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SECRETARY OF THE AIR FORCE**

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Flying Operations

E-8 AIRCREW EVALUATION CRITERIA



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This volume implements policy guidance in AFD 11-2, *Aircraft Rules and Procedures*; AFD 11-4, *Aviation Service*; and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. It applies to all E-8, Joint Surveillance Target Attack Radar System (JSTARS) units. This publication does not apply to the Air Force Reserve Command (AFRC). MAJCOMs/DRUs/FOAs will forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ USAF/XOOT, through HQ ACC/DOYA, for approval prior to publication IAW AFD 11-2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DOYA, and the user MAJCOM/DRU/FOA offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. **NOTE:** The terms direct reporting unit (DRU) and field operating agency (FOA) as used in this paragraph refer only to those units that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. See paragraph 1.4. of this volume for procedures on how and where to submit recommended changes to this publication. Maintain and dispose of records created as a result of processes prescribed by this instruction according to AFMAN 37-139, *Records Disposition Schedule*.

The Privacy Act of 1974 affects this volume. Privacy Act System Number F011 AF XOA, Aviation Resource Management Systems (ARMS) covers required information. The authority for maintenance of the system 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.

The Paperwork Reduction Act of 1974 as amended in 1996, affects this volume.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

This revision reflects transition of the E-8C from active duty to a total force organization. This instruction is applicable to Air National Guard members. Revisions to this instruction include combining evaluation criteria that was repeated for multiple crew positions. Procedures for recommended changes and waivers were changed to reflect total force organization (paragraph 1.4.). Criteria for instructor evaluations consolidated for all crew positions (paragraph 1.10.). General grading areas that apply to all crew positions combined (paragraph 1.12.). Flight simulator evaluation requirements added (paragraph 2.3.). Flight crew specific grading criteria consolidated (Chapter 3). Mission crew specific grading criteria consolidated (Chapter 4). This revision reflects updates to Attachment 1, Glossary of References and Supporting Information.

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Chapter 1

GENERAL INFORMATION

1.1. General. This volume provides flight examiners and aircrews with procedures and evaluation criteria/tolerances to be used during both flight and ground phases of initial and periodic evaluations. All E-8 evaluations will be conducted according to this volume and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, as supplemented. Specific areas for evaluation are prescribed to ensure an accurate assessment of the proficiency and capabilities of aircrews. Flight examiners use this AFI when conducting aircrew evaluations.

1.1.1. Objective. The examinee must satisfactorily demonstrate the ability to perform required duties safely and effectively, including the operation of appropriate aircraft systems, in accordance with applicable technical orders, instructions, and directives.

1.1.2. Requirements. Evaluate all instructors on areas listed in [Table 1.1.](#) and all crewmembers on areas listed in [Table 1.2.](#) Crew position specific requirements are listed in [Table 2.1.](#), [Table 3.1.](#), [Table 4.1.](#), and [Table 4.2.](#)

1.2. Applicability. This volume is applicable to all individuals performing crew duties on E-8 aircraft.

1.3. Key Words and Definitions.

1.3.1. "Will" and "Shall" indicate a mandatory requirement.

1.3.2. "Should" is normally used to indicate a preferred, but not mandatory, method of accomplishment.

1.3.3. "May" indicates an acceptable or suggested means of accomplishment.

1.3.4. "Note" indicates operating procedures, techniques, etc., considered essential to emphasize.

1.4. Recommended Changes/Waivers.

1.4.1. Recommendations for changes are encouraged. Recommendations should focus on specific areas and standards of performance. Forward comments through channels to HQ ACC/DOY using AF Form 847, **Recommendation for Change of Publication**. HQ ACC/DOY will coordinate change requests with HQ ACC/DOG. HQ USAF/XO is the approval authority for interim changes to this instruction.

1.4.2. Unless specifically noted otherwise in the appropriate section, waiver authority for requirements of this instruction is HQ ACC/DO

1.4.2.1. Submit waiver requests through channels to HQ ACC/DOY. HQ ACC/DOYA will coordinate all waiver requests with HQ ACC/DOG. All waivers from HQ ACC/DO will include ANG/XOO as information addressees.

1.4.3. Waivers issued by other than HQ ACC/DO will include HQ ACC/DO, HQ ACC/DOY, HQ ACC/DOG and ANG/XOO as information addressees.

1.5. Procedures.

1.5.1. Flight examiners will use the criteria contained in this volume for conducting all flight, simulator, and emergency procedures evaluations. To ensure standard and objective evaluations, flight examiners will be thoroughly familiar with the prescribed evaluation criteria.

1.5.2. Unless specified, the examinee or flight examiner may fly in any seat that will best enable the examiner to conduct a thorough evaluation.

1.5.3. Flight examiners will brief the examinee on the conduct, purpose, and requirements of the evaluation, as well as all applicable evaluation criteria, prior to flight.

1.5.4. Flight examiners will not intentionally fail any equipment during flight evaluations, but may deny the use of systems not affecting safety of flight.

1.5.5. The flight examiner will thoroughly debrief/critique all aspects of the flight. During the critique, the flight examiner will review the examinee's overall rating, specific deviations, area/sub area grades assigned, and any additional training required.

1.6. Grading Instructions.

1.6.1. The grading system for most areas in this volume is a three-level system (Q/Q-/U). Areas identified as "Critical" in [Table 1.2](#) have a two-level system (Q/U). A critical area is defined as an area or event in which unsatisfactory performance by the examinee could result in loss of life or damage to equipment. If the examinee receives a "U" in any critical area, assign an overall Qualification Level 3 (Q-3).

1.6.2. Areas annotated with an "R" are required for qualification (QUAL) evaluations. Areas annotated with an "R1" are required for mission (MSN) evaluations for those positions allowed to have separate QUAL and MSN evaluations. Areas annotated with a double-asterisked "R" (R** or R1**) may be evaluated by alternate means (simulator, procedural trainer, or verbal examination). Every reasonable effort should be made to evaluate all areas inflight, however if an alternate method is used to complete the evaluation, document in the Additional Comments portion of the AF Form 8, **Certificate of Aircrew Qualification**. If, in the SEFE's judgment, a required item cannot be adequately evaluated by an alternate method, complete the evaluation on an additional flight. SEFEs should evaluate any other areas observed on subsequent sortie(s).

1.6.3. The flight examiner will compare the examinee's performance for each area with the standards provided in this volume and assign an appropriate grade for the area. Derive the overall flight evaluation grade from the area grades based on a composite for the observed events and tasks IAW AFI 11-202V2 and this instruction.

