

**BY ORDER OF THE  
OF COMMANDER AIR COMBAT  
COMMAND**



**AIR COMBAT COMMAND MANUAL  
11-2EC-130H, VOLUME 2**

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**Flying Operations**

**EC-130H AIRCREW EVALUATION  
CRITERIA**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This publication implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations* and AFPD 11-4, *Aviation Service*. It is used in conjunction with Air Force Manual (AFMAN) 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*. It establishes evaluation criterion for initial and periodic aircrew qualification for all EC-130H COMPASS CALL aircraft. This publication applies to all Regular Air Force (RegAF) COMPASS CALL units on active duty. This publication does not apply to Air National Guard, Air Force Reserve or United States Space Force. This publication requires the collection and/or maintenance of information protected by the Privacy Act of 1974 authorized by Title 10 United States Code (USC) § 9013, *Secretary of the Air Force*. The applicable System of Record Notice (SORN) F011 AF XO A, Aviation Resource Management System (ARMS) and SORN F011 AF AFMC B, Patriot Excalibur (PEX) System Records is available at <https://dpcl.d.defense.gov/Privacy/SORNs/>. Ensure that all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed of in accordance with the Air Force Records Disposition Schedule which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. See **paragraph 1.2** of this publication for further guidance on submitting comments and suggesting improvements. This publication may be supplemented at any level, but all supplements must be routed to the OPR of this publication for coordination prior to certification and approval. The authorities to waive wing/unit level

requirements in this publication are identified with a Tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the requestor’s commander for non-tiered compliance items. **Note:** Commanders may waive non-tiered requirements, but must send a copy of the approved waiver to the OPR of the higher headquarters publication being waived within 30 days of approval (see DAFMAN 90-161, para 9.2.2). See **paragraph 1.2** of this publication for further information on waiver authority. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the DAF.

### ***SUMMARY OF CHANGES***

This document has been substantially revised and needs to be completely reviewed. Significant changes include the separation of grading criteria for all crew positions and the inclusion of the Mission Commander evaluation requirements.

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## Chapter 1

### GENERAL INFORMATION

**1.1. General.** Conduct all evaluations in accordance with (IAW) the provisions of AFMAN 11-202, Volume 2, *Aircrew Standardization and Evaluation Program* and this publication.

**1.2. Recommended Changes/Waivers.** Submit recommendations for changes to this publication on DAF Form 847, *Recommendation for Change of Publication*, IAW AFI 11-215, *Flight Manuals Program*, to Air Combat Command (ACC)/ Standardization and Evaluation Branch (A3TV), through 55th Electronic Combat Group/Standardization and Evaluation Office (55 ECG/EGV) for review. ACC/A3TV's address is 205 Dodd Blvd, Suite 101, Langley AFB VA 23665-2789. Submit requests for changes to this publication to ACC/A3TV for approval prior to publication, IAW DAFMAN 90-161, *Publishing Process and Procedures*. Coordinate supplements IAW AFPD 11-2, *Aircrew Operations*. Forward proposed MAJCOM, Direct Reporting Unit (DRU) and operational theater supplements to ACC/A3TV. Submit requests for changes and subordinate supplements to OPR for approval prior to publication. Waiver authority for the contents of this publication is ACC/A3TV. Waiver authority for specific individual aircrew requirements is ACC Director of Operations (ACC/A3). Forward waiver requests to ACC/A3TV through 55 ECG/EGV. Courtesy copy waiver requests to ACC/A3C.

#### 1.3. Key Words and Definitions:

1.3.1. "Will" indicates 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.

1.3.5. See [attachment 1](#) for definitions of deviation, major and minor errors.

#### 1.4. Procedures.

1.4.1. Flight examiners (FEs) will use the evaluation criteria contained in [Chapter 3](#) for conducting flight evaluations and [paragraph 1.5](#) for emergency procedure evaluations (EPE). To ensure standardized and objective evaluations, FEs will be thoroughly familiar with the prescribed evaluation criteria.

1.4.2. The examinee or FE may fly in any seat that best enables the examiner to conduct a thorough evaluation.

1.4.3. FEs will brief the examinee(s) on the conduct, purpose and requirements of the evaluation, including evaluation criteria, prior to flight. **(T-3)** The examinee is responsible for all mission planning.

1.4.4. FEs will thoroughly debrief/critique all aspects of the flight, including the examinee's overall rating, specific deviations, area/sub area grades assigned and additional training required. **(T-3)**

1.4.5. FEs will not disable equipment during flight evaluations in the aircraft, but they may deny the use of systems that do not affect safety of flight.

**1.5. Grading Instructions:** Standardization and performance parameters are contained in this publication.

1.5.1. The tolerances for in-flight parameters are based on conditions of smooth air and a stable aircraft. Do not consider momentary deviations from tolerances, provided the examinee applies prompt corrective action and such deviations do not jeopardize flying safety. FEs will consider cumulative deviations when determining the overall grade. **(T-3)**

1.5.2. The grading system for most areas in this publication is a three-level system Qualified/Qualified-/Unqualified (Q/Q-/U). Areas identified as “critical” in **Table 2.1** through **Table 2.8** 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).

1.5.3. Required areas are indicated with an “R” in **Table 2.1** through **Table 2.8** for specific evaluations. All required areas must be evaluated. **(T-3)** FEs may evaluate any other areas observed at their discretion.

1.5.3.1. When a required area cannot be evaluated in the aircraft due to equipment malfunctions, operational requirements, scheduling restrictions, aircraft configuration or weather, that area may be evaluated by an alternate method (simulator, procedural trainer, or verbal examination). Complete the evaluation on an additional flight when, in the FEs judgment, an item cannot be adequately evaluated by an alternate method.

1.5.3.2. Document the reasons for using alternate methods and the methods used in the “Additional Comments” portion of the AF Form 8, *Certificate of Aircrew Qualification*.

1.5.3.3. Aircrew may maintain qualification in prior crew positions if applicable evaluation areas are evaluated on subsequent evaluations. For example, mission crew supervisors (MCSs) maintain an analysis operator (ANO) or acquisition operator (AO) qualification if additional ANO or AO evaluation areas are evaluated on subsequent MCS evaluations. Annotate additional qualifications maintained in Section IV of AF Form 8.

1.5.3.4. Due to the congruity of ANO and AO duties aboard the EC-130H, an MCS FE may administer an evaluation updating an examinee’s MCS and ANO or AO qualification, regardless of evaluator’s crew position identifier.

1.5.3.5. Incomplete Evaluations. If flight evaluation requirements specified in this publication are not completed, the FE will annotate the AF Form 3862, *Flight Evaluation Worksheet* with the circumstances of the incomplete evaluation. The FE must note all discrepancies and areas not evaluated. The incomplete AF Form 3862 will be placed in Standardization/Evaluation (stan/eval) temporary AF Form 8 storage until the evaluation is complete.

