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SECRETARY OF THE AIR FORCE**

**AIR FORCE INSTRUCTION 11-2E-8,  
VOLUME 2**



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***Flying Operations***

***E-8 – AIRCREW EVALUATION CRITERIA***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This volume implements AFD 11-2, *Aircrew Operations*, AFD 11-4, *Aviation Service*; AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, and AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*. It establishes the minimum Air Force standards for qualifying and evaluating personnel performing duties in the E-8. It applies to all E-8C, Joint Surveillance Target Attack Radar System (JSTARS) units. MAJCOMs/DRUs/FOAs will forward proposed MAJCOM/DRU/FOA-level supplements to this volume to AF/A3O-AI, through ACC/A3TO for approval prior to publication IAW AFI 11-200. 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). MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to AF/A3O-AI, ACC/A3CA, 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 review and coordination prior to approval and publication, IAW AFI 11-200. **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 33-360, *Publications and Forms Management*. See [paragraph 1.4](#) of this volume for procedures on how and where to submit recommended changes to this publication. This publication requires the collection and or maintenance of information protected by the Privacy Act of 1974. Aviation Resource Management System (ARMS) (March 4, 2011, 76 FR 12084) 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 Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). Contact supporting records managers as required.

## **SUMMARY OF CHANGES**

**This document is substantially revised and must be completely reviewed.**

This revision reflects transition of the E-8C from a blended total force organization to an active duty associate organization and contains substantial changes. This instruction is applicable to Air National Guard (ANG) and Active Duty members. Revisions to this instruction include a separate criteria section for instructor evaluations (**Chapter 6**). General grading areas are rearranged for specifics to that crew position. 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 (FEs) and aircrews with procedures and evaluation criteria/tolerances to be used during flight and ground phases of initial and periodic evaluations. All E-8 evaluations will be conducted according to this volume and Air Force Instruction (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 will 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. Crew position specific requirements are listed in **Table 4.1**, **Table 5.1**, and **Table 5.2**. Evaluate all crewmembers on areas listed in **Table 3.1** and all instructors on areas listed in **Table 6.1**.

**1.2. Applicability.** This volume is applicable to all individuals performing crew duties on E-8C and TE-8A aircraft. TE-8A does not require a separate qualification. Qualifications in E-8C are also valid for TE-8A.

#### **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. Recommend changes using AF Form 847, Recommendation for Change of Publication. Recommendations should focus on specific areas and standards of performance and sent to 116 OGV.

1.4.2. Unless specifically noted in the appropriate section, waiver authority for this instruction is HQ ACC/A3, IAW AFI 11-202V2.

1.4.2.1. Submit waiver requests through channels to HQ ACC/A3C. HQ ACC/A3CA will coordinate all waiver requests. All waivers from HQ ACC/A3 will include NGB/A3 and ACC/A3TV as information addressees.

#### **1.5. Procedures.**

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

1.5.2. Prior to the flight, FEs will brief the examinee on the conduct, purpose, and requirements of the evaluation, as well as all applicable evaluation criteria.

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

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

## **1.6. Grading Instructions.**

1.6.1. Evaluations are graded using the three-tier area/subarea grades (Q/Q-/U) and the overall qualification level grading system (Q1/Q2/Q3).

1.6.2. Every reasonable effort should be made to evaluate all areas in flight. Verbal evaluations are considered alternate methods of evaluations and will be documented in the Additional Comments portion of the AF Form 8.

1.6.2.1. If an alternate evaluation method is used to satisfy a part of the ground or flight phase requirements, enter area number, area title, reason not accomplished in the normal method, alternate evaluation method used and date.

1.6.3. FEs will use the grading criteria in this volume to determine individual area/subarea grades. FE judgment must be exercised when specific situations are not covered.

1.6.4. Minor momentary deviations are acceptable, provided the examinee applies prompt corrective action and such deviations do not jeopardize flight safety. Consider cumulative deviations when determining the overall area/subarea grade.

## **1.7. Unsatisfactory Performance.**

1.7.1. FE will not allow substandard performance to jeopardize safety of flight.

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

1.7.3. A different FE will conduct rechecks.

1.7.4. Flying (i.e. T&G, CP A/R, etc) certified individuals must demonstrate their ability to safely perform each maneuver and will perform it during the evaluation. If performance of the maneuver is not acceptable, the evaluator will recommend decertification to the SQ/CC.

## Chapter 2

### GROUND REQUISITES

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

**2.2. Ground Phase Requisites.** Requisites are listed in **Table 2.1** for all crew positions.

2.2.1. Emergency Procedures Evaluation (EPE). Conduct EPEs for all flight evaluations except for instructor-only evaluations. (EXCEPTION: Instructor Pilots will conduct an EPE for all evaluations to include instructor-only evals.) The EPE will include areas commensurate with the examinee's qualification.

2.2.1.1. Pilot and flight engineer EPEs will be conducted in the WST and will be administered by like specialty. All boldface and unusual attitude recovery procedures will be evaluated during the EPE, along with a sampling of emergency procedures and system malfunctions from all phases of flight to include preflight, engine start, taxi, takeoff, enroute, approach, and landing. OG/CC approval is required for pilot/flight engineer EPEs conducted outside of WST.