1.6.3.1. SEFEs will use the grading criteria in this volume to determine individual area grades. SEFE judgment must be exercised when the wording of areas is subjective and when specific situations are not covered."

1.7. Additional Training.

1.7.1. Flight examiners are responsible for recommending additional training, at their discretion. Document any additional training and completion IAW AFI 11-202V2, as supplemented.

1.8. Unsatisfactory Performance.

1.8.1. SEFE will not allow substandard performance to jeopardize safety of flight.

1.8.2. If at any time the SEFE assumes the examinee's duties, a qualification level 3 will be assigned as the overall grade.

1.8.3. SEFEs observing unsatisfactory performance by a crewmember other than the examinee, to include one in a different crew position, will comply with the requirements in AFI 11-202V2 for reporting deviations by like/unlike specialty.

1.8.4. A different SEFE will conduct rechecks to the maximum extent possible.

1.9. Evaluation Profiles. OGV will create, maintain, and provide evaluation profiles.

1.10. Instructor Evaluations. Instructor evaluations will be conducted IAW AFI 11-202V2 as supplemented. 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. Initial instructor evaluations may be taken in conjunction with qualification/instrument/mission evaluations. (**EXCEPTION:** Initial instructor evaluations for flight engineer cannot be taken in conjunction with qualification/mission evaluations.)

1.10.1. Instructor evaluations may be conducted with actual students or qualified crewmembers acting as students. The evaluator may require the evaluatee to present verbal explanations of equipment operations, procedures, and techniques pertinent to their crew position duties and responsibilities.

1.10.2. **Pilot Instructor Evaluations.** Instructor evaluations will include an air refueling envelope demonstration (must accomplish in flight).

1.10.2.1. **Aircraft.** Initial evaluations will be administered with an IP/SEFE in the pilot position and the examinee in the copilot position. Recurring evaluations may be administered with a student, 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.

1.10.3. **Other Aircrew Instructor Evaluations.** Instructor flight evaluations will be conducted with a student occupying the applicable aircrew position whenever possible. 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.

1.10.4. **Periodic Evaluations.** Crewmembers designated as instructors will be evaluated on their ability to instruct during all periodic evaluations. The crewmember must occupy the primary seat position for a sufficient length of time to demonstrate proficiency in the crew position. The determination of what represents a sufficient length of time is left to the judgment of the evaluator.

1.10.5. An instructor receiving an area grade of U or Q- with additional training in any grading area must not perform instructor duties until additional training is complete. This restriction is placed in the comments and the YES block is marked in restrictions.

1.10.6. An instructor receiving an area grade of U or with additional training in any instructor area will result in an overall Qual level 3 for the instructor evaluation.

1.10.7. All instructors will be graded using the criteria in [1.11](#).

Table 1.1. Instructor Evaluation Required Grading Areas (All Crew Positions).

AREA	DESCRIPTION	INST
21	Instructional Ability	R
22	Briefings/Debriefings/Critique	R
23	Demonstration and Performance	R
24-30	Reserved for future use	

1.11. Instructor Grading Criteria. Following grading criteria applies to all instructor evaluations for all crew positions and are required areas IAW [Table 1.1](#).

1.11.1. Area 21. Instructional Ability.

1.11.1.1. **Q.** Demonstrated ability to instruct effectively. Provided appropriate corrective guidance when necessary. Planned training efficiently and made timely decisions.

1.11.1.2. **Q -.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Did not adversely affect student training.

1.11.1.3. **U.** Inability to effectively communicate instruction to the student. Did not provide corrective action when necessary. Did not plan training efficiently and/or made poor decisions adversely effecting safety and/or student training.

1.11.2. Area 22. Briefings/Debriefings/Critique.

1.11.2.1. **Q.** Briefings were well organized, accurate and thorough. Reviewed student's present level of training and defined mission events to be performed. Demonstrated the ability during critique to reconstruct the flight, provide mission analysis. Completed all training documents in accordance with prescribed directives. Training syllabi grade reflected actual performance of student relative to standard.

1.11.2.2. **Q -.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Did not affect student progress.

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

1.11.3. Area 23. Demonstration and Performance.

1.11.3.1. **Q.** Effectively demonstrated procedures and techniques required for positional duties on the ground and in flight. Demonstrated thorough knowledge of aircraft systems, procedures, and all applicable publications and regulations.

1.11.3.2. **Q -.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Did not affect student progress.

1.11.3.3. **U.** Did not demonstrate correct procedure or technique. Insufficient knowledge about aircraft systems, procedures, and/or proper source material.

1.12. General Grading Areas (All Crew Positions and All Evaluations). Following grading areas are required for all evaluations and applies to all crew positions IAW [Table 1.2](#).

Table 1.2. General Grading Areas (All Crew Positions and All Evaluations).

AREA	DESCRIPTION	MSN/QUAL/INSTR
1	Airmanship (CRITICAL)	R
2	Aircrew Discipline (CRITICAL)	R
3	Safety (CRITICAL)	R
4	Crew Coordination	R
5	Publications/Personal and Professional Equipment	R
6	Mission Planning	R
7	Preflight/Ground Operations	R
8	Emergency Equipment/Procedures	R (Note 1)
9	General/Systems Knowledge	R**
10	Communications	R
11	OPSEC/COMSEC	R**
12	Checklist Usage	R
13	Postflight	R
14	Briefings/Debriefings	R (Note 2)
15-20	Reserved for future use	

NOTES:

1. The EPE satisfies this requirement for pilots, copilots, and FEs.
2. Required for crew positions responsible for presenting briefs and/or debriefs.

KEY:

R—Required for QUAL evaluations only.
R1—Required for MSN evaluations only.
R** or R1**—Area may be graded ATD or by verbal examination.

1.13. General Grading Criteria. Following grading criteria applies to all crew positions and all evaluations IAW [Table 1.2](#).

1.13.1. Area 1. Airmanship (CRITICAL).

1.13.1.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension. Made appropriate decisions based on available information.

1.13.1.2. **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.

1.13.2. Area 2. Aircrew Discipline (CRITICAL).

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

1.13.2.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations. Mission accomplishment or safety of flight was jeopardized.

1.13.3. Area 3. Safety (CRITICAL).

1.13.3.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment. Identified and assessed risk appropriately. Properly considered consequences of decisions.

1.13.3.2. **U.** Was not aware of or did not comply with all safety factors required for safe operations or conduct of the mission. Did not adequately clear. Operated the aircraft in a dangerous manner.