1.5.3.5.1. The evaluation is incomplete if the final qualification level cannot be determined. If the examinee’s performance on the flight was unqualified in any CRITICAL area, consider the flight phase complete and assign an overall Q-3.

1.5.3.5.2. The FE will debrief the portion of the evaluation he/she observed.

- 1.5.3.5.3. If the evaluation is incomplete, another sortie will be scheduled as soon as practical. Attempt to schedule the same evaluator to complete the evaluation.
- 1.5.4. The FE will compare examinee's performance for each area with the standards provided in this publication and assign an appropriate grade. **(T-3)** Derive the overall evaluation grade from the area grades based on a composite for the observed events and tasks IAW AFMAN 11-202V2 and this publication.
- 1.5.4.1. FEs will use the grading criteria in this publication to determine individual area grades. FE judgment must be exercised when the wording of areas is subjective and when specific situations are not covered.
- 1.5.4.2. FE judgment is the determining factor in arriving at the overall grade.
- 1.5.4.3. The FE completing the evaluation will review AF Form 3862 and consider the grades given on prior evaluation sorties when determining final qualification level. The FE completing the evaluation will sign AF Form 3862 and the front of AF Form 8, and debrief the final portion of the evaluation. Other evaluators will use documentation guidance in Chapter 7 of the AFMAN 11-202V2, *Aircrew Standardization and Evaluation Program*, ACC Supplement.

**1.6. Emergency Procedures Evaluation (EPE).** The EPE is a ground requisite on all mission (MSN) and qualification (QUAL) evaluations. Document the EPE on AF Form 3862. This evaluation will include areas commensurate with examinee's Ready Aircrew Program (RAP) training level and event qualifications. **(T-3)**

1.6.1. The following items are required on all EPEs:

1.6.1.1. Emergency Procedures. All BOLDFACE emergencies will be evaluated.

1.6.1.1.1. All BOLDFACE will be evaluated by completion of a written BOLDFACE sheet at the beginning of the EPE. This will complete the BOLDFACE requisite for the evaluation. Any incorrectly completed BOLDFACE results in a "U" for the BOLDFACE requisite. The EPE will not be started until successful completion of the BOLDFACE requisite.

1.6.1.1.2. Aircrews may conduct simulated emergencies in flight while an evaluation is in progress. Simulated emergencies conducted in flight are graded in the flight phase and do not take the place of an EPE.

1.6.1.1.3. Aircraft mission system/general knowledge.

1.6.1.1.4. Cockpit/Crew Resource Management (C/CRM).

1.6.1.1.5. Unusual attitude recoveries. Pilots only.

1.6.2. All instrument/qualification (INSTM/QUAL) EPEs will include the following additional items:

1.6.2.1. Abort.

1.6.2.2. Instrument Flight Procedures, IAW AFMAN 11-217V1, *Instrument Flight Procedures*.

1.6.2.3. AFMAN 11-202V3, *Flight Operations*. **(T-3)**

1.6.2.4. Unusual Attitude Recoveries.

1.6.3. All MSN EPEs will include the following items (tailor MSN evaluation scenarios to unit tasking/mission).

1.6.3.1. Weapon system operation.

1.6.3.2. Electromagnetic Attack (EA)/Self-Protection System.

1.6.3.3. Evasive action/threat reaction.

1.6.3.4. Mission crew MSN/QUAL and flight crew MSN EPEs should emphasize emergencies that may occur during a mission.

1.6.4. Examinees receiving an overall unqualified grade will be placed in supervised status until recommended additional training is completed and/or a re-evaluation is successfully accomplished. **(T-3)** Examinees receiving an overall unqualified grade because of an unsatisfactory BOLDFACE accomplishment will not be permitted to fly until a successful reevaluation is accomplished. **(T-3)** For EPEs in which the examinee is qualified, but requires additional training, the FE is responsible for indicating whether the additional training is accomplished before the next flight. Additional training and re-evaluations will be accomplished IAW AFMAN 11-202V2. **(T-2)**

1.6.5. A single EPE may be administered to fulfill the requisites for the combined MSN/INSTM/QUAL evaluation. The combined EPE must be of sufficient scope and length to ensure all required areas for each evaluation are accomplished. **(T-3)**

1.6.6. The following grading criteria will be used to grade EPEs: **(T-2)**

1.6.6.1. **Q.** Performance is correct. Quickly recognizes and corrects errors.

1.6.6.2. **Q-.** Performance is safe, but indicates limited proficiency. Makes errors of omission or commission.

1.6.6.3. **U.** Performance is unsafe or indicates lack of knowledge or ability.

1.6.7. EPEs will not be conducted in flight.

## **1.7. Additional Training.**

1.7.1. FEs are responsible for the assignment and documentation for additional training requirements.

1.7.2. Required additional training will not normally be accomplished on the same flight as the evaluation. **(T-3) Exception:** Required additional training on the same flight as the evaluation is allowed when unique situations present valuable training opportunities (i.e., thunderstorm avoidance, crosswind landings, etc.) This option requires FE discretion and judicious application. When used, the FE must be informed when additional training begins and ends. **(T-3)**

1.7.3. The simulator (Weapons System Trainer (WST) or COMPASS CALL mission crew simulator {CCMCS}) may be used at the discretion of the FE to accomplish additional training and rechecks. When using the simulator for additional training and rechecks, areas/subareas should be limited to those that can be realistically accomplished in a simulator.

1.7.3.1. For flight deck MSN evaluations in the WST, the WST must be connected to the CCMCS and able to simulate a live mission event. Crews will also perform all mission planning, briefing and debriefing requirements as they would for a mission sortie.

## **1.8. Unsatisfactory Performance.**

1.8.1. Rechecks may be accomplished on the ground or in flight, at the discretion of the FE. Rechecks are normally administered by an examiner other than the one who administered the original evaluation.

1.8.2. If an examinee is observed endangering the safety of flight, the FE (if qualified in the position) will assume the duties of that aircrew member. **(T-3)** This does not mean the FE assumes the examinee's position any time unsatisfactory performance is observed. If the FE feels the examinee can continue safely with supervision, the FE is not required to assume the examinee's duties.

1.8.3. All flight, CCMCS and WST evaluations resulting in flight restrictions, failed requisites or BOLDFACE examinations will be documented on the squadron letter of certifications. FEs will, at a minimum, contact the examinee's flying squadron commander (Sq/CC), squadron director of operations (Sq/DO) or operations supervisor (Ops Sup). Sq/CC, Sq/DO or Ops Sup will notify member's stan/eval office of the restriction. Stan/eval will notify training, flight management and scheduling before the show time for the ECG's first flight the following day (email, such as electronic Operations Group Form 1, is sufficient notification).