2.2.1.2. Pilot and co-pilot EPEs and Instrument evaluations can be conducted during the same simulator session.

2.2.1.3. Navigator and Mission Crew EPEs will be evaluated in-flight or verbally. The EPE will address emergency procedures and applicable emergency equipment and will include discussions on applicable notes, cautions and warnings. (NOTE: Examinees on initial instructor-only evaluations are not required to perform an EPE, but are responsible for all emergency procedures and equipment knowledge as necessary. See also **Table 6.1**)

**Table 2.1. Specific Crew Position Requisites.**

Test Type	Pilot		Navigator	Flight Engineer	Mission Crew
	QUAL/MSN	INSTM	QUAL/MSN	QUAL/MSN	QUAL/MSN
OPEN BOOK	R		R	R	R
CLOSED BOOK	R		R	R	R
Instrument		R	R		
EPE	R		R*	R*	R*
<b>KEY:</b> R—Required. R* - not required for initial instructor only evals					

## Chapter 3

## GENERAL GRADING AREAS

**3.1. General Grading Areas (All Crew Position Evaluations).** Use **Table 3.1** for all QUAL/MSN/INSTR/SPOT evaluations.

**Table 3.1. General Grading Areas (All Crew Position Evaluations).**

AREA	DESCRIPTION	QUAL/MSN/INSTR/SPOT
1	Airmanship (CRITICAL)	R
2	Aircrew Discipline (CRITICAL)	R
3	Safety (CRITICAL)	R
4	Crew Coordination	R (6)
5	Publications/Personal and Professional Equipment	R
6	Mission Planning	R
7	Preflight/Ground Operations	R
8	Emergency Equipment/Procedures	R (1, 3, 5)
9	General/Systems Knowledge	R (3)
10	Communications	R
11	OPSEC/COMSEC	R (3)
12	Checklist Usage	R
13	Postflight	R
14	Briefings/Debriefings	R (2,4)
15-20	Reserved for future use	
<p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1. The simulator EPE satisfies requirement for pilots, copilots, and flight engineers.</li> <li>2. Mandatory only for crew positions required to brief and/or debrief.</li> <li>3. May be accomplished either verbally or in the ATD. (Pilot and Flight Engineers see <b>paragraph 2.2.1.1.</b>)</li> <li>4. Not required for Navigator, Flight Engineer, or Mission Crew initial instructor evaluations, unless realigning with periodic evaluation.</li> <li>5. When more than one evaluation is conducted, an examinee not performing primary emergency duties will demonstrate emergency procedures separately.</li> <li>6. Malfunction Analysis/In-flight Repair satisfies the requirement for Communication System Technicians (CST) and Airborne Mission System Specialists (AMSS).</li> </ol> <p><b>KEY:</b> R – Required.</p>		

**3.2. General Grading Criteria.**

**3.2.1. Area 1. Airmanship (CRITICAL).**

3.2.1.1. **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.

3.2.1.2. **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.

**3.2.2. Area 2. Aircrew Discipline (CRITICAL).**

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

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

**3.2.3. Area 3. Safety (CRITICAL).**

3.2.3.1. **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.

3.2.3.2. **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 and/or mission and emergency equipment in a dangerous manner.

**3.2.4. Area 4. Crew Coordination.**

3.2.4.1. **Q.** Effectively coordinated with other crewmembers and external agencies. Effectively coordinated alternative mission activity in response to in-flight contingencies. Effective use of Crew Resource Management (CRM).

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

3.2.4.3. **U.** Failed to coordinate. Coordinated and/or reported with errors, omissions, misunderstandings, confusion, or delays that could jeopardize mission accomplishment. CRM was practiced such that mission accomplishment or safety of flight was jeopardized.

**3.2.5. Area 5. Publications/Personal and Professional Equipment.**

3.2.5.1. **Q.** Possessed all required personal and professional equipment. Publications were current, contained only minor deviations or errors and usable for any of the unit's missions.

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

3.2.5.3. **U.** Publications were not current, or were posted with major omissions, deviations, or errors that could have jeopardized mission accomplishment or flight safety.

**3.2.6. Area 6. Mission Planning.**

3.2.6.1. **Q.** Checked all factors applicable to flight. Ensured live or simulated activity is correct and adequately coordinated, de-conflicted, and briefed. When required, correctly interpreted information and extracted necessary information from available and

applicable sources (air tasking order/frag). Planned for alternate missions as required. For show and go profiles, the examinee is not required to mission plan, but will thoroughly review and understand all pertinent mission documents. The Examinee is also responsible for the accuracy of the mission planning documents. IQT and upgrade students will mission plan their own sorties.

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

3.2.6.3. **U**. Mission planning procedures and products were incomplete or incorrect. Errors or omissions could have jeopardized mission accomplishment or flight safety.

### 3.2.7. **Area 7. Preflight/Ground Operations.**

3.2.7.1. **Q**. Read all applicable items in the Flight Crew Information File (FCIF) prior to stepping to the aircraft. Completed all checks and procedures prior to takeoff IAW tech orders, checklists, and instructions in a timely manner. When required, took corrective action on the ground for system issues or malfunctions.

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

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

### 3.2.8. **Area 8. Emergency Equipment/Procedures.**

3.2.8.1. **Q**. Recognized actual/simulated malfunctions. Applied proper corrective actions. Effectively used checklist/flight manual. Ensured accountability. Effectively performed primary emergency duties or was thoroughly familiar with emergency duties. Effectively coordinated emergency actions with other crewmembers without delay or confusion. When required, demonstrated thorough knowledge of mission impact due to equipment failure/loss.

3.2.8.2. **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.

3.2.8.3. **U**. Errors or omissions could have jeopardized mission accomplishment or flight safety and/or damaged aircraft equipment.

### 3.2.9. **Area 9. General/Systems Knowledge.**

3.2.9.1. **Q**. Satisfactorily understood proper management and operation of systems and equipment. Correctly identified and located system components, explained and interpreted their functions, capabilities and limitations. Effectively demonstrated knowledge of mission employment, roles and responsibilities. Demonstrated knowledge of mission related external agencies, and threats to mission accomplishment.

3.2.9.2. **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.