1.13.4. Area 4. Crew Coordination.

1.13.4.1. **Q.** Effectively coordinated with other crewmembers. Effectively identified, coordinated, and executed alternative mission activity in response to inflight contingencies. Communicated in a clear and effective manner. Effective use of CRM.

1.13.4.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Crew coordination was the minimum acceptable.

1.13.4.3. **U.** Failed to coordinate. Coordinated and/or reported with errors, omissions, misunderstandings, confusion, or delays that could jeopardize mission accomplishment. CRM was not practiced such that mission accomplishment or safety of flight was jeopardized.

1.13.5. Area 5. Publications/Personal and Professional Equipment.

1.13.5.1. **Q.** Possessed all required personal and professional equipment. All equipment was maintained in serviceable condition. Publications were current, contained only minor deviations or errors and usable for any of the unit's missions.

1.13.5.2. **Q-.** Did not have all required personal/professional equipment in serviceable condition. Publications contained deviations/omissions that would not impact flight safety or mission accomplishment.

1.13.5.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

1.13.6. Area 6. Mission Planning.

1.13.6.1. **Q.** Checked all factors applicable to flight. When required, extracted necessary information from available and applicable sources (air tasking order/frag). Planned for alternate missions as required. Prepared at briefing time.

1.13.6.2. **Q-.** Mission planning included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

1.13.6.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

1.13.7. Area 7. Preflight/Ground Operations.

1.13.7.1. **Q.** Read and initialed all items in the Flight Crew Information File (FCIF)/Read Files prior to stepping to the aircraft. Completed all checks and procedures prior to takeoff IAW tech orders, checklists, and instructions in a timely manner.

1.13.7.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

1.13.7.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

1.13.8. Area 8. Emergency Equipment/Procedures.

1.13.8.1. **Q.** Demonstrated thorough knowledge of emergency equipment location, use, and limitations. Analyzed actual/simulated malfunctions and described/accomplished steps for completing the emergency procedures in the correct sequence without delay. Effectively coordinated with other crewmembers to affect corrective action. Used checklists and available aids as required.

1.13.8.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Minor deviations or omissions in describing/accomplishing the required steps of the emergency procedure.

1.13.8.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

1.13.9. Area 9. General/Systems Knowledge.

1.13.9.1. **Q.** Satisfactorily demonstrated proper management and operation of systems and equipment. Correctly identified and located system components, explained and related their functions, and limitations.

1.13.9.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Stated correct system status, but could not determine its effect on related systems.

1.13.9.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

1.13.10. Area 10. Communications.

1.13.10.1. **Q.** Understood and executed proper internal/external communications capabilities and employment for the mission. Communications were standard, clear, concise, and brief.

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

1.13.10.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

1.13.11. Area 11. OPSEC/COMSEC.

1.13.11.1. **Q.** Used proper OPSEC/COMSEC. Demonstrated knowledge of authentication procedures (as applicable).

1.13.11.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. No security deviations or compromises occurred.

1.13.11.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

1.13.12. Area 12. Checklist Usage.

1.13.12.1. **Q**. Used the correct checklist and gave the correct response at the appropriate time throughout the mission.

1.13.12.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

1.13.12.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

1.13.13. Area 13. Postflight.

1.13.13.1. **Q**. Completed all postflight checks and procedures IAW applicable tech orders, checklist, and instructions. Completed appropriate forms and paperwork as applicable.

1.13.13.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

1.13.13.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

1.13.14. Area 14. Briefings/Debriefings.

1.13.14.1. **Q**. Briefings/Debriefings effectively organized and professionally presented in a logical sequence. Covered all applicable items.

1.13.14.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

1.13.14.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

Chapter 2

GROUND REQUISITES

2.1. General. Ground requirements for qualification, instrument and mission evaluations are listed in this chapter. Flight requirements are in the general and position specific chapters.

2.2. Ground Phase Requisites. The requisites in **Table 2.1.** are common to all crew positions and will be accomplished IAW AFI 11-202V2, as supplemented, and unit directives. Normally, all crew positions complete open and closed book testing prior to the flight phase to include the Instrument Refresher Course (IRC) and IRC exam for all pilots and navigators.

2.2.1. SD Qualification Training students will complete open and closed book testing prior to the SMO track evaluation.

2.2.2. **Emergency Procedures Evaluation (EPE).** Conduct EPEs as a ground-phase requisite to all flight evaluations. The EPE will include areas commensurate with the examinee's qualification and Ready Aircrew Program (RAP) training level. **NOTE:** The term "EPE" is considered synonymous with "ground eval."

2.2.2.1. Pilot and flight engineer EPEs will be conducted in the simulator IAW **Chapter 3** of this volume and OGV evaluation profiles.

2.2.2.2. Navigator and Mission Crew EPEs will be evaluated inflight or verbally. The EPE will address emergency procedures and applicable emergency equipment. Area 8 (Emergency Equipment/Procedures) satisfies the EPE requirement.

2.2.3. **Publications Check.** A publications check will be accomplished on all issued flight publications required by AFI 11-2E-8V3, *E-8 Aircrew Procedures*, as part of every qualification evaluation.

2.3. Flight Simulator Evaluation Procedures. Areas to be evaluated during instrument evaluations and emergency procedures evaluations (EPE) will consist of the following:

2.3.1. **Instrument Flight Evaluations (Pilot/Copilot).** Instrument Flight Evaluations are authorized to be performed in the flight simulator IAW AFI 11-202V2, as supplemented. The examinee will be evaluated on compliance with applicable procedures contained in AFMAN 11-217, *Instrument Flight Procedures*, and the flight manual. The evaluation will be based on the individual area criteria outlined in **Chapter 3**. Evaluation requirements completed in the simulator can be used to complete the flight evaluation.

2.3.2. Emergency Procedure Evaluations (EPEs):

2.3.2.1. Reference AFI 11-202V2, an EPE is required for all pilots and flight engineers within the eligibility period for required flight evaluations.

2.3.2.2. SEFE pilots and FEs will administer all EPE for like crew positions.

2.3.2.3. AF Form 2519, **General Purpose Checklist**, or locally generated forms, will be overprinted with the appropriate evaluation areas. Evaluation results will be recorded and trended.

2.3.2.4. Primary method of EPE accomplishment is in the WST. OG/CC approval required to accomplish EPE in another ATD or verbally.

| Table 2.1. Crew Position Specific Requirements.