1.8.4. BOLDFACE failure will follow procedures outlined in AFMAN 11-202V2, para 6.9.

1.8.4.1. The BOLDFACE retest will be a new BOLDFACE exam taken no earlier than the following duty day. For computer-generated tests, the retest will be accomplished using a new computer-generated test of the same type. Tests may be taken on the computer or with a computer generated paper copy. Examinees should have at least one duty day following a failed computer generated test.

1.8.5. A retest for a failed requisite exam will be accomplished no later than 1 month following failure, or end of eligibility period, whichever occurs first. The individual will be removed from supervised status upon successful retest.

1.8.6. Following a successful retest, squadron stan/eval will notify their Sq/DO, flight management, training and scheduling flights that the individual is removed from supervised status and may fly without restriction. In addition, training flight will update the letter of certifications, to be validated by squadron stan/eval.

1.8.7. Descriptions of discrepancies should be more than a duplication of text in grading criteria. Ensure discrepancies clearly describe the action(s) of the examinee warranting the qualification level to enable EGV trend analysis.

1.8.8. Personnel who receive an overall Q-2 or Q-3 on an evaluation will have a detailed description of all flight restrictions on AF Form 3862 and AF Form 8. Descriptions will include any profiles/sorties that do not require supervised status.

**1.9. Examinations:** Required exams by evaluation type are outlined in [Table A2.1](#) Evaluation Ground Requirements, in this publication.

1.9.1. Open book examinations. Derive the questions from flight manuals, governing AFIs, AFMANs and command directives. An open book examination is a requisite for QUAL and MSN evaluations. The open book QUAL exam will consist of a minimum of 50 questions; the open book MSN exam will consist of a minimum of 25 questions, at least 25% derived from tactical doctrine documents related to EC-130H combat operations (i.e., Air Force Tactics, Techniques and Procedures (AFTTP 3-1.EC-130H). Open book exam question sources can be found in the Flight Crew Information File (FCIF) Publication Index hosted on the EGV SharePoint®: <https://usaf.dps.mil/sites/Davis-Monthan/55ecg/EGV/>

1.9.2. Closed book examinations. General knowledge, 50-question test. Test questions are derived from the applicable crew position master question file (MQF) and local procedures contained in the 150 questions database (QDB).

1.9.3. Instrument examinations. Pilots and navigators will take an instrument examination. **(T-3)** The Instrument Refresher Course (IRC) is a ground training item and will be accomplished IAW AFMAN 11-210, *Instrument Refresher Program (IRP)* and **paragraph 2.5.3** of this publication. **(T-2)**

1.9.4. Periodic Evaluations.

1.9.4.1. The 55 ECG goal for periodic evaluation completion is the end of the 4th month of eligibility. To help meet this goal, all ground phase examinations should be complete by the end of the 3d month of eligibility. Stan/eval offices should schedule aircrew members for the necessary ground and flight phase requisites if not completed by the end of the 3d month for testing and the 4th month for flight evaluations.

1.9.5. Examination Procedures. Prior to administering an examination, the stan/eval office will verify the publications check and security clearance (if required). Exam testing procedures and times will be determined by the examinee's respective squadron stan/eval office.

1.9.6. Any publications required for testing which are not issued to the individual will be provided by the stan/eval office via FCIF library or electronic flight bag (EFB). Individuals will not write or mark in any publication while taking any examination. Publications from which the examination questions were derived will be provided by the squadron stan/eval office (to include superseded editions).

1.9.7. EGV will maintain a local MQF derived from local publications. EGV will be the approval authority for all local MQF questions.

1.9.8. EGV will review the requisite test question banks as required, normally during the first calendar quarter or whenever there is a change in source documents.

1.9.9. Test question sources. For each examination, the aircrew examinations program manager will have a list of all referenced publications. Only publications maintained in the FCIF library will be used for test references (except instrument test). If a FE feels the contents of a publication need to be tested, coordinate with the FCIF program manager for inclusion in the FCIF library.

1.9.10. Requisite and **BOLDFACE** examinations will be scored on the day they are completed, recorded on the examinee's AF Form 3862 and scores will be recorded in Patriot Excalibur (PEX) to the maximum extent possible.

## Chapter 2

### EVALUATION REQUIREMENTS

#### 2.1. General.

2.1.1. For all evaluations, follow the guidelines set in AFMAN 11-202V2.

2.1.2. Required areas for flight evaluations are shown in **Table 2.1** through **Table 2.8** and for EPEs in **paragraph 1.5**. When it is impractical or not possible to accomplish a required flight evaluation area in flight, it may be evaluated by an alternate method in order to complete the evaluation. Document the reason and type of alternate method used in the comments portion of the AF Form 8. If the FE determines the required item cannot be adequately evaluated by an alternate method, then the examinee will require an additional flight to complete the evaluation. **(T-3)**

2.1.2.1. Areas annotated with an “R” are required items and apply to the type of evaluation being conducted.

2.1.3. Publications Check. Accomplish publications checks according to the unit supplement to AFMAN 11-202V2.

2.1.4. Cockpit/Crew Resource Management (C/CRM). IAW AFMAN 11-290, *Cockpit/Crew Resource Management and Threat and Error Management Program*, all evaluations include an assessment of CRM skills. CRM skills are integral to all phases of flight and are embedded within specific grading criteria. Therefore, no specific evaluation criteria area titled CRM exists. As all the CRM skills listed on the AF Form 4031, *CRM/TEM Skills Criteria Training/Evaluation*, are evaluated in other graded areas in this publication, additional use of the AF Form 4031 is unnecessary for evaluations in the EC-130H, WST or CCMCS. The standardization and evaluations trend program can be used to measure the effectiveness of CRM training.

#### 2.2. Requirements.

2.2.1. This volume requires completion only of those evaluations specified in this chapter or a combination thereof. Special qualifications (e.g., functional check flight) do not require initial or periodic evaluations; annotate these qualifications on the letter of certification.

2.2.2. Mission evaluations should be as realistic as possible with a minimum of simulated events. Do not deviate from peacetime restrictions.

2.2.3. Pilot INSTM/QUAL evaluations should include approaches to airfields other than home station or deployed locations when possible.

