. Position would have permitted a safe landing. Aircraft control was not consistently smooth and positive, but safe. Adequately cleared area of intended flight. Over/undershot final approach slightly.

3.2.4.23.2.1. Altitude +/- 200 feet.

3.2.4.23.2.2. Airspeed -5/+15 knots.

3.2.4.23.2.3. Final Approach +/- 1 mile of recommended length or as appropriate.

3.2.4.23.3. **U.** Performed procedures with major deviations. Erratic corrections and/or aircraft control. Did not comply with appropriate altitude restrictions and/or position would not have permitted a safe landing. Turn to final and/or final approach not performed IAW procedures outlined in the flight manual and local directives. Over/undershot final approach by a wide margin. Exceeded Q- limits.

3.2.4.24. Area 24—Landing (Normal):

3.2.4.24.1. **Q.** Performed landing IAW procedures outlined in the flight manual and local directives. Touchdown was within desired area, on centerline. Ensured adequate runway length to permit a safe stop. Smooth, positive aircraft control throughout touch and go.

3.2.4.24.2. **Q-.** Performed landing with deviations to procedures outlined in the flight manual and local directives. Touchdown was within desired area. Did not land on centerline.

3.2.4.24.3. **U.** Landing/touch and go was not IAW flight manual procedures, operational restrictions, or local directives. Failed to ensure adequate runway length. Did not correct to centerline. Potentially dangerous. Exceeded Q- limits.

3.2.4.25. Area 25--Simulated Engine(s) Out Pattern/Landing (FP/AC/IP-Only):

3.2.4.25.1. **Q.** Performed prelanding checks, traffic pattern, approach/landing IAW procedures outlined in the flight manual, checklist, and other directives. Aircraft control was positive and smooth. Touched down within desired area.

3.2.4.25.1.1. Pattern Altitude +/- 100 feet.

3.2.4.25.1.2. Airspeed -5/+15 knots.

3.2.4.25.2. **Q-.** Procedural errors were made during pre-landing checks, traffic pattern, approach/landing which did not affect safety. Landed left or right of centerline. Touchdown was within desired area.

3.2.4.25.2.1. Pattern Altitude +/- 200 feet.

3.2.4.25.2.2. Airspeed -5/+20 knots.

3.2.4.25.3. **U.** Pattern poorly flown. Failed to recognize and apply corrections to avoid over/undershoots. Did not comply with procedures outlined in the flight manual, checklist, and other directives. Exceeded Q- limits.

3.2.4.26. Area 26--Simulated Engine(s) Out Go-Around (FP/AC/IP-Only):

3.2.4.26.1. **Q.** Initiated and performed go-around promptly IAW the flight manual. Acquired and maintained a positive climb.

3.2.4.26.1.1. Climb Airspeed -5/+15 knots.

3.2.4.26.1.2. Course/Heading +/- 10 degrees.

3.2.4.26.2. **Q-** Slow or hesitant to initiate go-around. Procedural errors did not affect safety. Acquired and maintained a positive climb.

3.2.4.26.2.1. Climb Airspeed -5/+20 knots.

3.2.4.26.2.2. Course/Heading +/- 15 degrees.

3.2.4.26.3. **U.** Did not initiate go-around procedures when appropriate or directed. Applied unsafe or incorrect procedures. Exceeded Q- limits.

3.2.4.27. Area 27--After Landing:

3.2.4.27.1. **Q.** Accomplished after landing checks and aircraft taxi procedures IAW the flight manual and applicable directives. Recorded all data accurately as required.

3.2.4.27.2. **Q-** Accomplished after landing checks and aircraft taxi procedures with errors or omissions that did not jeopardize safety.

3.2.4.27.3. **U.** Accomplished after landing checks and aircraft taxi procedures with errors or omissions that jeopardized safety. Recorded data inaccurately or failed to record data.

3.2.4.28. Area 28--Emergency Procedures (BOLD FACE) (CRITICAL):

3.2.4.28.1. **Q.** Correct, immediate response.

3.2.4.28.2. **U.** Incorrect sequence, unsatisfactory response, or unsatisfactory performance of corrective action.

3.2.4.29. Area 29--Systems Operation (Normal/Emergency): Operation of the following systems may be observed/discussed in the simulator and/or before, during, or after flight. A minimum of eight systems will be evaluated. Documentation of discrepancies will specify the affected system. Each system is listed below as a sub-area, with the evaluation criteria following immediately after.

3.2.4.29.1. Electrical.

3.2.4.29.2. Hydraulic/Pneumatic.

3.2.4.29.3. Air Conditioning/Bleed Air.

3.2.4.29.4. Pressurization.

3.2.4.29.5. Electronic Cooling.

3.2.4.29.6. Engine/Engine Systems.

3.2.4.29.7. Fuel.

3.2.4.29.8. Ice/Rain Protection.

3.2.4.29.9. Auxiliary Power Unit (APU)/APU Systems.

- 3.2.4.29.10. Oxygen/Lighting Equipment.
- 3.2.4.29.11. Landing Gear/Wheels/Brakes.
- 3.2.4.29.12. Flight Controls.
- 3.2.4.29.13. Fire Protection/Extinguishing.
- 3.2.4.29.14. Instruments/Communications/GINS
- 3.2.4.29.15. E-3 Self-Defense Procedures
- 3.2.4.29.16. **Q.** Satisfactory knowledge of systems ensuring operations within prescribed limits and diagnosis of problems. Explained proper corrective action for each type of malfunction. Effectively used checklist and/or available aids.
- 3.2.4.29.17. **Q-** Knowledge of system operating limits was marginal in some cases. Slow to analyze problem or apply proper corrective action. Did not effectively use checklist and/or available aids.
- 3.2.4.29.18. **U.** Unsatisfactory knowledge of systems. Unable to analyze problem or take corrective action. Did not use checklist and/or available aids.
- 3.2.4.30. **Area 30--Safety (CRITICAL):**
 - 3.2.4.30.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
 - 3.2.4.30.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Did not adequately clear aircraft flight path. Operated the aircraft or equipment in a dangerous manner.
- 3.2.4.31. **Area 31--Documentation:**
 - 3.2.4.31.1. **Q.** All required forms, reports, and logs were complete and accurate IAW applicable directives.
 - 3.2.4.31.2. **Q-** Errors, omissions, or deviations caused some information to be omitted or incorrectly reported.
 - 3.2.4.31.3. **U.** Major information or events omitted or reported incorrectly which affected mission accomplishment or reconstruction of the mission.
- 3.2.4.32. **Area 32--Flight Discipline (CRITICAL):**
 - 3.2.4.32.1. **Q.** Provided required direction/information. Correctly adapted to meet new situational demands. Demonstrated strict professional flight and crew discipline throughout all phases of the mission.
 - 3.2.4.32.2. **U.** Did not provide direction/information when needed. Did not correctly adapt to meet new situational demands. Failed to exhibit strict flight or crew discipline. Intentionally violated or ignored rules or instructions.
- 3.2.4.33. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph **2.6** of this instruction.
 - 3.2.4.33.1. **Area 33--Situational Awareness (CRITICAL)**

3.2.4.33.2. **Area 34--Crew Coordination (CRITICAL)**

3.2.4.33.3. **Area 35--Risk Management/Decision Making**

3.2.4.33.4. **Area 36--Task Management**

3.2.4.33.5. **Area 37—Airmanship (CRITICAL)**

3.2.4.33.5. 1 **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

3.2.4.33.5. 2 **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety was jeopardized.

3.2.4.34. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

3.2.4.34.1. **Area 38--Instructional Ability**

3.2.4.34.2. **Area 39--Briefings/Critique**

3.2.4.34.3. **Area 40--Demonstration and Performance**

Table 3.1. Consolidated Performance Data Limits.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Field Pressure Altitude	+/- 200 ft	+/- 500 ft
Outside Air Temperature	+/- 3 degrees	+/- 5 degrees
Power Setting (Exhaust Pressure Ratio (EPR))	+/- .01	+/- .02
Takeoff Stabilizer Setting (Units)	+/- .2	+/- .4
All Computed Speeds	+/- 2 kts	+/- 4 kts
All Computed Distances	+/- 400 ft	+/- 600 ft
All Computed Gross Weights	+/- 2000 lbs	+/- 5000 lbs
Takeoff/Landing Center of Gravity (COG)	+/- .5%	+/- 1.0%

Table 3.2. Pilot/First Pilot/Copilot Evaluation Matrix.

EVALUATION AREAS	QUAL	INSTR	INSTM
1. Mission Planning	R		R
2. Take Off and Landing Data	R		R
3. Briefings	R		R
4. Pre-mission Requirements	R		R
5. Pre-Takeoff	R		R

6. ATC Clearance	R		R
7. Takeoff	R		R
8. Departure/Climb (SID/Vector)	R		R
9. Level Off	R		R
10. Cruise/Navigation	R		R
11. On Station Procedures	R		
12. In-flight Checks	R		R
13. Communications/IFF/SIF	R		R
14. Initial Buffet/Stick Shaker Recovery (Simulator Only)	R		
15. Unusual Attitudes (Simulator Only)			R
16. Air Refueling	R		
17. Holding			R
18. Instrument Penetration/Enroute Descent	R		R
19. IFR Traffic Pattern (Prior to FAF)			R
20. Non-precision Approach (FAF/Descent Point to Missed Approach Point)			R
21. Precision Approach (Glide Slope to Decision Height)			R
22. Missed Approach	R		R
23. VFR Approach (Base, Final Turn, and/or Final Approach)	R		
24. Landing	R		R
25. Simulated Engine(s) Out Pattern/Landing	R		
26. Simulated Engine(s) Out Go-Around	R		
27. After Landing	R		R
28. Emergency Procedures (BOLD FACE) (CRITICAL)	R		R
29. Systems Operation(Normal/Emergency)	R		
30. Safety (CRITICAL)	R	R	R
31. Documentation	R	R	R
32. Flight Discipline (CRITICAL)	R	R	R
CRM Areas			

33. Situational Awareness (CRITICAL)	R	R	R
34. Crew Coordination (CRITICAL)	R	R	R
35. Risk Management/Decision Making	R	R	R
36. Task Management	R	R	R
37. Airmanship	R	R	R
Instructor only Areas (Only required for instructor qualified crewmembers.)			
38. Instructional Ability	R	R	R
39. Briefings/Critique	R	R	R
40. Demonstration and Performance	R	R	R
R = Required evaluation area.			

3.3. Navigator Qualification Flight Evaluations:

3.3.1. General. This section contains the task-oriented criteria for qualification evaluations of a Navigator (N) and Instructor Navigator (IN).

3.3.2. Initial qualification, qualification, and initial instructor evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. Additionally, instructor examinees must Demonstrate/Perform Area 10, GINS Operations (In-flight Alignment) and provide instruction in Area 19, Rendezvous and Air Refueling, as a minimum.

3.3.3. Either a computer flight plan (CFP) or a manual flight plan may be used for qualification evaluations.

3.3.4. Evaluation Objectives. The examinee must demonstrate the ability to navigate the E-3 aircraft safely and effectively IAW appropriate flight manuals, directives, and operating procedures. Actual position of the aircraft must be maintained utilizing the most reliable navigation aids. In addition, the examinee will demonstrate qualification in all navigation systems (as applicable) in support of E-3 mission requirements.

3.3.5. Ground Phase Requisites are listed in paragraph 2.2.

3.3.6. Criteria. All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

3.3.6.1. Area 1--Mission Planning:

3.3.6.1.1. **Q.** Contributed to overall mission planning. Clearly defined Navigator duties, responsibilities, and goals. Provided specific information on what needed to be done. Checked factors applicable to the flight (mission timing, air refueling information, orbit location, ATO, weather, NOTAMs, flight planning publications, etc.) to determine mission requirements, and departure, en route, and terminal procedures. Selected the best route with consideration to altitude, airspeed, weather conditions, terrain, restricted areas, and location of emergency and alternate airfields.

Thoroughly critiqued plans to identify potential problem areas. Planned alternative courses of action as appropriate. Checked understanding of possible contingencies. Solicited feedback to check understanding of mission requirements. Read and initialed for all items in the FCIF and read files. **Note:** NOTAMs will be checked on the day of the flight.

3.3.6.1.2. **Q-** Knowledge of publications available for mission planning was adequate; however, only minimum information necessary to ensure a safe flight was checked. Partially defined Navigator duties and responsibilities. Did not fully comply with local directives.

3.3.6.1.3. **U.** Displayed inadequate knowledge of, or failed to check factors applicable to the flight. Did not define Navigator duties and responsibilities. Used poor mission planning techniques that jeopardized mission accomplishment. Failed to comply with local directives. Failed to check understanding of possible contingencies. Failed to read and initial for all items in the FCIF and read files.

3.3.6.2. Area 2--Flight Plan/Charts:

3.3.6.2.1. **Q.** Selected current navigation charts of proper scale and type for the mission to be flown. Charts reflected special use airspace where required, orbit airspace, air refueling track, emergency and alternate airfields, high terrain or obstacle, and other data as required by mission directives for the planned route of flight. All coordinates were transcribed correctly. Route was plotted with errors that did not exceed 5 NM. Flight plan was completed within the following limits:

3.3.6.2.1.1. Heading +/- 5 degrees.

3.3.6.2.1.2. Time +/- 2 minutes.

3.3.6.2.2. **Q-** Flight plan or chart was completed, but contained minor errors or omissions that did not affect mission accomplishment. No more than one error was made in transcribing coordinates. Route was plotted with errors that did not exceed 10 NM. No more than four errors exceeded Q limits and no error exceeded the following limits

3.3.6.2.2.1. Heading +/- 10 degrees.

3.3.6.2.2.2. Time +/- 4 minutes.

3.3.6.2.3. **U.** Flight plan or chart was not completed, or contained major errors or omissions that jeopardized mission accomplishment. Failed to verify the Computer Flight Plan (CFP) waypoints against current FLIP when using an expired Navigation System Database. Selected improper or obsolete charts. Route plotting errors exceeded Q- limits. More than four errors exceeded Q limits, or one or more errors exceeded Q- limits. **NOTE 1:** Errors that occur as a result of the previous error will not be considered when applying the limits of the grading criteria. **NOTE 2:** Either computer or manual flight plan may be used.

3.3.6.3. Area 3--Briefings/Debriefings:

3.3.6.3.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical

sequence IAW applicable directives. Ensured the aircrew was thoroughly briefed on all navigational aspects of the mission. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

3.3.6.3.2. **Q-**. Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings and/or ensured the aircrew was thoroughly briefed on all navigational aspects of the mission with errors or omissions that did not jeopardize mission accomplishment.

3.3.6.3.3. **U**. Failed to attend required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that jeopardized mission accomplishment. Failed to ensure the aircrew was thoroughly briefed on all navigational aspects of the mission.

3.3.6.4. **Area 4--Pre-mission Requirements:**

3.3.6.4.1. **Q**. Possessed all required personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.3.6.4.2. **Q-**. Possessed required personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.3.6.4.3. **U**. Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment.

3.3.6.5. **Area 5--Pre-flight Inspections:**

3.3.6.5.1. **Q**. Completed pre-flight inspections prior to engine start time IAW applicable checklists and directives. Demonstrated satisfactory knowledge of the status, operation, and use of aircraft systems and life support equipment. Recognized evidence of malfunctions and took proper corrective actions. Was knowledgeable of, and checked AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*.

3.3.6.5.2. **Q-**. Accomplished pre-flight inspections prior to engine start time with errors or omissions that did not jeopardize mission accomplishment or cause late takeoff. Displayed adequate knowledge of equipment status, operation, and use; however, was uncertain of malfunctions and appropriate corrective action. Displayed limited knowledge of information contained in the AFTO Form 781.

3.3.6.5.3. **U**. Accomplished pre-flight inspections prior to engine start time with errors or omissions that jeopardized mission accomplishment or caused late takeoff. Displayed inadequate knowledge of system or equipment status, operation, or use. Failed to recognize malfunctions or take corrective action. Did not use checklist for one or more pre-flight checks.

3.3.6.6. Area 6--Before Takeoff:

3.3.6.6.1. **Q.** Completed all required checks. Monitored and copied clearance, and if applicable, coordinated with the pilots on the procedures to be followed. Cross-checked navigational aids and GINS positions; made corrections/updates when necessary. Coordinated with pilot on GINS configuration during the departure.

3.3.6.6.2. **Q-.** Accomplished Before Takeoff procedures with minor procedural deviations which did not result in delay or misunderstanding of departure procedures.

3.3.6.6.3. **U.** Made major errors, omissions, or deviations in completing required checks. Was not prepared for taxi or take off. Was not aware of ATC clearance.

3.3.6.7. Area 7--Departure:

3.3.6.7.1. **Q.** Monitored headings, altitudes, and aircraft position throughout the departure. Used a SID (if applicable) and had local area chart of Operational Navigation Chart (ONC) or larger scale immediately available for reference (i.e. out on the table). Monitored terrain/ obstacle clearance. Provided headings, ETAs, and other appropriate information in a timely manner. Monitored appropriate radios for departure instructions to ensure compliance with ATC clearance. Provided updated information when a delay or the clearance caused a change in the planned departure.

3.3.6.7.2. **Q-.** Monitored headings, altitudes, position, and terrain clearance. Displayed difficulty in providing headings, estimated time of arrival (ETA), or other appropriate information. Performance did not degrade mission accomplishment or compromise flight safety. Monitored SID (if applicable) but did not have local area chart of ONC or larger scale immediately available for reference.

3.3.6.7.3. **U.** Did not monitor headings, altitudes, or terrain clearance during the departure. Was not aware of aircraft position and was unable to provide updated information when required. Did not use a SID or local area chart of ONC or larger scale.

3.3.6.8. Area 8--GINS Operations:

3.3.6.8.1. **Q.** Demonstrated satisfactory knowledge and understanding of GINS components. Recognized malfunctions and took appropriate corrective actions. Effectively used GINS navigational information in a precise and accurate manner. Monitored GINS aiding/position to ensure accurate positional and associated information transmitted to mission equipment.

3.3.6.8.2. **Q-.** Displayed limited understanding of malfunctions and/or appropriate corrective action; no further system degradation resulted from corrective action taken. Knowledge of GINS components was adequate, but degraded full, effective use of GINS navigational information.

3.3.6.8.3. **U.** Failed to recognize malfunctions and/or take appropriate corrective action, which resulted in system degradation. Inadequate knowledge of GINS components seriously degraded effective use of GINS navigational information. Corrective action taken was inappropriate and further degraded GINS operation. Failure to update or correctly interpret GINS data resulted in excessive position errors.

3.3.6.9. Area 9-- GINS In-flight Alignment:

3.3.6.9.1. **Q.** Accomplished initialization and In-flight Alignment (IFA) sequencing IAW existing checklists and applicable directives. Recognized equipment limitations and/or limited GPS satellite environment and provided corrections/updates in a timely manner to ensure alignment completion. Completed IFA, barring equipment malfunctions, in time to support the mission. Recognized and performed needed manual position updates. Fully understood IFA sequencing.

3.3.6.9.2. **Q-** Displayed limited understanding of malfunctions and/or appropriate corrective action; no further system degradation resulted from corrective action taken. Knowledge of GINS components adequate, but degraded full, effective use of GINS navigational information. Crosscheck of one or more navigational information (position, true heading (TH), groundspeed (GS), or cross track deviation (XTK)/track angle error (TKE)) omitted prior to using INU aligned in flight.

3.3.6.9.3. **U.** Induced a position error that resulted in degraded positional accuracy or IFA failure. Failed to crosscheck navigational information (position, TH, GS, and XTK/TKE) prior to using INU aligned in-flight, or failed to crosscheck one or more navigational information (position, TH, GS, or XTK/TKE) before attempting to couple the autopilot to the INU aligned in-flight.

3.3.6.10. Area 10--Cruise/On-Station:

3.3.6.10.1. **Q.** Cruise/On-Station speeds and altitudes used were accomplished effectively to support mission requirements.

3.3.6.10.2. **Q-** Speeds and altitudes used were accomplished with minor errors that did not affect safety of flight or mission accomplishment.

3.3.6.10.3. **U.** Improper speeds and/or altitudes used could have affected flight safety or jeopardized mission accomplishment.

3.3.6.11. Area 11--General Navigation:

3.3.6.11.1. **Q.** At no time allowed the airplane to deviate more than 5 NM from the planned/ re-planned course or to deviate outside the refueling track ATC assigned/protected lateral airspace. Active flight plan waypoints were kept updated and no unscheduled turns caused by erroneous data.

3.3.6.11.2. **Q-** At no time allowed the airplane to deviate more than 10 NM from the planned/re-planned course. Active flight plan waypoints were updated and no more than one unscheduled turn was caused by erroneous data.

3.3.6.11.3. **U.** Allowed airplane to deviate outside of the refueling track or ATC assigned/ protected lateral airspace.

3.3.6.12. Area 12--Radio Navigation:

3.3.6.12.1. **Q.** Properly used radio aids to determine aircraft position. Verified charted location of stations used in plotting aircraft position.

3.3.6.12.2. **Q-** Committed errors in the use of radio aids that did not adversely affect determining aircraft position. Made minor errors in verifying charted location of stations used in plotting aircraft position.

3.3.6.12.3. **U.** Unsatisfactory techniques or procedures in and using radio aids to determine aircraft position. Failed to verify charted location of stations used to plot aircraft position.

3.3.6.13. Area 13--Weather Radar Operation:

3.3.6.13.1. **Q.** Demonstrated satisfactory knowledge and understanding of radar equipment. Effectively used radar to avoid weather, and to support air refueling operations and traffic avoidance. Satisfactory demonstration/knowledge of thunderstorm avoidance.

3.3.6.13.2. **Q-** Inefficient radar operation detracted from weather avoidance, traffic avoidance or air refueling operations; however there was no impact on mission accomplishment and flight safety was not jeopardized.

3.3.6.13.3. **U.** Ineffective radar operation significantly hindered weather avoidance, traffic avoidance and/or air refueling operations; flight safety was jeopardized, or air refueling operations were significantly delayed. Exceeded Q- standards.

3.3.6.14. Area 14--Mission Patterns:

3.3.6.14.1. **Q.** Demonstrated satisfactory accomplishment or knowledge of alternate (waypoint only) and GINS orbit procedures. Selected and engaged proper steering pattern and lobe, and monitored orbit capture. Briefed pilot on anticipated aircraft maneuvers, and notified Mission Crew Commander (MCC) prior to orbit capture.

3.3.6.14.2. **Q-** Made errors in selecting and engaging pattern steering or waypoint only orbit, resulting in considerable delay when entering orbit, and/or excessive maneuvering to capture the pattern.

3.3.6.14.3. **U.** Selected/engaged incorrect pattern or waypoint only orbit resulted in departing protected airspace. Insufficient knowledge or unsatisfactory accomplishment of alternate (waypoint only) orbit procedures resulted in degraded mission radar operation. Failed to brief pilot when engaging pattern steering and/or notify MCC prior to orbit entry.

3.3.6.15. Area 15--Communications:

3.3.6.15.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities and mission tasking IAW applicable directives. Transmissions were concise with proper terminology. Acknowledged and complied with all required instructions. Asked for and provided clarification when necessary. Stated opinions and ideas. Used precise, standard terminology and acknowledged all communications. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.

3.3.6.15.2. **Q-** Conducted communications selection or operated equipment with minor errors, omissions or delays that did not jeopardize mission accomplishment.

Transmissions contained excessive, extraneous matter, were not in proper sequence, or employed nonstandard terminology.

3.3.6.15.3. **U.** Conducted communications selection or operated equipment with major errors, omissions or delays that jeopardized mission accomplishment. Incorrect procedures or poor performance caused confusion and reduced mission effectiveness. No attempt to use precise, standard terminology or acknowledged little to few communications.

3.3.6.16. Area 16--Flight Records:

3.3.6.16.1. **Q.** Navigator's chart, in-flight log, and all other required forms were complete, presenting an accurate and detailed history of the route of flight from takeoff to landing. Entire flight could be reconstructed from information contained in these forms.

3.3.6.16.2. **Q-** Only minor errors and/or omissions were made on the chart or in-flight log; however, the route of flight could generally be reconstructed. Other required records were incomplete or slightly inaccurate; however, they could be used effectively.

3.3.6.16.3. **U.** Information recorded on the chart, in-flight log, and related forms was insufficient to reconstruct the flight. Required records were maintained in a manner that was unusable for their designed purpose.

3.3.6.17. Area 17--Rendezvous and Air Refueling:

3.3.6.17.1. **Q.** Effectively accomplished rendezvous and air refueling procedures. Planned optimum use and utilized all available rendezvous aids to conduct the rendezvous. Turn range and offset were correctly computed and cross-checked within 2 NM. Used proper procedure to identify tanker beacon. When required, recognized and effectively provided guidance to correct a potential overrun.

3.3.6.17.2. **Q-** Displayed limited knowledge and familiarity with checklists and/or rendezvous and air refueling procedures; however, knowledge was sufficient to successfully accomplish rendezvous and air refueling. Did not use all available aids, delaying/degrading successful rendezvous. Computations were in error by more than 2 NM, but did not exceed 5 NM. Slow to recognize overrun but did not excessively degrade/delay air refueling.

3.3.6.17.3. **U.** Displayed lack of knowledge and familiarity with the checklists and/or rendezvous and air refueling procedures to the extent that the rendezvous or air refueling was jeopardized or precluded. Did not attempt to acquire tanker beacon, or failed to accomplish positive aircraft identification resulting in an actual or attempted rendezvous with the wrong aircraft. Computations exceeded Q- criteria. Did not recognize or correct an overrun condition which resulted in confusion, delayed/degraded air refueling, or SEFE intervention.

3.3.6.18. Area 18--Descent, Approach, and Landing:

3.3.6.18.1. **Q.** Monitored aircraft position and approach instructions. Furnished the pilot with headings, ETAs, and other information as required. Thoroughly understood approach and/or missed approach instructions and procedures. Monitored appropriate STAR (if applicable),

instrument approach procedure, and had a local area chart of ONC or larger scale immediately available (i.e., out on the table). During instrument approaches, monitored the appropriate radio IDENT for the entire approach. Made required altitude calls, and ensured terrain/obstacle clearance. When required, calculated minimum approach groundspeed (MIN G/S) within 4 knots, and provided pilot flying with MIN G

3.3.6.18.2. **Q-** Monitored aircraft position but did not monitor or understand approach and/or missed approach instructions/procedures. Omitted some altitude calls. Was slow in providing headings, ETAs, and other information when required. Monitored appropriate STAR (if applicable) and instrument approach procedure, but did not have a local area chart of ONC or larger scale immediately available. When required, calculated MIN G/S within 8 knots, and provided pilot flying with MIN G/S.

3.3.6.18.3. **U.** Failed to monitor aircraft position. Did not ensure terrain/obstacle clearance during approach. Failed to monitor appropriate STAR (if applicable) and instrument approach procedure. During instrument approaches, failed to monitor the appropriate radio IDENT for the entire approach. Omitted numerous altitudes calls. When required, failed to calculate or provide pilot flying with MIN G/S, or calculated MIN G/S outside of Q- limits.

3.3.6.19. Area 19--Post Flight:

3.3.6.19.1. **Q.** Accomplished post flight duties IAW checklist and published procedures. Stowed gear properly. Entered all discrepancies accurately and concisely in AFTO Form 781. All debriefing requirements were completed.

3.3.6.19.2. **Q-** Minor deviations were observed in equipment turnoff procedures which did not harm equipment. Minor errors/omissions were made in stowing gear. Discrepancies entered in AFTO Form 781 contained minor errors/omissions or caused confusion. Did not fully meet debriefing requirements.

3.3.6.19.3. **U.** Major deviations were observed in equipment turnoff procedures which could have resulted in damage to equipment. Did not stow all gear properly. Failed to enter discrepancies into AFTO Form 781. Failed to attend required debriefings. Exceeded Q- standards.