Test Type	Pilot (All)			Navigator (All)		FE (All)	Mission Crew (All)	
	QUAL	INSTM	MSN	QUAL	MSN	QUAL/MSN	QUAL	MSN
OPEN BOOK	R			R		R	R (NOTE 1)	
CLOSED BOOK	R			R		R	R (NOTE 1)	
IRC		R		R				
EPE	R (NOTE 2)					R (NOTE 2)		

NOTES:

1. Senior Director (SD) Qualification Training students who immediately enter SD track after SMO track evaluation do not need to re-accomplish the open/closed book test.
2. Primary method of EPE accomplishment is in the WST. OG/CC approval required to accomplish EPE in another ATD or verbally.

KEY:

R—Required for QUAL evaluations only.

Chapter 3

FLIGHT CREW EVALUATIONS

3.1. General. This chapter contains task areas and criteria to evaluate flight crew qualifications during qualification and mission evaluations.

3.1.1. E-8C crewmembers that have completed TE-8A differences training are qualified to their highest E-8C position (e.g., instructor, evaluator).

3.1.2. No-Notice evaluations for pilots and flight engineers may be conducted on the TE-8A, but will not update the MSN evaluation. QUAL/INSTM evaluations, for pilots, may be flown on the TE-8A or E-8C. Mission evaluations will be conducted on a mission sortie. SEFEs will make an entry on the AF Form 8 indicating an evaluation was conducted on the TE-8A.

3.1.3. All Navigator evaluations will be administered in the E-8C.

3.1.4. Initial Flight Engineer Instructor evaluations will not be used to update a periodic evaluation.

3.1.5. EPE: Emergency procedures should cover a cross section of aircraft systems such as engines, hydraulics, electrical, avionics, fuel and pneumatics. Examinees should be able to demonstrate an understanding of aircraft systems beyond the actual steps required for an emergency procedure.

3.1.5.1. EPE profiles should cover emergency procedure for all phases of flight (pre-takeoff, take-off, enroute, approach, and landing). Include all bold face procedures. Units will tailor mission EPE profiles to unit mission tasking and include areas not normally evaluated inflight. Threat knowledge and retrograde operations will be discussed as elements of the pilot mission EPEs.

3.2. Flight Crew Evaluation Requirements. In addition to the General Evaluation Requirements, all flight crew will be evaluated on the areas listed in the [Table 3.1](#).

Table 3.1. Flight Crew Evaluation Requirements.

AREA	DESCRIPTION	PILOT	COPILOT	NAV	FE
301	Takeoff and Landing Data (TOLD)	R	R		R
302	Weight and Balance				R
303	Takeoff/Transition Procedures	R	R	R	R
304	Departure/Climbout	R	R	R	R
305	On Station	R1	R1	R1	R
306	Air Refueling	R1	R1	R1**	R** (NOTE 3)
307	Inflight Checks	R	R	R	R
308	HVAA Procedures/Retrograde	R1	R1	R1	
309	Descent/Penetration	R	R	R	R
310	Unusual Attitudes	R (NOTE 1)	R (NOTE 1)		
311	Holding	R (NOTE 5)	R (NOTE 5)		
312	Fix to Fix	R (NOTE 5)	R (NOTE 5)		

AREA	DESCRIPTION	PILOT	COPILOT	NAV	FE
313	Non-Precision Approach	R	R		
314	Precision Approach	R	R		
315	Missed Approach/Climb Out	R	R		
316	VFR Pattern	R	R		
317	Three Engine Approach	R (NOTE 1)			
318	Three Engine Landing	R			
319	Three Engine Go Around	R (NOTE 1)			
320	Landing	R (NOTE 2)	R (NOTE 2)		R
321	Touch and Go (IP/Certified AC)	R			
322	Landing Attitude Demonstration (IP)	R (NOTE 4)			
323	Partial Flap Landing (IP)	R (NOTE 4)			
324	General Aircraft Control	R	R		
325	General Navigation	R	R	R	

NOTES:

1. Preferred method of accomplishment is WST.
2. Pilot: At least one landing will be evaluated utilizing thrust reversers. Copilot: Landing may be evaluated on a touch and go.
3. Must be accomplished in flight for initial QUAL evaluations.
4. For IP evaluations, evaluatees will accomplish either Landing Attitude Demonstration or Partial Flap Landing (Flap 14, Flap 25, Flap 25-50) as determined by evaluator.
5. Evaluate area if accomplished.

KEY:

R—Required for QUAL evaluations only.

R1—Required for MSN evaluations only.

R**—Required for QUAL evaluations only and may be evaluated by other means (paragraph 1.6.2.).

R1**—Required for MSN evaluations only and may be evaluated by other means (paragraph 1.6.2.).

3.3. Flight Crew Grading Criteria.

3.3.1. Area 301. Takeoff and Landing Data (TOLD).

3.3.1.1. **Q.** Computed/checked required takeoff and landing data within tolerances below. Knowledgeable of takeoff and landing performance data.

- 3.3.1.1.1. Field Pressure Altitude +/- 200 feet.
 - 3.3.1.1.2. Outside Air Temperature +/- 3 degrees C.
 - 3.3.1.1.3. Power Setting (EPR) +/- .02.
 - 3.3.1.1.4. All computed speeds +/- 3 KIAS.
 - 3.3.1.1.5. All computed distances +/- 500 feet.
 - 3.3.1.1.6. All computed Gross Weights +/- 2000 lbs.
 - 3.3.1.1.7. Stabilizer setting +/- .3 units.
- 3.3.1.2. **Q** -. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Data computed within the below tolerances.
- 3.3.1.2.1. Field Pressure Altitude +/- 500 feet.
 - 3.3.1.2.2. Outside Air Temperature +/- 5 degrees C.
 - 3.3.1.2.3. Power Setting (EPR) +/- .04.
 - 3.3.1.2.4. All computed speeds +/- 5 KIAS.
 - 3.3.1.2.5. All computed distances +/- 700 feet.
 - 3.3.1.2.6. All computed Gross Weights +/- 5000 lbs.
 - 3.3.1.2.7. Stabilizer setting +/- .5 units.
- 3.3.1.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.
- 3.3.2. Area 302. Weight and Balance.
- 3.3.2.1. **Q**. Demonstrated a satisfactory knowledge of aircraft weight and balance. Completed/checked the DD Form 365-4, **Weight and Balance Clearance Form**, accurately. Errors in percent of MAC or gross weight did not exceed +/- 0.5% or +/- 2000 lbs.
 - 3.3.2.2. **Q** -. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Completed/checked DD Form 365-4 with minor errors, omissions, and/or deviations. Errors in percent of MAC or gross weight did not exceed +/- 1.0% or +/- 5000 lbs.
 - 3.3.2.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.
- 3.3.3. Area 303. Takeoff/Transition Procedures.
- 3.3.3.1. **Q**. Accomplished procedures and checklist as required by the flight manual and governing directives.
 - 3.3.3.1.1. Airspeed -5/+10 KIAS. See note.
 - 3.3.3.1.2. Heading +/- 5 degrees. See note.
 - 3.3.3.2. **Q** -. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.3.2.1. Airspeed -10/+15 KIAS. See note.