#### 2.3. Formal Course Evaluations.

2.3.1. Flight syllabus evaluations IAW syllabus mission profile guidelines if stated or on a mission profile developed from syllabus training objectives. Formal course guidelines may be modified, based on local operating considerations or examiner judgment to complete the evaluation. ACC-approved formal course syllabi are located at: <https://usaf.dps.mil/sites/Davis-Monthan/Det3TRSS/EC-130>

## 2.4. Instructor Evaluations.

2.4.1. Conduct instructor evaluations IAW AFMAN 11-202V2, as supplemented in **Chapter 3**, of this publication. Thoroughly evaluate the examinee's instructor knowledge and ability. Pilot, navigator and flight engineer instructor evaluations may be conducted in the WST IAW **Chapter 4**, **Chapter 5**, and **Chapter 6**. of this publication. Instructor mission commander (MC) evaluations may be conducted in the CCMCS connected WST or CCMCS, at the discretion of the squadron commander.

2.4.2. Initial Instructor (INIT INSTR). The emphasis of INIT INSTR evaluations is instructor duties. Evaluations should be scheduled with a crewmember requiring training (e.g., primary flight training (PFT), continuation training (CT) or unqualified (UQ)). Crewmembers may use their initial instructor evaluation to satisfy requirements of a periodic evaluation, provided all evaluation requirements for the periodic evaluation are accomplished by the examinee (not only instructed). Mission crew and MC INIT INSTR evaluations may be conducted in the CCMCS connected WST or CCMCS, at the discretion of the squadron commander.

2.4.3. Requalification (RQ) INSTR. The emphasis of all RQ INSTR evaluations is instructor duties. These evaluations may be scheduled with a crewmember requiring training (PFT, CT or UQ). Crewmembers may use their RQ INSTR evaluation to satisfy requirements of a periodic evaluation, provided all evaluation requirements for the periodic evaluation are accomplished by the examinee (not only instructed).

2.4.4. Periodic Instructor. Evaluate instructor duties on periodic evaluations for crewmembers that have completed an INIT INSTR evaluation. The emphasis of periodic instructor evaluations is the accomplishment of all required areas for the basic duties for their respective crew position plus all instructor areas for pilot, navigator, mission crew commander (MCC), weapon system operator (WSO), airborne maintenance technician (AMT), MC, MCS, ANO and AO evaluations. Flight Engineers are required to demonstrate instructional ability in a graded area. Instructor Flight Engineers may instruct a graded area, an aircraft system or emergency procedure. Specific area(s) are briefed by examiners in which examinees demonstrate instructional ability. These must be documented on the back of AF Form 3862 and AF Form 8. All instructor areas are evaluated. Periodic instructor evaluations scheduled with a student are allowed provided the instructor is evaluated performing (not instructing) all required items, and the student is able to complete their syllabus event in its entirety.

**2.5. Evaluation Requirements Tables.** **Table 2.1** through **Table 2.9** depict grading areas for specific crew position evaluations. All areas apply to EC-130H COMPASS CALL.

2.5.1. Complete ground phase requisites annotated in **Table A2.1** Complete ground requirements prior to the flight evaluation with the exception of the EPE/BOLDFACE and as required for no-notice evaluations. The squadron commander may authorize completion of requisites after the evaluation, if completed within eligibility period. Document this authorization in the additional comments section of AF Form 8. The EPE/BOLDFACE may be given before or after the evaluation at the discretion of the FE. Stan/eval is responsible for notifying examinees of all requisites when entering their eligibility zone or when scheduled for an evaluation. FEs will ensure individuals have completed applicable requisites prior to the evaluation unless otherwise approved by Sq/CC. This does not alleviate each crewmember's responsibility to be aware of his/her evaluation requirements and expiration date. Stan/eval personnel have the authority to schedule any examinee for required requisites.

2.5.2. A publications check of all issued publications required to be carried in flight as outlined in AFMAN 11-2EC-130H, Volume 3, *EC-130H Operations Procedures*, is required prior to requisite testing. Publications maintained in flyaway kits and not issued to the individual will not be checked. The publications check is required for all QUAL, MSN and INIT/RQ MSN evaluations (except when accomplished to correct a Q-3 or a RQ SPOT). If any discrepancies are noted, the respective squadron stan/eval will direct the correction of any deviations of standards defined in this publication. The graded publications check will be accomplished by an FE prior to the flying phase of the evaluation and may be included in the EPE. Discrepancies will be recorded on AF Form 3862 in the ground subparagraph, Area 51 Personal/Professional Equipment/Flight Publications.

2.5.3. IRC will be accomplished IAW the timeline specified in AFMAN 11-210. Individuals must be current in IRC prior to taking the instrument test. Examinee will provide IRC dates to their respective stan/eval office from his/her individual training summary.

2.5.4. Electronic Warfare Officer (EWO) Systems Refresher Course (SRC) currency is a mission evaluation requirement and will be treated as a requisite for the evaluation IAW AFMAN 11-202V2 para 5.5.4.1. Currency will be tracked in aviation resource management system (ARMS) and will be readily viewable in PEX.

2.5.4.1. Attached flyers maintaining a qualification in the EC-130H must maintain currency, and SRC may be accomplished at any point throughout the currency window defined in ACCMAN 11-2EC-130, Volume 1, *EC-130H Aircrew Training*, Table 4.1, not necessarily in the checkride eligibility window.

2.5.5. Evaluation ground requirements can be found in [Table A2.1](#).

**Table 2.1. General Grading Areas (All Crew Positions, All Initial/Periodic Evaluations).**

Area	Note	Grading Areas	
1	1	Flight/Mission Planning	R
13		Crew Coordination	R
1041		Knowledge of Directives	R
30		Airmanship/Situational Awareness - CRITICAL	R
31		Safety - CRITICAL	R
32		Aircrew Discipline - CRITICAL	R
37		Crew Resource Management	R
47	3	Briefings/Debriefings	R
48		Preflight	R
50		Forms/Reports/Logs	R
51		Personal/Professional Equipment/Flight Publications	R
52	2	Emergency Equipment/Procedures	R
1040	4	Communications Security/Operations Security	R

302		Use of Checklist	R
1042-1045		Reserved for future use	
<b>Notes:</b> 1. Pilot, navigator and flight engineer only. 2. Grade if observed. Not required if evaluated as part of the EPE. 3. Required for all crew positions responsible for presenting briefings/debriefings. 4. Required only for MSN evaluations			

**Table 2.2. Instructor Evaluation Grading Areas (all crew positions, INIT / RQ / Periodic).**

Area	Notes	Grading Areas	
1036		Mission Preparation	R
33		Instructional Ability	R
47		Briefings/Debriefings/Critique	R
55		Instructor Knowledge	R
56		Demonstration of Maneuvers/Procedures	R
1046-1050		Reserved for future use	

**Table 2.3. Pilot Grading Areas.**

Area	Notes	Grading Areas	INSTM/QUAL	MSN
3		Pre-Takeoff	R	R
4		Takeoff	R	R
6		Departure	R	R
8		Enroute Navigation	R	R
12		Comm/Identification, Friend or Foe (IFF)	R	R
17	2	Air-to-Air Refueling(AAR)/Receiver		R
18		Descent	R	
23		Visual Flight Rules (VFR) Procedures/Patterns	R	
26		After Landing/Engine Shutdown	R	
57		Reverse Taxi		
61		Holding/Procedure Turn	R	
63		Arrival Procedures (Instrument Flight Rules)	R	