3.3.6.20. Area 20--Emergency Procedures and Equipment:

3.3.6.20.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated effectively with other crewmembers without delay.

3.3.6.20.2. **Q-** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment which did not result in an unsafe situation or jeopardize mission accomplishment.

3.3.6.20.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crewmembers causing delays/ confusion which resulted in an unsafe situation or jeopardized mission accomplishment.

3.3.6.21. Area 21--Safety (CRITICAL):

3.3.6.21.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.3.6.21.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Did not adequately clear flight path. Operated the aircraft in a dangerous manner.

3.3.6.22. Area 22--Flight Discipline (CRITICAL):

3.3.6.22.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

3.3.6.22.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

3.3.6.23. Area 23. --Airmanship (CRITICAL):

3.3.6.23.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

3.3.6.23.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety was compromised.

3.3.6.24. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph 2.6 of this instruction.

3.3.6.24.1. **Area 24--Situational Awareness (CRITICAL)**

3.3.6.24.2. **Area 25--Crew Coordination (CRITICAL)**

3.3.6.24.3. **Area 26--Risk Management/Decision Making**

3.3.6.24.4. **Area 27--Task Management**

3.3.6.25. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

3.3.6.25.1. **Area 28--Instructional Ability.**

3.3.6.25.2. **Area 29--Briefings/Critique.**

3.3.6.25.3. **Area 30--Demonstration and Performance.**

Table 3.3. Navigator Evaluation Matrix.

EVALUATION AREAS	QUAL	INSTR
1. Mission Planning	R	
2. Flight Plan/Charts	R	
3. Briefings/Debriefings	R	
4. Pre-mission Requirements	R	

5. Pre-flight Inspections	R	
6. Before Takeoff	R	
7. Departure	R	
8. GINS Operations	R	
9. GINS In-flight Alignment	R	R
10. Cruise/On-Station	R	
11. General Navigation	R	
12. Radio Navigation	R	
13. Weather Radar Operation	R	
14. Mission Patterns	R	
15. Communications	R	
16. Flight Records	R	
17. Rendezvous and Air Refueling	R	R
18. Descent, Approach and Landing	R	
19. Post Flight	R	
20. Emergency Procedures and Equipment	R	
21. Safety (CRITICAL)	R	R
22. Flight Discipline (CRITICAL)	R	R
23. Airmanship (CRITICAL)	R	R
CRM Areas		
24. Situational Awareness (CRITICAL)	R	R
25. Crew Coordination (CRITICAL)	R	R
26. Risk Management/Decision Making	R	R
27. Task Management	R	R
Instructor only Areas (Only required for instructor qualified crewmembers) (Note 1)		
28. Instructional Ability	R	R
29. Briefings/Critique	R	R
30. Demonstration and Performance	R	R
R = Required evaluation area.		
Instructor examinees will provide instruction in Area 17 and Demonstrate/Perform Area 9.		

Note 1: A grade of “U” in these areas results in an overall grade of 3 for the instructor portion of the evaluation

3.4. Flight Engineer Qualification Flight Evaluations:

3.4.1. **General.** This section contains the task-oriented criteria for qualification evaluations of a Flight Engineer (FE) and Instructor Flight Engineer (IFE).

3.4.1.1. Initial Qualification, Qualification, and Initial Instructor Qualification will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.4.1.2. DD Form 365-4, *Weight and Balance Clearance Form F*, may be evaluated during the written examination and will be accomplished utilizing the load adjuster or a MAJCOM approved method.

3.4.2. Evaluation Objectives:

3.4.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely, effectively, and IAW appropriate flight manuals, directives and operating procedures. FE qualification evaluations will be conducted on a live E-3 sortie.

3.4.3. **Ground Phase Requisites.** The requisites are listed in paragraph 2.2.

3.4.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas, within the limits specified in **Table 3.4.**

3.4.4.1. Area 1--Mission Planning:

3.4.4.1.1. **Q.** Contributed to overall mission planning. Clearly defined Flight Engineer duties, responsibilities, and goals to support mission. Provided specific information on what needed to be done. Solicited feedback to check understanding of mission requirements. Checked all factors applicable to flight, fuel requirements/performance log, performance data, and DD Form 365-4. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Had a thorough knowledge and application of information contained in performance charts. Read and initialed for all items in the FCIF and read files.

3.4.4.1.2. **Q-** Errors or omissions in checking factors applicable to flight, or limited knowledge or errors made in application of information contained in performance charts did not jeopardize mission accomplishment.

3.4.4.1.3. **U.** Made major errors or omissions in checking factors applicable to the flight or on required forms applicable to the flight, or displayed inadequate knowledge in the use of performance data, that jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

3.4.4.2. Area 2--Briefings/Debriefings:

3.4.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

3.4.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment.

3.4.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that jeopardized mission accomplishment.

3.4.4.3. **Area 3--Pre-mission Requirements:**

3.4.4.3.1. **Q.** Possessed all required personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.4.4.3.2. **Q-.** Possessed required personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.4.4.3.3. **U.** Failed to possess all required personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment.

3.4.4.4. **Area 4--Takeoff and Landing Data:**

3.4.4.4.1. **Q.** Computed required takeoff and landing data within tolerances of Column A, **Table 3.4**. Fully knowledgeable of takeoff and landing performance data.

3.4.4.4.2. **Q-.** Computed required takeoff and landing data within tolerances of Column B, **Table 3.4**. Limited knowledge of takeoff and landing data.

3.4.4.4.3. **U.** Unable to complete takeoff and landing data card. Computations exceeded tolerances of Column B, **Table 3.4**. Inadequate knowledge of performance data.

3.4.4.5. **Area 5--Weight and Balance:**

3.4.4.5.1. **Q.** Demonstrated knowledge of aircraft limitations and weight and balance. Completed DD Form 365-4 accurately and legibly. Errors in percent of mean aerodynamic chord (MAC) or gross weight did not exceed tolerances of Column A, **Table 3.4**

3.4.4.5.2. **Q-.** Demonstrated a limited knowledge of aircraft limitations and weight and balance. Completed a legible DD Form 365-4 with errors or omissions that did

not affect safety. Errors in percent of MAC or gross weight did not exceed tolerances of Column B, **Table 3.4**.

3.4.4.5.3. **U.** Unable to complete DD Form 365-4. Errors in percent of MAC or gross weight exceeded tolerances of Column B, **Table 3.4**. Displayed inadequate knowledge of weight and balance directives.

3.4.4.6. Area 6--Pre-flight Inspection:

3.4.4.6.1. **Q.** Completed pre-flight inspection IAW applicable checklist and directives in a timely manner. Demonstrated satisfactory knowledge of the status, operation, and use of aircraft systems and life support equipment. Recognized evidence of malfunctions and took proper corrective actions. Was knowledgeable of, and checked AFTO Form 781.

3.4.4.6.2. **Q-.** Accomplished pre-flight inspection with minor deviations and/or delays that did not jeopardize mission accomplishment. Displayed adequate knowledge of equipment status, operation, and use; however, was uncertain of malfunctions and appropriate corrective action. Displayed limited knowledge of information contained in AFTO Form 781.

3.4.4.6.3. **U.** Failed to accomplish or made major omissions in pre-flight inspections. Accomplished pre-flight with delays that jeopardized mission accomplishment. Displayed inadequate knowledge of system or equipment status, operation, or use. Failed to recognize malfunctions or take corrective action. Failed to properly check and determine correct aircraft status in the AFTO Forms 781.

3.4.4.7. Area 7--Before Start/Starting Engines:

3.4.4.7.1. **Q.** Accomplished before start/starting engines procedures IAW applicable directives.

3.4.4.7.2. **Q-.** Accomplished before start/starting engines procedures with errors or omissions that did not jeopardize mission accomplishment.

3.4.4.7.3. **U.** Accomplished before start/starting engines procedures with errors or omissions that jeopardized mission accomplishment.

3.4.4.8. Area 8--Taxi/Before Takeoff:

3.4.4.8.1. **Q.** Accomplished taxi/before takeoff procedures IAW applicable directives.

3.4.4.8.2. **Q-.** Accomplished taxi/before takeoff procedures with errors or omissions that did not jeopardize mission accomplishment.

3.4.4.8.3. **U.** Accomplished taxi/before takeoff procedures with errors or omissions that jeopardized mission accomplishment.

3.4.4.9. Area 9--Takeoff:

3.4.4.9.1. **Q.** Power applied smoothly, continuously monitored aircraft/engine system to ensure compliance with all limitations.

3.4.4.9.2. **Q-** Power applied in an acceptable manner. Deviations in monitoring of aircraft/ engine systems did not exceed limitations.

3.4.4.9.3. **U.** Power applied in an unacceptable manner. Did not monitor engine/system indicators. Failed to comply with aircraft commander's instructions; did not accomplish required procedures as outlined in applicable flight manual.

3.4.4.10. Area 10--After Takeoff and Climb:

3.4.4.10.1. **Q.** Monitored aircraft/engine systems to ensure compliance with limitations. Maintained charted climb power.

3.4.4.10.2. **Q-** Deviations in monitoring aircraft/engine systems; did not exceed limitations. Minor deviations in maintaining charted climb power.

3.4.4.10.3. **U.** Did not monitor engine/systems indicators; actions performed inadequately. Major deviations in maintaining charted climb power. Did not accomplish required checks and procedures.

3.4.4.11. Area 11--Cruise/On Station:

3.4.4.11.1. **Q.** Cruise/Orbit data and fuel endurance computations were accurate and updated at timely intervals.

3.4.4.11.2. **Q-** Cruise/Orbit data and fuel endurance computations reflected procedural/mathematical errors or omissions.

3.4.4.11.3. **U.** Inadequate knowledge of procedures. Required checks/procedures were inadequate or not accomplished.

3.4.4.12. Area 12--Air Refueling:

3.4.4.12.1. **Q.** Fully knowledgeable of air refueling operations. Satisfactorily managed/monitored fuel systems and on-load distribution.

3.4.4.12.2. **Q-** Limited knowledge of air refueling operations. Deviations in management/ monitoring of fuel system and on-load distribution.

3.4.4.12.3. **U.** Inadequate knowledge/execution of air refueling operations resulted in gross deviations in management/monitoring of fuel system and onboard distribution. **NOTE:** Area 12 may be evaluated verbally or in a simulator either prior to or subsequent to the flight evaluation. Area 12 must be evaluated in-flight for initial qualification training (IQT) examinees.

3.4.4.13. Areas 13 through 25 will use the following criteria. They may be accomplished in the flight simulator or discussed before, during, or after the flight and prior to the critique. System's Operation (Normal/Emergency):

3.4.4.13.1. **Q.** Demonstrated proper management and operation of system. Identified and located system components, explained and related the function, and specified the limitations. Stated system status and effect on related systems. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.

3.4.4.13.2. **Q-** Deviations in management or operation of system. Omission or deviation in identifying, locating, explaining, or relating system functions. Stated system status but, could not determine effect on related systems.

3.4.4.13.3. **U.** Inadequate knowledge of systems components, functions and limitations; improper management or operation of systems; unable to analyze simulated or actual malfunctions and applying corrective action; could not determine status of related systems.

3.4.4.14. **Area 13--Electrical.**

3.4.4.15. **Area 14--Hydraulic/Pneudraulic.**

3.4.4.16. **Area 15--Air Conditioning/Bleed Air**

3.4.4.17. **Area 16--Pressurization.**

3.4.4.18. **Area 17--Electronic Cooling.**

3.4.4.19. **Area 18--Engine/Engine Systems.**

3.4.4.20. **Area 19--Fuel.**

3.4.4.21. **Area 20--Ice/Rain Protection.**

3.4.4.22. **Area 21--APU/APU Systems.**

3.4.4.23. **Area 22--Oxygen/Lighting Equipment.**

3.4.4.24. **Area 23--Landing Gear/Wheels/Brakes.**

3.4.4.25. **Area 24--Flight Controls.**

3.4.4.26. **Area 25--Instruments/Communication/GINS.**

3.4.4.27. **Area 26--Descent:**

3.4.4.27.1. **Q.** Accomplished all required checks and procedures in a timely manner.

3.4.4.27.2. **Q-** Accomplished all required checks and procedures in a timely manner with minor deviations that did not affect flight safety.

3.4.4.27.3. **U.** Accomplished descent checks and procedures with errors or omissions that jeopardized flight safety.

3.4.4.28. **Area 27--Before Landing/Landing:**

3.4.4.28.1. **Q.** Monitored engine and aircraft systems to ensure compliance with limitations. Accomplished all required checks and procedures in a timely manner.

3.4.4.28.2. **Q-** Monitored engine and aircraft systems to ensure compliance with limitations. Accomplished all required checks and procedures with minor deviations that did not affect flight safety.

3.4.4.28.3. **U.** Accomplished before landing/landing checks and procedures with errors or omissions that could have affected flight safety. Failed to monitor engine and aircraft systems.

3.4.4.29. **Area 28--After Landing/Engine Shutdown:**

3.4.4.29.1. **Q.** Accomplished all required checks and procedures in a timely manner.

3.4.4.29.2. **Q-** Accomplished all required checks and procedures in a timely manner with errors or omissions that did not affect safety.

3.4.4.29.3. **U.** Accomplished after landing/engine shutdown checks and procedures with errors or omissions that could have affected safety.

3.4.4.30. Area 29--Before Leaving Aircraft/Securing:

3.4.4.30.1. **Q.** Correctly determined condition and status of the aircraft. All required forms/logs accurately completed.

3.4.4.30.2. **Q-** Unsure of condition or status of the aircraft. Completed IATP flight log with minor errors. Completed forms/logs with minor errors.

3.4.4.30.3. **U.** Inadequate knowledge and compliance with required procedures and directives. Required checks not accomplished; could not determine condition or status of aircraft. Did not complete AFTO 781. Forms/logs not complete, or accomplished with major errors

3.4.4.31. Area 30--Emergency Procedures and Equipment:

3.4.4.31.1. **Q.** Demonstrated thorough knowledge of emergency equipment/procedures. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

3.4.4.31.2. **Q-** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment which did not result in an unsafe situation or jeopardize mission accomplishment.

3.4.4.31.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion which could result in an unsafe situation and/or jeopardize mission accomplishment.

3.4.4.33. Area 31--Safety (CRITICAL):

3.4.4.33.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.4.4.33.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

3.4.4.34. Area 32--Flight Discipline (CRITICAL):

3.4.4.34.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

3.4.4.34.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

3.4.4.35. Area 33--Airmanship (CRITICAL):

3.4.4.35.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

3.4.4.35.2. U. Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety was jeopardized.

3.4.4.36. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph 2.6 of this instruction.

3.4.4.36.1. **Area 34--Situational Awareness (Critical)**

3.4.4.36.2. **Area 35--Crew Coordination (Critical)**

3.4.4.36.3. **Area 36--Risk Management/Decision Making**

3.4.4.36.4. **Area 37--Task Management**

3.4.4.37. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

3.4.4.37.1. **Area 38--Instructional Ability**

3.4.4.37.2. **Area 39--Briefings/Critique**

3.4.4.37.3. **Area 40--Demonstration and Performance**

Table 3.4. Consolidated Performance Data Limits.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Field Pressure Altitude	+/- 200 ft	+/- 500 ft
Outside Air Temperature	+/- 3 degrees	+/- 5 degrees
Power Setting (EPR)	+/- .01	+/- .02
Takeoff Stabilizer Setting (Units)	+/- .2	+/- .4
All Computed Speeds	+/- 2 kts	+/- 4 kts
All Computed Distances	+/- 400 ft	+/- 600 ft
All Computed Gross Weights	+/- 2000 lbs	+/- 5000 lbs
Takeoff/Landing C.G.	+/- .5%	+/- 1.0%

Table 3.5. Flight Engineer Evaluation Matrix.

EVALUATION AREAS	QUAL	INSTR
1. Mission Planning	R	
2. Briefings/Debriefings	R	
3. Pre-mission Requirements	R	
4. Takeoff and Landing Data	R	
5. Weight and Balance	R	

6. Pre-flight Inspection	R	
7. Before Start/Starting Engines	R	
8. Taxi/Before Takeoff	R	
9. Takeoff	R	
10. After Takeoff and Climb	R	
11. Cruise/On Station	R	
12. Air Refueling	R	
13. Electrical	R	
14. Hydraulic/Pneudraulic	R	
15. Air Conditioning/Bleed Air	R	
16. Pressurization	R	
17. Electronic Cooling	R	
18. Engine/Engine Systems	R	
19. Fuel	R	
20. Ice/Rain Protection	R	
21. APU/APU Systems	R	
22. Oxygen/Lighting Equipment	R	
23. Landing Gear/Wheels/Brakes	R	
24. Flight Controls	R	
25. Instruments/Communications/GINS	R	
26. Descent	R	
27. Before Landing/Landing	R	
28. After Landing/Engine Shutdown	R	
29. Before Leaving Aircraft/Securing	R	
30. Emergency Procedures and Equipment	R	
31. Safety (CRITICAL)	R	R
32. Flight Discipline (CRITICAL)	R	R
33. Airmanship (CRITICAL)	R	R
CRM Areas		
34. Situational Awareness (CRITICAL)	R	R
35. Crew Coordination (CRITICAL)	R	R

36. Risk Management/Decision Making	R	R
37. Task Management	R	R
Instructor only Areas (Only required for instructor qualified crewmembers) (Note 1)		
38. Instructional Ability	R	R
39. Briefings/Critiques	R	R
40. Demonstration and Performance	R	R
R = Required evaluation area.		
Note 1: A grade of "U" in these areas results in an overall grade of 3 for the instructor portion of the evaluation		

Chapter 4

MISSION CREW COMMANDER EVALUATIONS

4.1. General. This chapter contains the task oriented criteria for all Mission Crew Commander (MCC) evaluations IAW AFI 11-202V2 and AFI 11-401. Evaluation requirements are outlined in matrices for MCC and Instructor Mission Crew Commander (IMCC) positions.

4.1.1. Evaluation Objectives:

4.1.1.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. MCC qualification evaluations will be conducted on a live E-3 sortie.

4.1.1.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix. Mission evaluations will encompass all areas identified in the evaluation matrix for the mission profile performed. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and safety of flight. MCC mission evaluations will be conducted on a live E-3 sortie whenever possible. If unable to accomplish a mission evaluation on a live sortie, the mission evaluation may be accomplished in the simulator. Activity must demonstrate prosecution of the air battle through the execution of operations orders (OPORDs)/operations plans (OPLANs)/Special Instructions (SPINs) IAW applicable directives with sufficiency to effectively manage the mission/battle through fighter flow, tanker management, communications, and production of a recognizable air picture.

4.1.1.3. **Ground Phase Requisites.** The ground phase requisites are listed in paragraph 2.2.

4.2. Evaluation Criteria. All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

4.2.1. Area 1--Mission Planning:

4.2.1.1. **Q.** Pre-planned mission activities by determining mission tasking, ROE, command/control/communications arrangements, and battle plans from planning/tasking documents. Clearly defined mission overview and objectives. Solicited feedback to check understanding of mission requirements. Directed the crew to formulate primary and backup plans to accomplish mission taskings, obtained and analyzed status of aircraft and mission equipment, and determined the impact on mission objectives. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Directed mission planning summary briefing according to directives. Read and initialed for all items in the FCIF and read files.

4.2.1.2. **Q-**. Directed and performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

4.2.1.3. **U**. Directed and performed mission planning with errors or omissions that jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

4.2.2. **Area 2--Briefings/Debriefings:**

4.2.2.1. **Q**. Directed all required briefings/debriefings and extracted/provided all necessary information. Directed briefings/debriefings in an organized, logical sequence IAW applicable directives. Ensured the aircrew was thoroughly briefed on all aspects of the mission. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

4.2.2.2. **Q-**. Directed all required briefings/debriefings. Extracted/provided information or directed briefings/debriefings and/or ensured the aircrew was thoroughly briefed on all aspects of the mission with errors or omissions that did not jeopardize mission accomplishment.

4.2.2.3. **U**. Failed to direct required briefings/debriefings. Extracted/provided information or directed briefings/debriefings with errors or omissions that jeopardized mission accomplishment. Failed to ensure the aircrew was thoroughly briefed on all aspects of the mission.

4.2.3. **Area 3--Pre-mission Requirements:**

4.2.3.1. **Q**. Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives. Assessed information (i.e., FCIF, etc.) for impact on mission activities. Confirmed agency(ies) exercising operational command/control.

4.2.3.2. **Q-**. Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment. Errors or omissions were made in confirming and assessing information concerning mission impact that did not jeopardize mission accomplishment.

4.2.3.3. **U**. Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment. Errors or omissions were made in confirming and assessing information concerning mission impact that jeopardized mission accomplishment.

4.2.4. **Area 4--Pre-flight Inspections/Preparation for Departure:**

4.2.4.1. **Q**. Performed pre-flight inspections IAW applicable directives and reported discrepancies. Analyzed aircraft documents for impact on the mission. Reviewed technician inspection reports for equipment malfunctions and analyzes impact. Reported malfunctions that could adversely impact mission or delay departure to appropriate

agencies. Coordinated requirements, mission changes, equipment discrepancies and limitations according to directives without misunderstanding, confusion, or delay.

4.2.4.2. **Q-** Performed pre-flight inspections, analysis of aircraft documents and inspection reports, coordination requirements and reported malfunctions with errors or omissions that did not jeopardize mission accomplishment.

4.2.4.3. **U.** Performed pre-flight inspections, analysis of aircraft documents and inspection reports, coordination requirements and reported malfunctions with errors or omissions that jeopardized mission accomplishment.

4.2.5. Area 5--Engine Start/Taxi:

4.2.5.1. **Q.** Performed engine start and taxi procedures according to directives. Configured communications on audio distribution system (ADS) panel and monitored nets and radios. Configured oxygen system and seat for takeoff following the checklist and confirmed ASO's headcount. Performed roll call to check intercom and confirm mission crew was ready for engine start and taxi. Reported mission crew ready for engine start and taxi.

4.2.5.2. **Q-** Performed engine start and taxi procedures, configured/monitored communications, configured oxygen/seat requirements, performed roll call and reported mission crew ready with errors or omissions that did not jeopardize mission accomplishment.

4.2.5.3. **U.** Performed engine start and taxi procedures, configured/monitored communications, configured oxygen/seat requirements, performed roll call and reported mission crew ready with errors or omissions that jeopardized mission accomplishment.

4.2.6. Area 6--Takeoff:

4.2.6.1. **Q.** Performed before takeoff procedures according to directives and checklists. Confirmed and reported mission crew ready for takeoff.

4.2.6.2. **Q-** Confirmed/reported ready for takeoff with errors or omissions that did not jeopardize mission accomplishment.

4.2.6.3. **U.** Confirmed/reported ready for takeoff with errors or omissions that jeopardized mission accomplishment.

4.2.7. Area 7--Outbound Procedures:

4.2.7.1. **Q.** Coordinated, directed, and supervised activities required to power up and checkout mission systems en route to assigned station IAW applicable directives. Confirmed the radar, IFF, communications systems, and other sensors were operational, analyzed status reports, established work-around procedures for malfunctions, and reported mission capabilities to the appropriate agencies. Ensured AWACS monitor was established in a timely manner.

4.2.7.2. **Q-** Performed outbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

4.2.7.3. **U.** Performed outbound procedures with errors, omissions, or delays that jeopardized mission accomplishment.

4.2.8. Area 8--Assuming Station Responsibilities:

4.2.8.1. **Q.** Confirmed that required radios were available, communications checks had been completed, radio and sensor coverage were adequate for assigned area of responsibility (AOR), sensors and data links were configured to meet mission requirements, and correlation checks were completed if required. Assessed mission systems status to ensure capability existed to complete mission tasks and assume "Ops Normal/On Station" responsibility. Ensured mission crew monitored appropriate nets and that appropriate agencies were notified of E-3 status and limitations.

4.2.8.2. **Q-.** Performed assuming station responsibilities with errors, omissions, or delays that did not jeopardize mission accomplishment.

4.2.8.3. **U.** Performed assuming station responsibilities with errors, omissions, or delays that jeopardized mission accomplishment.

4.2.9. Area 9--On Station Procedures:

4.2.9.1. **Q.** Used all available assets to ensure the assigned mission was accomplished. Selected, interpreted, and analyzed tabular displays (TDs), situation displays (SDs), and switch actions IAW the MCC Task List to monitor and supervise mission activities. Managed the use of communications, computer, and sensor systems. Supervised mission crew members, coordinated with flight crew, battle staff, and external agencies. Performed the battle management actions required to accomplish the appropriate mission in the assigned theater of operations. Recognized potential threats to the E-3 and employed proper E-3 self-defense tactics to minimize threat and maximize mission accomplishment.

4.2.9.2. **Q-.** Performed On-Station procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

4.2.9.3. **U.** Performed On-Station procedures with errors, omissions, or delays that jeopardized mission accomplishment.

4.2.10. Area 10--AWACS Monitor Procedures:

4.2.10.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

4.2.10.2. **Q-.** Performed AWACS Monitor procedures with minor errors or omissions that did not jeopardize E-3 safety.

4.2.10.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors or omissions that jeopardized E-3 safety.

4.2.11. Area 11--Console Operations and Displays:

4.2.11.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

4.2.11.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and

displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

4.2.11.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that jeopardized mission accomplishment.

4.2.12. Area 12--OPSEC/COMSEC/Authentication Procedures:

4.2.12.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW operational security (OPSEC)/communications security (COMSEC) directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

4.2.12.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

4.2.12.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

4.2.13. Area 13--Air Refueling Procedures:

4.2.13.1. **Q.** Prepared for air refueling in accordance with directives. Directed mission crew to begin air refueling checklist procedures. Directed ASO and ART to transfer sensors at appropriate times. Confirmed/reported mission equipment/mission crew was ready for air refueling. Following air refueling, resumed normal operations and directed re-establishment of equipment for mission use. Ensured AWACS monitor function was re-established. Analyzed changes in mission system status for mission impact and coordinated troubleshooting or work-around as required. Coordinated air refueling results with flight deck.

4.2.13.2. **Q-.** Performed air refueling procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

4.2.13.3. **U.** Performed air refueling procedures with errors, omissions, or delays that jeopardized mission accomplishment.

4.2.14. Area 14--Emergency Procedures and Equipment:

4.2.14.1. **Q.** Conducted practice crew coordination drills that were according to directives and prepared crew members to properly perform actual emergency procedures. Diagnosed/responded to actual emergency situations and implemented emergency procedures according to directives. Demonstrated thorough knowledge of emergency procedures/equipment.

4.2.14.2. **Q-**. Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

4.2.14.3. **U**. Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

4.2.15. Area 15--Transferring Station Responsibilities:

4.2.15.1. **Q**. Established communications with relieving unit, verified link status, and ensured effective transfer of link responsibility to relieving aircraft was accomplished when applicable. Established priorities and coordinated responsibilities for tactical action. Briefed relieving unit on appropriate information and air situation. Confirmed relieving unit had assumed station responsibilities and directed termination of data links.

4.2.15.2. **Q-**. Transferred station responsibilities with errors, omissions or delays that did not jeopardize mission accomplishment.

4.2.15.3. **U**. Transferred station responsibilities with errors, omissions or delays that jeopardized mission accomplishment.

4.2.16. Area 16--Mission Execution/Battle Management:

4.2.16.1. **Q**. Executed the assigned mission in a timely, efficient manner. Led the crew in the prosecution of the air battle through the execution of operations orders (OPORDs)/operations plans (OPLANs) IAW applicable directives. Effectively managed the mission/battle through fighter flow, tanker management, sensor management, communications, and production of a recognizable air picture. Maintained appropriate documentation and logs.

4.2.16.2. **Q-**. Executed the assigned mission with errors, omissions or delays that did not jeopardize overall mission accomplishment. Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the air battle. Minor errors in fighter flow, tanker management, sensor management, communications, and the production of a recognizable air picture did not jeopardize overall mission accomplishment. Maintained appropriate documentation and logs with errors or omissions that did not jeopardize mission accomplishment.