3.3.3.2.2. Heading +/- 10 degrees. See note.

3.3.3.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

NOTE: Paragraphs [3.3.3.1.1.](#), [3.3.3.1.2.](#), [3.3.3.2.1.](#), and [3.3.3.2.2.](#) apply only to pilot and copilot evaluations.

3.3.4. Area 304. Departure/Climbout.

3.3.4.1. **Q.** Accomplished procedures and checklist as required by the flight manual and governing directives. Monitored headings, altitudes, and aircraft position throughout the departure.

3.3.4.1.1. Pilot/Copilot. Performed departure as published/directed and complied with all instructions/restrictions.

3.3.4.1.2. Navigator. Monitored terrain clearance.

3.3.4.2. **Q -.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.4.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.5. Area 305. On Station.

3.3.5.1. **Q.** Maintained situational awareness of mission developments and requirements. Updated mission information as applicable for real time mission changes.

3.3.5.1.1. Pilot/Copilot/Navigator. Effectively established aircraft in mission orbit. Coordinated effectively with all required agencies.

3.3.5.1.2. Flight Engineer. Inflight data computations were accurate and accomplished in a timely manner. Data computations accomplished IAW applicable directives.

3.3.5.2. **Q -.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.5.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.6. Area 306. Air Refueling.

3.3.6.1. **Q.** Demonstrated thorough knowledge of air refueling and rendezvous procedures.

3.3.6.1.1. Pilot. Established and maintained proper refueling position. Aircraft control was smooth and positive. Pilot air refueling requires 15 minutes in contact or onload complete. Three inadvertent disconnects are allowed.

NOTE: Contact time may be reduced (not less than 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.

3.3.6.1.2. Copilot. Performance of duties during rendezvous and refueling operations will be evaluated. Copilots will be able to establish and maintain stable pre-contact position (approx-

mately 5 minutes). Copilots certified on the letter of Xs to perform air refueling require 5 minutes of boom time.

3.3.6.1.3. Navigator. Accomplished time control accurately and efficiently. Turn range and offset were correctly computed within 2 NM.

3.3.6.1.4. Flight Engineer. Fully knowledgeable of air refueling operations. Managed and unloaded fuel in accordance with applicable flight manuals and directives.

3.3.6.2. **Q -**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.6.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.7. Area 307. Inflight Checks.

3.3.7.1. **Q**. Accomplished inflight checks as required by the flight manual and governing directives.

3.3.7.2. **Q -**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.7.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.8. Area 308. HVAA Procedures/Retrograde.

3.3.8.1. **Q**. Demonstrated/discussed sound tactical maneuvers and knowledge of threats to the E-8C. Performed adequate tactical planning.

3.3.8.2. **Q -**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.8.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.9. Area 309. Descent/Penetration.

3.3.9.1. **Q**. Accomplished procedures and checklist as required by the flight manual and governing directives. Effectively utilized appropriate FLIP publications.

3.3.9.2. **Q -**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.9.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.10. Area 310. Unusual Attitudes.

3.3.10.1. **Q**. Smooth and positive recovery to level flight. Demonstrated/used correct recovery procedures.

3.3.10.2. **Q -**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Slow to analyze attitude or erratic recovery to level flight.

3.3.10.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.11. Area 311. Holding.

3.3.11.1. **Q.** Entry and holding procedures IAW AFM 11-217. Remained within airspace limits.

3.3.11.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Nonstandard entry and holding procedures, but remained within airspace limits.

3.3.11.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.12. Area 312. Fix to Fix.

3.3.12.1. **Q.** Properly followed AFM 11-217V1 procedures. Initial heading within 30 degrees of required, proper updates to heading were accomplished, and crossed the desired fix within 3 NM.

3.3.12.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Initial heading was outside 30 degrees and updates were slow to correct required heading. Crossed desired fix within 5NM.

3.3.12.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.13. Area 313. Non Precision Approach.

3.3.13.1. **Q.** Accomplished procedures and checklist as required by the flight manual and governing directives. Arrived at Minimum Descent Altitude (MDA) prior to or at Visual Descent Point (VDP). Position would have permitted safe landing.

3.3.13.1.1. Airspeed. -5/+10 KIAS.

3.3.13.1.2. Altitude. -25/+100 ft (after reaching MDA and prior to MAP).

NOTE: Allowance below MDA applies only to momentary deviations.

3.3.13.1.3. Course/Heading. +/- 5 degrees or within one dot.

3.3.13.1.4. Timing. Computed to 10% of actual timing (when applicable).

3.3.13.2. **Q-.** Performed procedures with minor deviations. Slow to make corrections. Arrived MDA prior to/at missed approach point (MAP). Position would have allowed safe landing.

3.3.13.2.1. Airspeed -10/+15 KIAS.

3.3.13.2.2. Altitude. -50/+150 ft (after reaching MDA and prior to MAP).

NOTE: Allowance below MDA applies only to momentary deviations.

3.3.13.2.3. Course/Heading. +/- 10 degrees or within two dots.

3.3.13.2.4. Timing. Computed to 20% of actual timing (when applicable).

3.3.13.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.14. Area 314. Precision Approach.

3.3.14.1. **Q.** Performed procedures correctly/as published. Smooth and timely corrections. Position would have permitted a safe landing.

3.3.14.1.1. Glideslope. Did not exceed slightly above/below or one dot.

3.3.14.1.2. Airspeed. $-5/+10$ KIAS.

3.3.14.1.3. Course/Heading. $+/-5$ degrees of controller's instructions or within one dot.

3.3.14.1.4. Decision Height (DH). Complied with DH.

3.3.14.2. **Q-** Performed procedures with minor deviations. Slow to respond/make corrections. Complied with decision height. Position would have permitted a safe landing.

3.3.14.2.1. Glideslope. Within PAR safety limits or 2 dots above/1 dot below (ILS).

3.3.14.2.2. Airspeed. $-5/+15$ KIAS.

3.3.14.2.3. Course/Heading. $+/-10$ degrees of controller's instructions or within one dot.

3.3.14.2.4. DH. Slow to respond to DH.

3.3.14.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.15. Area 315. Missed Approach/Climb-Out. Missed Approach must be initiated from an instrument approach.