64		Non-Precision Approach	R	
65	1	Precision Approach	R	
67		Missed Approach/Go-Around	R	
68		Circling/Side Step Approach	R	
70		Engine-Out Approach	R	
71	3	100 Percent Flap Landing	R	R
72		No Flap Landing	R	
73		Engine-Out Landing	R	
74		Engine-Out Go-Around	R	
75		Touch-and-Go Landing	R	
80	3	50 Percent Flap Landing	R	R
96		Defensive Systems/Tactics		R
151		Threat Analysis/Avoidance		R
1051-1055		Reserved for future use		
<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Either a precision approach radar or instrument landing system approach is required to complete an INSTM/QUAL evaluation.</li> <li>2. See <b>Chapter 4</b> for exceptions and additional information concerning AAR evaluation.</li> <li>3. Only one landing is required on MSN evaluations.</li> </ol>				

**Table 2.4. Navigator Grading Areas.**

Area	Notes	Grading Areas	QUAL	MSN
6		Departure	R	R
8		Radio Navigation	R	
11		Fuel Management	R	
1037		Fuel Planning	R	R
12		Navigation Systems	R	R
17	1	AAR Procedures		R
20		Descent/Approach/Landing	R	R
85		Communication Procedures	R	R
88		Navigation Procedures		R
92		Course and Estimated Time of Arrival (ETA) Tolerance	R	

96		Defensive Systems/Tactics		R
151		Threat Analysis/Avoidance		R
285		Flight Plan/Charts	R	R
290		Radio Detection and Ranging (RADAR) Navigation	R	
295		Orbit Procedures		R
1056-1060		Reserved for future use.		
<b>Notes:</b>				
1. See <b>Chapter 5</b> for exceptions and additional information concerning AAR evaluation.				

**Table 2.5. Flight Engineer Grading Areas.**

Area	Notes	Grading Areas	QUAL	MSN
3		Before Takeoff/Lineup	R	R
6		After Takeoff	R	R
8		Enroute	R	R
17	1	AAR Systems/Procedures		R
18		Descent/Before Landing	R	R
26		After Landing	R	R
38		Takeoff and Landing Data (TOLD)	R	R
50		AFTO Form 781, <i>ARMs Aircrew/Mission Flight Data Document</i>	R	R
83		Tactical/Mission Employment		R
1038		Mission Procedures		R
96		Defensive Systems/Tactics		R
220		Ground Support Equipment	R	R
221		Refuel/Defuel	R	R
222		Cockpit	R	R
223		Before Starting Engines/Starting Engines	R	R
224		Before Taxi/Taxi	R	R
225		Engine Shutdown	R	R
226		Before Leaving Airplane	R	R
227		Post flight	R	R

238		Weight and Balance	R	R
1061-1065		Reserved for future use		
<b>Note:</b>				
1. See <b>Chapter 6</b> for exceptions and additional information concerning AAR evaluation.				

**Table 2.6. Airborne Maintenance Technician Grading Areas.**

Area	Notes	Grading Area	MSN/QUAL
3		Pre-Takeoff	R
6		After Takeoff/System Startup	R
8		Level Off/Cruise/Enroute	R
17		AAR	R
18		System Shutdown/Descent	R
26		After Landing/Engine Shutdown	R
29		Basic Aircraft Systems	R
57		Reverse Taxi	
59		Before Landing	R
85		Communications	R
1039		External Communications	R
736		Trouble Analysis/Corrective Action	R
737		Direction Finding (DF) Subsystem	R
775		Mission Termination	R
776		Radio Frequency Receive (RFR)	R
777		Acquisition Subsystem	R
778		System Control and Management (SCM)	R
779		Analysis Subsystem	R
780		Exciter Subsystem	R
781		Radio Frequency Transmit (RFT)	R
782		SPEAR Subsystems	R
783		Tech Station Subsystem	R
784		Human-Machine Interface	R
785		Counter RADAR Subsystem	R

786		System Enhancements, Clip-Ins and Alternate Mission Equipment (AME)	
1066-1070		Reserved for future use	

**Table 2.7. Mission Crew Commander/Weapon System Officer Grading Areas.**

Area	Notes	Grading Areas	A	B
1		Mission Crew Planning	R	R
12		Communications Equipment	R	
28		Mission Crew Debriefing	R	
29		Mission Equipment System Knowledge/Operation	R	R
83		Tactical Employment	R	R
85		Communications	R	
187		Post Engagement	R	R
227		Post flight	R	R
297		Target/Threat Knowledge	R	R
736		Mission Equipment System Malfunction Analysis	R	R
791		System Setup	R	R
792		Jamming Ops/Antenna Orientation/Timing	R	R
793		Allocation/Use of Jamming/Radiate Resources	R	R
794		Tactical Situation Monitoring	R	R
796		Mission Crew Supervision	R	
1071-1075		Reserved for future use		
<b>Applicability:</b>				
A. Mission Crew Commander				
B. Weapon System Officer				

**Table 2.8. Mission Crew Supervisor, Analysis Operator, and Acquisition Operator Grading Areas.**

Area	Notes	Grading Areas	A	B	C
1		Mission Crew Planning	R	R	R
29	1	Mission Equipment System Knowledge/Operation	R	R	R
85		Communications	R		
12		Communications Equipment	R		
187		Post Engagement	R	R	R
227		Post Flight	R	R	R
297		Target/Threat Knowledge	R	R	R
736		Mission Equipment System Malfunction Analysis	R	R	R
791		System Setup	R	R	R
794		Tactical Situation Monitoring	R		
795		Signal Environment Analysis	R	R	R
796		Mission Crew Supervision	R		
1076-1080		Reserved for future use			
<p><b>Applicability:</b>  A. Mission Crew Supervisor  B. Analysis Operator  C. Acquisition Operator  <b>Notes:</b>  1. Subareas 29a-c are required for all evaluations.</p>					

**Table 2.9. Mission Commander Grading Areas.**

Area	Notes	Grading Areas	MSN/QUAL
227		Post Flight	R
297		Target/Threat Knowledge	R
794		Tactical Situation Monitoring	R
1081		Multi-ship Mission Planning	R
1082		Package Level/Mission Coordination	R
1083		Multi-ship Briefing	R
1084		Multi-ship Debriefing	R
1085		Multi-ship Tactical Employment	R
1086		Multi-ship Communications	R
1087		Multi-Crew Leadership	R

## Chapter 3

### ALL EVALUATIONS

**3.1. General.** The grading criteria contained in this chapter apply to all crew positions and all evaluations.

**3.2. Objective.** The examinee satisfactorily demonstrates the ability to perform required duties safely and effectively including the operation of appropriate aircraft systems IAW applicable technical orders, instructions and directives.