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

**3.2.10. Area 10. Communications.**

3.2.10.1. **Q.** Effectively monitored, understood and executed proper internal/external communications. Communications were standard, clear, concise, and brief. Examinee effectively configured/operated communication equipment to include checkout, net substitution, frequency changes and utilizing the telephone function.

3.2.10.2. **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.

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

**3.2.11. Area 11. OPSEC/COMSEC.**

3.2.11.1. **Q.** Used proper OPSEC/COMSEC procedures. Demonstrated knowledge of authenticators and authentication procedures (as applicable). Maintained positive control of OPSEC and COMSEC materials. When required, performed inventory of OPSEC/COMSEC materials.

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

3.2.11.3. **U.** Errors or omissions could have jeopardized mission accomplishment or flight safety and/or caused security deviations or compromises.

**3.2.12. Area 12. Checklist Usage.**

3.2.12.1. **Q.** Used correct checklists throughout the mission and gave the correct response at the appropriate time.

3.2.12.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety.

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

**3.2.13. Area 13. Postflight.**

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

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

3.2.13.3. **U.** Not up to "Q-" standards. Errors or omissions could have jeopardized future mission accomplishment or flight safety and/or damaged aircraft equipment.

**3.2.14. Area 14. Briefings/Debriefings.**

3.2.14.1. **Q.** Effectively organized and professionally presented briefings and debriefings in a logical sequence. Covered all applicable items IAW all governing directives. When required, participated in or conducted initial, coordination, retrograde, specialized, step summary, execution and crew brief/debriefs. Prepared for brief at the designated briefing time.

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

3.2.14.3. **U.** Information was incorrect, misleading or missing and could have jeopardized mission accomplishment or flight safety.

## Chapter 4

### FLIGHT CREW EVALUATIONS

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

4.1.1. No-Notice evaluations for pilots and flight engineers may be conducted on the E-8C and TE-8A. INSTM/QUAL evaluations for pilots may be flown on the E-8C or TE-8A.

4.1.2. All navigator evaluations will be administered in the E-8C on a mission sortie.

4.1.3. Initial flight engineer instructor evaluations will not be used to update a periodic evaluation.

**4.2. Flight Crew Evaluation Requirements.** All flight crew will be evaluated on the areas listed in the [Table 4.1](#)

**Table 4.1. Flight Crew Evaluation Requirements.**

AREA	DESCRIPTION	IP	AC	CP	NAV	FE
301	Takeoff and Landing Data (TOLD)	R	R	R		R
302	Weight and Balance	R				R
303	Takeoff/Transition Procedures	R	R	R	R	R
304	Departure/Climb out	R	R	R	R	R
305	On Station	R	R	R	R	R
306	Air Refueling	R (10,11)	R	R (9)	R(1,2,5)	R(1,2,5)
307	In-flight Checks	R	R	R	R	R
308	HVAA Procedures/Retrograde	R	R	R	R	
309	Descent/Penetration	R	R	R	R	R
310	Unusual Attitudes	R (3)	R (3)	R (3)		
311	Holding	R (1,4)	R (1,4)	R (1,4)		
312	Reserved for future use					
313	Non-Precision Approach	R (1,10)	R (1)	R (1)		
314	Precision Approach	R (1,10)	R (1)	R (1)		
315	Missed Approach/Climbout	R (1)	R (1)	R (1)		
316	VFR Pattern	R (10)	R	R		
317	Three Engine Approach	R	R (1)			
318	Three Engine Landing	R (10)	R			
319	Three Engine Go Around	R (10)	R (1)			
320	Landing	R (7)	R (6,7)	R (7)		R
321	Touch & Go (IP/Certified AC and CP)	R	R (1,9)	R (9)		
322	Landing Attitude Demonstration (LAD)	R (8,10)				
323	Partial Flap Landing (IP)	R (8)	R			
324	General Aircraft Control	R	R	R		

325	General Navigation	R	R	R	R	
	<p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1. May be evaluated in Weapon System Trainer/Navigator Training Station (WST/NTS).</li> <li>2. Must be accomplished in flight for initial QUAL/MSN evaluations.</li> <li>3. Preferred method of accomplishment is WST.</li> <li>4. Evaluate area if accomplished.</li> <li>5. May be evaluated by other means except for IQT Nav evaluations. See also 1.6.2</li> <li>6. IQT pilot will be evaluated using thrust reversers.</li> <li>7. Landing may be evaluated on a touch and go.</li> <li>8. For IP evaluations examinee must accomplish either a LAD <u>or</u> a partial flap landing.</li> <li>9. Certified individuals (see 1.7.4.).</li> <li>10. For Initial IP evaluations not aligning with periodic eval, examinees are only required to perform the following (see 6.1.1.1): <ul style="list-style-type: none"> <li>- Air refueling boom envelope demo</li> <li>- Either a Prec <u>or</u> Non Prec approach</li> <li>- Either a 3-eng landing <u>or</u> 3-eng go-around</li> <li>- Either a partial flap landing <u>or</u> landing attitude demo</li> <li>- Instruct an instrument approach or VFR pattern flown by another pilot</li> </ul> </li> <li>11. All IP evals will include an air refueling boom envelope demo (see 6.1.1.1).</li> </ol> <p><b>KEY:</b> R – Required for qual/msn evaluations</p>					

### 4.3. Flight Crew Grading Criteria.

#### 4.3.1. Area 301. Takeoff and Landing Data (TOLD).

4.3.1.1. **Q.** Computed/checked required takeoff and landing data within tolerances below. Skilled in takeoff and landing performance data.