3.3.15.1. **Q.** Executed missed approach as published or directed. Completed all procedures according to applicable flight manual and directives.

3.3.15.1.1. Level off altitude. $+/- 200$ ft.

3.3.15.1.2. Airspeed. $+/- 5$ KIAS.

NOTE: Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.

3.3.15.1.3. Course/Heading. $+/- 5$ degrees.

3.3.15.1.4. TACAN Arc. $+/- 2$ miles.

3.3.15.2. **Q-** Executed missed approach with minor deviations. Slow to comply with published procedures, controller's instructions, flight manual procedures, or directives.

3.3.15.2.1. Level off altitude. $+/- 300$ ft.

3.3.15.2.2. Airspeed. $+/- 10$ KIAS.

NOTE: Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.

3.3.15.2.3. Course/Heading. $+/- 10$ degrees.

3.3.15.2.4. TACAN Arc. $+/- 3$ miles.

3.3.15.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.16. Area 316. VFR Pattern.

3.3.16.1. **Q.** Performed traffic patterns according to the flight manual, operational procedures, and directives. Aircraft control was positive and smooth. Effectively cleared ahead of flight-path.

3.3.16.1.1. Altitude. +/- 200 ft.

3.3.16.1.2. Airspeed. -5 (Did not exceed Flap Placard).

3.3.16.2. **Q-.** Performed traffic patterns with minor deviations to procedures outlined in the flight manual, operational procedures, and directives. Aircraft control was not consistently positive and smooth, but safe. Adequately cleared area of intended flight.

3.3.16.2.1. Altitude. +/- 300 ft.

3.3.16.2.2. Airspeed. -5 (Did not exceed Flap Placard).

3.3.16.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.17. Area 317. Three Engine Approach.

3.3.17.1. **Q.** Performed pre-landing checks, traffic pattern, and approach in accordance with procedures outlined in the flight manual and other directives. Aircraft control was positive and smooth.

3.3.17.1.1. Pattern Altitude. +/- 200 ft.

3.3.17.1.2. Airspeed on Final. -5/ + 15 KIAS.

3.3.17.1.3. Airspeed Pattern. -5 (Did not exceed Flap Placard).

3.3.17.2. **Q-.** Minor procedural errors during pre-landing checks, traffic pattern, approach which did not affect safety. Landed in slight crab.

3.3.17.2.1. Pattern Altitude. +/- 300 ft.

3.3.17.2.2. Airspeed on Final. -5/ + 20 KIAS.

3.3.17.2.3. Airspeed Pattern. -10 (Did not exceed Flap Placard).

3.3.17.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.18. Area 318. Three Engine Landing.

3.3.18.1. **Q.** Accomplished procedures and checklist as required by the flight manual and governing directives. Touchdown was within desired area on centerline.

3.3.18.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Touchdown was within desired area but not on centerline.

3.3.18.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.19. Area 319. Three Engine Go Around.

3.3.19.1. **Q.** Accomplished procedures and checklist as required by the flight manual and governing directives. Rudder inputs well coordinated with power inputs. Acquired and maintained a positive climb and straight ground track.

3.3.19.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Slow or hesitant to initiate go around. Straight ground track was not maintained. Rudder inputs not well coordinated with power inputs.

3.3.19.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.20. Area 320. Landing.

3.3.20.1. **Q**. Accomplished procedures and checklist as required by the flight manual and governing directives. Correctly used thrust reversers, as applicable.

3.3.20.1.1. Pilot/copilot. Touchdown was within desired area, on centerline.

3.3.20.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.20.2.1. Pilot/copilot. Touchdown was within desired area, on centerline.

3.3.20.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.21. Area 321. Touch and Go (IP/Certified ACs).

3.3.21.1. **Q**. Accomplished procedures and checklist as required by the flight manual and governing directives. Made all appropriate call outs and positively controlled the procedure.

3.3.21.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Slow or hesitant to make all appropriate call outs and positively control the procedure.

3.3.21.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.22. Area 322. Landing Attitude Demonstration (IP Only).

3.3.22.1. **Q**. Accomplished procedures and checklist as required by the flight manual and governing directives. Power and control inputs effectively illustrated the proper landing picture.

3.3.22.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.22.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.23. Area 323. Partial Flap Landing (IP Only)

3.3.23.1. **Q**. Accomplished procedures and checklist as required by the flight manual and governing directives. Power and control inputs were effectively performed.

3.3.23.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.23.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.24. Area 324. General Aircraft Control.

3.3.24.1. **Q.** Maintained aircraft control throughout the flight. Promptly recognized and corrected deviations.

3.3.24.1.1. Altitude. +/- 100 feet.

3.3.24.1.2. Airspeed. +/- 10 KIAS or .04 Mach.

3.3.24.1.3. Course/Heading. +/- 5 degrees.

3.3.24.1.4. TACAN/DME Arc. +/- 2 NM.

3.3.24.2. **Q-**. Erratic aircraft control during the flight. Slow to recognize/correct deviations.

3.3.24.2.1. Altitude. +/- 200 feet.

3.3.24.2.2. Airspeed. +/- 20 KIAS or .08 Mach.

3.3.24.2.3. Course/Heading. +/- 10 degrees.

3.3.24.2.4. TACAN/DME Arc. +/- 3 NM.

3.3.24.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.3.25. Area 325. General Navigation.

3.3.25.1. **Q.** Monitored aircraft position using all available aids and took positive action in a timely manner to ensure aircraft did not deviate from assigned clearance. Operations complied with National Airspace System (NAS) rules and procedures. Complied with minimum safe maneuvering speeds below 10,000 feet MSL. Maintained NAS awareness in all areas of mission planning and flight operations.

3.3.25.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

3.3.25.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

Chapter 4

MISSION CREW EVALUATIONS

4.1. General. This chapter contains task areas and criteria to evaluate mission crew qualifications during qualification and mission evaluations.

4.1.1. This chapter applies to the following crew positions: Mission Crew Commander (MCC), Deputy Mission Crew Commander (DMCC), Senior Director (SD), Sensor Management Officer (SMO), Air Weapons Officer (AWO), Senior Director Technician (SDT), Air Operations Technician (AOT), Airborne Intelligence Officer/Technician (AIO/T), Communication Systems Technician (CST), Airborne Mission System Specialists (AMSS), and Airborne Target Surveillance Supervisor (ATSS).

4.1.2. SD-QT students who immediately enter SD track after SMO track evaluation do not need to demonstrate Target Development, Attack Support, and Sensor Management during SD track evaluation.