**3.3. Requirements.** Evaluate all crewmembers on areas listed in [Table 2.1](#) and instructors on all areas listed in [Table 2.2](#).

#### **3.4. General Grading Criteria:**

##### 3.4.1. Area 1. Flight/Mission Planning:

3.4.1.1. **Q.** Developed a plan considering mission objectives and aircraft/crew capabilities. Complied with procedures prescribed by the flight manual and other applicable directives. When required, extracted necessary information from air tasking order/frag. Complied with go/no go procedures and was prepared at briefing time. Planning was adequate with no more than minor omissions, deviations or errors which did not impact planned sortie success.

3.4.1.2. **Q-.** Minor errors or omissions detracted from mission effectiveness, but did not affect mission accomplishment. Limited knowledge of performance capabilities or approved operating procedures/rules.

3.4.1.3. **U.** Major errors or omissions would have prevented a safe or effective mission. Unsatisfactory knowledge of operating data or procedures. Did not comply with go/no go procedures. Not prepared at briefing time.

##### 3.4.2. Area 13. Crew Coordination:

3.4.2.1. **Q.** Effectively coordinated with other crewmembers during all phases of the mission. Crewmember identified, planned and executed alternative mission activity in response to in-flight contingencies in a timely manner. Communicated in a clear and effective manner. Asked for or gave constructive feedback as necessary. Actively sought other crewmember opinions and ideas. Recognized and requested assistance when task-saturated. Crewmember properly prioritized multiple tasks and effectively used available resources to execute mission.

3.4.2.2. **Q-.** Crew coordination was minimal. Coordination was lacking with other crewmembers to the extent minor deviations or omissions caused delays, confusion and/or crew situational awareness. Unclear communication led to repetition or misunderstanding. Slow to ask for or give constructive feedback. Crewmember was slow to identify, plan or execute alternative mission activities in response to contingencies which resulted in limited mission success. Poor task prioritization and inefficient use of available resources resulted in less than optimum mission execution. Slow to recognize and request assistance when task saturated.

3.4.2.3. **U.** Severe breakdown in coordination with other crewmembers precluded mission accomplishment and/or jeopardized safety. Crew coordination was lacking to the extent that mission accomplishment was severely degraded. Failed to participate in crew decisions or withheld information that would have corrected an unsafe situation. Failed to communicate effectively. Continuous interruptions and/or conduct/attitude was detrimental to communication among crewmembers. Withheld information and failed to ask for/respond to constructive criticism. Failed to prioritize multiple tasks and did not use available resources at their disposal to manage workload.

3.4.3. Area 1041. Knowledge of Directives:

3.4.3.1. **Q.** Possessed an adequate knowledge of all applicable publications, directives, operating procedures and restrictions and where to find them in the correct publications. Understood how to apply the information correctly.

3.4.3.2. **Q-.** Possessed a limited knowledge of applicable publications, directives, operating procedures and restrictions which caused minor deviations to established procedures. Unsure of some directives and/or had difficulty locating some information in appropriate publications.

3.4.3.3. **U.** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Failed to comply with a procedure that could have jeopardized safety or mission success.

3.4.4. Area 30. Airmanship/Situational Awareness – (CRITICAL):

3.4.4.1. **Q.** Executed the assigned mission in a timely and efficient manner. Anticipated situations which would have adversely affected the mission and corrected them. Made appropriate decisions based on available information. Recognized a loss in situational awareness in self or others and took appropriate action to regain awareness.

3.4.4.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that the mission or safety was compromised. Failed to recognize a loss of situational awareness in self or others.

3.4.5. Area 31. Safety – (CRITICAL):

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

3.4.5.2. **U.** Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Operated the aircraft in a dangerous manner that could or did result in aircraft damage.

3.4.6. Area 32. Aircrew Discipline – (CRITICAL):

3.4.6.1. **Q.** Exhibited strict flight and crew discipline. Prepared and completed mission in compliance with existing instructions and directives.

3.4.6.2. **U.** Failed to exhibit strict flight and crew discipline. Failed to comply with existing instructions and directives which could have jeopardized safety or mission success.

3.4.7. Area 37. Crew Resource Management:

3.4.7.1. **Q.** Effectively coordinated with other aircrew members. Demonstrated basic knowledge of other crewmembers' duties and responsibilities. Provided timely direction or information, as required, which clarified/rectified a situation. Efficiently used available resources to manage workload.

3.4.7.2. **Q-.** Adequate coordination with other aircrew members, but demonstrated limited knowledge of other crewmembers' basic duties/responsibilities. Showed some hesitation to provide timely direction/information which would have clarified confusion or rectified a situation. Used a limited number of available resources to manage workload.

3.4.7.3. **U.** Coordination with other aircrew members and lack of knowledge of their duties/responsibilities were detrimental to mission effectiveness. Did not provide timely direction/information which would have clarified/rectified a situation. Did not use any available resources to manage workload.

#### 3.4.8. Area 47. Briefings/Debriefings:

##### 3.4.8.1. Flight Crew, Mission Crew Commander and Mission Commander Criteria:

3.4.8.1.1. **Q.** Contributed to the briefing content to ensure it included all applicable information. Briefings effectively organized and professionally presented in a logical sequence. Covered all pertinent items. Established objectives for the mission. Presented all training events and special interest items. Effectively used available briefing aids. Concluded briefing to allow crew transport on time. Debrief recapped key points, provided constructive feedback in a nonthreatening manner and provided appropriate corrective actions.

3.4.8.1.2. **Q-.** Allowed omission of items pertinent but not critical to the mission. Events out of sequence, hard to follow some unnecessary repetition. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Limited discussion of training events or special interest items. Dwelled on nonessential items. Not fully prepared for briefing. Debrief covered key points but lacked detail, constructive feedback and/or corrective actions.

3.4.8.1.3. **U.** Failed to conduct required briefings. Failed to use briefing aids. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of knowledge of subject. Briefing poorly organized and not presented in a logical sequence; redundant throughout. Presented erroneous information that would affect safe/effective mission accomplishment. Presentation created doubts or confusion. Failed to discuss training events or special interest items. Late crew transport due to excessively long briefing. Debrief rushed, feedback provided was vague, threatening and/or incomplete. Placed blame and/or provided inappropriate corrective actions.