4.3.1.1.1. Field Pressure Altitude +/- 200 feet.

4.3.1.1.2. Outside Air Temperature +/- 3 degrees C.

4.3.1.1.3. Power Setting (EPR) +/- .02.

4.3.1.1.4. All computed speeds +/- 3 KIAS.

4.3.1.1.5. All computed distances +/- 500 feet.

4.3.1.1.6. All computed Gross Weights +/- 2000 lbs.

4.3.1.1.7. Stabilizer setting +/- .3 units.

4.3.1.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Data computed within the below tolerances.

4.3.1.2.1. Field Pressure Altitude +/- 500 feet.

4.3.1.2.2. Outside Air Temperature +/- 5 degrees C.

- 4.3.1.2.3. Power Setting (EPR) +/- .04.
- 4.3.1.2.4. All computed speeds +/- 5 KIAS.
- 4.3.1.2.5. All computed distances +/- 700 feet.
- 4.3.1.2.6. All computed Gross Weights +/- 5000 lbs.
- 4.3.1.2.7. Stabilizer setting +/- .5 units.

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 302. Weight and Balance.**

4.3.2.1. **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.

4.3.2.2. **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.

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 303. Takeoff/Transition Procedures.**

4.3.3.1. **Q.** Accomplished procedures and checklist as required by the flight manual and governing directives.

4.3.3.1.1. Pilot/Copilot. Airspeed +10/-5 KIAS.

4.3.3.1.2. Pilot/Copilot. Heading +/- 5 degrees.

4.3.3.1.3. Navigator. Computed minimum groundspeed within +/- 5 KTS and notified pilots prior to takeoff. Notified pilots of deviations in heading and altitude. Monitored and complied with all weather restrictions. Monitored departure, arrival and approach publications and procedures. Notified pilots of any deviations.

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

4.3.3.2.1. Pilot/Copilot. Airspeed +15/-10 KIAS.

4.3.3.2.2. Pilot/Copilot. Heading +/- 10 degrees.

4.3.3.2.3. Navigator. Provided incorrect (greater than +/- 5 KTS, but less than +/- 10 KTS) minimum groundspeed. Missed minor heading or altitude deviations. Missed minor arrival, departure or approach procedure instructions that did not jeopardize flight safety.

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 304. Departure/Climbout.**

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

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

4.3.4.1.2. Navigator. Monitored departure procedures, headings, altitude and terrain clearance. If necessary, informed pilots of changes and deviations.

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

4.3.4.2.1. Navigator. Missed changes and deviations that did not jeopardize mission accomplishment or flight safety.

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 305. On Station.**

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

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

4.3.5.1.2. Navigator. Performed On-Stations Tactics. Established a suitable orbit location within directed airspace. Accomplished OWS set-up IAW governing directives as soon as practical.

4.3.5.1.3. Flight Engineer. In-flight data computations were accurate and accomplished in a timely manner. Data computations accomplished IAW applicable directives.

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

4.3.5.2.1. Navigator. Exhibited limited On-Stations Tactics, OWS set-up, or orbit positioning knowledge that did not jeopardize mission accomplishment.

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 306. Air Refueling.**

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

4.3.6.1.1. Pilot. Established and maintained proper refueling position. Aircraft control was smooth and stable. Pilot air refueling requires 15 minutes in contact or onload complete, whichever is longer. Three inadvertent disconnects are permitted. Air to air rendezvous was conducted IAW prescribed procedures and all checklists were accomplished with only minor discrepancies. **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. A 15 cumulative 15 min requirement should be used with initial AC evaluations.

4.3.6.1.2. Copilot. Performance of duties during rendezvous and refueling operations will be evaluated. Copilots will be able to establish and maintain stable pre-contact position (5 minutes). Copilots certified for air refueling (contact position) will be evaluated IAW **paragraph 4.3.6.1.1**.

4.3.6.1.3. Navigator. Air to air refueling rendezvous was conducted IAW prescribed procedures and all checklists were accomplished with only minor discrepancies. Directed closure to within 1 NM of tanker. Correctly computed turn range within +/- 2 NMs and offset within +/- 2 NMs.

4.3.6.1.4. Flight Engineer. Knowledgeable of air refueling operations. Managed and on loaded fuel in accordance with applicable flight manuals and directives.

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

4.3.6.2.1. Navigator. Displayed lack of knowledge with the checklists or rendezvous procedures. Computed turn range greater than +/- 2 NMs, but less than +/- 5 NMs and offset greater than +/- 2 NMs, but less than +/- 5 NMs.

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 307. In-flight Checks.**

4.3.7.1. **Q**. Accomplished in-flight checks as required by the flight manual and governing directives.

4.3.7.1.1. Navigator. Performed all position and navigation system checks/updates in accordance with governing directives.

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 308. HVAA Procedures/Retrograde.**

4.3.8.1. **Q**. Demonstrated/discussed sound tactical maneuvers and knowledge of threats to the E-8C. Performed adequate tactical planning. Examinee should be familiar with the mission tasking, ATO/SPINS, routing, IFF procedures, area threats/WEZs, blue force offensive/defensive/C2ISR assets and JSTARS defensive tactics per AFTTP3-1. Retrogrades may include simulated or actual movement of the aircraft/orbit.

4.3.8.1.1. Navigator. Ensured retrograde plan (to include applicable ground and air threats, DCA, airspace considerations and communications plan) was briefed to the pilots prior to reaching orbit location or as soon as practical. Using any available means, accomplished retrograde procedures in accordance with retrograde plan and decision

ranges. Coordinated communication between mission crew and flight deck. Relocated aircraft position as necessary.

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

4.3.8.2.1. Navigator. Retrograde plan omitted minor details that did not jeopardize the safe retrograde of the aircraft. Retrograde plan was not briefed to the pilots prior to orbit or as soon as practical, but was not omitted.