4.2.16.3. **U**. Decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that overall mission objectives were not achieved. Failed to lead the crew in the prosecution of the air battle through the execution of OPORDs/OPLANs IAW applicable directives. Mistakes in fighter flow, tanker management, sensor management, communications, and the production of a recognizable air picture jeopardized mission accomplishment. Failed to maintain appropriate documentation that jeopardized mission accomplishment.

4.2.17. Area 17--Special Instructions (SPINS)/Rules of Engagement (ROE):

4.2.17.1. **Q**. Implemented SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, Search and Rescue (SAR) procedures, and/or other SPINS guidance were

understood, briefed to the mission crew, and executed as appropriate in a timely manner. Maintained situational awareness on how the mission crew implemented these procedures.

4.2.17.2. **Q-**. Implemented SPINS/ROE/ACO procedures as directed by the theater commander with errors or omissions that did not jeopardize mission accomplishment. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood, briefed to the mission crew, and/or executed with errors, omissions or delays that did not jeopardize mission accomplishment. Situational awareness of implementation was maintained with omissions that did not jeopardize mission accomplishment.

4.2.17.3. **U**. Failed to implement SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g., Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and briefed to the mission crew with errors, omissions or delays that jeopardized mission accomplishment. Examinee failed to maintain an acceptable level of situational awareness on how the mission crew implemented these procedures.

4.2.18. Area 18--E-3 Self Defense:

4.2.18.1. **Q**. Identified threats to the E-3 and notified the AC. Directed mission crew retrograde procedures as required. Familiar with affects of retrograde actions on radio and sensor coverage and performance.

4.2.18.2. **Q-**. Identified threats, notified AC, directed mission crew retrograde procedures, and understood affects of retrograde actions with minor errors or omissions that did not jeopardize E-3 safety or mission accomplishment.

4.2.18.3. **U**. Failed to identify threats or notify AC. Directed mission crew retrograde actions with errors or omissions that jeopardized E-3 safety or mission accomplishment. Unfamiliar with and/or unable to explain affects of retrograde actions on radio and/or sensor coverage or performance.

4.2.19. Area 19--Inbound Procedures:

4.2.19.1. **Q**. Performed inbound procedures IAW applicable directives. Terminated station operations and declared off station IAW applicable directives. Ensured external agencies were notified and debriefed external participants. Directed termination of communications links. Directed transfer of sensors after determining requirement for quality control (QC)/diagnostic maintenance program (DMP). Directed technicians to perform QC/DMP or power down and directed console shutdown. Collected and reported maintenance status, monitored progress of and coordinated QC/DMP completion and directed system power down.

4.2.19.2. **Q-**. Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

4.2.19.3. **U**. Performed inbound procedures with errors, omissions, or delays that jeopardized mission accomplishment.

4.2.20. Area 20--Descent/Landing:

4.2.20.1. **Q.** Performed descent and landing procedures IAW applicable directives. Directed mission crew to begin descent procedures and prepare for landing. Informed flight engineer when mission radar was off. Confirmed galley was secure and bunks had been cleared and directed loose items bestowed. Released forward forced air cooling system to flight engineer's control. Confirmed mission crew ready for landing.

4.2.20.2. **Q-.** Prepared mission crew for descent and landing with errors, omissions, or delays that did not jeopardize mission accomplishment.

4.2.20.3. **U.** Prepared mission crew for descent and landing with errors, omissions, or delays that jeopardized mission accomplishment.

4.2.21. Area 21--Departing the Aircraft:

4.2.21.1. **Q.** Ensured appropriate airplane cleanliness, safety and security measures were taken prior to departing the area.

4.2.21.2. **Q-.** Departed the aircraft with errors or omissions that did not jeopardize safety or result in a security deviation or compromise.

4.2.21.3. **U.** Departed the aircraft with errors or omissions that jeopardized safety or could have resulted in a security deviation or compromise.

4.2.22. Area 22--Post Mission Requirements:

4.2.22.1. **Q.** Established priorities for equipment and classified material storage/destruction. Debriefed maintenance and intelligence if required. Conducted operations debriefing with the crew. Completed, collected and turned in all logs/forms/reports required by directives.

4.2.22.2. **Q-.** Accomplished post-mission responsibilities with errors or omissions that did not jeopardize mission accomplishment.

4.2.22.3. **U.** Accomplished post-mission responsibilities with errors or omissions that jeopardized mission accomplishment.

4.2.23. Area 23—Communication:

4.2.23. 1 **Q.** Understood and executed proper internal/external communications capabilities and employment for the mission. Communications were standard, clear, concise, and brief. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.

4.2.23. 2 **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge of communication procedures. Made lengthy transmissions and/or used non standard communications.

4.2.23. 3 **U.** Communicated with errors/omissions that jeopardized mission accomplishment or flight safety.

4.2.24. Area 24--Safety (CRITICAL):

4.2.24.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

4.2.24.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

4.2.25. Area 25--Flight Discipline (CRITICAL):

4.2.25.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of flight.

4.2.25.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

4.2.26. Area 26. Airmanship (CRITICAL):

4.2.26.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

4.2.26.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety was compromised.

4.2.27. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph 2.6 of this instruction.

4.2.27.1. **Area 27--Situational Awareness (Critical)**

4.2.27.2. **Area 28--Crew Coordination (Critical)**

4.2.27.3. **Area 29--Risk Management/Decision Making**

4.2.27.4. **Area 30--Task Management**

4.2.28. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

4.2.28.1. **Area 31--Instructional Ability**

4.2.28.2. **Area 32--Briefings/Critiques**

4.2.28.3. **Area 33--Demonstration and Performance**

Table 4.1. Mission Crew Commander Evaluation Matrix.

EVALUATION AREAS	QUAL	INSTR	MSN
1. Mission Planning	R		R
2. Briefings/Debriefings	R		R
3. Pre-mission Requirements	R		
4. Pre-flight Inspections/Preparation for Departure	R		
5. Engine Start/Taxi	R		
6. Takeoff	R		
7. Outbound Procedures	R		

8. Assuming Station Responsibilities	R		
9. On Station Procedures	R		R
10. AWACS Monitor Procedures	R		
11. Console Operations and Displays	R		R
12. OPSEC/COMSEC/ Authentication Procedures	R		R
13. Air Refueling Procedures	R		
14. Emergency Procedures and Equipment	R		R*
15. Transferring Station Responsibilities	R		R
16. Mission Execution/Battle Management	R		R
17. Special Instructions (SPINS)/Rules of Engagement (ROE)			R
18. E-3 Self Defense			R
19. Inbound Procedures	R		
20. Descent/Landing	R		
21. Departing the Aircraft	R		
22. Post Mission Requirements	R		R
23. Communication	R		R
24. Safety (CRITICAL)	R	R	R
25. Flight Discipline (CRITICAL)	R	R	R
26. Airmanship (CRITICAL)	R	R	R
CRM Areas			
27. Situational Awareness (CRITICAL)	R	R	R
28. Crew Coordination (Critical)	R	R	R
29. Risk Management/Decision Making	R	R	R
30. Task Management	R	R	R
Instructor only Areas (Only required for instructor qualified crewmembers) (Note 1)			

31. Instructional Ability	R	R	R
32. Briefings/Critique	R	R	R
33. Demonstration and Performance	R	R	R
R =Required evaluation area.			
R* =Required for INIT MSN evaluations only.			
Note 1: A grade of "U" in these areas results in an overall grade of 3 for the instructor portion of the evaluation			

Chapter 5

WEAPONS EVALUATIONS

5.1. General. This chapter contains the task oriented criteria for all evaluations IAW AFI 11-202V2 and AFI 11-401. Evaluation requirements are outlined in Senior Director (SD) and Air Weapons Officer (AWO) position matrices.

5.1.1. Qualification and mission evaluations encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and safety of flight.

5.1.2. SD qualification evaluations will be conducted on a live E-3 sortie while the examinee actively supervises a weapons team conducting weapons control activity. Acceptability of required activity will be based on the evaluator's determination that the evaluation objective has been met. The evaluation will include assessing the examinee's ability to successfully accomplish appropriate areas in paragraph 5.3 and control a live mission.

5.1.3. SD mission evaluations will be conducted on a live E-3 sortie whenever possible. The examinee will actively supervise a weapons team conducting weapons control activity during a Tactical or Air Sovereignty scenario. If unable to accomplish a mission evaluation on a live sortie, the mission evaluation may be accomplished in the simulator. Activity must demonstrate prosecution of the air battle through the execution of operations orders (OPORDs)/operations plans (OPLANs)/Special Instructions (SPINs) IAW applicable directives with sufficiency to effectively manage the mission/battle through fighter flow, tanker management, communications (external agency coordination and control), and applicable data link coordination. 5.1.4. There will be instances where an examinee, during a mission evaluation, accomplishes all areas required for a qualification evaluation. In this case, the evaluation will be annotated as a mission/qualification evaluation. Acceptability of required activity will be based on the evaluator's determination that all areas required for a mission and a qualification evaluation have been met. Due to the qualification evaluation criteria, this will require a live E-3 sortie. The evaluation will include assessing the examinee's ability to successfully accomplish Areas in paragraph 5.3.

5.1.5. ISD evaluations will assess the examinee's ability to instruct a student according to the criteria in Areas 31-33 in Paragraph 5.3.29. Initial ISD evaluations require an IQT/MQT SD student whenever possible. Initial ISD evaluations may include SD criteria for the purpose of updating expiration dates. ISD qualification evaluations conducted in conjunction with an SD evaluation will include appropriate areas in paragraph 5.3. During subsequent mission evaluations updating SD and ISD requirements together, the ISD will, by performing instructor duties, automatically update SD mission evaluation requirements. If the ISD instructs during a qualification evaluation, they still have the requirement to instruct or perform SD duties during a mission evaluation. As a minimum, the ISD will control to a qualification evaluation level.

5.1.6. Completion of the ISD evaluation, which includes demonstration of competence as an AWO, qualifies the ISD to perform as an IAWO or AWO. Completion of the SD evaluation, which includes demonstration of competence as an AWO, qualifies the SD to perform as an AWO. Completion of an SD or ISD evaluation, which includes demonstration

of competence as an AWO, qualifies the SD to perform as an AWO and the ISD to perform as an AWO or IAWO. An EAWO may evaluate an ISD and SD during the Demonstration-of-competence-as-an-AWO portion of the eval, but the examinee may not perform SD/ISD duties while being evaluated. An ESD may accomplish evaluations on both the SD and AWO positions.

5.1.7. SDs that were previously qualified as IAWOs may continue to perform IAWO duties under the following conditions:

5.1.7.1. The SD must perform IAWO duties on the SD INIT QUAL evaluation and subsequent recurring SD evaluations IAW paragraph 5.4.1.5.

5.1.7.2. AF Form 8 must include the restriction that reads as follows: "RESTRICTION: Examinee may only instruct AWO crewmembers."

5.1.7.3. Training certification forms must include a restriction allowing the SD to instruct AWO crewmembers only. An individual qualified as evaluator SD may accomplish evaluations on SD's and AWOs.

5.2. Senior Director Evaluation Objectives:

5.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

5.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

5.2.3. **Ground Phase Requisites.** The ground phase requisites are listed in paragraph 2.2.

5.3. Senior Director Evaluation Criteria. All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

5.3.1. Area 1--Mission Planning:

5.3.1.1. **Q.** Conducted mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Clearly defined the mission overview. Checked all factors applicable to the mission (i.e. letters of agreement (LOAs), SPINS, ROE, ATO, lessons learned, AWO training requirements, E-3 employment capabilities, and aeronautical charts). Provided specific information on what needed to be done. Clearly defined mission goals. Solicited feedback to check understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Completed required mission forms. Ensured communications worksheet met weapons mission needs. Read and initialed for all items in the FCIF and read files.

5.3.1.2. **Q-.** Conducted mission planning with errors or omissions that did not jeopardize mission accomplishment. Checked all factors applicable to the mission (i.e. LOAs, SPINS, ROE, ATO, lessons learned, AWO training requirements, E-3 employment capabilities, and aeronautical charts) with errors or omissions that did not jeopardize mission accomplishment. Completed required mission forms or coordinated

communications worksheet with errors or omissions that did not jeopardize mission accomplishment.

5.3.1.3. **U.** Conducted mission planning with errors or omissions that jeopardized mission accomplishment. Checked all factors applicable to the mission (i.e. LOAs, SPINS, ROE, ATO, lessons learned, AWO training requirements, E-3 employment capabilities, and aeronautical charts) with errors or omissions that jeopardized mission accomplishment. Did not complete required mission forms. Did not ensure communications worksheet met weapons mission needs. Failed to read and initial for all items in the FCIF and Read files.

5.3.2. Area 2--Briefings/Debriefings:

5.3.2.1. **Q.** Directed all required briefings/debriefings and extracted/provided all necessary information. Led weapons briefings/debriefings in an organized, logical sequence IAW applicable directives. Ensured the weapons team/aircrew was thoroughly briefed on all aspects of the weapons mission. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

5.3.2.2. **Q-.** Directed all required briefings/debriefings. Extracted/provided information or led weapons briefings/debriefings and/or ensured the weapons team/aircrew was thoroughly briefed on all aspects of the weapons mission with errors or omissions that did not jeopardize mission accomplishment.

5.3.2.3. **U.** Failed to direct required briefings/debriefings. Extracted/provided information or led weapons briefings/debriefings with errors or omissions that jeopardized mission accomplishment. Failed to ensure the weapons team/aircrew was thoroughly briefed on all aspects of the weapons mission.

5.3.3. Area 3--Pre-mission Requirements:

5.3.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

5.3.3.2. **Q-.** Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Publications posted with errors or omissions that did not jeopardize mission accomplishment.

5.3.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Publications posted with errors or omissions that jeopardized mission accomplishment.

5.3.4. Area 4--Pre-flight Inspections:

5.3.4.1. **Q.** Performed pre-flight inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

5.3.4.2. **Q-.** Performed pre-flight inspections and/or determined equipment status that may have affected the mission with errors or omissions that did not jeopardize mission accomplishment.

5.3.4.3. **U.** Performed pre-flight inspections and/or determined equipment status that may have affected the mission with errors or omissions that jeopardized mission accomplishment.

5.3.5. Area 5--Before Start:

5.3.5.1. **Q.** Performed before start procedures IAW applicable directives.

5.3.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

5.3.5.3. **U.** Performed before start procedures with errors or omissions that jeopardized mission accomplishment.

5.3.6. Area 6--Internal/External Coordination/Communication:

5.3.6.1. **Q.** Coordinated with internal/external agencies/participants. Determined requirements, mission changes, equipment discrepancies and limitations IAW applicable directives and without misunderstanding, confusion or delay. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Used precise, standard terminology and acknowledged all communications. Did not let rank differences affect mission safety.

5.3.6.2. **Q-.** Coordinated with and/or reported to internal/external agencies/participants with errors, omissions, misunderstanding, confusion or delays that did not jeopardize mission accomplishment.

5.3.6.3. **U.** Coordinated with and/or reported to internal/external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that jeopardized mission accomplishment. No attempt to use precise, standard terminology or acknowledged little too few communications.

5.3.7. Area 7--Outbound Procedures:

5.3.7.1. **Q.** Performed equipment set up and checkout to ensure operation was IAW applicable directives. Ensured timely reporting of status for console, communications, and other operator tasked equipment for the weapons section.

5.3.7.2. **Q-.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that did not jeopardize mission accomplishment.

5.3.7.3. **U.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that jeopardized mission accomplishment.

5.3.8. Area 8--Console Operations and Displays:

5.3.8.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

5.3.8.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

5.3.8.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that jeopardized mission accomplishment.

5.3.9. Area 9--Communications Selection and Use:

5.3.9.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities mission tasking IAW applicable directives.

5.3.9.2. **Q-.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment.

5.3.9.3. **U.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that jeopardized mission accomplishment. Communications selection and use contributed to a lack of situational awareness that jeopardized mission accomplishment.

5.3.10. Area 10--OPSEC/COMSEC/Authentication Procedures:

5.3.10.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

5.3.10.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

5.3.10.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that jeopardized mission accomplishment or resulted in a security deviation/ compromise. Unable to properly authenticate within the specified time limit.

5.3.11. Area 11--Emergency Procedures and Equipment:

5.3.11.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crew members without delay.

5.3.11.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

5.3.11.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that resulted in an unsafe situation and/or jeopardized mission accomplishment.

5.3.12. Area 12--Assuming Station Responsibilities:

5.3.12.1. **Q.** Performed tasks for assuming station IAW applicable directives.

5.3.12.2. **Q-**. Performed tasks for assuming station with errors or omissions that did not jeopardize mission accomplishment.

5.3.12.3. **U**. Performed tasks for assuming station with errors or omissions that jeopardized mission accomplishment.

5.3.13. Area 13--AWACS Monitor Procedures:

5.3.13.1. **Q**. Performed AWACS Monitor procedures IAW applicable directives.

5.3.13.2. **Q-**. Performed AWACS Monitor procedures with minor errors or omissions that did not jeopardize E-3 safety.

5.3.13.3. **U**. Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors or omissions that jeopardized E-3 safety.

5.3.14. Area 14--Sensors:

5.3.14.1. **Q**. Recognized and reported degraded sensor performance. Coordinated sensor requirements to optimize presentation for mission tasking IAW applicable directives. Understood impact of major sensor changes on the mission.

5.3.14.2. **Q-**. Recognized or reported degraded sensor performance with errors or omissions that did not jeopardize mission accomplishment. Understood impact of major sensor changes on the mission with errors or omissions that did not jeopardize the mission.

5.3.14.3. **U**. Failed to recognize or report degraded sensor performance that jeopardized mission accomplishment. Failed to understand impact of major sensor changes on the mission.

5.3.15. Area 15--Weather Information:

5.3.15.1. **Q**. Processed weather information IAW operations directives and provided updates and/or ensured changes were passed to the aircrews upon notification of weather changes affecting mission aircraft.

5.3.15.2. **Q-**. Processed/disseminated weather information with errors or omissions that did not jeopardize mission accomplishment.

5.3.15.3. **U**. Processed/disseminated weather information with errors or omissions that jeopardized mission accomplishment.

5.3.16. Area 16--Special Instructions (SPINS)/Rules of Engagement (ROE)

5.3.16.1. **Q**. Implemented SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, Search and Rescue (SAR) procedures, and/or other SPINS guidance were understood, briefed to the weapons team, and executed as appropriate in a timely manner. Maintained acceptable situational awareness on how the weapons team implemented these procedures.

5.3.16.2. **Q-**. Implemented SPINS/ROE/ACO procedures as directed by the theater commander with errors or omissions that did not jeopardize mission accomplishment. Identification (e.g., Bogey, Bandit, Hostile) procedures, engagement authorization, SAR

procedures, and/or other SPINS guidance were understood, briefed to the weapons team, and/or executed with errors, omissions or delays that did not jeopardize mission accomplishment. Situational awareness of implementation was maintained with omissions that did not jeopardize mission accomplishment.

5.3.16.3. **U.** Failed to implement SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g., Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and briefed to the weapons team with errors, omissions or delays that jeopardized mission accomplishment. Examinee failed to maintain an acceptable level of situational awareness on how the weapons team implemented these procedures.

5.3.17. Area 17--Airspace Coordination:

5.3.17.1. **Q.** Initiated airspace requests and verified that airspace restrictions and limitations were passed and complied with IAW applicable directives. Airspace coordination was accomplished leaving the lead time required to ensure mission accomplishment.

5.3.17.2. **Q-.** Conducted airspace coordination with errors or omissions that did not jeopardize mission accomplishment.

5.3.17.3. **U.** Conducted airspace coordination with errors or omissions that jeopardized mission accomplishment.

5.3.18. Area 18—Control:

5.3.18.1. **Q.** Controlled aircraft using radar and/or IFF/SIF presentations consistent with continuum of control and considered the enemy order of battle. Controlled force protection and/or sweep operations that effectively protected assets and/or accomplished the mission. Kept fighters informed of all factor groups through “Picture” and threat calls. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information is accurate to within 10 degrees and 3 NM. Positioned fighters to accomplish mission objectives IAW AFI 11-214, *Air Operations Rules and Procedures*, and consistent with aircraft capabilities, rules of engagement, operations directives, and battle staff direction.

5.3.18.2. **Q-.** Controlled aircraft with errors or omissions that did not jeopardize mission accomplishment.

5.3.18.3. **U.** Controlled aircraft with errors or omissions that jeopardized mission accomplishment. Positioning was not consistent with continuum of control, mission objectives, operations directives, rules of engagement, or battle staff direction.

5.3.19. Area 19--Control Supervision:

5.3.19.1. **Q.** Ensured the weapons team had radios, sensors, airspace, etc. necessary to control. Ensured the team controlled assigned missions to the level requested and/or followed the continuum of control to the maximum extent possible. Supervised weapons team to the extent needed to achieve mission accomplishment. Provided/updated threat information (to include changes in targets and/or enemy order of battle) to the crew. Ensured that situation/threat information was provided to aircraft in a timely and accurate manner.

5.3.19.2. **Q-**. Ensured the weapons team had radios, sensors, airspace, etc. necessary to control. Ensured the team controlled assigned missions to the level requested and/or followed the continuum of control, to the maximum extent possible, with errors or omissions that did not jeopardize mission accomplishment. Provided/updated threat information (to include changes in targets and enemy order of battle) and supervised the weapons team with errors or omissions that did not jeopardize mission accomplishment. Situation/threat information provided to aircraft had errors or omissions that did not jeopardize mission accomplishment.

5.3.19.3. **U**. Failed to ensure the weapons team had radios, sensors, airspace, etc. necessary to control. Did not ensure that the team controlled assigned missions to the level requested and/or followed the continuum of control. Failed to provide/update threat information (to include changes in targets and enemy order of battle) to the crew correctly or in a timely manner. Failed to ensure that situation/threat information was provided to aircraft in a timely manner. Errors or omissions jeopardized mission accomplishment.

5.3.20. Area 20—Radio/Telephone (R/T) Procedures:

5.3.20.1. **Q**. Employed R/T procedures IAW AFI 11-214 and AFTTP 3-1V1, *General Planning and Employment Considerations*. Acknowledged all communications.

5.3.20.2. **Q-**. Employed R/T procedures with errors or omissions that did not jeopardize mission accomplishment. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety.

5.3.20.3. **U**. Employed R/T procedures with errors or omissions that jeopardized mission accomplishment. Communicated with errors/omissions that jeopardized mission accomplishment or flight safety.

5.3.21. Area 21--Resource Allocation:

5.3.21.1. **Q**. Allocated weapons resources IAW tactical situations or directives.

5.3.21.2. **Q-**. Allocated weapons resources with errors or omissions that did not jeopardize mission accomplishment.

5.3.21.3. **U**. Allocated weapons resources with errors or omissions that jeopardized mission accomplishment.

5.3.22. Area 22--E-3 Self Defense:

5.3.22.1. **Q**. Identified threats to the E-3 and notified the appropriate crewmembers. Performed retrograde procedures as directed. Familiar with affects of retrograde actions on sensor coverage and performance.

5.3.22.2. **Q-**. Identified threats, notified appropriate crewmembers, performed retrograde procedures, and explained affects of retrograde actions with minor errors and omissions that did not jeopardize E-3 safety or mission accomplishment.

5.3.22.3. **U**. Failed to identify threats or notify appropriate crewmembers. Unfamiliar with and/or unable to explain affects of retrograde actions on sensor coverage or performance. Errors and omissions that jeopardized E-3 safety or mission accomplishment.

5.3.23. Area 23--Post-mission:

5.3.23.1. **Q.** Received, copied and relayed post-mission information such as fuel, armament, battle damage assessments (BDAs), and in-flight reports. Completed forms, logs and reports as required. Passed information to appropriate crewmembers and external agencies (as applicable) IAW applicable directives.

5.3.23.2. **Q-.** Accomplished post-mission duties with errors or omissions that did not jeopardize mission accomplishment.

5.3.23.3. **U.** Accomplished post-mission duties with errors or omissions that jeopardized mission accomplishment.

5.3.24. Area 24--Mission Execution/Battle Management:

5.3.24.1. **Q.** Developed and implemented the weapons team plan of execution. Contracted with other sections of the crew and external agencies to execute an effective plan. Led the weapons team in tactical employment of assigned aircraft to successfully accomplish mission tasking. Directed/ensured crewmembers selected proper tactics based on aircraft capabilities, the threat, rules of engagement, battle staff directives, and/or mission requirements IAW applicable directives. Conducted the mission with a sense of understanding and comprehension.

5.3.24.2. **Q-.** Develop and implement the weapons team plan for execution with errors and omissions. Contracts were unclear with other sections of the crew and external agencies to execute an effective plan. Slow to prepare and lead the weapons team in tactical employment of assigned aircraft to successfully accomplish mission tasking. Directed/ensured crewmembers selected proper tactics based on aircraft capabilities, the threat, rules of engagement, battle staff directives, and/or mission requirements IAW applicable directives with misunderstandings, error, omissions or delays.

5.3.24.3. **U.** Plans, contracts, or decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Demonstrated poor judgment in use of weapons resources to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated.

5.3.25. Area 25--Safety (CRITICAL):

5.3.25.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

5.3.25.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

5.3.26. Area 26--Flight Discipline (CRITICAL):

5.3.26.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

5.3.26.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

5.3.27. Area 27--Airmanship (CRITICAL):

5.3.27.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

5.3.27.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety was compromised.

5.3. 28 The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph 2.6 of this instruction.

5.3.28.1. **Area 28--Situational Awareness (Critical)**

5.3.28.2. **Area 29--Crew Coordination (Critical)**

5.3.28.3. **Area 30--Risk Management/Decision Making**

5.3.28.4. **Area 31--Task Management**

5.3.29. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

5.3.29.1. **Area 32--Instructional Ability**

5.3.29.2. **Area 33--Briefings/Critiques**

5.3.29.3. **Area 34--Demonstration and Performance**

Table 5.1. Senior Director Evaluation Matrix.

Evaluation Areas	Qual	Instr	MSN
1. Mission Planning	R		R
2. Briefings/Debriefings	R		R
3. Pre-mission Requirements	R		
4. Pre-flight Inspections	R		
5. Before Start	R		
6. Internal/External Coordination	R		R
7. Outbound Procedures	R		
8. Console Operations and Displays	R		R
9. Communications Selection and Use	R		R
10. OPSEC/COMSEC/Authentication Procedures			R
11. Emergency Procedures and Equipment	R		R*
12. Assuming Station Procedures	R		R
13. AWACS Monitor Procedures	R		
14. Sensors	R		R
15. Weather Information	R		

16. Special Instructions (SPINS)/Rules of Engagement (ROE)			R
17. Airspace Coordination	R		
18. Control	R		
19. Control Supervision	R		R
20. Radio/Telephone (R/T) Procedures	R		R
21. Resource Allocation			R
22. E-3 Self Defense			R
23. Post-mission	R		R
24. Mission Execution/Battle Management (Note 1)			R
25. Safety (CRITICAL)	R	R	R
26. Flight Discipline (CRITICAL)	R	R	R
27. Airmanship (CRITICAL)	R	R	R
CRM Areas			
28. Situational Awareness (Critical)	R	R	R
29. Crew Coordination (Critical)	R	R	R
30. Risk Management/Decision Making	R	R	R
31. Task Management	R	R	R
Instructor only Areas (Only required for instructor qualified crewmembers) (Note 1)			
32. Instructional Ability	R	R	R
33. Briefings/Critiques	R	R	R
34. Demonstration and Performance	R	R	R
R = Required evaluation area.			
R* = Required for INIT MSN evaluations only.			
Note 1: A grade of "U" in these areas results in an overall grade of 3 for the instructor portion of the evaluation			

5.4. Air Weapons Officers Qualification Flight Evaluations:

5.4.1. **General.** This section contains the task-oriented criteria for qualification and mission evaluations for AWO and Instructor Air Weapons Officers (IAWO).