4.2. Mission Crew Evaluation Requirements. In addition to the General Evaluation Requirements, all mission crew will be evaluated on the areas listed in the [Table 4.1.](#) and [Table 4.2.](#)

4.2.1. Mission evaluations will encompass all areas identified in the evaluation requirement table for each crew position. Mission evaluations should include live forces/events. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

Table 4.1. Mission Crew Evaluation Requirements (Officer)

AREA	DESCRIPTION	MCC	DMCC	SD	SMO	AWO	AIO
401	Console Operations	R	R	R	R	R	R
402	Enroute/ Outbound	R	R	R	R	R	R
403	Assuming Station	R	R	R			
404	Sensor Management	R	R	R	R		
405	Operations Section Management			R			
406	Surveillance/ Target Development			R	R1	R	R1
407	Attack Support			R	R1	R	
408	Tactical Situation		R1				R1
409	Broadcast Intel						R
410	JTIDS Operations						
411	SCDL/SATCOM		R				

AREA	DESCRIPTION	MCC	DMCC	SD	SMO	AWO	AIO
412	Malfunction Analysis/ Inflight Repair						
413	Rules of Engagement	R1	R1	R1	R1	R1	R1
414	Retrograde	R1	R1				R1
415	Off-Station/ Inbound	R	R	R			
KEY:							
R—Required for QUAL evaluations only.							
R1—Required for MSN evaluations only.							

Table 4.2. Mission Crew Evaluation Requirements (Enlisted)

AREA	DESCRIPTION	SDT	AOT	AIT	CST	AMSS	ATSS
401	Console Operations	R	R	R	R	R	R
402	Enroute/ Outbound	R	R	R	R	R	R
403	Assuming Station				R	R	
404	Sensor Management						R1
405	Operations Section Management	R					
406	Surveillance/ Target Development	R	R	R1			R
407	Attack Support						
408	Tactical Situation			R1			
409	Broadcast Intel			R			
410	JTIDS Operations	R					
411	SCDL/SATCOM						R
412	Malfunction Analysis/ Inflight Repair				R (NOTE)	R (NOTE)	
413	Rules of Engagement	R1	R1	R1			
414	Retrograde			R1			

AREA	DESCRIPTION	SDT	AOT	AIT	CST	AMSS	ATSS
415	Off-Station/ Inbound	R			R	R	R
<p>NOTE: May be accomplished in ATD.</p> <p>KEY:</p> <p>R—Required for QUAL evaluations only.</p> <p>R1—Required for MSN evaluations only.</p>							

4.3. Mission Crew Grading Criteria.

4.3.1. Area 401. Console Operations.

4.3.1.1. **Q.** Thoroughly prepared the console for the mission. Effectively interpreted, initiated, and modified data. Displayed thorough knowledge of appropriate switch actions to accomplish required inputs. Recognized malfunctions and took proper corrective action.

4.3.1.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Slow to recognize or uncertain of malfunction indications or proper corrective action.

4.3.1.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.2. Area 402. Enroute/Outbound.

4.3.2.1. **Q.** Coordinated, directed, supervised, or conducted activities required to checkout mission systems enroute to assigned station IAW directives. Monitored/coordinated on internal/external communications for mission execution and aircraft/mission systems status.

4.3.2.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.2.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.3. Area 403. Assuming Station.

4.3.3.1. **Q.** Assessed mission systems status to ensure capability exists to assume on station responsibilities and complete assigned mission tasks. Declared on-station IAW directives. Informed appropriate external agencies of E-8 status.

4.3.3.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.3.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.4. Area 404. Sensor Management.

4.3.4.1. **Q.** Ensured sensor was properly managed to accomplish mission tasking. Monitored systems displays, recognized degradation and, if applicable, adjusted parameters to minimize effects due to Electronic Attack and/or atmospheric and terrain factors.

4.3.4.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Did not fully understand how to employ/manage sensor.

4.3.4.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.5. Area 405. Operations Section Management.

4.3.5.1. **Q**. Efficiently employed personnel and assets to accomplish mission tasking without error or delay. Optimized available systems and implemented changes, when required, to ensure mission accomplishment.

4.3.5.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.5.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.6. Area 406. Surveillance/Target Development.

4.3.6.1. **Q**. Conducted area surveillance/tracking (recognition, initiation, continuity, and resolution of track attention, alerts and messages) IAW directives. Relayed appropriate target related information to crewmembers in a timely and efficient manner as required. Ensured appropriate radar/track data was voice told to proper agencies IAW mission tasking as applicable. Recognized and reported degraded sensor performance to include radar anomalies associated with Electronic Attack without confusion or delay.

4.3.6.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.6.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.7. Area 407. Attack Support.

4.3.7.1. **Q**. Interpreted and relayed tasking to supported assets IAW directives or pre-briefed format. Able to analyze the tactical situation and update supported assets when required. Timely and accurately responded to supported assets. Reported applicable threats and/or friendly locations in a timely manner

4.3.7.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.7.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.8. Area 408. Tactical Situation.

4.3.8.1. **Q**. Correlated intelligence and operations inputs to remain abreast of the tactical situation. Correctly analyzed appropriate intelligence information and disseminated appropriate data to other crewmembers and outside agencies, based on mission priorities.

4.3.8.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Slow to correlate intelligence and operations inputs.

4.3.8.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.9. Area 409. Broadcast Intelligence (BI).

4.3.9.1. **Q**. Accomplished/supervised all required checks thoroughly and effectively. Displayed working knowledge of BI system components, operation, and limitations. Fully determined status of required systems. Recognized and analyzed malfunction indications and applied proper corrective action. Skillfully and effectively used BI during all portions of the mission when applicable.

4.3.9.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Slow to recognize or analyze malfunction indications resulting in unnecessary delays. Made errors while using BI or did not use BI to his/her advantage.

4.3.9.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.10. Area 410. Joint Tactical Information Distribution System (JTIDS) Operations.

4.3.10.1. **Q**. Effectively managed the operation and termination of JTIDS IAW applicable directives. Recognized and reported any degraded performance to appropriate crewmembers and off board agencies.

4.3.10.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.10.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.11. Area 411. Surveillance Control Data Link (SCDL)/Satellite Communications (SATCOM).

4.3.11.1. **Q**. Ensured SCDL/SATCOM system was properly configured to meet mission requirements. Effectively managed offboard Radar Service Requests, and Freetext messages to meet the ground component commander's needs. Recognized and reported any degraded performance to appropriate crewmembers and off board agencies.