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 309. Descent/Penetration.**

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

4.3.9.1.1. Navigator. Computed minimum groundspeed within +/- 5 KTS and notified pilots prior to approach. Notified pilots of deviations in heading and altitude. Monitored and complied with all weather restrictions. Monitored applicable arrival or approach procedures.

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

4.3.9.2.1. Navigator. Provided incorrect (greater than +/- 5 KTS, but less than +/- 10 KTS) minimum groundspeed. Missed minor heading and altitude deviations. Missed minor arrival or approach procedure instructions that did not jeopardize flight safety.

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 310. Unusual Attitudes.**

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

4.3.10.2. **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.

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 311. Holding.**

4.3.11.1. **Q**. Entry and holding procedures IAW AFM 11-217V1. Remained within airspace limits.

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 312. Reserved for future use.**

**4.3.13. Area 313. Non Precision Approach.**

4.3.13.1. **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.

4.3.13.1.1. Airspeed. +10/-5 KIAS.

4.3.13.1.2. Altitude. +100/-25 ft (after reaching MDA and prior to MAP). **NOTE:** Allowance below MDA and airspeed applies only to momentary deviations.

4.3.13.1.3. Heading/Course. +/-5 degrees/remained within 1dot.

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

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

4.3.13.2.1. Airspeed +15/-10 KIAS.

4.3.13.2.2. Altitude. +150/-50 ft (after reaching MDA and prior to MAP). **NOTE:** Allowance below MDA and airspeed applies only to momentary deviations.

4.3.13.2.3. Heading/Course. +/-10 degrees or remained within 2 dots.

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

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 314. Precision Approach.**

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

4.3.14.1.1. Glideslope. Remained within 1 dot above/below.

4.3.14.1.2. Airspeed. +10/-5 KIAS.

4.3.14.1.3. Heading/Course. +/-5 degrees of controller's instructions/remained within 1 dot.

4.3.14.1.4. Decision Height (DH). Properly continued the approach or executed a missed approach.

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

4.3.14.2.1. Glideslope. Did not exceed 2 dots above/1 dot below on ILS.

4.3.14.2.2. Airspeed. +15/-5 KIAS.

4.3.14.2.3. Heading/Course. +/-10 degrees of controller's instructions/within 2 dots.

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 315. Missed Approach/Climb-Out.**

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

4.3.15.1.1. Level off altitude. +/-150 ft.

4.3.15.1.2. Airspeed. +/- 5 KIAS. **NOTE:** Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.

4.3.15.1.3. Heading. +/- 5 degrees.

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

4.3.15.2.1. Level off altitude. +/- 200 ft.

4.3.15.2.2. Airspeed. +10/-5 KIAS **NOTE:** Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.

4.3.15.2.3. Heading. +/-10 degrees.

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

#### 4.3.16. **Area 316. VFR Pattern.**

4.3.16.1. **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.

4.3.16.1.1. Altitude. +/- 150 ft.

4.3.16.1.2. Airspeed. -5 KIAS (did not exceed flap placard).

4.3.16.2. **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.

4.3.16.2.1. Altitude. +/- 200 ft.

4.3.16.2.2. Airspeed. Momentary deviation below -5 KIAS.

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

#### 4.3.17. **Area 317. Three Engine Approach.**

4.3.17.1. **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.

4.3.17.1.1. Pattern altitude. +/-150 ft.

4.3.17.1.2. Airspeed on final. +15/-5 KIAS.

4.3.17.1.3. Airspeed pattern. Did not exceed flap placard.

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

4.3.17.2.1. Pattern altitude. +/- 250 ft.

4.3.17.2.2. Airspeed on final. +20/-5 KIAS.

4.3.17.2.3. Airspeed pattern. -5 KIAS Did not exceed flap placard.

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

**4.3.18. Area 318. Three Engine Landing.**

4.3.18.1. **Q.** Accomplished procedures and checklist as required by the flight manual and governing directives. Touchdown was within designated touchdown zone, with minor deviation from centerline.

4.3.18.2. **Q-.** Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Touchdown was within designated touchdown zone, off centerline.

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

**4.3.19. Area 319. Three Engine Go Around.**

4.3.19.1. **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.

4.3.19.2. **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.

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

**4.3.20. Area 320. Landing.**

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

4.3.20.1.1. Pilot/copilot. Touchdown was within designated touchdown zone, with minor deviation from centerline.

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

4.3.20.2.1. Pilot/copilot. Touchdown was within designated touchdown zone, off centerline.

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

**4.3.21. Area 321. Touch and Go (IPs and certified Aircraft Commanders (ACs)).**

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

4.3.21.2. **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.

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

**4.3.22. Area 322. Landing Attitude Demonstration (IP only).**

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

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

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

**4.3.23. Area 323. Partial Flap Landing (IP only).**

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

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

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

**4.3.24. Area 324. General Aircraft Control.**

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

4.3.24.1.1. Altitude. +/- 150 feet.

4.3.24.1.2. Airspeed. +10/-5 KIAS or .04 Mach.

4.3.24.1.3. Heading. +/- 5 degrees.

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

4.3.24.2.1. Altitude. +/- 200 feet.

4.3.24.2.2. Airspeed. +20/-5 KIAS or .08 Mach.

4.3.24.2.3. Heading. +/- 10 degrees.

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

**4.3.25. Area 325. General Navigation.**

4.3.25.1. **Q.** Monitored aircraft position using all available aids and took positive action in a timely manner to maintain assigned clearance. Complied with National Airspace System (NAS) rules and procedures. Complied with minimum safe maneuvering speeds below 10,000 feet MSL.

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

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

## Chapter 5

### MISSION CREW EVALUATIONS

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

5.1.1. This chapter applies to the following crew positions: Mission Crew Commander (MCC), Deputy Mission Crew Commander (DMCC), Senior Director (SD), 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).