5.4.1.1. Qualification and mission evaluations encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and

safety of flight. Examinee will be evaluated on all phases of a given control mission while aircraft are on their assigned frequency.

5.4.1.2. AWO qualification evaluations will be conducted on live E-3 sorties while the examinee controls ACT/DACT or intercept missions. Acceptability of required activity will be based on the evaluator's determination that the evaluation objectives have been met. The evaluation will include assessing the examinee's ability to successfully accomplish appropriate areas in paragraph 5.6

5.4.1.3. AWO mission evaluations will be conducted on live E-3 sorties whenever possible. The examinee will conduct weapons activity as the offensive counter-air (OCA) Air-to-Air, OCA Strike, defensive counter-air (DCA), Close Air Support (CAS), Time-Sensitive Targeting (TST), or the Air Refueling Controller during a mission profile.. If unable to accomplish a mission evaluation on a live sortie, the mission evaluation can be accomplished in the simulator. When an OCA, OCA Strike, or DCA profile is utilized, AWOs must control against a minimum of three adversary aircraft utilizing a full combat scenario. Evaluation profile sorties will be defined by the unit and will include mission characteristics defined in para 2.4.1 of this AFI. Activity must demonstrate prosecution of the air battle through the execution of operations orders (OPORDs)/operations plans (OPLANs)/Special Instructions (SPINs) IAW applicable directives with sufficiency to effectively manage the mission/battle through fighter flow, tanker management, communications, and applicable data link coordination.

5.4.1.4. There will be instances where an examinee, during the flight, accomplishes all areas required for both the qualification evaluation and the mission evaluation. In this case, the evaluation will be annotated as a QUAL/MSN evaluation. Acceptability of required activity will be based on the evaluator's determination that all areas required for a mission and a qualification evaluation have been met. Due to the qualification evaluation criteria, this will require a live E-3 Sortie. The evaluation will include assessing the examinee's ability to successfully accomplish appropriate areas.

5.4.1.5. IAWO evaluations will assess the examinee's ability to instruct a student according to the criteria in Areas 34-36 in paragraph 5.6 Initial IAWO evaluations require an IQT/MQT AWO student whenever possible. Initial IAWO evaluations may include AWO criteria for the purpose of updating expiration dates. IAWO qualification evaluations conducted in conjunction with an AWO evaluation will include appropriate areas in paragraph 5.6 During subsequent evaluations updating AWO and IAWO requirements together, the IAWO will perform instructor duties as a minimum. If the IAWO instructs during a qualification evaluation, the IAWO still has the requirement to perform AWO duties during a mission evaluation.

5.4.1.6. E-3 AWOs/IAWOs will be evaluated on live missions assigned by the Senior Director (SD). However, the evaluator is responsible for determining whether or not briefed/conducted control activities fulfill live control requirements. The specific control events not evaluated on a mission evaluation can be evaluated by simulation.

5.4.1.7. EAWOs can evaluate AWOs and IAWOs.

5.5. AWO Evaluation Objectives:

5.5.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

5.5.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

5.5.3. **Ground Phase Requisites.** The ground phase requisites are listed in paragraph 2.2.

5.6. AWO Evaluation Criteria. All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

5.6.1. Area 1--Mission Planning:

5.6.1.1. **Q.** Assisted the SD and other AWOs in mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Provided specific information on what needed to be done. Clearly defined mission goals and objectives. Solicited feedback to check understanding of mission requirements. Checked all factors applicable to assigned mission (i.e. ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts). Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Read and initialed for all items in the FCIF and read files.

5.6.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts) with errors or omissions that did not jeopardize the mission.

5.6.1.3. **U.** Performed mission planning with errors or omissions that jeopardized mission accomplishment. Checked all factors applicable to the mission (e.g., ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts) with errors or omissions that jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

5.6.2. Area 2--Briefings/Debriefings:

5.6.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings IAW AFI 11-214, and other directives. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

5.6.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and

conducted aircrew briefings/debriefings with errors or omissions which did not jeopardize mission accomplishment.

5.6.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that jeopardized mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that jeopardized mission accomplishment.

5.6.3. Area 3--Pre-mission Requirements:

5.6.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and publications posted IAW applicable directives.

5.6.3.2. **Q-.** Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Publications posted with errors or omissions that did not jeopardize mission accomplishment.

5.6.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardize mission accomplishment. Publications posted with errors or omissions that jeopardized mission accomplishment.

5.6.4. Area 4--Pre-Flight Inspections:

5.6.4.1. **Q.** Performed pre-flight inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

5.6.4.2. **Q-.** Performed pre-flight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that did not jeopardize mission accomplishment.

5.6.4.3. **U.** Performed pre-flight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that jeopardized mission accomplishment.

5.6.5. Area 5--Before Start:

5.6.5.1. **Q.** Performed before start procedures IAW applicable directives.

5.6.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

5.6.5.3. **U.** Performed before start procedures with errors or omissions that jeopardized mission accomplishment.

5.6.6. Area 6--Outbound Procedures:

5.6.6.1. **Q.** Performed equipment set up and checkout to ensure operation was IAW applicable directives. Reported status for console, communications, and other operator-tasked equipment in a timely manner.

5.6.6.2. **Q-.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that did not jeopardize mission accomplishment.

5.6.6.3. **U.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that jeopardized mission accomplishment.

5.6.7. Area 7--Console Operations and Displays:

5.6.7.1. **Q.** Interpreted/initiated/updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

5.6.7.2. **Q-.** Interpreted/initiated/updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

5.6.7.3. **U.** Interpreted/initiated/updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that jeopardized mission accomplishment.

5.6.8. Area 8--Communications Selection and Use:

5.6.8.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities and mission tasking IAW applicable directives.

5.6.8.2. **Q-.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment.

5.6.8.3. **U.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that jeopardized mission accomplishment. Communications selection and use contributed to a lack of situational awareness that jeopardized mission accomplishment.

5.6.9. Area 9--OPSEC/COMSEC/Authentication Procedures:

5.6.9.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

5.6.9.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

5.6.9.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions, or delays that jeopardized mission accomplishment or could have resulted in a security deviation/ compromise. Unable to properly authenticate within the time limit specified on the authenticator.

5.6.10. Area 10--Emergency Procedures and Equipment:

5.6.10.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crew members without delay.

5.6.10.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

5.6.10.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

5.6.11. Area 11--Sensors:

5.6.11.1. **Q.** Recognized and reported degraded sensor performance IAW applicable directives.

5.6.11.2. **Q-.** Recognized or reported degraded sensor performance with errors or omissions that did not jeopardize mission accomplishment.

5.6.11.3. **U.** Failed to recognize degraded sensor performance, or reported degraded sensor performance with errors or omissions that jeopardized mission accomplishment.

5.6.12. Area 12--Weather Information:

5.6.12.1. **Q.** Processed weather information IAW operations directives and provided updates to the aircrews upon notification of weather changes affecting mission aircraft.

5.6.12.2. **Q-.** Processed weather information or updated aircrews with weather changes with errors or omissions that did not jeopardize mission accomplishment.

5.6.12.3. **U.** Processed weather information or updated aircrews of weather changes with errors or omissions that jeopardized mission accomplishment.

5.6.13. Area 13--Special Instructions (SPINS)/Rules of Engagement (ROE):

5.6.13.1. **Q.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, Search and Rescue (SAR) procedures, and/or other SPINS guidance were understood and executed appropriate in a timely manner.

5.6.13.2. **Q-.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander with errors or omissions that did not jeopardize mission accomplishment. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and/or executed with errors or omissions or in a lengthy time period that did not jeopardize mission accomplishment.

5.6.13.3. **U.** Failed to implement SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and/or executed with errors, omissions or delays that jeopardized mission accomplishment.

5.6.14. Area 14--AWACS Monitor Procedures:

5.6.14.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

5.6.14.2. **Q-.** Performed AWACS Monitor procedures with minor errors or omissions that did not jeopardize E-3 safety.

5.6.14.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors or omissions that jeopardized E-3 safety.

5.6.15. Area 15--Airspace Coordination:

5.6.15.1. **Q.** Initiated airspace requests and verified airspace restrictions and limitations IAW applicable directives.

5.6.15.2. **Q-.** Initiated airspace requests or verified airspace restrictions and limitations with errors or omissions that did not jeopardize mission accomplishment.

5.6.15.3. **U.** Initiated airspace requests or verified airspace restrictions and limitations with errors or omissions that jeopardized mission accomplishment.

5.6.16. Area 16--Check In/Identification Procedures:

5.6.16.1. **Q.** Identified assigned aircraft using pilot reported position, radar and/or IFF/SIF return, pilot maneuvering or external sources. Identification was accomplished in a timely manner or negative radar contact was voiced. Authenticated as required and provided the aircrew with working frequency or net and time of day (TOD) (if applicable). Provided a brief situation update ("Picture") and provided requested/required information. Conducted IFF/SIF checks and advised aircrew of status. Transferred control to the working AWO (if applicable).

5.6.16.2. **Q-.** Identified assigned aircraft in a timely manner or negative radar contact was voiced. Authenticated as required, provided the aircrew with working frequency or net, provided a brief situation update ("Picture"), provided requested/required information, conducted IFF/SIF checks, advised aircrew of status, and transferred control to the working AWO (if applicable) with errors or omissions that did not jeopardize mission accomplishment.

5.6.16.3. **U.** Failed to identify assigned aircraft in a timely manner or voice negative radar contact. Authenticated as required, provided the aircrew with working frequency or net, provided a brief situation update ("Picture"), provided requested/required information, conducted IFF/SIF checks, advised aircrew of status, and transferred control to the working AWO (if applicable) with errors or omissions that jeopardized mission accomplishment.

5.6.17. Area 17--Air Combat Tactics (ACT)/Dissimilar Air Combat Tactics (DACT) or Intercept Control:

5.6.17.1. **Q.** Controlled fighters using radar and/or IFF/SIF presentations consistent with continuum of control. Kept fighters informed of all factor groups through "Picture" and threat calls. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information was accurate to within 10 degrees and 3 NM, or as briefed by flight lead. Positioned fighters to accomplish mission objectives IAW AFI 11-214 and AFTTP 3-1 consistent with briefed mission and aircraft capabilities.

5.6.17.2. **Q-**. Controlled fighters with errors or omissions that did not jeopardize mission accomplishment.

5.6.17.3. **U**. Controlled fighters with errors or omissions that jeopardized mission accomplishment. Positioning was not consistent with continuum of control and/or mission objectives.

5.6.18. Area 18--Offensive Counter-Air (OCA) Air-to-Air Control:

5.6.18.1. **Q**. Controlled fighters using radar and/or IFF/SIF presentations consistent with continuum of control and considered the enemy order of battle. Controlled force protection and/or sweep operations that effectively protected assets and/or accomplished the mission. Kept fighters informed of all factor groups through "Picture" and threat calls. Provided/ updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information is accurate to within 10 degrees and 3 NM, or as briefed by flight lead. Positioned fighters to accomplish mission objectives IAW AFI 11-214 and AFTTP 3-1 consistent with aircraft capabilities, rules of engagement, operations directives, and battle staff direction.

5.6.18.2. **Q-**. Controlled fighters with errors or omissions that did not jeopardize mission accomplishment.

5.6.18.3. **U**. Controlled fighters with errors or omissions that jeopardized mission accomplishment. Positioning was not consistent with continuum of control, mission objectives, operations directives, rules of engagement, or battle staff direction.

5.6.19. Area 19--Defensive Counter-Air (DCA) Air-to-Air Control:

5.6.19.1. **Q**. Controlled fighters using radar and/or IFF/SIF presentations consistent with continuum of control. Controlled CAP operations that effectively protected assets and/or accomplished the mission. Kept fighters informed of all factor groups through "Picture" and threat calls. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information is accurate to within 10 degrees and 3 NM, or as briefed by flight lead. Identified all factor groups as able. Positioned fighters to accomplish mission objectives IAW AFI 11-214 and AFTTP 3-1 consistent with aircraft capabilities, rules of engagement, operations directives, and battle staff direction.

5.6.19.2. **Q-**. Controlled fighters with errors or omissions that did not jeopardize mission accomplishment.

5.6.19.3. **U**. Controlled fighters with errors or omissions that jeopardized mission accomplishment. Positioning was not consistent with continuum of control, mission objectives, operations directives, rules of engagement, or battle staff direction.

5.6.20. Area 20--Offensive Counter-Air (OCA) Strike Control:

5.6.20.1. **Q**. Controlled or provided positioning assistance to aircrews using radar and/or IFF/SIF presentations. As required/requested, provided vectoring assistance to route or target points to place fighters/flights in a position to accomplish mission objectives IAW AFI 11-214 and AFTTP 3-1 consistent with aircraft capabilities, rules of engagement, threat, enemy order of battle, and battle staff direction. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under

control. Threat information is accurate to within 10 degrees and 3 NM, or as briefed by flight lead or mission commander. Provided minimum risk/safe passage and flight join up assistance as required/requested.

5.6.20.2. **Q-**. Controlled or provided positioning, vectoring, safe passage, or join up assistance with errors or omissions that did not jeopardize mission accomplishment.

5.6.20.3. **U**. Controlled or provided positioning, vectoring, safe passage, or join up assistance with errors or omissions that jeopardized mission accomplishment.

5.6.21. Area 21--Air Refueling Control:

5.6.21.1. **Q**. Controlled or provided positioning assistance to aircrews using radar and/or IFF/SIF presentations. Prioritized refueling activity and placed receivers and/or tankers in a position to accomplish mission objectives IAW AFI 11-214 (with applicable MAJCOM supplement) and AFTTP 3-1 and consistent with aircraft capabilities and battle staff direction. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information is accurate to within 10 degrees and 3 NM.

5.6.21.2. **Q-**. Controlled or provided positioning assistance to aircrews with errors or omissions that did not jeopardize mission accomplishment.

5.6.21.3. **U**. Controlled or provided positioning assistance to aircrews with errors or omissions that jeopardized mission accomplishment. Final positioning was not within air refueling parameters IAW AFI 11-214.

5.6.22. Area 22--Commit:

5.6.22.1. **Q**. Committed (computer and/or verbal, as required) airborne assets to a tactical objective consistent with rules of engagement, operations plans, battle staff and/or mission commander direction. Provided target/objective briefing IAW AFI 11-214 based on mission requirements and level of control.

5.6.22.2. **Q-**. Committed airborne assets to a tactical objective or provided a target/objective briefing with errors or omissions that did not jeopardize mission accomplishment.

5.6.22.3. **U**. Failed to commit assets consistent with rules of engagement, battle staff and/or mission commander direction. Made errors or omissions in target/objective briefing that jeopardized mission accomplishment.

5.6.23. Area 23--Hand Off/Recovery:

5.6.23.1. **Q**. Conducted hand off/recovery IAW applicable directives and in a timely manner. Transferred/accepted track symbology IAW applicable directives.

5.6.23.2. **Q-**. Conducted hand off/recovery or transferred/accepted track symbology with errors, omissions or delays that did not jeopardize mission accomplishment.

5.6.23.3. **U**. Conducted hand off/recovery or transferred/accepted track symbology with errors, omissions or delays that jeopardized mission accomplishment.

5.6.24. Area 24--Radio/Telephone (R/T) Procedures:

5.6.24.1. **Q.** Employed R/T procedures IAW AFI 11-214, AFTTP 3-1, and unit standards.

5.6.24.2. **Q-.** Employed R/T procedures with errors or omissions that did not jeopardize mission accomplishment. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety.

5.6.24.3. **U.** Employed R/T procedures with errors or omissions that jeopardized mission accomplishment. Communicated with errors/omissions that jeopardized mission accomplishment or flight safety.

5.6.25. Area 25--Post-mission:

5.6.25.1. **Q.** Received, copied, and relayed post attack information such as fuel, armament, battle damage assessments (BDAs), and in-flight reports. Passed information to appropriate crewmembers and external agencies (as applicable) IAW applicable directives.

5.6.25.2. **Q-.** Accomplished post-mission duties with errors or omissions that did not jeopardize mission accomplishment or battle management.

5.6.25.3. **U.** Accomplished post-mission duties with errors or omissions that jeopardized mission accomplishment or battle management.

5.6.26. Area 26--Internal/External Coordination/Communication:

5.6.26.1. **Q.** Understood and executed proper internal/external communications capabilities and employment for the mission. Communications were standard, clear, concise, and brief. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.

5.6.26.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge of communication procedures. Hesitant to ask questions regarding crew actions and decisions, e.g., did not effectively inquire about uncertainty of mission activity. Slow to call "terminate/knock-it-off" if/when appropriate. Did not always clearly state and acknowledge operational decisions to/from other crewmembers.

5.6.26.3. **U.** Errors and/or omissions jeopardized mission accomplishment. Failed to ask questions regarding crew actions and decisions, e.g., did not inquire about uncertainty of mission activity. Failed to speak up and state information with appropriate persistence and assertion until there was some clear resolution and decision. Failed to call "terminate/knock-it-off" if/when appropriate. Did not state and acknowledge operational decisions to/from other crewmembers.

5.6.27. Area 27--Safety (CRITICAL):

5.6.27.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

5.6.27.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

5.6.28. Area 28--Flight Discipline (CRITICAL):

5.6.28.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

5.6.28.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

5.6.29. Area 29--Airmanship (CRITICAL):

5.6.29.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

5.6.29.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety was compromised.

5.3.30. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph 2.6 of this instruction.

5.3.30. 1 Area 30--Situational Awareness (Critical)**5.3.30. 2 Area 31--Crew Coordination (Critical)****5.3.30. 3 Area 32--Risk Management/Decision Making****5.3.30. 4 Area 33--Task Management**

5.6.31. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

5.6.31.1. Area 34--Instructional Ability**5.6.31.2. Area 35--Briefings/Critique****5.6.31.3. Area 36--Demonstration and Performance****Table 5.2. Air Weapons Officer Evaluation Matrix.**

Evaluation Areas	Qual	Instr	Msn
1. Mission Planning	R		R
2. Briefings/Debriefings	R		R
3. Pre-mission Requirements	R		
4. Pre-flight Inspections	R		
5. Before Start	R		
6. Outbound Procedures	R		
7. Console Operations and Displays	R		R
8. Communications Selection and Use	R		R
9. OPSEC/COMSEC/ Authentication Procedures			R

10. Emergency Procedures and Equipment	R		
11. Sensors	R		R
12. Weather Information	R		
13. Special Instructions (SPINS)/Rules of Engagement (ROE)			R
14. AWACS Monitor Procedures	R		
15. Airspace Coordination	R		
16. Check In/Identification Procedures	R		R
17. ACT/DACT/Intercept Control	R		
18. Offensive Counter Air (OCA) Air-to-Air Control			R*
19. Defensive Counter Air (DCA) Air-to-Air Control			R*
20. Offensive Counter Air (OCA) Strike Control			R*
21. Air Refueling Control			R*
22. Commit	R		R
23. Hand Off/Recovery	R		R
24. Radio/Telephone (R/T) Procedures	R		R
25. Post-mission	R		R
26. Internal/External Coordination/Communication	R		R
27. Safety (CRITICAL)	R	R	R
28. Flight Discipline (CRITICAL)	R	R	R
29. Airmanship (CRITICAL)	R	R	R
CRM Areas			
30. Situational Awareness (Critical)	R	R	R
31. Crew Coordination (Critical)	R	R	R
32. Risk Management/Decision Making	R	R	R
33. Task Management	R	R	R
Instructor only Areas (Only required for instructor qualified crewmembers) (Note 1)			
34. Instructional Ability	R	R	R

35. Briefings/Critiques	R	R	R
36. Demonstration/Performance	R	R	R
R =Required evaluation area.			
R* = One of Areas 18-21 required for mission evaluation.			
Note 1: A grade of "U" in these areas results in an overall grade of 3 for the instructor portion of the evaluation			

Chapter 6

SURVEILLANCE EVALUATIONS

6.1. General. This chapter contains the task oriented criteria for all evaluations IAW AFI 11-202V2 and AFI 11-401. Evaluation requirements are outlined in matrices for Air Surveillance Officer (ASO), Senior Surveillance Technician (SST), and Air Surveillance Technician (AST).

6.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

6.1.2. Mission evaluations will encompass all areas identified in the evaluation matrix for the mission profile performed. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and safety of flight.

6.1.3. An individual qualified as evaluator ASO may accomplish evaluations for the ASO, SST, and AST crew positions.

6.2. Air Surveillance Officer (ASO) Qualification Flight Evaluations:

6.2.1. **General.** This section contains the task-oriented criteria for qualification and mission evaluations of Instructor ASO and ASO.

6.2.1.1. ASO qualification evaluations will be conducted on live E-3 sorties while the examinee actively supervises a surveillance team, conducting surveillance activities. ASO mission evaluations may be accomplished in the simulator, if a live mission profile sortie is unavailable.

6.2.2. Evaluation Objectives:

6.2.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

6.2.2.2. **Mission Evaluation.** Examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures, ensuring successful employment and mission accomplishment of areas 1-2, 7-15, 19-22, 25-27, 30, and 32. For a combined evaluation completed in the ATD, an EPE is only required for the qualification (flight) phase. Separate mission evaluations, such as an initial mission evaluation in the ATD, require an EPE. During a combined evaluation, Electronic Attack/ Electronic Protection (EA/EP) may be evaluated in either the Qualification or Mission phase.

6.2.2.3. **Ground Phase Requisites.** The ground phase requisites are listed in [paragraph 2.2](#)

6.2.3. **Evaluation Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

6.2.3.1. Area 1--Mission Planning:

6.2.3.1.1. **Q.** Conducted mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Clearly defined mission goals and objectives. Provided specific information on what needed to be done. Solicited feedback to check understanding of mission requirements. Checked all factors applicable to assigned mission (e.g., ROE, ACO, SPINS, weather, LOAs, ATO, lessons learned, surveillance training requirements, E-3 employment capabilities, and terrain relief maps). Obtained/developed and coordinated an ID plan that met mission needs. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Completed required mission forms. Ensured communications worksheet met surveillance mission needs. Read and initialed for all items in the FCIF and read files.

6.2.3.1.2. **Q-.** Conducted mission planning with errors or omissions that did not jeopardize mission accomplishment. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, lessons learned, surveillance training requirements, E-3 employment capabilities, and terrain relief maps) with errors or omissions that did not jeopardize the mission. Completed required mission forms or coordinated ID plan and/or communications worksheet with errors or omissions that did not jeopardize mission accomplishment.

6.2.3.1.3. **U.** Conducted mission planning with errors or omissions that jeopardized mission accomplishment. Failed to comply with directives. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, lessons learned, surveillance training requirements, E-3 employment capabilities, and terrain relief maps) with errors or omissions that jeopardized mission accomplishment. Failed to obtain/ develop and/or coordinate an effective ID plan, or ID plan did not meet mission needs. Did not complete required mission forms. Did not ensure communications worksheet met surveillance mission needs. Failed to read and initial for all items in the FCIF and read files.

6.2.3.2. **Area 2--Briefings/Debriefings:**

6.2.3.2.1. **Q.** Directed all required briefings/debriefings and extracted/provided all necessary information. Led briefings/debriefings in an organized, logical sequence IAW applicable directives and ensured the surveillance team/aircrew were thoroughly briefed on all aspects of the surveillance mission. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings IAW applicable directives. During debriefing, recapped key points/compared mission results with objectives.

6.2.3.2.2. **Q-.** Directed all required briefings/debriefings. Extracted/provided information or led briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment.

6.2.3.2.3. **U.** Failed to direct required briefings/debriefings. Extracted/provided information or led briefings/debriefings with errors or omissions that jeopardized mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that jeopardized mission accomplishment.

6.2.3.3. Area 3--Pre-mission Requirements:

6.2.3.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

6.2.3.3.2. **Q-.** Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

6.2.3.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment.

6.2.3.4. Area 4--Pre-flight Inspections:

6.2.3.4.1. **Q.** Performed pre-flight inspections IAW applicable directives. 6.2.3.4.2. **Q-.** Performed pre-flight inspections and/or determined equipment status that may have affected the mission with errors or omissions that did not jeopardize mission accomplishment.

6.2.3.4.3. **U.** Performed pre-flight inspections and/or determined equipment status that may have affected the mission with errors or omissions that jeopardized mission accomplishment.

6.2.3.5. Area 5--Before Start:

6.2.3.5.1. **Q.** Performed before start procedures IAW applicable directives.

6.2.3.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

6.2.3.5.3. **U.** Performed before start procedures with errors or omissions that jeopardized mission accomplishment.

6.2.3.6. Area 6--Outbound Procedures:

6.2.3.6.1. **Q.** Performed equipment set up and checkout to ensure operation was IAW applicable directives. Ensured timely reporting of status for console, communications, and other operator tasked equipment for the surveillance section.

6.2.3.6.2. **Q-.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that did not jeopardize mission accomplishment.

6.2.3.6.3. **U.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that jeopardized mission accomplishment.

6.2.3.7. Area 7--Assuming Station Responsibility:

6.2.3.7.1. **Q.** Accomplished systems checkout and assumed station responsibility IAW applicable directives and in a timely manner. Notified the MCC of the status of all required items not accomplished by the time on station was declared, and updated MCC as items were accomplished. Ensured surveillance section completed assigned tasks, as directed and in a timely manner. Established voice communications with voice/data link participants as required.

6.2.3.7.2. **Q-.** Accomplished systems checkout and assumed station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment. Notified the MCC of the status of most required items not accomplished by the time on station was declared, and/or delayed in updating MCC as items were accomplished.

6.2.3.7.3. **U.** Failed to comply with established requirements, procedures or directives for systems checkout and/or station assumption responsibility, causing confusion, errors, omissions, or delays that jeopardized mission accomplishment. Failed to notify the MCC of the status of required items not accomplished by the time on station was declared, and/or failed to update the MCC as items were accomplished.

6.2.3.8. Area 8--Console Operations and Displays:

6.2.3.8.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

6.2.3.8.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

6.2.3.8.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that jeopardized mission accomplishment.

6.2.3.9. Area 9—Internal/External Coordination/Communication:

6.2.3.9.1. **Q.** Coordinated with the E-3 crew and/or external agencies/participants. Determined requirements, mission changes, equipment discrepancies and limitations IAW applicable directives and without misunderstanding, confusion, or delay. Communications were standard, clear, concise, and brief. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety. Provided direction/information when needed. Adapted to meet new situational demands and

focused attention on the task. Demonstrated operational knowledge of other crew members' duties and responsibilities.

6.2.3.9.2. **Q-** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment. Had to be prompted to give direction/information. Slow to adapt to meet new situational demands and focus attention on the task. Demonstrated limited knowledge of other crew members' duties and responsibilities.

6.2.3.9.3. **U.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that jeopardized mission accomplishment. Did not provide direction/information when needed. Did not adapt to meet new situational demands and focus attention on the task. Unsatisfactory knowledge of other crew members' duties and responsibilities negatively affected mission accomplishment.

6.2.3.10. Area 10--Communications Selection and Use:

6.2.3.10.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities and mission tasking IAW applicable directives. Transmissions were concise with proper terminology. Communications selection and use optimized situational awareness.

6.2.3.10.2. **Q-** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment. Transmissions contained excessive, extraneous matter, or employed nonstandard terminology.

6.2.3.10.3. **U.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that jeopardized mission accomplishment. Improper R/T procedures caused confusion that could have reduced mission effectiveness. Communications selection and use contributed to a lack of situational awareness that jeopardized mission accomplishment.

6.2.3.11. Area 11--On Station Procedures:

6.2.3.11.1. **Q.** Performed on station procedures IAW applicable directives. Used all available assets to ensure the assigned surveillance mission was accomplished. Led the surveillance team in recognition, tracking, identification and forward/lateral tell of all data trails within the assigned/selected (AOR) to successfully accomplish mission tasking in a timely manner.