##### 3.4.8.2. Mission Crew Supervisor, Analysis Operator and Acquisition Operator Criteria:

3.4.8.2.1. **Q.** Mission planning briefings were well organized, accurate and thorough. Briefings effectively organized and professionally presented in a logical sequence. Assigned task brief(s) addressed all required and requested information. Assigned order of battle briefing(s) addressed all required and requested information. Effectively

used available briefing aids. Search strategy briefing was clear, concise and thorough. Provided appropriate and constructive feedback during debrief, as required.

3.4.8.2.2. **Q-** Minor errors or omissions in mission planning briefings, but not critical to the mission. Assigned task briefing addressed some, but not all required and/or requested information. Assigned order of battle brief addressed some, but not all required and/or requested information. Briefings out of sequence, hard to follow or some unnecessary repetition. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Minor errors or omissions in search strategy brief. Any errors or omissions did not adversely affect the mission outcome. Contributions to debrief lacked focus or detail or were not constructive.

3.4.8.2.3. **U.** Mission planning briefings were marginal or nonexistent; major errors or omissions in briefings. Assigned task briefing did not address required information. Assigned order of battle briefing did not address required information. Failed to use briefing aids. Demonstrated lack of knowledge of subject. Briefing poorly organized and not presented in a logical sequence; redundant throughout. Failed to provide search strategy briefing or briefing was rushed, vague and/or created confusion. Errors or omissions adversely affected the mission outcome. Contributions to debrief were hostile, unrelated to the event or were not factual.

#### 3.4.9. Area 48. Preflight:

3.4.9.1. **Q.** Completed all systems preflight/inspections IAW technical orders, checklists and instructions. Individual technique complied with established procedures.

3.4.9.2. **Q-** Minor deviations from established systems preflight/inspection. Individual technique was safe but deviated from established procedures.

3.4.9.3. **U.** Failed to preflight critical component or could not conduct a satisfactory preflight/ inspection. Individual technique was unsafe and/or caused major deviations from established procedures.

#### 3.4.10. Area 50. Forms/Reports/Logs:

3.4.10.1. **Q.** All required forms and/or flight plans were complete, accurate, legible and accomplished on time and IAW applicable directives. Provided an accurate debrief of significant events to applicable agencies (intelligence, weather, maintenance, etc.) Complied with security procedures.

3.4.10.2. **Q-** Minor errors on forms and/or flight plans did not affect the conduct of the flight/mission. Incorrectly or incompletely reported some information due to minor errors, omissions and/or deviations. Complied with security procedures.

3.4.10.3. **U.** Did not accomplish required forms and/or flight plans. Omitted or incorrectly reported significant information due to major errors, omissions and/or deviations. Failed to comply with security procedures.

#### 3.4.11. Area 51. Personal/Professional Equipment/Flight Publications:

3.4.11.1. **Q.** Had all required personal and professional equipment. Displayed thorough knowledge of care and use of equipment and contents of required publications. Required equipment inspections were current. Publications were current and properly posted.

3.4.11.2. **Q-**. Did not have all required personal/professional equipment, but had all equipment essential to the mission; or had limited knowledge of use or content of required publications. Publications were posted with omissions, deviations or errors but did not jeopardize mission success or safety.

3.4.11.3. **U**. Did not have required personal/professional equipment essential for the mission. Unsatisfactory knowledge of care use of equipment or content of required publications. Required equipment inspections were overdue, or equipment was unserviceable. Publications were posted with major omissions, deviations or errors which would have jeopardized mission success and/or safety.

3.4.12. Area 52. Emergency Equipment/Procedures:

3.4.12.1. **Q**. Satisfactory systems/procedural knowledge. Displayed thorough knowledge of location and use of emergency equipment. Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used available aids.

3.4.12.2. **Q-**. Marginal systems/procedural knowledge. Limited knowledge of location and use of emergency equipment. Operated within prescribed limits but was slow to analyze problems or apply proper corrective actions. Did not effectively use or deviated in use of checklist and/or available aids.

3.4.12.3. **U**. Unsatisfactory systems/procedural knowledge. Displayed unsatisfactory knowledge of emergency equipment. Exceeded flight manual limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

3.4.13. Area 1040. Communications/Operations Security:

3.4.13.1. **Q**. Demonstrated thorough knowledge of communications security (COMSEC)/operations security (OPSEC) procedures and courier procedures (if applicable). Maintained positive control of classified documents and information used throughout the mission. Properly stored, handled and/or destroyed all classified equipment information generated during the mission. Practiced sound COMSEC/OPSEC during all phases of the mission.

3.4.13.2. **Q-**. Limited knowledge of COMSEC/OPSEC procedures and/or courier procedures (if applicable). Limited knowledge of proper storage, handling and destruction procedures would not have resulted in compromise of classified material and did not impact mission accomplishment.

3.4.13.3. **U**. Unsatisfactory knowledge of COMSEC/OPSEC. Classified documents or information would have been compromised as a result of improper control by examinee. Unfamiliarity with COMSEC/OPSEC procedures had or could have had a negative impact on mission accomplishment.

3.4.14. Area 302. Use of Checklist:

3.4.14.1. **Q**. Consistently used/called for the correct checklist; gave the correct response and accomplished correct action at the appropriate time throughout the mission.

3.4.14.2. Q-. Checklist responses/actions were untimely and/or crewmember required continual prompting for correct responses/actions.

3.4.14.3. U. Used or called for incorrect checklist or consistently omitted checklist items. Unable to identify the correct checklist to use for a given situation. Omitted or did not complete checklist(s) at the appropriate time.

3.4.15. Areas 1042-1045. Reserved for future use.

### **3.5. Instructor Grading Criteria:**

3.5.1. Area 1036. Mission Preparation:

3.5.1.1. Q. Thoroughly reviewed student's training folder. Ascertained student's present level of training. Assisted student in pre-mission planning and allowed student time to ask for questions. Correctly prioritized training events. Outlined mission training objectives for the student.

3.5.1.2. Q-. Did not thoroughly review student's training folder. Impeded student pre-mission planning. Poorly prioritized training events. Training plan/scenario made poor use of time.

3.5.1.3. U. Did not review student's training folder. Did not ascertain student's present level of training. Did not assist student with pre-mission planning or did not allow time for questions. Did not prioritize training events. Failed to provide mission training objectives, methods and sequence of events to student.

3.5.2. Area 33. Instructional Ability:

3.5.2.1. Q. Demonstrated ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and instruction was accurate, effective and timely. Identified and corrected potentially unsafe maneuvers/situations. Correctly analyzed student errors.

3.5.2.2. Q-. Minor discrepancies and/or omissions in ability to communicate with the student. Guidance was limited in scope but did not adversely impact student progress. Planning and instruction had minor errors in accuracy, effectiveness and timeliness. Slow to identify and correct potentially unsafe maneuvers/situations. Showed limited ability to correctly analyze student errors.