**5.2. Mission Crew Evaluation Requirements.** In addition to the General Evaluation Requirements, all mission crew will be evaluated on the areas listed in the [Table 5.1](#) and [Table 5.2](#)

5.2.1. Mission evaluations will encompass all areas identified in the evaluation requirement table for each crew position. An operational radar is required to complete mission crew evaluations. (Exception: CST/AMSS may complete evaluations if adequate system troubleshooting meets requirements.) Aircraft/aircrew must call on station IAW with applicable directives and must have sufficient station time to accomplish all required tasks. Evaluations should be accomplished during a live or simulated scenario involving one or more mission sets to include Close Air Support (CAS), Maritime (MI), Air Interdiction (XINT), Personnel Recovery (PR), Suppression/Destruction of Enemy Air Defenses (SEAD/DEAD), Tactical Air Control - Airborne (TAC(A)), or any other dynamic mission.

5.2.2. Dual qualified MCC/SD personnel will be evaluated using both MCC and SD mission crew evaluation requirements listed in [Table 5.1](#)

**Table 5.1. Mission Crew Evaluation Requirements (Officer).**

AREA	DESCRIPTION	MCC	DMCC	SD	AWO	AIO
401	Console Operations	R(1)	R(1)	R(1)	R(1)	R(1)
402	Enroute/ Outbound	R	R	R	R	R
403	Assuming Station	R(3)	R(3)	R(3)	R(3)	R(3)
404	Sensor Management	R(3)	R(3)	R(3)	R(3)	
405	Mission Management	R(3)	R(3)	R(3)		
406	Surveillance/ Target Development			R(1)	R(1)	R(1)
407	Attack Support			R(1)	R(1)	
408	Tactical Situation	R(3)	R(3)	R(3)	R(3)	R(3)
409	Broadcast Intel					R(1)
410	JTIDS Operations	R(3)		R(1,3)	R(1,3)	
411	SCDL/SATCOM		R(3)			
413	Rules of Engagement	R(3)	R(3)	R(3)	R(3)	R(3)
414	Retrograde	R(2)	R(2)			R
415	Off-Station/ Inbound	R(3)	R(3)	R(3)	R(3)	R(3)

NOTES:

1. May be accomplished in the ATD individually.
2. May be accomplished verbally.
3. May be accomplished in the ATD during crew sim.

Key: R – Required.

**Table 5.2. Mission Crew Evaluation Requirements (Enlisted).**

AREA	DESCRIPTION	SDT	AOT	AIT	CST	AMSS	ATSS
401	Console Operations	R(1)	R(1)	R(1)	R	R	R(1)
402	Enroute/ Outbound	R	R	R	R(3)	R(3)	R
403	Assuming Station			R(2)	R(3)	R(3)	R(2)
404	Sensor Management						R(2)
405	Mission Management	R(2)					
406	Surveillance/ Target Development	R(2)	R(2)	R(2)			R(2)
408	Tactical Situation			R(2)			
409	Broadcast Intel			R(1)			
410	JTIDS Operations	R(2)					
411	SCDL/SATCOM						R(3)
412	Malfunction Analysis/ In-flight Repair				R(3)	R(3)	
413	Rules of Engagement	R(2)	R(2)	R(2)			
414	Retrograde			R			
415	Off-Station/ Inbound	R(2)	R(2)	R(2)	R	R	R(2)

NOTES:

1. May be accomplished in the ATD individually.

2. May be accomplished in the ATD during crew sim.
  3. May be accomplished verbally.
- KEY: R – Required

### **5.3. Mission Crew Grading Criteria.**

#### **5.3.1. Area 401. Console Operations.**

5.3.1.1. **Q.** Effectively manipulated windows on graphics display, set up console and monitored tabular displays necessary to accomplish mission tasks. Effectively interpreted, initiated, and modified data. Displayed thorough knowledge of appropriate switch actions to accomplish required inputs. Recognized malfunctions and took proper corrective action.

5.3.1.1.1. CST/AMSS. Responded appropriately to dialog windows and system alerts as required.

5.3.1.1.2. AWO. As necessary, created, modified, and deleted radar service requests to accomplish mission tasking. Effectively employed chat, email, and messaging functions.

5.3.1.1.3. All Mission Crew (exception CST/AMSS). Effectively employed chat, email, and messaging functions.

5.3.1.2. **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.

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

#### **5.3.2. Area 402. Enroute/Outbound.**

5.3.2.1. **Q.** Coordinated, directed, supervised, or conducted activities required to checkout mission systems enroute to assigned station. Reported system issues as necessary. Monitored and coordinated internal and external communications for mission execution. Monitored aircraft and mission systems status.

5.3.2.1.1. CST. Loaded/setup communications equipment for mission use. Monitored and coordinated both aircraft and mission communications system status.

5.3.2.1.2. AMSS. Configured radar and mission equipment for mission use and monitored and coordinated mission systems status.

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

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

#### **5.3.3. Area 403. Assuming Station.**

5.3.3.1. **Q.** Monitored and assessed mission systems status to ensure capability exists to assume on station responsibilities and complete assigned mission tasks. Declared on-station IAW directives. Identified and reported alibis or deficiencies that could impact

mission accomplishment. Informed appropriate external agencies of aircraft status. Annotated mission changes and coordinated changes as required. Equipment permitting, ensured sufficient station time to accomplish mission tasks.

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

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

#### 5.3.4. **Area 404. Sensor Management.**

5.3.4.1. **Q**. Ensured sensor was properly managed to accomplish mission tasking. Employed sensor and prioritized radar requests. Monitored systems displays, recognized degraded sensor performance and, if applicable, adjusted parameters to minimize effects due to Electronic Attack and/or atmospheric and terrain factors. Updated external agencies on sensor performance as necessary.