6.2.3.11.2. **Q-** Performed on station procedures with errors, omissions, or delays that did not jeopardize mission accomplishment. Slow to ensure that every data trail within the assigned/ selected AOR was recognized, tracked, identified and told.

6.2.3.11.3. **U.** Performed on station procedures with errors, omissions, or delays that jeopardized mission accomplishment. Failed to ensure that every data trail within the assigned/selected AOR was recognized, tracked, identified and told.

6.2.3.12. Area 12--EA/EP Procedures:

6.2.3.12.1. **Q.** Recognized, reported, and countered radar, IFF, and/or communications (voice and/or data link) EA. Employed and evaluated the effects of EP procedures IAW mission tasking and directives. Assigned and directed the surveillance team responses as required.

6.2.3.12.2. **Q-.** Recognized, reported, and countered radar, IFF, and/or communications EA, employed and/or evaluated the effects of EP procedures, and/or assigned and directed the surveillance team responses with errors or omissions that did not jeopardize mission accomplishment.

6.2.3.12.3. **U.** Recognized, reported, and countered radar, IFF, and/or communications EA, employed and/or evaluated the effects of EP procedures, and/or assigned and directed the surveillance team responses with errors or omissions that jeopardized mission accomplishment.

6.2.3.13. Area 13--Sensor Operations:

6.2.3.13.1. **Q.** Configured and optimized sensors to accomplish assigned mission. Monitored, recognized, analyzed, took corrective measures, and reported degraded sensor performance. Assisted the ART in identifying and correcting radar and IFF/SIF problems. Demonstrated a clear understanding of sensor theory, processing, and optimization.

6.2.3.13.2. **Q-.** Employed sensors with errors, omissions or delays that did not jeopardize mission accomplishment. Demonstrated minor deviations regarding sensor theory, processing, and/or optimization.

6.2.3.13.3. **U.** Failed to properly configure/optimize sensors for assigned mission. Employed sensors with errors, omissions or delays that jeopardized mission accomplishment. Demonstrated a lack of understanding of sensor theory, processing, and/or optimization.

6.2.3.14. Area 14--ESM Operations:

6.2.3.14.1. **Q.** Demonstrated thorough knowledge and proficiency relating to ESM systems. Configured ESM displays and settings IAW crew contracts/coordination to accomplish mission objectives.

6.2.3.14.2. **Q-.** Demonstrated minor deficiencies in knowledge and/or proficiency relating to ESM systems. Configured ESM displays and settings with minor errors or omissions that did not jeopardize mission accomplishment.

6.2.3.14.3. **U.** Demonstrated lack of knowledge and/or proficiency relating to ESM systems. Configured ESM displays and settings with errors or omissions that jeopardized mission accomplishment.

6.2.3.15. Area 15--Data Link Operations:

6.2.3.15.1. **Q.** Ensured data links were established and maintained IAW applicable directives. Analyzed and troubleshoot data link operations as required. Assisted technicians in troubleshooting link hardware problems as required. Monitored data link coordination net and/or track supervision net as required. Displayed a thorough understanding of data link operations.

6.2.3.15.2. **Q-** Performed data link procedures with errors, omissions, or delays that did not jeopardize mission accomplishment. Displayed minor deviations of understanding of data link operations.

6.2.3.15.3. **U.** Failed to maintain data links IAW published directives. Incorrect procedures caused confusion or delays that jeopardized mission accomplishment. Displayed inadequate understanding of data link operations.

6.2.3.16. Area 16. Air Refueling Procedures:

6.2.3.16.1. **Q.** Accomplished air refueling procedures IAW applicable directives and in a timely manner.

6.2.3.16.2. **Q-** Accomplished air refueling procedures with errors, omissions or delays that did not jeopardize mission accomplishment.

6.2.3.16.3. **U.** Accomplished air refueling procedures with errors, omissions or delays that jeopardized mission accomplishment.

6.2.3.17. Area 17--AWACS Monitor Procedures:

6.2.3.17.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

6.2.3.17.2. **Q-** Performed AWACS Monitor procedures with minor errors, omissions or delays that did not jeopardize E-3 safety.

6.2.3.17.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors, omissions or delays that jeopardized E-3 safety.

6.2.3.18. Area 18--Emergency Procedures and Equipment:

6.2.3.18.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crew members without delay.

6.2.3.18.2. **Q-** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

6.2.3.18.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

6.2.3.19. Area 19--OPSEC/COMSEC/Authentication Procedures:

6.2.3.19.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

6.2.3.19.2. **Q-** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

6.2.3.19.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

6.2.3.20. Area 20--Mission Execution/Battle Management:

6.2.3.20.1. **Q.** Developed and implemented the surveillance team plan of execution. Contracted with other sections of the crew and external agencies to execute an effective plan. Conducted the mission with a sense of understanding and comprehension.

6.2.3.20.2. **Q-.** Plans, contracts, or decisions degraded or prevented accomplishment of a portion of the surveillance mission. Surveillance resources were not always effectively used to the point that specific mission objectives were not achieved. Conducted the mission with errors, omissions or delays that did not jeopardize mission accomplishment. Displayed minor deviations from regulations/directives. Task prioritization, use of resources, communication, and acknowledgement of workload and task distribution were not ideal.

6.2.3.20.3. **U.** Plans, contracts, or decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Conducted the mission with errors, omissions or delays that jeopardized mission accomplishment. Demonstrated poor judgment in the use of surveillance assets to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated.

6.2.3.21. Area 21--Transferring Station Responsibility:

6.2.3.21.1. **Q.** Established communications with relieving unit, verified link status, and ensured effective transfer of link responsibility to relieving aircraft was accomplished when directed. Briefed relieving unit on appropriate surveillance information. Confirmed relieving unit had assumed surveillance station responsibilities. Debriefed voice/data net participants as required.

6.2.3.21.2. **Q-.** Performed transferring station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment.

6.2.3.21.3. **U.** Failed to debrief voice/data net participants, as required. Transferred station responsibilities with errors, omissions or delays that jeopardized mission accomplishment.

6.2.3.22. Area 22--Inbound Procedures:

6.2.3.22.1. **Q.** Performed inbound procedures IAW applicable directives.

6.2.3.22.2. **Q-.** Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

6.2.3.22.3. **U.** Performed inbound procedures with errors, omissions, or delays that jeopardized mission accomplishment.

6.2.3.23. Area 23--Descent/Before Leaving Aircraft:

- 6.2.3.23.1. **Q.** Completed descent/before leaving aircraft procedures IAW applicable directives. Accomplished inventory of surveillance classified materials. Completed logs, forms and reports as required. Entered all discrepancies in AFTO Forms 781, as required.
- 6.2.3.23.2. **Q-.** Minor deviations observed when accomplishing descent/before leaving aircraft procedures. Discrepancies entered in AFTO Forms 781 contained minor errors/omissions or caused confusion.
- 6.2.3.23.3. **U.** Failed to accomplish descent/before leaving aircraft procedures IAW applicable directives. Failed to accomplish an inventory of surveillance classified materials. Failed to complete logs, forms and reports as required. Failed to enter all discrepancies in AFTO Forms 781.
- 6.2.3.24. Area 24--Integration of Intelligence Assets:**
- 6.2.3.24.1. **Q.** Coordinated via voice or data links with intelligence assets (external agencies, Special Information System/Voice Product Net (SIS/VPN), internal assets, other) and disseminated information in a manner that enhanced aircrew awareness and mission accomplishment.
- 6.2.3.24.2. **Q-.** Coordinated with intelligence assets and disseminated intelligence information with minor errors or omissions that did not degrade aircrew awareness or jeopardize mission accomplishment.
- 6.2.3.24.3. **U.** Failed to coordinate with intelligence assets or to disseminate intelligence information. Deviations could have degraded aircrew awareness or jeopardized mission accomplishment.
- 6.2.3.25. Area 25--E-3 Self Defense:**
- 6.2.3.25.1. **Q.** Identified threats to the E-3 and notified the appropriate crewmembers. Performed retrograde procedures as directed. Familiar with affects of retrograde actions on radio and sensor coverage and performance.
- 6.2.3.25.2. **Q-.** Identified threats to the E-3, notified appropriate crewmembers, performed retrograde procedures, and explained affects of retrograde actions on radio and/or sensor coverage and/or performance with minor errors or omissions that did not jeopardize E-3 safety or mission accomplishment.
- 6.2.3.25.3. **U.** Failed to identify threats to the E-3, or to notify appropriate crewmembers. Unfamiliar with and/or unable to explain affects of retrograde actions on radio and/or sensor coverage and/or performance. Performed E-3 self defense actions with errors or omissions that jeopardized E-3 safety or mission accomplishment.
- 6.2.3.26. Area 26--Special Instructions (SPINS)/Rules of Engagement (ROE):**
- 6.2.3.26.1. **Q.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, Search and Rescue (SAR) procedures, and/or other SPINS guidance were understood, briefed to the surveillance team, and executed as appropriate in a

timely manner. Maintained acceptable situational awareness on how the surveillance team implemented these procedures.

6.2.26.2. **Q-** Implemented SPINS/ROE/ACO procedures as directed by the theater commander with errors or omissions that did not jeopardize mission accomplishment. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood, briefed to the surveillance team, and/or executed with errors, omissions or delays that did not jeopardize mission accomplishment. Situational awareness of implementation was maintained with omissions that did not jeopardize mission accomplishment.

6.2.3.26.3. **U.** Failed to implement SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and briefed to the surveillance team with errors, omissions or delays that jeopardized mission accomplishment. Examinee failed to maintain an acceptable level of situational awareness on how the surveillance team implemented these procedures.

6.2.3.27. **Area 27--Safety (CRITICAL):**

6.2.3.27.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

6.2.3.27.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

6.2.3.28. **Area 28--Flight Discipline (CRITICAL):**

6.2.3.28.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

6.2.3.28.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

6.2.3.29. **Area 29. Airmanship (CRITICAL):**

6.2.3.29.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

6.2.3.29.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

6.2.3.30. The following areas are applicable for all crewmembers. Specific criteria are included in paragraph 2.6 of this instruction.

6.2.3.30.1. **Area 30--Situational Awareness (Critical)**

6.2.3.30.2. **Area 31--Crew Coordination (Critical)**

6.2.3.30.3. **Area 32--Risk Management/Decision Making**

6.2.3.30.4. **Area 33--Task Management**

6.2.3.31. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

6.2.3.31.1. **Area 34--Instructional Ability**

6.2.3.31.2. **Area 35--Briefings/Critique**

6.2.3.31.3. **Area 36--Demonstration and Performance**

Table 6.1. Air Surveillance Officer Evaluation Matrix.

Evaluation Areas	Qual	Instr	MSN
1. Mission Planning	R		R
2. Briefings/Debriefings	R		R
3. Pre-mission Requirements	R		
4. Pre-flight Inspections	R		
5. Before Start	R		
6. Outbound Procedures	R		
7. Assuming Station Procedures	R		R
8. Console Operations and Displays	R		R
9. Internal/External Coordination	R		R
10. Communications Selection and Use	R		R
11. On Station Procedures	R		R
12. EA/EP Procedures	R		R
13. Sensor Operations	R		R
14. ESM Operations	R		R
15. Data Link Operations	R		R
16. Air Refueling Procedures	R		
17. AWACS Monitor Procedures	R		
18. Emergency Procedures and Equipment	R		R*
19. OPSEC/COMSEC/ Authentication Procedures	R		R
20. Mission Execution/Battle Management	R		R
21. Transferring Station Responsibility	R		R
22. Inbound Procedures	R		
23. Descent/Before Leaving Aircraft	R		

24. Integration of Intelligence Assets			R
25. E-3 Self Defense			R
26. Special Instructions (SPINS)/ Rules Of Engagement (ROE)			R
27. Safety (CRITICAL)	R	R	R
28. Flight Discipline (CRITICAL)	R	R	R
29. Airmanship (CRITICAL)	R	R	R
CRM Areas			
30. Situational Awareness (Critical)	R	R	R
31. Crew Coordination (Critical)	R	R	R
32. Risk Management/Decision Making	R	R	R
33. Task Management	R	R	R
Instructor only Areas (Only required for instructor qualified crewmembers) (Note 1)			
34. Instructor Ability	R	R	R
35. Briefings/Critique	R	R	R
36. Demonstration and Performance	R	R	R
R =Required evaluation area.			
R* =Required for INIT MSN evaluations only.			
Note 1: A grade of "U" in these areas results in an overall grade of 3 for the instructor portion of the evaluation			

6.3. Senior Surveillance Technician Qualification and Mission Flight Evaluations:

6.3.1. **General.** This section contains the task oriented criteria for qualification and mission evaluations of a Senior Surveillance Technician (SST) and Instructor Senior Surveillance Technician (ISST).

6.3.1.1. SST qualification evaluations will be conducted on a live E-3 sortie while the examinee actively assists the ASO in supervising a surveillance team conducting surveillance activities. SST mission evaluations may be accomplished in the simulator only if no live E-3 mission profile sorties are available.

6.3.1.2. Completion of an ISST evaluation which includes demonstration of competence as an AST qualifies the ISST to perform as an IAST or AST. Completion of an SST evaluation which includes demonstration of competence as an AST qualifies the SST to perform as an AST.

6.3.1.3. SSTs that were previously qualified as IASTs may continue to perform IAST duties under the following conditions:

6.3.1.3.1. The SST must perform IAST duties on the SST INIT QUAL evaluation and subsequent periodic SST evaluations IAW paragraph [6.4.3.27](#)

6.3.1.3.2. AF Forms 8 must include the restriction that reads as follows: "RESTRICTION: Examinee may only instruct AST crewmembers."

6.3.1.3.3. Training certification forms must include a restriction allowing the SST to instruct AST crewmembers only.

6.3.1.4. An individual qualified as evaluator SST may accomplish evaluations on SST and AST positions.

6.3.2. Evaluation Objectives:

6.3.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

6.3.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

6.3.2.3. **Ground Phase Requisites.** The ground phase requisites are listed in [Paragraph 2.2](#)

6.3.3. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2, and any criteria listed within the individual areas.

6.3.3.1. Area 1--Mission Planning:

6.3.3.1.1. **Q.** Performed and assisted the ASO in accomplishing mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Clearly defined the mission overview. Provided specific information on what needed to be done. Clearly defined mission goals and objectives. Solicited feedback to check understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Read and initialed for all items in the FCIF and read files.

6.3.3.1.2. **Q-** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

6.3.3.1.3. **U.** Performed mission planning with errors or omissions that jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

6.3.3.2. Area 2--Briefings/Debriefings:

6.3.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual

performance. During debriefing, asked for inputs from others and provided specific ways to correct errors and recapped key mission points and compared to objectives.

6.3.3.2.2. **Q-**. Attended all required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omission that did not jeopardize mission accomplishment.

6.3.3.2.3. **U**. Failed to attend required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omissions that jeopardized mission accomplishment. Did not provide team and individual performance feedback. Did not provide specific ways to correct errors and failed to recap key mission points.

6.3.3.3. Area 3--Pre-mission Requirements:

6.3.3.3.1. **Q**. Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

6.3.3.3.2. **Q-**. Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

6.3.3.3.3. **U**. Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment.

6.3.3.4. Area 4--Pre-flight Inspections:

6.3.3.4.1. **Q**. Performed pre-flight inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

6.3.3.4.2. **Q-**. Performed pre-flight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that did not jeopardize mission accomplishment.

6.3.3.4.3. **U**. Performed pre-flight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that jeopardized mission accomplishment.

6.3.3.5. Area 5--Before Start:

6.3.3.5.1. **Q**. Performed before start procedures IAW applicable directives.

6.3.3.5.2. **Q-**. Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

6.3.3.5.3. **U**. Performed before start procedures with errors or omissions that jeopardized mission accomplishment.

6.3.3.6. Area 6--Outbound Procedures:

6.3.3.6.1. **Q.** Performed set up, check-out, and ensured reporting of status for console, communications, and other operator-tasked equipment to ensure operation was IAW applicable directives.

6.3.3.6.2. **Q-.** Performed set up, check-out, or status reporting with errors or omissions that did not jeopardize mission accomplishment.

6.3.3.6.3. **U.** Performed set up, check-out, or status reporting with errors or omissions that jeopardized mission accomplishment.

6.3.3.7. Area 7--Assuming Station Procedures:

6.3.3.7.1. **Q.** Performed tasks IAW applicable directives to achieve station assumption.

6.3.3.7.2. **Q-.** Performed station assumption tasks with errors or omissions that did not jeopardize mission accomplishment.

6.3.3.7.3. **U.** Performed station assumption tasks with errors or omissions that jeopardized mission accomplishment.

6.3.3.8. Area 8--Console Operations and Displays:

6.3.3.8.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

6.3.3.8.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

6.3.3.8.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that jeopardized mission accomplishment.

6.3.3.9. Area 9--Communication:

6.4.3.9.1. **Q.** Monitored and/or assigned radios/mission nets IAW mission tasking and as directed. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations utilizing proper R/T procedures without misunderstanding, confusion, or delay. Communications were standard, clear, concise, and brief. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.

6.3.3.9.2. **Q-.** Monitored and/or used assigned radios/mission nets IAW mission tasking and as directed. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations with errors or omissions, utilizing improper R/T procedures that did not impact mission effectiveness.

6.3.3.9.3. **U.** Failed to monitor and/or use assigned radios/mission nets. Coordinated and/ or reported requirements, mission changes, equipment discrepancies or limitations, with errors or omissions, utilizing improper R/T procedures that reduced mission effectiveness or jeopardized mission accomplishment.

6.3.3.10. Area 10--Sensors:

6.3.3.10.1. **Q.** Recognized and reported degraded sensor performance IAW applicable directives and as directed by the ASO.

6.3.3.10.2. **Q-.** Recognized or reported degraded sensor performance with errors or omissions that did not jeopardize mission accomplishment.

6.3.3.10.3. **U.** Failed to recognize or report degraded sensor performance that jeopardized mission accomplishment.

6.3.3.11. Area 11--AWACS Monitor:

6.3.3.11.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

6.3.3.11.2. **Q-.** Performed AWACS Monitor procedures with minor errors, omissions or delays that did not jeopardize E-3 safety.

6.3.3.11.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors, omissions or delays that jeopardized E-3 safety.

6.3.3.12. Area 12--Tracking:

6.3.3.12.1. **Q.** Supervised/conducted tracking (recognition, initiation, continuity, and resolution of track attention conditions) IAW applicable directives.

6.3.3.12.2. **Q-.** Supervised/conducted tracking or resolution of track attention conditions with errors or omissions that did not jeopardize mission accomplishment.

6.3.3.12.3. **U.** Supervised/conducted tracking or resolution of track attention conditions with errors or omissions that jeopardized mission accomplishment.

6.3.3.13. Area 13--Identification:

6.3.3.13.1. **Q.** Conducted identification function IAW mission tasking and as directed.

6.3.3.13.2. **Q-.** Conducted identification function with errors or omissions that did not jeopardize mission accomplishment.

6.3.3.13.3. **U.** Conducted identification function with errors or omissions that jeopardized mission accomplishment.

6.3.3.14. Area 14--ESM Operations:

6.3.3.14.1. **Q.** Demonstrated thorough knowledge and proficiency relating to ESM systems. Configured ESM displays and settings IAW crew contracts/coordination to accomplish mission objectives.

6.3.3.14.2. **Q-.** Demonstrated minor deficiencies in knowledge and/or proficiency relating to ESM systems. Configured ESM displays and settings with minor errors or omissions that did not jeopardize mission accomplishment.

- 6.3.3.14.3. **U.** Demonstrated lack of knowledge and/or proficiency relating to ESM systems. Configured ESM displays and settings with errors or omissions that jeopardized mission accomplishment.
- 6.3.3.15. Area 15--Tell Functions:**
- 6.3.3.15.1. **Q.** Supervised/conducted required tell functions (voice/data link) IAW mission tasking and as directed.
- 6.3.3.15.2. **Q-.** Supervised/conducted required tell functions (voice/data link) with errors or omissions that did not jeopardize mission accomplishment.
- 6.3.3.15.3. **U.** Supervised/conducted required tell functions (voice/data link) with errors or omissions that jeopardized mission accomplishment.
- 6.3.3.16. Area 16--OPSEC/COMSEC/Authentication Procedures:**
- 6.3.3.16.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.
- 6.3.3.16.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.
- 6.3.3.16.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.
- 6.3.3.17. Area 17--EA/EP Procedures:**
- 6.3.3.17.1. **Q.** Recognized, located, tracked, and reported EA emitters, and employed EP procedures IAW mission tasking and as directed.
- 6.3.3.17.2. **Q-.** Recognized, located, tracked, and reported EA emitters, or employed EP procedures with errors or omissions that did not jeopardize mission accomplishment.
- 6.3.3.17.3. **U.** Recognized, located, tracked, and reported EA emitters, or employed EP procedures with errors or omissions that jeopardized mission accomplishment.
- 6.3.3.18. Area 18--Air Refueling Procedures:**
- 6.3.3.18.1. **Q.** Accomplished air refueling procedures IAW applicable directives.
- 6.3.3.18.2. **Q-.** Accomplished air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.
- 6.3.3.18.3. **U.** Accomplished air refueling procedures with errors or omissions that jeopardized mission accomplishment.
- 6.3.3.19. Area 19--Transferring Station Responsibility:**

6.3.3.19.1. **Q.** Established communications with relieving unit, verified link status, and ensured effective transfer of link responsibility to relieving aircraft was accomplished when directed. Debriefed voice/data net participants as required.

6.3.3.19.2. **Q-.** Performed transferring station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment.

6.3.3.19.3. **U.** Failed to debrief voice/data net participants, as required. Transferred station responsibilities with errors, omissions or delays that jeopardized mission accomplishment.

6.3.3.20. Area 20--Inbound Procedures:

6.3.3.20.1. **Q.** Performed inbound procedures IAW applicable directives.

6.3.3.20.2. **Q-.** Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

6.3.3.20.3. **U.** Performed inbound procedures with errors, omissions, or delays that jeopardized mission accomplishment.

6.3.3.21. Area 21--Descent/Before Leaving Aircraft:

6.3.3.21.1. **Q.** Completed descent/before leaving aircraft procedures IAW applicable directives. Completed logs, forms and reports as required. Entered all discrepancies in AFTO Forms 781, as required.

6.3.3.21.2. **Q-.** Minor deviations observed when accomplishing descent/before leaving aircraft procedures. Discrepancies entered in AFTO Forms 781 contained minor errors/omissions or caused confusion.

6.3.3.21.3. **U.** Failed to accomplish descent/before leaving aircraft procedures IAW applicable directives. Failed to complete logs, forms and reports as required. Failed to enter all discrepancies in AFTO Forms 781.

6.3.3.22. Area 22--Emergency Procedures and Equipment:

6.3.3.22.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

6.3.3.22.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

6.3.3.22.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation or jeopardized mission accomplishment.

6.3.3.23. Area 23--Mission Execution:

6.3.3.23.1. **Q.** Executed the assigned mission IAW applicable directives. Conducted the mission with a sense of understanding and comprehension.

- 6.3.3.23.2. **Q-** Decisions degraded or prevented accomplishment of a portion of the surveillance mission. Resources were not always effectively used to the point that specific mission objectives were not achieved. Errors, omissions or delays did not jeopardize mission accomplishment.
- 6.3.3.23.2. **U.** Decisions or lack thereof, resulted in failure to accomplish the assigned surveillance mission. Errors, omissions or delays jeopardized mission accomplishment. Demonstrated poor judgment to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated.
- 6.3.3.24. Area 24--Safety (CRITICAL):**
- 6.3.3.24.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
- 6.3.3.24.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.
- 6.3.3.25. Area 25--Flight Discipline (CRITICAL):**
- 6.3.3.25.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.
- 6.3.3.25.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.
- 6.3.3.26. Area 26--Airmanship (CRITICAL):**
- 6.3.3.26.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.
- 6.3.3.26.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.
- 6.3.3.27. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph [2.6](#) of this instruction.
- 6.3.3.27.1. **Area 27--Situational Awareness (Critical)**
- 6.3.3.27.2. **Area 28--Crew Coordination (Critical)**
- 6.3.3.27.3. **Area 29--Risk Management/Decision Making**
- 6.3.3.27.4. **Area 30--Task Management**
- 6.3.3.28. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph [2.5.4](#) of this instruction.
- 6.3.3.28.1. **Area 31--Instructional Ability**
- 6.3.3.28.2. **Area 32--Briefings/Critique**
- 6.3.3.28.3. **Area 33--Demonstration and Performance**

Table 6.2. Senior Surveillance Technician Evaluation Matrix.

Evaluation Areas	Qual	Instr	Msn
1. Mission Planning	R		R
2. Briefings/Debriefings	R		R
3. Pre-mission Requirements	R		
4. Pre-flight Inspections	R		
5. Before Start	R		
6. Outbound Procedures	R		R
7. Assuming Station Procedures	R		R
8. Console Operations and Displays	R		R
9. Communications	R		R
10. Sensors	R		R
11. AWACS Monitor	R		
12. Tracking	R		R
13. Identification	R		R
14. ESM Operations	R		R
15. Tell Functions	R		R
16. OPSEC/COMSEC/ Authentication Procedures	R		R
17. EA/EP Procedures	R		R
18. Air Refueling Procedures	R		
19. Transferring Station Responsibilities	R		
20. Inbound Procedures	R		
21. Descent/Before Leaving Aircraft	R		
22. Emergency Procedures and Equipment	R		R*
23. Mission Execution	R		R
24. Safety (CRITICAL)	R	R	R
25. Flight Discipline (CRITICAL)	R	R	R
26. Airmanship (CRITICAL)	R	R	R
CRM Areas			
27. Situational Awareness (Critical)	R	R	R

28. Crew Coordination (Critical)	R	R	R
29. Risk Management/Decision Making	R	R	R
30. Task Management	R	R	R
Instructor only Areas (Only required for instructor qualified crewmembers) (Note 1)			
31. Instructional Ability	R	R	R
32. Briefings/Critique	R	R	R
33. Demonstration and Performance	R	R	R
R =Required evaluation area.			
R* =Required for INIT MSN evaluations only.			
Note 1: A grade of “U” in these areas results in an overall grade of 3 for the instructor portion of the evaluation			

6.4. Air Surveillance Technician Qualification and Mission Flight Evaluations:

6.4.1. **General.** This section contains the task oriented criteria for qualification and mission evaluations of an Air Surveillance Technician (AST) and Instructor Air Surveillance Technician (IAST).

6.4.1.1. AST qualification evaluations will be conducted on a live E-3 sortie while the examinee actively participates in a surveillance team conducting surveillance activities. AST mission evaluations may be accomplished in the simulator only if no live E-3 mission profile sorties are available.

6.4.2. Evaluation Objectives:

6.4.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

6.4.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

6.4.2.3. **Ground Phase Requisites.** The ground phase requisites are listed in paragraph 2.2.

6.4.3. **Criteria.** All areas in this section will be graded using the grading criteria in AFI 11-202V2, and any criteria listed within the individual areas.

6.4.3.1. Area 1--Mission Planning:

6.4.3.1.1. **Q.** Performed and assisted the ASO/SST in accomplishing mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Clearly defined the mission overview. Provided specific information on what needed to be done. Clearly defined

mission goals and objectives. Solicited feedback to check understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Read and initialed for all items in the FCIF and read files.

6.4.3.1.2. **Q-**. Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.1.3. **U**. Performed mission planning with errors or omissions that jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

6.4.3.2. Area 2--Briefings/Debriefings:

6.4.3.2.1. **Q**. Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

6.4.3.2.2. **Q-**. Attended all required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omission that did not jeopardize mission accomplishment.

6.4.3.2.3. **U**. Failed to attend required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omissions that jeopardized mission accomplishment.

6.4.3.3. Area 3--Pre-mission Requirements:

6.4.3.3.1. **Q**. Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

6.4.3.3.2. **Q-**. Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.3.3. **U**. Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment.