4.3.11.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.11.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.12. Area 412. Malfunction Analysis/Inflight Repair

4.3.12.1. **Q**. Analyzed equipment malfunctions, and applied proper corrective action or system reconfigurations. Adequate knowledge of system equipment and troubleshooting in accordance with manuals, directives, and locally approved established procedures. Utilized and properly applied available resources to maintain an operational system. Kept crew informed of operational limitations and advised on possible work-arounds.

4.3.12.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.12.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.13. Area 413. Rules of Engagement (ROE).

4.3.13.1. **Q**. Implemented ROE for peacetime, transition, and wartime conditions. Understood theater ROE policies and procedures. Responded to ROE situations according to directives.

4.3.13.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.13.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.14. Area 414. Retrograde.

4.3.14.1. **Q**. Knowledgeable of what steps to take during a retrograde. Knowledgeable of the threats to the aircraft.

4.3.14.2. **Q-** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.14.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.3.15. Area 415. Off-Station/Inbound Procedures.

4.3.15.1. **Q**. Established communications with relieving unit and ensured effective transfer of mission responsibility/taskings(as applicable). Accomplished/supervised all actions required for handing over applicable data links. Coordinated with appropriate agencies for calling off station. Performed diagnostics, data reduction and/or power down (as applicable). Collected/documented all required information for mission forms and logs.

4.3.15.2. **Q-**. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.

4.3.15.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

4.4. Forms Adopted. AF Form 8, **Certificate of Aircrew Qualification**, AF Form 2519, **General Purpose Checklist**, DD Form 365-4, **Weight and Balance Clearance Form**.

RONALD E. KEYS, Lt General, USAF
DCS/Air & Space Operations

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 11-2, *Aircraft Rules and Procedures*
AFPD 11-4, *Aviation Service*
AFMAN 11-217, *Instrument Flight Procedures*
AFMAN 37-139, *Records Disposition Schedule*
AFI 11-202V2, *Aircrew Standardization/Evaluation Program*
AFI 11-202V3, *General Flight Rules*
AFI 11-2E-8V3, *E-8 Aircrew Procedures*
AFI 33-360V1, *Publications Management Program*

Abbreviations and Acronyms

AC—Aircraft Commander
ACC—Air Combat Command
AFI—Air Force instruction
AFMAN—Air Force manual
AFPD—Air Force policy directive
AFRC—Air Force Reserve Command
AIO/T—Air Intelligence Officer/Technician
AMSS—Airborne Mission System Specialists
ANG—Air National Guard
AOT—Air Operations Technician
ARMS—Aviation Resource Management System
ASR—Airport surveillance radar
ATA—Airport traffic area
ATCAA—Air traffic control assigned airspace
ATD—Aircrew training device
ATSS—Airborne Target Surveillance Supervisor
AWACS—Airborne Warning and Control System
AWO—Air Weapons Officer
BI—Broadcast intelligence

BMC—Basic mission capable
CC—Commander
COMM—Communication(s)
CP—Co-pilot
CMR—Combat mission ready
COMSEC—Communication security
CST—Communication Systems Technician
CRM—Cockpit/crew resource management
DEG—Degree
DH—Decision height
DMCC—Deputy Mission Crew Commander
DME—Distance measuring equipment
DO—Director of Operations
DRU—Direct reporting unit
ECM—Electronic counter measures
EFC—Expect further clearance
EP—Emergency procedures
EMCOM—Emission control
EPE—Emergency procedures evaluation
EPM—Electronic protection measures
EPR—Engine pressure ratio
EW—Electronic warfare
FCIF—Flight crew information file
FE—Flight Engineer
FEF—Flight evaluation folder
FOA—Field operating agency
FP—First pilot
FTU—Field training unit
GCI—Ground control intercept
HF—High frequency
HHQ—Higher headquarters
HQ—Headquarters

HVAA—High value airborne asset
IAS—Indicated airspeed
IAW—In accordance with
IFF—Identification friend or foe
ILS—Instrument landing system
INIT—Initial
INSTM—Instrument
INSTR—Instructor
IP—Instructor pilot
IRC—Instrument refresher course
JSTARS—Joint Surveillance Target Attack Radar System
JTIDS—Joint Tactical Information Distribution System
KIAS—Knots indicated airspeed
LBS—Pounds
MAC—Mean aerodynamic center
MAJCOM—Major command
MAP—Missed approach point
MCC—Mission Crew Commander
MCR—Multi-command regulation (old designation)
MDA—Minimum descent altitude
MDS—Mission design series
MOA—Military operating area
MQF—Master question file
MR—Mission ready
MSN—Mission
N/A—Not available (or not applicable)
NAF—Numbered air force
NAS—National Airspace System
NAV—Navigator
N/N—No-notice
NM—Nautical mile
NOTAMS—Notice to Airmen

OCR—Office of collateral responsibility
OG—Operations group
OGV—Operations group standardization/evaluation
OPR—Office of primary responsibility
OPSEC—Operation security
P—Pilot
PAR—Precision approach radar
PCS—Permanent change of station
PME—Primary mission equipment
QUAL—Qualification
Q—Qualified
R—Required
RAP—Ready Aircrew Program
ROE—Rules of engagement
SAM—Surface-to-air missile
SATCOM—Satellite communication
SAV—Staff assistance visit
SCDL—Surveillance control data link
SD—Senior Director
SDT—Senior Director Technician
SEB—Standardization evaluation board
SEFE—Standardization evaluation flight examiner
SELO—Standardization evaluation liaison officer
SIF—Selective identification feature
SIM—Simulator
SMO—Sensor Management Officer
SPINS—Special instructions
SQ—Squadron
SQB—Secure question bank
SSAN—Social security number
STAN/EVAL—Standardization/evaluation
TACAN—Tactical air navigation

TCM—Terminate counter measures

TDY—Temporary duty

TOLD—Takeoff and landing data

U—Unqualified

UHF—Ultra high frequency

US—United States

USAF—United States Air Force

VDP—Visual descent point

VHF—Very high frequency

VFR—Visual flight rules

VOR—Very high frequency omnidirectional range station

WST—Weapon System Trainer

Terms

Deviation—Performing an action not in sequence with current procedures, directives, or regulations. Performing action(s) out of sequence due to unusual or extenuating circumstances is not considered a deviation. In some cases, momentary deviations may be acceptable; however, cumulative momentary deviations will be considered in determining the overall qualification level.

Error—Departure from standard procedures and/or performing incorrect actions.

Omission—To leave out a required action.

The following definitions apply to deviation, omission and error:

Major—Detracted from mission accomplishment, adversely affected use of equipment, and/or violated safety.

Minor—Did not detract from mission accomplishment, adversely affect use of equipment, or violate safety.