5.3.4.1.1. **SD**. Operated radar for sufficient length of time to demonstrate proficiency.

5.3.4.1.2. **AWO**. Configured, checked out, and operated radar for sufficient time to demonstrate proficiency. Demonstrated Electronic Attack procedures.

5.3.4.2. **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.

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

#### 5.3.5. **Area 405. Mission Management.**

5.3.5.1. **Q**. Effectively managed personnel, assets, weapons and system throughout mission planning, sortie, and debrief to accomplish mission tasking with minimized error/delay. Optimized available systems. Implemented and relayed mission changes internally/externally to ensure mission accomplishment.

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

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

#### 5.3.6. **Area 406. Surveillance/Target Development.**

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

5.3.6.1.1. SD. Demonstrated ability to find, fix, and track a minimum of one mover IAW directives.

5.3.6.1.2. AWO. Demonstrated ability to find, fix, and track a minimum of three movers IAW directives.

5.3.6.1.3. SDT/AOT. Initiated and maintained a minimum of three tracks. Provided a minimum of 20 minutes of voice tell and no less than two 1972's passed via voice chat or data link.

5.3.6.1.4. AIO/AIT. Cross-cued radar derived data with crew and external ISR assets to identify MTI tracks. Processed and passed a minimum of two Juliet TACREPS or TACREPS in other approved forms to external agencies IAW directives. Correlated intelligence to develop targets on a minimum of two tracks/areas. Nominated tracks, target, or areas to operations as appropriate.

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

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

#### 5.3.7. Area 407. Attack Support.

5.3.7.1. Q. Performed duties controlling and deconflicting assets during mission. Correctly interpreted and relayed tasking to supported assets IAW directives or pre-briefed format. Analyzed the tactical situation. Provided timely and accurate response to supported assets. Reported applicable mission updates, ROE changes, threats and/or friendly locations in a timely manner.

5.3.7.1.1. SD. Deconflicted a minimum of three assets simultaneously. Controlled and passed targeting data to a minimum of one asset.

5.3.7.1.2. AWO. Controlled and deconflicted a minimum of three assets simultaneously and passed targeting data to at least three assets.

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

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

#### 5.3.8. Area 408. Tactical Situation.

5.3.8.1. Q. Maintained threat awareness for both ownship self defense and defense of friendly aircraft under JSTARS control. Correlated intelligence and operational inputs to remain abreast of the tactical air and ground situation. Correctly analyzed appropriate intelligence information and disseminated appropriate data to other crewmembers and outside agencies, based on mission priorities.

5.3.8.2. 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.

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

**5.3.9. Area 409. Broadcast Intelligence (BI).**

5.3.9.1. **Q.** Accomplished/supervised all required checks thoroughly and effectively. Displayed working knowledge of BI system components, operation and limitations. Configured and set filters as necessary. 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 and shut down as required.

5.3.9.2. **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.

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

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

5.3.10.1. **Q.** Demonstrated knowledge of the JTIDS datalink and monitors link status. Effectively managed the operation and termination of JTIDS IAW applicable directives. Recognized and reported any degraded performance to appropriate crewmembers and off board agencies.

5.3.10.1.1. **SD/AWO.** Demonstrated knowledge of control channels and message sets. Demonstrated ability to digitally control and assign a mission to at least one asset.

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

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

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

5.3.11.1. **Q.** Ensured SCDL/SATCOM system was properly configured to meet mission requirements. Effectively managed/processed a minimum of two MTI and three FTI offboard Radar Service Requests, and three Freetext messages to meet the ground component commander's needs. Recognized and reported any degraded performance to appropriate crewmembers and off board agencies. Demonstrated SATCOM SOS startup and shutdown procedures.

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

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

**5.3.12. Area 412. Malfunction Analysis/In-flight Repair**

5.3.12.1. **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.

5.3.12.1.1. CST. Performed a minimum of one diagnostic 'on voice' and one 'on data'. Effectively performed a proper remove and replace procedure IAW directives.

5.3.12.1.2. AMSS. Performed/discussed a RASP reconfiguration, a sensor reset, and a CC reconfiguration. Utilized DEC term and demonstrated associated procedures. Explained O&C and radar removal/replacement procedures.

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

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

#### 5.3.13. **Area 413. Rules of Engagement (ROE).**

5.3.13.1. **Q.** Implemented ROE for peacetime, transition, and wartime conditions. Understood and ensured crewmembers comprehend and comply with all theater ROE policies and procedures. Responded to ROE situations according to directives.

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

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

#### 5.3.14. **Area 414. Retrograde.**

5.3.14.1. **Q.** Demonstrated knowledge of defensive procedure requirements and what steps to take during a retrograde. Demonstrated knowledge of aircraft threats.

5.3.14.1.1. AIO/AIT. Planned and executed defensive maneuvers/retrograde plan with the navigator. Processed and passed a minimum of three threat calls to the NAV during threat activity.

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

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

#### 5.3.15. **Area 415. Off-Station/Inbound Procedures.**

5.3.15.1. **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 and messages. Coordinated with appropriate agencies and crewmembers for calling off station. Collected/accounted for all required information and mission documentation.

- 5.3.15.1.1. CST. Transmitted station and weather reports and completed a phone patch. Performed diagnostics and powered down as applicable. Collected/accounted for all required information and mission documentation.
- 5.3.15.1.2. AMSS. Performed a minimum of one radar and one O&C diagnostic. Effectively explained 'copy man' procedures and performs shutdown. Collected/accounted for all required information and mission documentation.
- 5.3.15.2. **Q-**. Performance included errors, omissions or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge.
- 5.3.15.3. **U**. Not up to "Q-" standards. Errors or omissions could have jeopardized mission accomplishment or flight safety.