6.4.3.4. Area 4--Pre-flight Inspections:

6.4.3.4.1. **Q**. Performed pre-flight inspections IAW applicable directives.

6.4.3.4.2. **Q-**. Performed pre-flight inspections with errors or omissions that did not jeopardize mission accomplishment.

6.5.3.4.3. **U.** Performed pre-flight inspections with errors or omissions that jeopardized mission accomplishment.

6.4.3.5. Area 5--Before Start:

6.4.3.5.1. **Q.** Performed before start procedures IAW applicable directives.

6.4.3.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.5.3. **U.** Performed before start procedures with errors or omissions that jeopardized mission accomplishment.

6.4.3.6. Area 6--Outbound Procedures:

6.4.3.6.1. **Q.** Performed set up, checkout, and reported status for console, communications, and other operator tasked equipment to ensure operation was IAW applicable directives.

6.4.3.6.2. **Q-.** Performed equipment set up, checkout, or status reporting with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.6.3. **U.** Performed equipment set up, checkout, or status reporting with errors or omissions that jeopardized mission accomplishment.

6.4.3.7. Area 7--Assuming Station Procedures:

6.4.3.7.1. **Q.** Performed tasks IAW applicable directives to achieve station assumption.

6.4.3.7.2. **Q-.** Performed station assumption tasks with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.7.3. **U.** Performed station assumption tasks with errors or omissions that jeopardized mission accomplishment.

6.4.3.8. Area 8--Console Operations and Displays:

6.4.3.8.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

6.4.3.8.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

6.4.3.8.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that jeopardized mission accomplishment.

6.4.3.9. Area 9--Communication:

6.4.3.9.1. **Q.** Monitored and/or used assigned radios/mission nets IAW mission tasking and as directed. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations, utilizing proper R/T procedures without misunderstanding, confusion, or delay. Communications were standard, clear, concise, and brief. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.

6.4.3.9.2. **Q-.** Monitored and/or used assigned radios/mission nets IAW mission tasking and as directed. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations, with errors or omissions utilizing improper R/T procedures that did not impact mission accomplishment.

6.4.3.9.3. **U.** Failed to monitor and/or use assigned radios/mission nets. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations, with errors or omissions, utilizing improper R/T procedures that reduced mission effectiveness or jeopardized mission accomplishment.

6.4.3.10. Area 10--AWACS Monitor:

6.4.3.10.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

6.4.3.10.2. **Q-.** Performed AWACS Monitor procedures with minor errors, omissions or delays that did not jeopardize E-3 safety.

6.4.3.10.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors, omissions or delays that jeopardized E-3 safety.

6.4.3.11. Area 11--Tracking:

6.4.3.11.1. **Q.** Recognized, initiated, maintained track-on-data continuity, and resolved any track attention conditions during tactical tracking event (a minimum of 20 non-maneuvering tracks may be used in lieu of tactical tracking event) IAW mission tasking or as directed. Tactical tracking event requires a minimum of 2 aircraft.

6.4.3.11.2. **Q-.** Recognized, initiated, maintained track-on-data continuity, or resolved any track attention conditions with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.11.3. **U.** Recognized, initiated, maintained track-on-data continuity, or resolved any track attention conditions with errors or omissions that jeopardized mission accomplishment.

6.4.3.12. Area 12--Identification:

6.4.3.12.1. **Q.** Conducted identification function IAW mission tasking and as directed.

6.4.3.12.2. **Q-.** Conducted identification function with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.12.3. **U.** Conducted identification function with errors or omissions that jeopardized mission accomplishment.

6.4.3.13. Area 13--Tell Functions:

6.4.3.13.1. **Q.** Conducted required tell functions (voice/data link) IAW mission tasking and as directed.

6.4.3.13.2. **Q-.** Conducted required tell functions (voice/data link) with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.13.3. **U.** Conducted required tell functions (voice/data link) with errors or omissions that jeopardized mission accomplishment.

6.4.3.14. Area 14--ESM Operations:

6.4.3.14.1. **Q.** Demonstrated thorough knowledge and proficiency relating to ESM systems. Configured ESM displays and settings IAW crew contracts/coordination to accomplish mission objectives.

6.4.3.14.2. **Q-.** Demonstrated minor deficiencies in knowledge and/or proficiency relating to ESM systems. Configured ESM displays and settings with minor errors or omissions that did not jeopardize mission accomplishment.

6.4.3.14.3. **U.** Demonstrated lack of knowledge and/or proficiency relating to ESM systems. Configured ESM displays and settings with errors or omissions that jeopardized mission accomplishment.

6.4.3.15. Area 15--OPSEC/COMSEC and Authentication Procedures:

6.4.3.15.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

6.4.3.15.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

6.4.3.15.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

6.4.3.16. Area 16--EA/EP Procedures:

6.4.3.16.1. **Q.** Recognized, located, tracked, and reports EA emitters, and employed EP procedures IAW mission tasking and as directed.

6.4.3.16.2. **Q-.** Recognized, located, tracked, and reported EA emitters, or employed EP procedures with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.16.3. **U.** Recognized, located, tracked, and reported EA emitters, or employed EP procedures with errors or omissions that jeopardized mission accomplishment.

6.4.3.17. Area 17--Air Refueling Procedures:

6.4.3.17.1. **Q.** Accomplished air refueling procedures IAW applicable directives.

6.4.3.17.2. **Q-.** Accomplished air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

6.4.3.17.3. **U.** Accomplished air refueling procedures with errors or omissions that jeopardized mission accomplishment.

6.4.3.18. Area 18--Transferring Station Responsibilities:

6.4.3.18.1. **Q.** Performed transferring station responsibility IAW mission tasking and as directed.

6.4.3.18.2. **Q-.** Performed transferring station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment.

6.4.3.18.3. **U.** Performed transferring station responsibility with errors, omissions, or delays that jeopardized mission accomplishment.

6.4.3.19. Area 19--Inbound Procedures:

6.4.3.19.1. **Q.** Performed inbound procedures IAW applicable directives.

6.4.3.19.2. **Q-.** Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

6.4.3.19.3. **U.** Performed inbound procedures with errors, omissions, or delays that jeopardized mission accomplishment.

6.4.3.20. Area 20--Descent/Before Leaving Aircraft:

6.4.3.20.1. **Q.** Completed descent/before leaving aircraft procedures IAW applicable directives. Completed logs, forms and reports as required. Entered all discrepancies in AFTO Forms 781, as required.

6.4.3.20.2. **Q-.** Minor deviations observed when accomplishing descent/before leaving aircraft procedures. Discrepancies entered in AFTO Forms 781 contained minor errors/omissions or caused confusion.

6.4.3.20.3. **U.** Failed to accomplish descent/before leaving aircraft procedures IAW applicable directives. Failed to complete logs, forms and reports as required. Failed to enter all discrepancies in AFTO Forms 781.

6.4.3.21. Area 21--Emergency Procedures and Equipment:

6.4.3.21.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

6.4.3.21.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

6.4.3.21.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation or jeopardized mission accomplishment.

6.4.3.22. Area 22--Mission Execution:

6.4.3.22.1. **Q.** Executed the assigned mission IAW mission tasking and as directed. Conducted the mission with a sense of understanding and comprehension.

6.4.3.22.2. **Q-** Decisions degraded or prevented accomplishment of a portion of the surveillance mission. Resources were not always effectively used to the point that specific mission objectives were not achieved. Errors, omissions or delays did not jeopardize mission accomplishment.

6.4.3.22.3. **U.** Decisions or lack thereof, resulted in failure to accomplish the assigned surveillance mission. Errors, omissions or delays jeopardized mission accomplishment. Demonstrated poor judgment to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated.

6.4.3.23. Area 23--Safety (CRITICAL):

6.4.3.23.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

6.4.3.23.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

6.4.3.24. Area 24--Flight Discipline (CRITICAL):

6.4.3.24.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

6.4.3.24.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

6.4.3.25. Area 25--Airmanship (CRITICAL):

6.4.3.25.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

6.4.3.25.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

6.4.3.26. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph [2.6](#) of this instruction.

6.4.3.26.1. **Area 26--Situational Awareness (Critical)**

6.4.3.26.2. **Area 27--Crew Coordination (Critical)**

6.4.3.26.3. **Area 28--Risk Management/Decision Making**

6.4.3.26.4. **Area 29--Task Management**

6.4.3.27. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

6.4.3.27.1. **Area 30--Instructional Ability**

6.4.3.27.2. **Area 31--Briefings/Critique**

6.4.3.27.3. **Area 32--Demonstration and Performance**

Table 6.3. Air Surveillance Technician Evaluation Matrix.

Evaluation Areas	Qual	Instr	Msn
1. Mission Planning	R		R
2. Briefings/Debriefings	R		R
3. Pre-mission Requirements	R		
4. Pre-flight Inspections	R		
5. Before Start	R		
6. Outbound Procedures	R		R
7. Assuming Station Procedures	R		R
8. Console Operations and Displays	R		R
9. Communication/Coordination	R		R
10. AWACS Monitor	R		
11. Tracking (Note 1)	R		R
12. Identification (Note 1)	R		R
13. Tell Functions	R		
14. ESM Operations	R		R
15. OPSEC/COMSEC/ Authentication	R		R
16. EA/EP Procedures	R		R
17. Air Refueling	R		
18. Transferring Station Responsibilities	R		R
19. Inbound Procedures	R		
20. Descent/Before Leaving Aircraft	R		
21. Emergency Procedures and Equipment	R		R*
22. Mission Execution			R
23. Safety (CRITICAL)	R	R	R

24. Flight Discipline (CRITICAL)	R	R	R
25. Airmanship (CRITICAL)	R	R	R
CRM Areas			
26. Situational Awareness (Critical)	R	R	R
27. Crew Coordination (Critical)	R	R	R
28. Risk Management/Decision Making	R	R	R
29. Task Management	R	R	R
Instructor only Areas (Only required for instructor qualified crewmembers. (Note 1))			
30. Instructional Ability	R	R	R
31. Briefings/Critique	R	R	R
32. Demonstration and Performance	R	R	R
R =Required evaluation area.			
R* =Required for INIT MSN evaluations only.			
Note 1: A grade of "U" in these areas results in an overall grade of 3 for the instructor portion of the evaluation			

Chapter 7

ELECTRONIC COMBAT OFFICER EVALUATIONS

7.1. General. This chapter contains the task oriented criteria for all evaluations IAW AFI 11-202V2 and AFI 11-401. Evaluation requirements are outlined in a matrix for the Electronic Combat Officer (ECO) and instructor Electronic Combat Officer (IECO).

7.1.1. ECO qualification evaluations will be conducted on a live E-3 sortie while the examinee actively manipulates the Electronic Support Measures (ESM) to meet specific mission taskings. ECO mission evaluations may be accomplished in the simulator only if no live E-3 mission profile sorties are available.

7.2. Evaluation Objectives:

7.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely, effectively, using appropriate flight manuals, directives, and operating procedures.

7.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix. Activity must demonstrate prosecution of the air and ground battle through the execution of Operations Orders (OPORDS)/Operations Plans (OPLANS)/Special Instructions (SPINS) IAW applicable directives with sufficiency to effectively manage the mission.

7.2.3. **Ground Phase Requisites.** The ground phase requisites are listed in paragraph 2.2.

7.3. Criteria. All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

7.3.1. Area 1--Mission Planning:

7.3.1.1. **Q.** Conducted mission planning which accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Clearly defined the mission overview. Provided specific information on what needed to be done. Clearly defined mission goals and objectives. Solicited feedback to check understanding of mission requirements. Checked all factors applicable to assigned mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts). Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Reviewed FCIF and assessed operational impact. Coordinated an ID plan which met mission needs. Completed required mission forms. Ensured communications worksheet met needs for ESM mission accomplishment. Accomplished ESM database selection, and recommended console configurations to the MCC. Read and initialed for all items in the FCIF and read files.

7.3.1.2. **Q-.** Conducted mission planning with errors or omissions that did not jeopardize mission accomplishment. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and

aeronautical charts) with errors or omissions that did not jeopardize mission accomplishment. Completed required mission forms, coordinated ID plan and/or communications worksheet, accomplished ESM database selection, and/or recommended console configurations with errors or omissions that did not jeopardize mission accomplishment.

7.3.1.3. **U.** Conducted mission planning with errors or omissions that jeopardized mission accomplishment. Failed to comply with directives. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts) with errors or omissions that jeopardized mission accomplishment. Failed to coordinate an effective ID plan, or ID plan did not meet ESM mission needs. Did not complete required mission forms. Did not ensure communications worksheet met ESM mission needs. Accomplished ESM database selection and/ or recommended console configurations with errors or omissions that jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

7.3.2. **Area 2--Briefings/Debriefings:**

7.3.2.1. **Q.** Directed all required briefings/debriefings and extracted/provided all necessary information. Directed briefings/debriefings in an organized, logical sequence IAW applicable directives and ensured the mission crew/flight crew were thoroughly briefed on all aspects of the mission. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings IAW applicable directives. During debriefing, recapped key points/ compared mission results with objectives.

7.3.2.2. **Q-.** Directed all required briefings/debriefings. Extracted/provided information or directed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment.

7.3.2.3. **U.** Failed to direct required briefings/debriefings. Extracted/provided information or directed briefings/debriefings with errors or omissions that jeopardized mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that jeopardized mission accomplishment.

7.3.3. **Area 3--Pre-mission Requirements:**

7.3.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

7.3.3.2. **Q-.** Possessed personal/professional equipment and publications with errors or omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

7.3.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment.

7.3.4. Area 4--Pre-flight Inspections:

7.3.4.1. **Q.** Performed pre-flight inspections IAW applicable directives. 7.3.4.2. **Q-.** Performed pre-flight inspections and/or determined equipment status that may have affected the mission with errors or omissions that did not jeopardize mission accomplishment.

7.3.4.3. **U.** Performed pre-flight inspections and/or determined equipment status that may have affected the mission with errors or omissions that jeopardized mission accomplishment.

7.3.5. Area 5--Before Start:

7.3.5.1. **Q.** Performed before start procedures IAW applicable directives.

7.3.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

7.3.5.3. **U.** Performed before start procedures with errors or omissions that jeopardized mission accomplishment.

7.3.6. Area 6--Outbound Procedures:

7.3.6.1. **Q.** Performed equipment set up and checkout to ensure operation was IAW applicable directives. Reported status for console, communications, and other operator tasked equipment in a timely manner.

7.3.6.2. **Q-.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that did not jeopardize mission accomplishment.

7.3.6.3. **U.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that jeopardized mission accomplishment.

7.3.7. Area 7--Assuming Station Responsibility:

7.3.7.1. **Q.** Accomplished ESM system checkout and assumed station responsibility IAW applicable directives and in a timely manner. Established voice communications with ESM participants as required. Initiated ESM operations and configured ESM for mission use.

7.3.7.2. **Q-.** Accomplished ESM checkout and assumed station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment.

7.3.7.3. **U.** Failed to comply with established requirements, procedures or directives for ESM system checkout and/or station assumption responsibility, causing confusion, errors, omissions, or delays that jeopardized mission accomplishment.

7.3.8. Area 8--Console Operations and Displays:

7.3.8.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

7.3.8.2. **Q-**. Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

7.3.8.3. **U**. Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that jeopardized mission accomplishment.

7.3.9. Area 9—Internal/External Coordination/Communication:

7.3.9.1. **Q**. Coordinated with the E-3 crew and/or external agencies clearly and concisely. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Advocated specific courses of action. Did not let rank differences affect mission safety. Determined requirements, mission changes, equipment discrepancies and limitations IAW applicable directives and without misunderstanding, confusion, or delay.

7.3.9.2. **Q-**. Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

7.3.9.3. **U**. Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that jeopardized mission accomplishment.

7.3.10. Area 10--Communications Selection and Use:

7.3.10.1. **Q**. Selected communications and operated equipment based on performance capabilities and mission tasking IAW applicable directives. Communications selection and use optimized situational awareness.

7.3.10.2. **Q-**. Selected communications or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment.

7.3.10.3. **U**. Selected communications or operated equipment based on performance capabilities or mission tasking with errors or omissions that jeopardized mission accomplishment. Communications selection and use contributed to a lack of situational awareness that jeopardized mission accomplishment.

7.3.11. Area 11--ESM Operations:

7.3.11.1. **Q**. Manipulated PDS displays, database, and scan strategy to meet mission requirements. Performed functional analysis and accurate electronic identification. Monitored TDs and SDs and identified loss of/inconsistent data.

7.3.11.2. **Q-**. Performed ESM operations with errors or omissions that did not jeopardize mission accomplishment.

7.3.11.3. **U.** Performed ESM operations with errors or omissions that jeopardized mission accomplishment.

7.3.12. Area 12--Signal of Interest Location and Reporting:

7.3.12.1. **Q.** Monitored and controlled ESM information in data links. Used active and passive means to locate signals of interest (SOIs). Located ground/surface SOIs, correlated air SOIs, and maintained logs IAW applicable directives. Report SOIs to crew and external agencies as required.

7.3.12.2. **Q-.** Performed SOI location and reporting with errors or omissions that did not jeopardize mission accomplishment.

7.3.12.3. **U.** Performed SOI location and reporting with errors or omissions that jeopardized mission accomplishment.

7.3.13. Area 13--ESM System Analysis and Troubleshooting:

7.3.13.1. **Q.** Recognized and identified problems and determined their causes. Coordinated with technicians to identify and correct hardware problems. Adjusted ESM parameters and/or recommended orbit changes to overcome ESM problems as required.

7.3.13.2. **Q-.** Performed ESM system analysis and troubleshooting with errors or omissions that did not jeopardize mission accomplishment.

7.3.13.3. **U.** Performed ESM system analysis and troubleshooting with errors or omissions that jeopardized mission accomplishment.

7.3.14. Area 14--Air Refueling Procedures:

7.3.14.1. **Q.** Accomplished air refueling procedures IAW applicable directives and in a timely manner.

7.3.14.2. **Q-.** Accomplished air refueling procedures with errors, omissions or delays that did not jeopardize mission accomplishment.

7.3.14.3. **U.** Accomplished air refueling procedures with errors, omissions or delays that jeopardized mission accomplishment.

7.3.15. Area 15--AWACS Monitor Procedures:

7.3.15.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

7.3.15.2. **Q-.** Performed AWACS Monitor procedures with minor errors or omissions that did not jeopardize E-3 safety.

7.3.15.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors, omissions or delays that jeopardized E-3 safety.

7.3.16. Area 16--Emergency Procedures and Equipment:

7.3.16.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crew members without delay.

7.3.16.2. **Q-**. Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

7.3.16.3. **U**. Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation or jeopardized mission accomplishment.

7.3.17. Area 17--OPSEC/COMSEC/Authentication Procedures:

7.3.17.1. **Q**. Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

7.3.17.2. **Q-**. Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

7.3.17.3. **U**. Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

7.3.18. Area 18--Mission Execution/Battle Management:

7.3.18.1. **Q**. Developed and implemented a plan of execution that provided appropriate ESM support to other sections of the crew and external agencies to accomplish mission objectives. Conducted the mission with a sense of understanding and comprehension.

7.3.18.2. **Q-**. Decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved. Errors, omissions or delays did not jeopardize mission accomplishment.

7.3.18.3. **U**. Plans, contracts, or decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Errors, omissions or delays jeopardized mission accomplishment. Demonstrated poor judgment in the use of ESM assets to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated.

7.3.19. Area 19--Inbound Procedures:

7.3.19.1. **Q**. Performed inbound procedures IAW applicable directives.

7.3.19.2. **Q-**. Performed inbound procedures with errors, omissions or delays that did not jeopardize mission accomplishment.

7.3.19.3. **U**. Performed inbound procedures with errors, omissions or delays that jeopardized mission accomplishment.

7.3.20. Area 20--Descent/Before Leaving Aircraft:

7.3.20.1. **Q.** Completed descent/before leaving aircraft procedures IAW applicable directives. Accomplished inventory of ESM related classified materials. Completed logs, forms and reports as required. Entered all discrepancies in AFTO Forms 781, as required.

7.3.20.2. **Q-.** Minor deviations observed when accomplishing descent/before leaving aircraft procedures. Discrepancies entered in AFTO Forms 781 contained minor errors/omissions or caused confusion.

7.3.20.3. **U.** Failed to accomplish descent/before leaving aircraft procedures IAW applicable directives. Failed to accomplish an inventory of ESM related classified materials. Failed to complete logs, forms and reports as required. Failed to enter all discrepancies in AFTO Forms 781.

7.3.21. Area 21--Integration of Intelligence Assets:

7.3.21.1. **Q.** Coordinated ESM data via voice or data links with intelligence assets (external agencies, SIS/VPN, internal assets, other) and disseminated ESM information in a manner that enhanced aircrew awareness and mission accomplishment.

7.3.21.2. **Q-.** Coordinated ESM data with intelligence assets and disseminated ESM information with minor errors or omissions that did not degrade aircrew awareness or mission accomplishment.

7.3.21.3. **U.** Failed to coordinate ESM data with intelligence assets or to disseminate ESM information. Deviations degraded aircrew awareness or mission accomplishment.

7.3.22. Area 22--E-3 Self Defense:

7.3.22.1. **Q.** Identified threats to the E-3 and notified the appropriate crewmembers. Performed retrograde procedures as directed. Familiar with affects of retrograde actions on ESM coverage and performance.

7.3.22.2. **Q-.** Identified threats, notified appropriate crewmembers, performed retrograde procedures, and explained affects of retrograde actions with minor errors and omissions that did not jeopardize E-3 safety or mission accomplishment.

7.3.22.3. **U.** Failed to identify threats or notify appropriate crewmembers. Unfamiliar with and/or unable to explain affects of retrograde actions on ESM coverage or performance. Errors and omissions jeopardized E-3 safety or mission accomplishment.

7.3.23. Area 23-- Special Instructions (SPINS)/Rules of Engagement (ROE)/Airspace Control Order (ACO):

7.3.23.1. **Q.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander . Recognized hostile/harassment acts, and accomplished safe passage procedures as required. Responded to ROE situation according to directives.

7.3.23.2. **Q-.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander with errors or omissions that did not jeopardize mission accomplishment. Electronic identification procedures, engagement authorization, SAR procedures, and/or other SPINS/ROE/ACO guidance were understood and/or executed with errors, omissions or delays that did not jeopardize mission accomplishment.

7.3.23.3. **U.** Failed to implemented SPINS/ROE/ACO procedures as directed by the theater commander, jeopardized mission accomplishment.

7.3.24. Area 24--ECO Control:

7.3.24.1. **Q.** Coordinated/passed target or threat information on Signals of Interest (SOI) and provided air battle management/threat awareness to aircraft under ECO control. Directed retrograde actions in coordination with the weapons team IAW SPINS/ROE/mission brief. Recognized safety of flight conflicts and took corrective actions.

7.3.24.2. **Q-.** Controlled aircraft with errors or omissions that did not jeopardize mission accomplishment.

7.3.24.3. **U.** Controlled aircraft with errors or omissions that jeopardized mission accomplishment. Failed to coordinate/pass target or threat information on SOI. Did not provide air battle management/threat awareness and/or direct retrograde actions when required. Did not recognize safety of flight conflicts nor take corrective action.

7.3.25. Area 25--Radio/Telephone R/T Procedures:

7.3.25.1. **Q.** Employed R/T procedures IAW AFI 11-214, AFTTP 3-1 and Wing Standards.

7.3.25.2. **Q-.** Employed R/T procedures with errors or omissions that did not jeopardize mission accomplishment.

7.3.25.3. **U.** Employed R/T procedures with errors or omissions that jeopardize mission accomplishment

7.3.26. Area 26--Safety (CRITICAL):

7.3.26.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

7.3.26.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

7.3.27. Area 27--Flight Discipline (CRITICAL):

7.3.27.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

7.3.27.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

7.3.28. Area 28. --Airmanship (CRITICAL):

7.3.28.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

7.3.28.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

7.3.29. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph 2.6 of this instruction

7.3.29.1. **Area 29--Situational Awareness (Critical)**

7.3.29.2. **Area 30--Crew Coordination (Critical)**

7.3.29.3. **Area 31--Risk Management/Decision Making**

7.3.29.4. **Area 32--Task Management**

7.3.30. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

7.3.30.1. **Area 33--Instructional Ability**

7.3.30.2. **Area 34--Briefings/Critique**

7.3.30.3. **Area 35--Demonstration and Performance**

Table 7.1. Electronic Combat Officer Evaluation Matrix.

Evaluation Areas	Qual	Instr	Msn
1. Mission Planning	R		R
2. Briefings/Debriefings	R		R
3. Pre-mission Requirements	R		
4. Pre-flight Inspections	R		
5. Before Start	R		
6. Outbound Procedures	R		
7. Assuming Station Procedures	R		
8. Console Operations and Displays	R		R
9. Internal/External Coordination	R		R
10. Communications Selection and Use	R		R
11. ESM Operations	R		R
12. Signal of Interest Location and Reporting	R		R
13. ESM System Analysis and Troubleshooting	R		R
14. Air Refueling Procedures	R		
15. AWACS Monitor Procedures	R		
16. Emergency Procedures and Equipment	R		R
17. OPSEC/COMSEC/Authentication Procedures	R		R
18. Mission Execution/Battle Management	R		R

19. Inbound Procedures	R		
20. Descent/Before Leaving Aircraft	R		
21. Integration of Intelligence Assets			R
22. E-3 Self Defense			R
23. Rules of Engagement (ROE)			R
24. ECO Control (Notes 1)			R
25. Radio/Telephone (R/T) procedures	R		R
26. Safety (CRITICAL)	R	R	R
27. Flight Discipline (CRITICAL)	R	R	R
28. Airmanship (CRITICAL)	R	R	R
CRM Areas			
29. Situational Awareness (Critical)	R	R	R
30. Crew Coordination (Critical)	R	R	R
31. Risk Management/Decision Making	R	R	R
32. Task Management	R	R	R
Instructor only Areas (Only required for instructor qualified crewmembers) (Note 2)			
33. Instructional Ability	R	R	R
34. Briefings/Critique	R	R	R
35. Demonstration/Performance	R	R	R
R=Required evaluation area.			
NOTE 1: Evaluation of this area is not required for AFRC units. Evaluation of PACAF ECO's is only required if PACAF unit CC has designated ECO to perform control functions. This requirement may be accomplished in the ATD.			
NOTE 2: A grade of "U" in these areas results in an overall grade of 3 for the instructor portion of the evaluation			

Chapter 8

BATTLE DIRECTOR TECHNICIAN QUALIFICATION FLIGHT EVALUATIONS

8.1. General. This chapter contains the task-oriented criteria for qualification evaluations IAW AFI 11-202V2 and AFI 11-401. Evaluation requirements are outlined in matrices for Battle Director Technician (BDT) and Instructor Battle Director Technician (IBDT).

8.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

8.1.2. BDT qualification evaluations will be conducted on a live E-3 sortie while the examinee actively coordinates with a NORAD agency. Items not completed in-flight may be accomplished in the simulator or using a verbal tabletop scenario.

8.2. Evaluation Objectives:

8.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

8.2.2. **Ground Phase Requisites.** The ground phase requisites are listed in paragraph 2.2.

8.3. Criteria. All areas in this section will be graded using the grading policy in AFI 11-202V2, and any criteria listed within the individual areas.

8.3.1. Area 1--Mission Planning:

8.3.1.1. **Q.** Assisted the Mission Crew Commander/Mission Director/Mission Advisor (MCC/MD/MA) in accomplishing mission planning that accounted for known mission tasking, Rules of Engagement (ROE), Command/Control/Communications (C3) arrangements, and battle plans from planning/tasking documents IAW applicable directives. Clearly defined the mission overview. Provided specific information on what needed to be done. Clearly defined mission goals and objectives. Solicited feedback to check understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Prepares NORAD Mission Kit (NMK) material, ensuring all required material is current, available and serviceable. Read and initialed for all items in the FCIF and read files.

8.3.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

8.3.1.3. **U.** Performed mission planning with errors or omissions that jeopardized mission accomplishment.

8.3.2. Area 2--Briefings/Debriefings:

8.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided

specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

8.3.2.2. **Q-**. Attended all required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omission that did not jeopardize mission accomplishment.

8.3.2.3. **U**. Failed to attend required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omissions that jeopardized mission accomplishment.

8.3.3. **Area 3--Pre-mission Requirements:**

8.3.3.1. **Q**. Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives. Assessed information (i.e. FCIF, MORF, etc.) for impact on mission activities. Confirmed agency(ies) exercising operational command/control.

8.3.3.2. **Q-**. Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment. Errors or omissions were made in confirming and assessing information concerning mission impact that did not jeopardize mission accomplishment.

8.3.3.3. **U**. Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment. Errors or omissions were made in confirming and assessing information concerning mission impact that jeopardize mission accomplishment.

8.3.4. **Area 4--Pre-flight Inspections/Interior:**

8.3.4.1. **Q**. Performed pre-flight/interior inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

8.3.4.2. **Q-**. Performed pre-flight/interior inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that did not jeopardize mission accomplishment.

8.3.4.3. **U**. Performed pre-flight/interior inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that jeopardized mission accomplishment.

8.3.5. **Area 5--Before Start:**

8.3.5.1. **Q**. Performed before start procedures IAW applicable directives.

8.3.5.2. **Q-**. Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

8.3.5.3. **U**. Performed before start procedures with errors or omissions that jeopardized mission accomplishment.

8.3.6. **Area 6—Internal/External Coordination/Communication:**

8.3.6.1. **Q.** Coordinated with the E-3 crew and/or external agencies/participants. Determined requirements, mission changes, equipment discrepancies and limitations IAW applicable directives and without misunderstanding, confusion or delay. Communications were standard, clear, concise, and brief. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.

8.3.6.2. **Q-.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion or delays that did not jeopardize mission accomplishment.

8.3.6.3. **U.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that jeopardized mission accomplishment.

8.3.7. Area 7--Outbound Procedures:

8.3.7.1. **Q.** Performed set up, check-out, and ensured reporting of status for console (if applicable), communications, and other operator-tasked equipment to ensure operation was IAW applicable directives.

8.3.7.2. **Q-.** Performed set up, check-out, or status reporting with errors or omissions that did not jeopardize mission accomplishment.

8.3.7.3. **U.** Performed set up, check-out, or status reporting with errors or omissions that jeopardized mission accomplishment.

8.3.8. Area 8—Assuming Station Responsibility:

8.3.8.1. **Q.** Confirmed that required radios were available, communications checks had been completed, and radio coverage was adequate for assigned AOR. Assessed required communications systems status to ensure capability existed to complete mission tasks and assume Ops Normal/On Station responsibility. Monitored appropriate nets and ensured appropriate agencies were notified of E-3 status and limitations as directed.

8.3.8.2. **Q-.** Performed assuming station responsibilities with errors, omissions, or delays that did not jeopardize mission accomplishment.

8.3.8.3. **U.** Performed assuming station responsibilities with errors, omissions, or delays that jeopardized mission accomplishment.

8.3.9. Area 9--Communications Selection and Use:

8.3.9.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities and mission tasking IAW applicable directives. Transmissions were concise with proper terminology. Communications selection and use optimized situational awareness.

8.3.9.2. **Q-.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment. Transmissions contained excessive, extraneous matter, or employed nonstandard terminology.

8.3.9.3. **U.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that jeopardized mission accomplishment. Improper R/T procedures caused confusion that reduced mission effectiveness. Communications selection and use contributed to a lack of situational awareness that jeopardized mission accomplishment.

8.3.10. Area 10--Classified/COMSEC Material:

8.3.10.1. **Q.** Controlled and used/handled classified/COMSEC material IAW applicable directives.

8.3.10.2. **Q-.** Controlled and used/handled classified/COMSEC material with errors or omissions that did not jeopardize mission accomplishment or result in a security deviation.

8.3.10.3. **U.** Controlled or used/handled classified/COMSEC material with errors or omissions that jeopardized mission accomplishment or could have resulted in a security deviation or compromise.

8.3.11. Area 11--Emergency Procedures and Equipment:

8.3.11.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

8.3.11.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

8.3.11.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

8.3.12. Area 12--Situation Update:

8.3.12.1. **Q.** Obtained the latest available intelligence situation for the MCC/MD/MA prior to the pre-mission briefing and updated as necessary. Contacted Air Warning Center (AWC), Region and /or Sector as directed for OPCON/TACON information. Interpreted and briefed MCC/MD/MA on command and control situation update messages and resources status information IAW applicable directives.

8.3.12.2. **Q-.** Obtained, interpreted, briefed or updated intelligence situation with errors, omissions, or delays that did not jeopardize mission accomplishment.

8.3.12.3. **U.** Obtained, interpreted, briefed or updated intelligence situation with errors, omissions, or delays that jeopardized mission accomplishment.

8.3.13. Area 13--Authorities:

8.3.13.1. **Q.** Interpreted and briefed MCC/MD/MA on tabular report (TABs) and formatted messages to determine authorities, area of responsibility (AOR), centralized/decentralized control level, command and control indicator (CCIs), resources, weapons readiness states (WRSs), defense conditions (DEFCONs), and readiness

postures (RPs). Briefed centralized/decentralized control procedures and responsibilities under level 1, 2, and 3 decentralized control conditions. Prepared Emergency Action Message (EAM) format to assume command authority, as applicable/directed.

8.3.13.2. **Q-**. Interpreted TABs, formatted messages, or centralized/decentralized control procedures or /MCC/MD/MA authorities with errors, omissions, or delays that did not jeopardize command authority, assumption of command, or mission accomplishment.

8.3.13.3. **U**. Interpreted TABs, formatted messages, or centralized/decentralized control procedures for MCC/MD/MA authorities with errors, omissions, or delays that jeopardized command authority, assumption of command, or mission accomplishment.

8.3.14. Area 14--Rules of Engagement (ROE):

8.3.14.1. **Q**. Briefed the MCC/MD/MA on implementing ROE procedures for peacetime, transition, and wartime conditions to include correct fighter tactics, US/Canadian sovereign airspace limits, recognition of hostile/harassment acts, and choice of correct divert bases. Provided MCC/MD/MA with ROE flow charts and regulations IAW applicable directives.

8.3.14.2. **Q-**. Briefed ROE procedures with errors or omissions that did not jeopardize completion of ROE actions.

8.3.14.3. **U**. Briefed ROE procedures with errors or omissions that jeopardized completion of ROE actions.

8.3.15. Area 15--Mission Execution/Battle Management:

8.3.15.1. **Q**. Assisted MCC/MD/MA in the execution of the assigned mission by ensuring a continuous flow of battle management information in a timely, effective manner with a sense of understanding and comprehension. Correctly prepared for expected or contingency situations. Briefed the MCC/MD/MA on the execution of operations orders (OPORDs)/operations plans (OPLANS) IAW applicable directives to include fighter generation, dispersal, and Marshalling procedures. Employed EAM encoding/decoding procedures to include validity checks, command applicability checks, sector unit formats, automatic options, and use of authenticators. Assisted MCC/MD/MA in interpreting earliest possible arrival times (EPATs) and autonomous operations. Opened and maintained mission log IAW applicable directives.

8.3.15.2. **Q-**. Assisted the MCC/MD/MA in the execution of the assigned mission by ensuring a continuous flow of battle management information in a timely, effective manner with a sense of understanding and comprehension with errors, omissions, or delays that did not jeopardize mission accomplishment. Prepared for expected or contingency situations, briefed MCC/MD/MA on the execution of OPORDs/OPLANS, IAW applicable directives to include fighter generation, dispersal, and Marshalling procedures to include validity checks, command applicability checks, sector unit formats, automatic options, and use of authenticators, and assisted MCC/MD/MA in interpreting EPATS and autonomous operations with errors, omissions, or delays that did not jeopardize mission accomplishment. Opened and maintained mission log with errors, omissions or delays that did not jeopardize mission accomplishment.

8.3.15.3. **U.** Assisted the MCC/MD/MA in the execution of the assigned mission by ensuring a continuous flow of battle management information in a timely, effective manner with a sense of understanding and comprehension with errors, omissions, or delays that jeopardize mission accomplishment. Prepared for expected or contingency situations, briefed MCC/MD/MA on the execution of OPODs/OPLANS IAW applicable directives to include fighter generation, dispersal, and Marshalling procedures, employed EAMs encoding/decoding procedures to include validity checks, command applicability checks, sector unit formats, automatic options, and use of authenticators, and assisted MCC/MD/MA in interpreting EPATS and autonomous operations with errors, omissions, or delays that jeopardized mission accomplishment. Failed to open and maintain mission log IAW applicable directives or opened and maintained mission log with errors, omissions or delays that could have jeopardized mission accomplishment.

8.3.16. Area 16--Air Refueling:

8.3.16.1. **Q.** Accomplished Air Refueling Procedures IAW applicable directives.

8.3.16.2. **Q-.** Accomplished Air Refueling Procedures with errors or omissions that did not jeopardize mission accomplishment.

8.3.16.3. **U.** Accomplished Air Refueling Procedures with errors or omissions that jeopardized mission accomplishment.

8.3.17. Area 17--Inbound:

8.3.17.1. **Q.** Performed Inbound Procedures IAW applicable directives.

8.3.17.2. **Q-.** Performed Inbound Procedures with errors or omissions that did not jeopardize mission accomplishment.

8.3.17.3. **U.** Performed Inbound Procedures with errors or omissions that jeopardized mission accomplishment.

8.3.18. Area 18--Descent Procedures:

8.3.18.1. **Q.** Performed Descent Procedures IAW applicable directives.

8.3.18.2. **Q-.** Performed Descent Procedures with errors or omissions that did not jeopardize mission accomplishment.

8.3.18.3. **U.** Performed Descent Procedures with errors or omissions that jeopardized mission accomplishment.

8.3.19. Area 19--Before Leaving Airplane Procedures:

8.3.19.1. **Q.** Performed Before Leaving Airplane Procedures IAW directives. Completed logs, forms and reports as required. Entered all discrepancies in AFTO Forms 781, as required.

8.3.19.2. **Q-.** Performed Before Leaving Airplane Procedures with errors or omissions that did not jeopardize mission accomplishment. Discrepancies entered in AFTO Forms 781 contained minor errors/omissions or caused confusion.

8.3.19.3. **U.** Performed Before Leaving Airplane Procedures with errors or omissions that jeopardize mission accomplishment. Failed to complete logs, forms and reports as required. Failed to enter discrepancies in AFTO Form 781.

8.3.20. Area 20--Safety (CRITICAL):

8.3.20.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

8.3.20.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

8.3.21. Area 21--Flight Discipline (CRITICAL):

8.3.21.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

8.3.21.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

8.3.22. Area 22. --Airmanship (CRITICAL):

8.3.22.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

8.3.22.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

8.3.23. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph 2.6 of this instruction.

8.3.23.1. **Area 23--Situational Awareness (Critical)**

8.3.23.2. **Area 24--Crew Coordination (Critical)**

8.3.23.3. **Area 25--Risk Management/Decision Making**

8.3.23.4. **Area 26--Task Management**

8.3.24. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

8.3.24.1. **Area 27--Instructional Ability**

8.3.24.2. **Area 28--Briefings/Critique**

8.3.24.3. **Area 29--Demonstration and Performance**

Table 8.1. Battle Director Technician Evaluation Matrix.

Evaluation Areas	Qual	Instr
1. Mission Planning	R	
2. Briefings/Debriefings	R	

3. Pre-mission Requirements	R	
4. Pre-flight Inspections	R	
5. Before Start	R	
6. Internal/External Coordination	R	
7. Outbound Procedures	R	
8. Assuming Station Responsibility	R	
9. Communications Selection and Use	R	
10. Classified/COMSEC Material Handling Procedures	R	
11. Emergency Procedures and Equipment	R	
12. Situation Update	R	
13. Authorities	R	
14. Rules of Engagement (ROE)	R	
15. Mission Execution/Battle Management	R	
16. Air Refueling Procedures	R	
17. Inbound Procedures	R	
18. Descent Procedures	R	
19. Before Leaving Airplane Procedures	R	
20. Safety (CRITICAL)	R	R
21. Flight Discipline (CRITICAL)	R	R
22. Airmanship (CRITICAL)	R	R
CRM Areas		
23. Situational Awareness (Critical)	R	R
24. Crew Coordination (Critical)	R	R
25. Risk Management/Decision Making	R	R
26. Task Management	R	R
Instructor only Areas		
27. Instructional Ability	R	R
28. Briefings/Critique	R	R

29. Demonstration and Performance	R	R
R = Required evaluation area.		

Chapter 9

AIRBORNE TECHNICIAN EVALUATIONS

9.1. General. This chapter contains the task oriented criteria for all evaluations IAW AFI 11-202V2, and AFI 11-401. Evaluation requirements are outlined in matrices for Communications Systems Operator (CSO), Communications Technician (CT), Computer Display Maintenance Technician (CDMT), Airborne Radar Technician (ART).

9.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

9.2. Airborne Communications Specialist Qualification Flight Evaluations:

9.2.1. **General.** This section contains the task-oriented criteria for qualification evaluations of an Airborne Communications Specialist (ACS) performing duties as the CSO, Instructor Communications Systems Operator (ICSO), CT, and Instructor Communications Technician (ICT).

9.2.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix for the position performed. The examinee must demonstrate a degree of knowledge and proficiency as described in the positional task listing essential for successful mission accomplishment and safety of flight. Examinee must demonstrate the ability to operate, manage and maintain all equipment associated with the position performed. Evaluations will be performed upon the completion of initial qualification training, career enhancement training (CET), instructor upgrade training and recurring evaluations. Crewmembers completing CET will receive an evaluation in the CSO position and an evaluation in the CT position making them dual qualified. Dual qualified crewmembers will receive recurring evaluations in both the CSO and CT position. Aircraft configuration may dictate that additional systems be evaluated if the examinee has been trained and certified in those systems. CSO/CT qualification evaluations will be conducted on a live E-3 sortie.

9.2.2. Evaluation Objectives:

9.2.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, FLIP and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix in the CSO or CT position. If a dual qualified examinee performs a task of the opposite position, the examinee must demonstrate the ability to safely and effectively accomplish that task.

9.2.3. **Ground Phase Requisites.** The ground phase requisites are listed in paragraph 2.2.

9.2.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

9.2.4.1. Area 1--Mission Planning:

9.2.4.1.1. **Q.** Performed mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Clearly defined the mission overview. Provided specific information on what needed to be done. Clearly defined mission goals and objectives. Solicited feedback to check understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies. Read and initialed for all items in the FCIF and read files.

9.2.4.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

9.2.4.1.3. **U.** Performed mission planning with errors or omissions that jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

9.2.4.2. Area 2--Briefings/Debriefings:

9.2.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

9.2.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

9.2.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that jeopardized mission accomplishment or maintenance analysis.

9.2.4.3. Area 3--Pre-mission Requirements:

9.2.4.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

9.2.4.3.2. **Q-.** Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omission that did not jeopardize mission accomplishment.

9.2.4.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain it in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment.

9.2.4.4. Area 4--Pre-flight Inspection:

9.2.4.4.1. **Q.** Performed pre-flight inspection IAW applicable directives.

- 9.2.4.4.2. **Q-** Performed pre-flight inspection with errors or omissions that did not jeopardize mission accomplishment.
- 9.2.4.4.3. **U.** Performed pre-flight inspection with errors or omissions that jeopardized mission accomplishment.
- 9.2.4.5. **Area 5--Before Start/Taxi:**
- 9.2.4.5.1. **Q.** Performed before start/taxi procedures IAW applicable directives.
- 9.2.4.5.2. **Q-** Performed before start/taxi procedures with errors or omissions that did not jeopardize mission accomplishment.
- 9.2.4.5.3. **U.** Performed before start/taxi procedures with errors or omissions that jeopardized mission accomplishment.
- 9.2.4.6. **Area 6-- Internal/External Coordination/Communication:**
- 9.2.4.6.1. **Q.** Coordinated and/or reported requirements, mission changes and limitations IAW applicable directives without misunderstanding, confusion, or delay. Communications were standard, clear, concise, and brief. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.
- 9.2.4.6.2. **Q-** Coordinated and/or reported with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.
- 9.2.4.6.3. **U.** Coordinated and/or reported with errors, omissions, misunderstanding, confusion, or delays that jeopardized mission accomplishment.
- 9.2.4.7. **Area 7--Outbound Procedures:**
- 9.2.4.7.1. **Q.** Performed outbound procedures IAW applicable directives.
- 9.2.4.7.2. **Q-** Performed outbound procedures with errors or omissions that did not jeopardize mission accomplishment.
- 9.2.4.7.3. **U.** Performed outbound procedures with errors or omissions that jeopardized mission accomplishment.
- 9.2.4.8. **Area 8--Data Link Operations:**
- 9.2.4.8.1. **Q.** Configured, operated, and terminated data links IAW applicable directives.
- 9.2.4.8.2. **Q-** Configured, operated, or terminated data links with errors or omissions that did not jeopardize mission accomplishment.
- 9.2.4.8.3. **U.** Failed to configure, operate, or terminate data links. Performed data link operations with errors or omissions that jeopardized mission accomplishment.
- 9.2.4.9. **Area 9--Communications/Mission Support:**
- 9.2.4.9.1. **Q.** Monitored radios and mission nets and performed required changes (e.g. radio/ frequency/baseband distribution panel (BDP)). Performed update switch

actions for HAVE QUICK A Net (HQAN), Joint Tactical Information Distribution system (JTIDS), and communications related software IAW applicable directives.

9.2.4.9.2. **Q-** Monitored radios or mission nets or performed required changes with errors or omissions that did not jeopardize mission accomplishment. Performed update switch actions for HQAN, JTIDS, and communications related software with errors or omissions that did not jeopardize mission accomplishment.

9.2.4.9.3. **U.** Failed to monitor radios or mission nets or performed required changes, or monitored with errors or omissions that jeopardized mission accomplishment. Failed to perform update switch actions for HQAN, JTIDS, and communications related software, or performed with errors or omissions that jeopardized mission accomplishment.

9.2.4.10. Area 10--Malfunction Analysis/In-flight Maintenance:

9.2.4.10.1. **Q.** Recognized and analyzed malfunction indications in the Communications Functional Group (CFG) and performed in-flight maintenance IAW applicable directives.

9.2.4.10.2. **Q-** Recognized and analyzed malfunction indications in the CFG and performed in-flight maintenance with errors or omissions that did not jeopardize mission accomplishment.

9.2.4.10.3. **U.** Failed to recognize or analyze malfunction indications in the CFG. Performed in-flight maintenance with errors or omission that jeopardized mission accomplishment.

9.2.4.11. Area 11--Air Refueling Procedures:

9.2.4.11.1. **Q.** Performed air refueling procedures IAW applicable directives.

9.2.4.11.2. **Q-** Performed air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

9.2.4.11.3. **U.** Performed air refueling procedures with errors or omissions that jeopardized mission accomplishment.

9.2.4.12. Area 12--Console Operations/Displays:

9.2.4.12.1. **Q.** Interpreted and updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives.

9.2.4.12.2. **Q-** Interpreted and updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment.

9.2.4.12.3. **U.** Interpreted and updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that jeopardized mission accomplishment.

9.2.4.13. Area 13--Communications System Checkout/Control Power Supply (CPS) Diagnostic Maintenance Program (DMP) Preparation:

9.2.4.13.1. **Q.** Performed communications system lamp test, built in test equipment (BITE) tests, and CPS DMP preparation IAW applicable directives.

9.2.4.13.2. **Q-.** Misinterpreted or responded to test results, or performed communications system lamp test, BITE tests, or CPS DMP preparation with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

9.2.4.13.3. **U.** Misinterpreted or responded to test results or performed communications system lamp test, BITE tests, or CPS DMP preparation with errors or omissions that jeopardized mission accomplishment or maintenance analysis.

9.2.4.14. Area 14--Documentation:

9.2.4.14.1. **Q.** Completed and submitted logs, forms, and other documentation IAW applicable directives.

9.2.4.14.2. **Q-.** Completed and submitted logs, forms, or other documentation with errors, omissions, or delays that did not jeopardize mission accomplishment or analysis.

9.2.4.14.3. **U.** Failed to complete or completed and submitted logs, forms, or other documentation with errors, omissions, or delays that jeopardized mission accomplishment or analysis.

9.2.4.15. Area 15--Emergency Procedures and Equipment:

9.2.4.15.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

9.2.4.15.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

9.2.4.15.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

9.2.4.16. Area 16--Inbound Procedures:

9.2.4.16.1. **Q.** Performed inbound procedures IAW applicable directives.

9.2.4.16.2. **Q-.** Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

9.2.4.16.3. **U.** Performed inbound procedures with errors, omissions, or delays that jeopardized mission accomplishment.

9.2.4.17. Area 17--Descent/Engine Shutdown:

9.2.4.17.1. **Q.** Performed descent/engine shutdown procedures IAW applicable directives.

9.2.4.17.2. **Q-** Performed descent/engine shutdown with errors or omissions that did not jeopardize mission accomplishment.

9.2.4.17.3. **U.** Performed descent/engine shutdown with errors or omissions that jeopardized mission accomplishment.

9.2.4.18. Area 18--Before Leaving Aircraft:

9.2.4.18.1. **Q.** Performed before leaving airplane procedures IAW applicable directives.

9.2.4.18.2. **Q-** Performed before leaving airplane procedures with errors or omissions that did not jeopardize mission accomplishment.

9.2.4.18.3. **U.** Performed before leaving airplane procedures with errors or omissions that jeopardized mission accomplishment.

9.2.4.19. Area 19--Classified/COMSEC Material:

9.2.4.19.1. **Q.** Controlled and used classified/COMSEC material IAW applicable directives.

9.2.4.19.2. **Q-** Controlled or used classified/COMSEC material with errors or omissions that did not jeopardize mission accomplishment or result in a security deviation/compromise.

9.2.4.19.3. **U.** Controlled or used classified/COMSEC material with errors or omissions that jeopardized mission accomplishment or could have resulted in a security deviation/ compromise.

9.2.4.20. Area 20--Radio/Telephone (R/T) Procedures:

9.2.4.20.1. **Q.** Employed standard R/T procedures IAW applicable directives.

9.2.4.20.2. **Q-** Employed standard R/T procedures with errors or omissions that did not jeopardize mission accomplishment.

9.2.4.20.3. **U.** Failed to employ standard R/T procedures. Used R/T procedures with errors or omissions that jeopardized mission accomplishment.

9.2.4.21. Area 21--Safety (CRITICAL):

9.2.4.21.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

9.2.4.21.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

9.2.4.22. Area 22--Flight Discipline (CRITICAL):

9.2.4.22.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

9.2.4.22.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

9.2.4.23. Area 23--Airmanship (CRITICAL):

9.2.4. .23.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

9.2.4.23.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

9.2.4.24. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph 2.6 of this instruction.

9.2.4.24.1. **Area 24--Situational Awareness (Critical)**

9.2.4.24.2. **Area 25--Crew Coordination (Critical)**

9.2.4.24.3. **Area 26--Risk Management/Decision Making**

9.2.4.24.4. **Area 27--Task Management**

9.2.4.25. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

9.2.4.25.1. **Area 28--Instructional Ability**

9.2.4.25.2. **Area 29--Briefings/Critique**

9.2.4.25.3. **Area 30--Demonstration and Performance**

Table 9.1. Airborne Communication Specialist Evaluation Matrix.

Evaluation Areas	Instr	Qual Profile	
		CSO	CT
1. Mission Planning		R	R
2. Briefings/Debriefings		R	R
3. Pre-mission Requirements		R	R
4. Pre-flight Inspections		R	R
5. Before Start/Taxi		R	R
6. Coordination		R	R
7. En route Procedures--Outbound		R	R
8. Data Link Operations		R	R
9. Conducting Mission Operations (See Note)		R	R
10. Malfunction Analysis/In-flight Maintenance			R
11. Air Refueling Procedures		R	R

12. Console Operations/Displays		R	
13. Communications System Checkout/CPS DMP Preparation		R	R
14. Documentation		R	R
15. Emergency Procedures and Equipment		R	R
16. Enroute Procedures--Inbound		R	R
17. Descent/Engine Shutdown		R	R
18. Before Leaving Aircraft		R	R
19. Classified/COMSEC Material		R	R
20. Radio/Telephone (R/T) Procedures		R	R
21. Safety (CRITICAL)	R	R	R
22. Flight Discipline (CRITICAL)	R	R	R
23. Airmanship (CRITICAL)	R	R	R
CRM Areas			
24. Situational Awareness (Critical)	R	R	R
25. Crew Coordination (Critical)	R	R	R
26. Risk Management/ Decision Making	R	R	R
27. Task Management	R	R	R
Instructor only Areas			
28. Instructional Ability	R	R	R
29. Briefings/Critique	R	R	R
30. Demonstration and Performance	R	R	R
R = Required evaluation area.			
NOTE: For CSOs, the HQAN Update Switch Actions and the JTIDS Operational Switch actions portions will not be evaluated.			

9.3. Computer Display Maintenance Technician Qualification Flight Evaluations:

9.3.1. **General.** This chapter contains the task-oriented criteria for qualification evaluations IAW AFI 11-202V2 and AFI 11-401. Evaluation criteria are outlined in matrices for the Airborne Computer Display Maintenance Technician (CDMT) and Instructor Airborne Computer Display Maintenance Technician (ICDMT).

9.3.1.1. Qualification evaluations will include all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. These evaluations will be conducted on a recurring basis as directed in AFI 11-202V2. Examinee must demonstrate

satisfactory ability to operate and maintain the Data Processing, Data Display, Electronic Support Measures System, and On-Board Test Monitor and Maintenance System. This includes the loading and operation of airborne operational computer program (AOCP), data processing system (DPS) DMP, CPS DMP, performing the write override data (DIODT) function, and at least one utility program. One in-flight maintenance procedure must be performed or simulated. CDMT qualification evaluations will be conducted on a live E-3 sortie.

9.3.2. Evaluation Objectives:

9.3.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment.

9.3.3. **Ground Phase Requisites.** The ground phase requisites are listed in paragraph 2.2.

9.3.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

9.3.4.1. Area 1--Mission Planning:

9.3.4.1.1. **Q.** Performed mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Clearly defined the mission overview. Provided specific information on what needed to be done. Clearly defined mission goals and objectives. Solicited feedback to check understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies.

9.3.4.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.1.3. **U.** Performed mission planning with errors or omissions that jeopardized mission accomplishment.

9.3.4.2. Area 2--Briefings/Debriefings:

9.3.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives.

9.3.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

9.3.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that jeopardized mission accomplishment or maintenance analysis.

9.3.4.3. Area 3--Pre-mission Requirements:

9.3.4.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

9.3.4.3.2. **Q-.** Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment.

9.3.4.4. Area 4--Pre-flight Inspection:

9.3.4.4.1. **Q.** Performed pre-flight inspection IAW applicable directives.

9.3.4.4.2. **Q-.** Performed pre-flight inspection with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.4.3. **U.** Performed pre-flight inspection with errors or omissions that jeopardized mission accomplishment.

9.3.4.5. Area 5--Before Start:

9.3.4.5.1. **Q.** Performed before start procedures IAW applicable directives.

9.3.4.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.5.3. **U.** Performed before start procedures with errors or omissions that jeopardized mission accomplishment.

9.3.4.6. Area 6--Internal/External Coordination:

9.3.4.6.1. **Q.** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations IAW applicable directives. Communications were standard, clear, concise, and brief. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.