## Chapter 6

### INSTRUCTOR EVALUATIONS

**6.1. Instructor Evaluations.** Instructors are 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 instrument/qualification/mission evaluations (**EXCEPTION:** Initial instructor evaluations for flight engineer cannot be taken in conjunction with qualification/mission evaluations).

6.1.1. 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.

6.1.1.1. Instructor Pilot Evaluations. Instructor evaluations will include an air refueling envelope demonstration accomplished in flight and instruction of at least one VFR pattern or instrument approach flown by another pilot.

6.1.1.1.1. Aircraft. Initial evaluations will be administered with an IP or evaluator pilot in the pilot position and the examinee in the copilot position. Recurring evaluations may be administered with a student, pilot, copilot, IP or evaluator occupying the other pilot position. For recurring IP evaluations, the examinee may occupy either the pilot or copilot position unless a specific position is desired by the FE.

6.1.1.2. 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 FE will particularly note the instructor's ability to recognize student difficulties and provide effective, timely corrective action.

6.1.2. **Recurring Evaluations.** Crewmembers designated as instructors will be evaluated on their ability to instruct during all recurring 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.

6.1.2.1. An instructor receiving an area grade of U in any instructor area will result in an overall Qual level 3 for the instructor evaluation.

6.1.2.2. An instructor receiving a Q- in any instructor area may not instruct until the Q- is resolved by either additional training or debrief.

**6.2. Instructor Evaluation Requirements.** Will be graded using the criteria in [Table 6.1](#)

**Table 6.1. 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
Note: Examinee is responsible for knowledge of areas 1-13 on <b>Table 3.1</b> and crew position specific requirements.		

**6.3. Instructor Grading Criteria.** The following grading criteria apply to all instructor evaluations for all crew positions and are required areas IAW **Table 6.1**

**6.3.1. Area 21. Instructional Ability.**

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

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

6.3.1.3. **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.

**6.3.2. Area 22. Briefings/Debriefings/Critique.**

6.3.2.1. **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 and provide mission analysis. Completed all training documents in accordance with prescribed directives. Training grades reflected actual performance of student relative to standard.

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

6.3.2.3. **U.** Briefings were marginal or nonexistent. Did not review student's level of training or past performance. Failed to brief student on mission expectations. Failed to adequately critique student or provide complete mission analysis. Training grades did not reflect actual performance of student. Comments in Training folder were incomplete. Strengths and weaknesses were not identified. Overlooked or omitted major discrepancies.

**6.3.3. Area 23. Demonstration and Performance.**

6.3.3.1. **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.

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

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

BURTON M. FIELD, Lt Gen, USAF  
DCS, Operations, Plans and Requirements

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

AFPD 11-2, *Aircrew Operations*, 19 Jan 2012

AFPD 11-4, *Aviation Service*, 1 Sep 2004

AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, 19 Jan 2012

AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, 13 Sep 2010

AFI 33-360, *Publications and Forms Management*, 18 May 2006

AFMAN 33-363, *Management of Records*, 1 March 2008

***Adopted Forms***

AF Form 847, *Recommendation for Change of Publication*

AF Form 8, *Certificate of Aircrew Qualification*

DD Form 365-4, *Weight and Balance Clearance Form*

***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

**ATD**—Aircrew training device

**ATSS**—Airborne Target Surveillance Supervisor

**AWO**—Air Weapons Officer

**BI**—Broadcast intelligence

**CC**—Commander

**CP**—Co-pilot

**COMSEC**—Communication security  
**CST**—Communication Systems Technician  
**CRM**—Cockpit/crew resource management  
**DH**—Decision height  
**DMCC**—Deputy Mission Crew Commander  
**DRU**—Direct reporting unit  
**EP**—Emergency procedures  
**EMCOM**—Emission control  
**EPE**—Emergency procedures evaluation  
**EPR**—Engine pressure ratio  
**FE**—Flight Examiner  
**FOA**—Field operating agency  
**HHQ**—Higher headquarters  
**HQ**—Headquarters  
**HVAA**—High value airborne asset  
**IAW**—In accordance with  
**ILS**—Instrument landing system  
**INSTM**—Instrument  
**INSTR**—Instructor  
**IP**—Instructor pilot  
**JTIDS**—Joint Tactical Information Distribution System  
**KIAS**—Knots indicated airspeed  
**MAC**—Mean aerodynamic chord  
**MAJCOM**—Major command  
**MCC**—Mission Crew Commander  
**MDA**—Minimum descent altitude  
**MDS**—Mission design series  
**MSN**—Mission  
**N/A**—Not available (or not applicable)  
**NAF**—Numbered air force  
**NAS**—National Airspace System  
**NAV**—Navigator

**NM**—Nautical mile  
**NTS**—Navigator Training Station  
**OG**—Operations group  
**OGV**—Operations group standardization/evaluation  
**OPR**—Office of primary responsibility  
**OPSEC**—Operation security  
**QUAL**—Qualification  
**R**—Required  
**ROE**—Rules of engagement  
**SATCOM**—Satellite communication  
**SCDL**—Surveillance control data link  
**SD**—Senior Director  
**SDT**—Senior Director Technician  
**SIM**—Simulator  
**SPINS**—Special instructions  
**SQ**—Squadron  
**TOLD**—Takeoff and landing data  
**U**—Unqualified  
**VDP**—Visual descent point  
**VFR**—Visual flight rules  
**WST**—Weapon System Trainer

*Terms*

**Deviation**—Performing an action out of sequence with current procedures, directives or instructions. 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.

**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

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

**Omission**—Leave out a required action.