9.3.4.6.2. **Q-.** Coordinated/reported with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

9.3.4.6.3. **U.** Coordinated/reported with errors, omissions, misunderstanding, confusion, or delays that jeopardized mission accomplishment.

9.3.4.7. Area 7--Equipment Power Turn-On:

9.3.4.7.1. **Q.** Performed equipment power turn-on procedures IAW applicable directives.

9.3.4.7.2. **Q-.** Performed equipment power turn-on procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

9.3.4.7.3. **U.** Failed to perform equipment power turn-on. Performed procedures with errors, omissions, or delays that jeopardized mission accomplishment.

9.3.4.8. Area 8--AOCP Program Load:

9.3.4.8.1. **Q.** Performed AOCP program load procedures IAW applicable directives.

9.3.4.8.2. **Q-.** Performed AOCP program load procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

9.3.4.8.3. **U.** Failed to perform AOCP program load. Performed procedures with errors, omissions, or delays that jeopardized mission accomplishment.

9.3.4.9. Area 9--Equipment Operations and Displays:

9.3.4.9.1. **Q.** Initiated and interpreted software data for mission equipment operation IAW applicable directives.

9.3.4.9.2. **Q-.** Initiated and interpreted software data for mission equipment operation with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.9.3. **U.** Initiated and interpreted software data for mission equipment operation with errors or omissions that jeopardized mission accomplishment.

9.3.4.10. Area 10--Peripheral Device Operation:

9.3.4.10.1. **Q.** Maintained and operated hard disk systems (HDSs) and line printer IAW applicable directives.

9.3.4.10.2. **Q-.** Maintained or operated HDSs or line printer with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.10.3. **U.** Failed to maintain line printer operation or operated the HDSs with errors or omissions that jeopardized mission accomplishment.

9.3.4.11. Area 11--On-Line Testing:

9.3.4.11.1. **Q.** Initiated, reinitiated, configured, and terminated on-line testing IAW applicable directives.

9.3.4.11.2. **Q-.** Initiated, reinitiated, configured, or terminated on-line testing with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.11.3. **U.** Initiated, reinitiated, or configured on-line testing with errors or omissions that jeopardized mission accomplishment

9.3.4.12. Area 12--Malfunction Analysis/In-flight Maintenance:

9.3.4.12.1. **Q.** Recognized and analyzed malfunctions and performed in-flight maintenance IAW applicable directives.

9.3.4.12.2. **Q-.** Recognized/analyzed malfunctions or performed in-flight maintenance with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.12.3. **U.** Failed to recognize/analyze malfunctions or performed in-flight maintenance with errors or omissions that jeopardized mission accomplishment.

9.3.4.13. Area 13--Air Refueling Procedures:

9.3.4.13.1. **Q.** Performed air refueling procedures IAW applicable directives.

9.3.4.13.2. **Q-.** Performed air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.13.3. **U.** Performed air refueling procedures with errors or omissions that jeopardized mission accomplishment.

9.3.4.14. Area 14--Utility Programs:

9.3.4.14.1. **Q.** Loaded and executed utility stand-alone program (USP) and utility programs. Interpreted and responded to prompts and error codes IAW applicable directives.

9.3.4.14.2. **Q-.** Loaded and executed USP and utility programs, and interpreted and responded to prompts/error codes with errors, omissions, or delays that did not jeopardize mission accomplishment.

9.3.4.14.3. **U.** Failed to correctly load or execute USP or utility programs. Misinterpreted or failed to respond to prompts/error codes that jeopardized mission accomplishment.

9.3.4.15. Area 15-- Post Mission System Checkout:

9.3.4.15.1. **Q.** Loaded and executed diagnostic programs, interpreted and responded to indicators and codes IAW applicable directives.

9.3.4.15.2. **Q-.** Loaded or executed diagnostic programs, interpreted and responded to indicators and codes with errors, omissions, or delays that did not jeopardize maintenance analysis or mission accomplishment.

9.3.4.15.3. **U.** Failed to correctly load or execute diagnostic programs or failed to respond to indicators or codes. Misinterpreted or responded to indicators or codes with errors, omissions, or delays that jeopardized maintenance analysis or mission accomplishment.

9.3.4.16. Area 16--General Use Procedures:

9.3.4.16.1. **Q.** Performed general use procedures IAW applicable directives.

9.3.4.16.2. **Q-.** Performed general use procedures with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.16.3. **U.** Performed general use procedures with errors or omissions that jeopardized mission accomplishment.

9.3.4.17. Area 17--Power Removal/Descent/Before Leaving Aircraft:

9.3.4.17.1. **Q.** Performed power removal/descent/before leaving aircraft procedures IAW applicable directives.

9.3.4.17.2. **Q-.** Performed power removal/descent/before leaving aircraft procedures with errors or omissions that did not jeopardize mission accomplishment.

9.3.4.17.3. **U.** Performed power removal/descent/before leaving aircraft procedures with errors or omissions that jeopardized mission accomplishment.

9.3.4.18. Area 18--Emergency Procedures and Equipment:

9.3.4.18.1. **Q.** Performs emergency procedures and uses emergency equipment IAW applicable directives.

9.3.4.18.2. **Q-.** Committed errors, omissions or delays in the performance of emergency procedures or emergency equipment use that did not result in an unsafe situation or jeopardize mission accomplishment.

9.3.4.18.3. **U.** Performs emergency procedures or uses emergency equipment with errors, omissions or delays that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

9.3.4.19. Area 19--Documentation:

9.3.4.19.1. **Q.** Completed and submitted logs, forms, and other documentation IAW applicable directives.

9.3.4.19.2. **Q-.** Completed and submitted logs, forms, or other documentation with errors, omissions, or delays that did not jeopardize mission accomplishment or analysis.

9.3.4.19.3. **U.** Failed to complete or completed and submitted logs, forms, or other documentation with errors, omissions, or delays that jeopardized mission accomplishment or analysis.

9.3.4.20. Area 20--Safety (CRITICAL):

9.3.4.20.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

9.3.4.20.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

9.3.4.21. Area 21--Flight Discipline (CRITICAL):

9.3.4.21.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

9.3.4.21.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

9.3.4.22. Area 22--Airmanship (CRITICAL):

9.3.4.22.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

9.3.4.22.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

9.3.4.23. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph [2.6](#) of this instruction.

9.3.4.23.1. **Area 23--Situational Awareness (Critical)**

9.3.4.23.2. **Area 24--Crew Coordination (Critical)**

9.3.4.23.3. **Area 25--Risk Management/Decision Making**

9.3.4.23.4. **Area 26--Task Management**

9.3.4.24. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

9.3.4.24.1. **Area 27--Instructional Ability**

9.3.4.24.2. **Area 28--Briefings/Critique**

9.3.4.24.3. **Area 29--Demonstration and Performance**

Table 9.2. Computer Display Maintenance Technician Evaluation Matrix.

Evaluation Areas	Qual Profiles	
	CDMT	INSTR
1. Mission Planning	R	
2. Briefings/Debriefings	R	
3. Pre-mission Requirements	R	
4. Pre-flight Inspection	R	
5. Before Start/Taxi	R	
6. Internal/External Coordination	R	
7. Equipment Power Turn-On	R	
8. AOCP Program Load	R	
9. Equipment Operations and Displays	R	
10. Peripheral Device Operation	R	
11. On-Line Testing	R	
12. Malfunction Analysis/In-flight Maintenance	R	
13. Air Refueling Procedures	R	
14. Utility Programs	R	
15. Post Mission System Checkout	R	
16. General Use Procedures	R	
17. Power Removal/Descent/Before Leaving Aircraft	R	

18. Emergency Procedures and Equipment	R	
19. Documentation	R	
20. Safety (CRITICAL)	R	R
21. Flight Discipline (CRITICAL)	R	R
22. Airmanship (CRITICAL)	R	R
CRM Areas		
23. Situational Awareness (Critical)	R	R
24. Crew Coordination (Critical)	R	R
25. Risk Management/Decision Making	R	R
26. Task Management	R	R
Instructor only Areas		
27. Instructional Ability	R	R
28. Briefing and Critique	R	R
29. Demonstration and Performance	R	R
R = Required evaluation areas.		

9.4. Airborne Radar Technician Qualification Flight Evaluations:

9.4.1. **General.** This chapter contains the task-oriented criteria for qualification evaluations of an Airborne Radar Technician (ART) and Instructor Airborne Radar Technician (IART).

9.4.1.1. Qualification evaluations will include all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. These evaluations will be performed on a recurring basis as directed by AFI 11-202V2. Examinee must demonstrate satisfactory ability to operate and maintain the radar and IFF systems. This includes the loading and operation of radar operational program (ROP), post station checkout using radar test or Configuration Evaluation in one chain, two manual test procedures (one using a transmitter sample), and one level of fault isolation test (FIT). ART qualification evaluations will be conducted on a live E-3 sortie.

9.4.2. Evaluation Objectives:

9.4.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment.

9.4.3. **Ground Phase Requisites.** The ground phase requisites are listed in paragraph 2.2.

9.4.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

9.4.4.1. Area 1--Mission Planning:

9.4.4.1.1. **Q.** Performed mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Clearly defined the mission overview. Provided specific information on what needed to be done. Clearly defined mission goals and objectives. Solicited feedback to check understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas. Checked understanding of possible contingencies.

9.4.4.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

9.4.4.1.3. **U.** Performed mission planning with errors or omissions that jeopardized mission accomplishment.

9.4.4.2. Area 2--Briefings/Debriefings:

9.4.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives. Provided positive and negative feedback. Provided specific, objective, non-threatening feedback on team and individual performance. Provided specific ways to correct errors. Asked for reactions and inputs from others. Recapped key points and compared mission results with objectives.

9.4.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

9.4.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that jeopardized mission accomplishment or maintenance analysis.

9.4.4.3. Area 3--Pre-mission Requirements:

9.4.4.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

9.4.4.3.2. **Q-.** Possessed personal/professional equipment and publications with omissions that did not jeopardize mission accomplishment. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

9.4.4.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition that jeopardized mission accomplishment. Posted publications with errors or omissions that jeopardized mission accomplishment.

9.4.4.4. Area 4--Pre-flight Inspection:

9.4.4.4.1. **Q.** Performed pre-flight inspection IAW applicable directives.

9.4.4.4.2. **Q-** Performed pre-flight inspection with errors or omissions that did not jeopardize mission accomplishment.

9.4.4.4.3. **U.** Performed pre-flight inspection with errors or omissions that jeopardized mission accomplishment.

9.4.4.5. Area 5--Before Start/Taxi:

9.4.4.5.1. **Q.** Performed before start/taxi procedures IAW applicable directives.

9.4.4.5.2. **Q-** Performed before start/taxi procedures with errors or omissions that did not jeopardize mission accomplishment.

9.4.4.5.3. **U.** Performed before start/taxi procedures with errors or omissions that jeopardized mission accomplishment.

9.4.4.6. Area 6—Internal/External Coordination/Communication:

9.4.4.6.1. **Q.** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations IAW applicable directives without misunderstanding, confusion, or delay. Communications were standard, clear, concise, and brief. Acknowledged all communications. Asked for and provided clarification when necessary. Stated opinions and ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank differences affect mission safety.

9.4.4.6.2. **Q-** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

9.4.4.6.3. **U.** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations with errors, omissions, misunderstanding, confusion, or delays that jeopardized mission accomplishment.

9.4.4.7. Area 7--Outbound Procedures:

9.4.4.7.1. **Q.** Performed outbound procedures IAW applicable directives.

9.4.4.7.2. **Q-** Performed outbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

9.4.4.7.3. **U.** Performed outbound procedures with errors, omissions, or delays that jeopardized mission accomplishment.

9.4.4.8. Area 8--On Station Procedures:

9.4.4.8.1. **Q.** Performed on station procedures IAW applicable directives.

9.4.4.8.2. **Q-** Performed on station procedures with errors or omissions that did not jeopardize mission accomplishment.

9.4.4.8.3. **U.** Performed on station procedures with errors, omissions, or delays that jeopardized mission accomplishment.

9.4.4.9. Area 9--RSIP Console Operations & Displays:

9.4.4.9.1. **Q.** Interprets/analyzes menus and screens to configure radar for optimum system performance. Interprets the FFT, PPI or Spectrum Analyzer displays IAW applicable directives.

9.4.4.9.2. **Q-.** Interprets/analyzes menus and screens with minor errors, omissions, or delays in effort to configure radar for optimum system performance that did not jeopardize mission accomplishment. Interprets the FFT, PPI or Spectrum Analyzer displays with errors or omissions that did not detract from mission operations.

9.4.4.9.3. **U.** Failed to Interpret/analyze menus and screens in effort to configure radar for optimum system performance that jeopardized mission accomplishment. Interpreted the FFT, PPI or Spectrum Analyzer displays with errors or omissions that could have detracted from mission operations.

9.4.4.10. Area 10--Malfunction Analysis/In-flight Maintenance:

9.4.4.10.1. **Q.** Recognized and analyzed malfunctions and performed in-flight maintenance IAW applicable directives.

9.4.4.10.2. **Q-.** Recognized/analyzed malfunctions or performed in-flight maintenance with errors or omissions that did not jeopardize mission accomplishment.

9.4.4.10.3. **U.** Failed to recognize/analyze malfunctions or performed in-flight maintenance with errors or omissions that jeopardized mission accomplishment.

9.4.4.11. Area 11--Inbound Procedures:

9.4.4.11.1. **Q.** Performs inbound procedures IAW applicable directives.

9.4.4.11.2. **Q-.** Performs inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

9.4.4.11.3. **U.** Performs inbound procedures with errors, omissions, or delays that jeopardized mission accomplishment.

9.4.4.12. Area 12--Descent/Engine Shutdown/Before Leaving Aircraft:

9.4.4.12.1. **Q.** Performed descent/engine shutdown/before leaving aircraft procedures IAW applicable directives.

9.4.4.12.2. **Q-.** Performed descent/engine shutdown/before leaving aircraft procedures with errors or omissions that did not jeopardize mission accomplishment.

9.4.4.12.3. **U.** Performed descent/engine shutdown/before leaving aircraft procedures with errors or omissions that jeopardized mission accomplishment.

9.4.4.13. Area 13-- General Use Procedures:

9.4.4.13.1. **Q.** Performed general use procedures IAW applicable directives.

9.4.4.13.2. **Q-.** Performed general use procedures with errors or omissions that did not jeopardize mission accomplishment.

9.4.4.13.3. **U.** Performed general use procedures with errors or omissions that jeopardized mission accomplishment.

9.4.4.14. Area 14--Air Refueling Procedures:

9.4.4.14.1. **Q.** Performed air refueling procedures IAW applicable directives.

9.4.4.14.2. **Q-.** Performed air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

9.4.4.14.3. **U.** Performed air refueling procedures with errors or omissions that jeopardized mission accomplishment.

9.4.4.15. Area 15--Emergency Procedures and Equipment:

9.4.4.15.1. **Q.** Performed emergency procedures and used emergency equipment IAW applicable directives.

9.4.4.15.2. **Q-.** Performed emergency procedures or used emergency equipment with errors, omissions or delays that did not result in an unsafe situation or jeopardize mission accomplishment.

9.4.4.15.3. **U.** Performed emergency procedures or used emergency equipment with errors, omissions or delays that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

9.4.4.16. Area 16--Documentation:

9.4.4.16.1. **Q.** Completed and submitted logs, forms, and other documentation IAW applicable directives.

9.4.4.16.2. **Q-.** Completed and submitted logs, forms, or other documentation with errors, omissions, or delays that did not jeopardize mission accomplishment or analysis.

9.4.4.16.3. **U.** Failed to complete or completed and submitted logs, forms, or other documentation with errors, omissions, or delays that jeopardized mission accomplishment or analysis.

9.4.4.17. Area 17--Safety (CRITICAL):

9.4.4.17.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

9.4.4.17.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

9.4.4.18. Area 18--Flight Discipline (CRITICAL):

9.4.4.18.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

9.4.4.18.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

9.4.4.19. Area 19--Airmanship (CRITICAL):

9.4.4.19.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

9.4.4.19.2. U. Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

9.4.4.20. The following areas are applicable for all crewmembers during all evaluations. Specific criteria are included in paragraph 2.6 of this instruction.

9.4.4.20.1. **Area 20--Situational Awareness (Critical)**

9.4.4.20.2. **Area 21--Crew Coordination (Critical)**

9.4.4.20.3. **Area 22--Risk Management/Decision Making**

9.4.4.20.4. **Area 23--Task Management**

9.4.4.21. The following areas are applicable to initial instructor upgrade/all subsequent periodic evaluations of instructors. Specific criteria are included in paragraph 2.5.4 of this instruction.

9.4.4.21.1. **Area 24--Instructional Ability**

9.4.4.21.2. **Area 25--Briefings/Critiques**

9.4.4.21.3. **Area 26--Demonstration and Performance**

Table 9.3. Airborne Radar Technician Evaluation Matrix.

Evaluation Areas	Qual Profiles	
	ART	INSTR
1. Mission Planning	R	
2. Briefings/Debriefings	R	
3. Pre-mission Requirements	R	
4. Pre-flight Inspection	R	
5. Before Start/Taxi	R	
6. Internal/External Coordination	R	
7. Outbound Procedures	R	
8. On Station Procedures	R	
9. RSIP Console Operations & Displays	R	
10. Malfunction Analysis/In-flight Maintenance	R	
11. Inbound Procedures	R	
12. Descent/Engine Shutdown/Before Leaving Aircraft	R	
13. General Use Procedures	R	
14. Air Refueling Procedures	R	

15. Emergency Procedures and Equipment	R	
16. Documentation	R	
17. Safety (CRITICAL)	R	R
18. Flight Discipline (CRITICAL)	R	R
19. Airmanship (CRITICAL)	R	R
CRM Areas		
20. Situational Awareness (Critical)	R	R
21. Crew Coordination (Critical)	R	R
22. Risk Management/Decision Making	R	R
23. Task Management	R	R
Instructor only Areas		
24. Instructional Ability	R	R
25. Briefing and Critique	R	R
26. Demonstration and Performance	R	R
R = Required evaluation area.		

HERBERT J. CARLISLE, Lt Gen, USAF
DCS, Operations, Plans and Requirements

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 11-2, *Aircraft Rules and Procedures*, 14 January 2005

AFPD 11-4, *Aviation Service*, 1 September 2004

AFI 11-2E-3 Volume 1, *E-3 Aircrew Training*, 3 March 2008

AFI 33-360, *Publications and Forms Management*, 18 May 2006

AFI 11-202 Volume 2, *Aircrew Standardization/Evaluation Program*, 13 September 2010

AFI 11-202 Volume 3, *General Flight Rules*, 22 October 2010

AFI 11-214, *Air Operations Rules and Procedures*, 22 December 2005

AFI 11-290, *Cockpit/Crew Resource Training Management Program*, 11 April 2001

AFI 11-401, *Aviation Management*, 10 December 2010

AFMAN 11-217 Volume 1 and 2, *Instrument Flight Procedures*, 22 October 2010

AFMAN 11-210, *Instrument Refresher Program (IRP)*, 3 February 2005

AFMAN 33-363, *Management of Records* 1 March 2008 AFTTP 3-1V1, *General Planning and Employment Considerations*, 1 February 2010

AFTTP 3-1V15, *Tactical Employment – E-3 AWACS*, 31 December 2006

T.O. 1E-3A-1, *E-3 Flight Manual*, 1 July 2009

T.O. 1E-3A-1-1, *E-3 Performance Manual*, 31 July 1999

T.O. 1E-3A-43-1-1, *E-3 Mission System Operations*, 1 July 2009

DoD Directive 7730-57, *Aviation Career Incentive Act of 1974 and Required Annual Report*, 18 July 2003

E.O. 9397, *Numbering System for Federal Accounts Relating to Individual Persons*, Nov 22, 1943

Adopted Forms

AF Form 8, *Certificate of Aircrew Qualification*, 8 Dec 2006

AF Form 847, *Recommendation for Change of Publication*, 22 Sep 2009

AF Form 2519, *All Purpose Checklist*, 1 Nov 1991

AFTO IMT 781, *ARMS Aircrew/Mission Flight Data Document*, 17 Jun 2002

DD Form 365-4, *Weight and Balance Clearance Form F*, 1 Aug 1996

552 OG Form 8a, *Temporary Certificate of Aircrew Evaluation*, 1 Jun 2002

Abbreviations and Acronyms

ABC—Airborne Battle Commander

AC—Aircraft Commander (used interchangeably with pilot)

ACC—Air Combat Command

ACO—Airspace Control Order

ACS—Airborne Communications Specialist

ACT—Air Combat Tactics

ADS—Audio Distribution System

AFB—Air Force base

AFRC—Air Force Reserve Command

AFTTP—Air Force tactics, techniques, and procedures

AIT—Aircrew Intelligence Training

AMSS—Airborne Mission Systems Specialists

APU—Auxiliary Power Unit

AOCP—Airborne Operational Computer Program

AOR—Area of Responsibility

ANG—Air National Guard

A/R—Air to Air Refueling

ARMS—Aviation Resource Management System

ART—Airborne Radar Technician

ASO—Air Surveillance Operator

AST—Air Surveillance Technician

ATC—Air Traffic Control

ATD—Aircrew Training Device

ATO—Air Tasking Order

AWACS—Airborne Warning and Control System

AWC—Air Warning Center

BAQ—Basic Aircraft Qualified

BDA—Battle Damage Assessment

BDP—Baseband Distribution Panel

BDT—Battle Director Technician

BITE—Built-in Test Equipment

BMC—Basic Mission Capable

CCI—Command Control Indicator

CD—Counter-drug
CDI—Course Deviation Indicator
CDMT—Computer Display Maintenance Technician
CET—Career Enhancement Training
CFG—Communications Functional Group
CFP—Computer Flight Plan
CFT—Contract Flying Training or Composite Force Training
COG—Center of Gravity
CMP—Computer Maintenance Program
CMR—Combat Mission Ready
COMSEC—Communications Security
CONUS—continental United States
CP—Copilot
CPS/DMP—Control Power Supply/Diagnostic Maintenance Program
CSO—Communications Systems Operator
CT—Communications Technician or Continuation Training
CTD—Course Training Document
DACT—Dissimilar Air Combat Tactics
DCA—Defensive Counter-air
DETCO—Detachment Commander
DH—Decision Height
DIODT—Drum Initialized Override Data Tape
DMP—Diagnostic Maintenance Program
DPS/DMP—Data Processing System/Diagnostic Maintenance Program
EA/EP—Electronic Attack/Electronic Protect
EAM—Emergency Action Message
ECO—Electronic Combat Officer
EPATS—Earliest Possible Arrival Times
EPE—Emergency Procedures Evaluation
EPR—Exhaust Pressure Ratio
ESM—Electronic Support Measures
F—Fahrenheit

FAF—Final Approach Fix
FCIF—Flight Crew Information File
FCT—Flight Crew Training
FE—Flight Engineer
FEF—Flight Evaluation Folder
FIT—Fault Isolation Test
FLIP—Flight Information Publications
FP—First Pilot
GINS—Global Positioning Integrated Navigation System
GS—Ground Speed
HDS—Hard Disk System
HQAN—HAVE QUICK A Net
IAS—Indicated Airspeed
IATP—Individual Aircraft Tracking Program
IAW—In Accordance With
ICAO—International Civil Aviation Organization
IFA—In-flight Alignment
IFF—Identification, Friend or Foe
IFR—Instrument Flight Rules
ILS—Instrument Landing System
IMT—Information Management Tools
INS—Inertial Navigation System
INU—Inertial Navigation Unit
IP—Instructor Pilot (an "I" prefix designates an instructor in that crew position; e.g. IMCC)
IQT—Initial Qualification Training
IRC—Instrument Refresher Course
JTIDS—Joint Tactical Information Distribution System
L/O—Level Off
LOA—Letter of Agreement
LOP—Line of Position or Local Operating Procedure(s)
MA—Mission Advisor
MAC—Mean Aerodynamic Chord

MAJCOM—major command
MCC—Mission Crew Commander
MD—Mission Director
MDA—Minimum Descent Altitude
MOA—Memorandum of Agreement
MQF—Master Question File
MQT—Mission Qualification Training
NAV—Navigator
NAVAIDS—Navigational Aids
NCS—Navigational Computer System
NM—Nautical Mile
NOTAMS—Notice to Airmen
OCA—Offensive Counterair
OFT—Operational Flight Trainer
ONC—Operational Navigation Chart
OPCON—Operational Control Agency
OPDR—Office of Primary Development Responsibility
OPR—Office of Primary Responsibility
OPSEC—Operational Security
OPTASKLINK—Operational Tasking Data Link
PAR—Precision Approach Radar
QRM—Quick Reaction Message
RBO—Rudder Boost Out
RDS—Records Disposition Schedule
ROE—Rules of Engagement
ROP—Radar Operational Program
R/T—Radio/Telephone
SAR—Search and Rescue
SD—Senior Director or Situational Display
SEFE—Standardization/Evaluation Flight Examiner
SID—Standard Instrument Departure
SIF—Selective Identification Feature

SIS/VPN—Special Information System/Voice Product Net

SPINS—Special Instructions

SOI—Signal of Interest

SQB—Secure Question Bank

SST—Senior Surveillance Technician

TAB—Tabular Information

TACAN—Tactical Air Navigation

TACON—Tactical Control Agency

TD—Tabular Display

TH—True Heading

TKE—Track Error

TOD—Time of Day

USP—Utility Stand-alone Program

VDP—Visual Descent Point

VFR—Visual Flight Rules

VMC—Visual Meteorological Conditions

WRS—Weapons Readiness States

WX—Weather

XTK—Cross Track

Terms

Aircrew—The total complement of rated (pilots, navigators, air battle managers, and flight surgeons), career enlisted aviators (1AXXX Air Force Specialty Codes), and nonrated aircrew (K-, Q-, or X-prefixed Air Force Specialty Code) personnel responsible for the safe ground and flight operation of the aircraft and onboard systems, or for airborne duties essential to accomplishment of the aircraft's mission.

Aircrew Duties—Duties which directly contribute to accomplishing E-3 mission objectives. Failure by any aircrew member to properly perform their assigned aircrew duties can result in an unsuccessful E-3 mission.

Basic Mission Capable (BMC)—A crewmember who requires further training prior to being certified to perform tactical duties in support of E-3 roles and missions defined in AFTTP 3-1V15, *E-3 Weapons and Tactics*. BMC crewmembers have completed MQT but do not maintain CMR status due to staff duty assignment or other reasons as determined by the appropriate authority.

Combat Mission Ready (CMR)—A crewmember who has been trained and certified to perform tactical duties in support of E-3 roles and missions defined in AFTTP 3-1V15.

Composite Force Training (CFT)—Training that includes two or more aircraft types performing two or more mission roles (e.g. F-15s providing escort for F-16s performing air interdiction). CFT exercises vary in complexity and size from smaller ORE/ORIs to RED FLAG/GREEN FLAG scenarios.

Flight Crew—The pilot, first pilot, co-pilot, navigator, and flight engineer.

Initial Qualification Training (IQT)—Prepares aircrew members to perform non-tactical duties in the aircraft. Training is conducted IAW approved syllabi. Graduates of IQT are awarded Basic Qualification (BAQ) status after successful completion of a ACC/PACAF evaluation (AFI 11-2E3V2).

Instructor—A qualified aircrew member who has been trained to provide instruction in their crew position.

Mission Crew—See Aircrew.

Mission Qualification Training (MQT)—Prepares aircrew members to perform tactical duties in support of unit taskings. Graduates of MQT are certified CMR-I (CMR-Inexperienced) by the squadron commander.

Operational Mission—E-3 mission with primary objectives supporting higher headquarters tasked surveillance and/or control.

Training Mission—E-3 mission with primary objectives of completion of E-3 aircrew member training and/or support of other participating unit's training.

Unqualified (UQ)—Aircrew members who are not qualified to fly or operate E-3 systems and equipment unless they are under the supervision of a qualified instructor in the applicable crew position.