3.5.2.3. U. Unable to effectively communicate or provide timely feedback to the student. Unable to perform, teach or assess techniques, procedures, systems use or tactics. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe maneuvers/situations in a timely manner.

3.5.3. Area 47. Briefings/Debriefings/Critique:

3.5.3.1. 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 the critique to reconstruct the flight, offer mission analysis and provided guidance. Training grade reflected the actual performance of the student relative to the standard. Pre-briefed the student's next mission if required.

3.5.3.2. **Q-** Minor errors or omissions in briefings and/or critique did not affect safety or adversely affect student progress. Made minor discrepancies in reviewing the student's past performance. Showed limited ability to reconstruct the flight during critique and made minor errors in offering mission analysis. Gave guidance/feedback that was limited in scope and/or provided limited corrective actions.

3.5.3.3. **U.** Briefings were marginal or nonexistent; major errors or omissions in briefings/debriefings. Did not review student past performance. Analysis of events or maneuvers was incomplete, inaccurate or confusing. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

3.5.4. Area 55. Instructor Knowledge:

3.5.4.1. **Q.** Demonstrated a high level of knowledge of all applicable aircraft systems, techniques, procedures, missions and tactics to be performed. Possessed a high level of knowledge of all applicable publications and procedures and understood how to apply both to enhance mission accomplishment. Completed appropriate training records accurately. Comments were clear and pertinent.

3.5.4.2. **Q-** Minor errors/deficiencies in knowledge of above areas that did not affect safety or adversely affect student progress. Minor errors or omissions in training records. Comments were incomplete or slightly unclear.

3.5.4.3. **U.** Lack of knowledge of publications or procedures seriously detracted from instructor effectiveness. Could not apply knowledge of above areas. Did not complete required forms or records. Comments were invalid, unclear or did not accurately document performance.

3.5.5. Area 56. Demonstration of Maneuvers/Procedures:

3.5.5.1. **Q.** Effectively demonstrated procedures and techniques. Provided concise, meaningful and timely inflight commentary.

3.5.5.2. **Q-** Performed required maneuvers/procedures with minor deviations from prescribed parameters. Inflight commentary was sometimes unclear or poorly timed, interfering with student performance. Discrepancies in the above areas did not adversely affect safety or student progress.

3.5.5.3. **U.** Was unable to properly perform required maneuvers/procedures. Made major procedural errors. Did not provide inflight commentary and/or inflight commentary was incorrect or unsafe.

3.5.6. Areas 1046-1050. Reserved for future use.

## Chapter 4

### PILOT EVALUATIONS

**4.1. General.** The criteria contained here and in [Chapter 3](#) apply to all pilot flight evaluations. The following general criteria apply during all phases of flight except as noted for specific events and instrument final approaches.

**Table 4.1. General Criteria.**

Q.	Altitude	+/- 200 feet
	Airspeed	+/- 5 knots (but not less than Vmca)
	Course	+/- 5 degrees/3 nautical mile (NM) (whichever is greater)
	TACAN Arc	+/- 2 NM
Q-	Altitude	+/- 300 feet
	Airspeed	+/- 10 knots (but not less than Vmca (Air Minimum Control Speed))
	Course	+/- 10 degrees/5 NM (whichever is greater)
	TACAN Arc	+/- 3 NM
U		Exceeded Q- limits

4.1.1. Pilot qualification terminology. Use the following guidance for this chapter.

4.1.1.1. “Pilot” refers to any pilot, regardless of upgrade status or additional certification.

4.1.1.2. “MPD Graduate” refers to a pilot trained under the Little Rock AFB Mobility Pilot Development (MPD) program and received an INSTM/QUAL evaluation in the left seat and did/will receive their INIT MSN evaluation in the right seat.

4.1.1.3. “Copilot” refers to a pilot trained in a right seat Pilot Initial Qualification (PIQ) syllabus and both INSTM/QUAL and MSN evaluations are accomplished in the right seat.

4.1.1.4. “Aircraft Commander” (AC) encompasses all of the following for evaluation purposes:

4.1.1.4.1. Pilots with an AC certification including instructor pilots. **Note:** Where a distinction is necessary to refer exclusively to these pilots, use the term “Certified Aircraft Commander.”

4.1.1.4.2. AC upgrade or cross-flow students who have completed their training syllabus and are undergoing their INIT MSN evaluation as an AC.

4.1.1.4.3. Cross-flow ACs who have graduated initial qualification training (IQT) and are undergoing top-off training prior to receiving AC certification. These pilots are evaluated as ACs.

- 4.1.1.4.4. Pilots entered into a RQ or commander-directed requalification (CC DIR RQ) plan.
- 4.1.2. The baseline qualification for EC-130H pilots is as described below:
- 4.1.2.1. MPD graduates are qualified to perform INSTM/QUAL pilot duties in either seat, but MSN pilot duties in the right seat only.
- 4.1.2.2. Copilots are only qualified to perform pilot duties in the right seat.
- 4.1.2.3. ACs are qualified to perform pilot duties from either seat.
- 4.1.2.4. New ACs, who were MPD graduates or cross-flow pilots, receive an INIT MSN evaluation at the end of their formal training unit (FTU) training. They do not require a separate INIT INSTM/QUAL evaluation. If a periodic or requalification INSTM/QUAL is administered in conjunction with this INIT MSN, document the INSTM/QUAL and INIT MSN on separate blocks in the flight phase section of AF Form 8.
- 4.1.2.5. Copilots upgrading to AC require both a left seat INIT INSTM/QUAL and INIT MSN evaluations before becoming certified ACs. These evaluations do not need to be completed on the same sortie. If accomplished separately, the INSTM/QUAL evaluation should be completed prior to the MSN evaluation.

## 4.2. Objective.

- 4.2.1. The examinee satisfactorily demonstrates the ability to perform all pilot duties safely and effectively including the operation of appropriate aircraft systems IAW applicable technical orders, directives and published procedures.

**4.3. Requirements.** Conduct initial evaluations IAW applicable ACC syllabi. On periodic or requalification evaluations, INSTM/QUAL and MSN evaluations may be completed on the same sortie if the flight profile allows completion of all required areas for both evaluations.

4.3.1. Seat Position. MPD graduates will accomplish INSTM/QUAL evaluations in the left seat and MSN evaluations in the right seat. Copilots will accomplish all evaluations in the right seat. Aircraft Commanders will accomplish all evaluations in the left seat. Instructor qualified pilots may accomplish any evaluation from any seat.

4.3.2. AC. Designate certified ACs as pilot-in-command (PIC) while being evaluated. Pilots without AC certification will not be designated PIC. **(T-3)** Only one complete AC evaluation is accomplished per scheduled sortie. **Note:** A single evaluator pilot may evaluate one AC and one or more copilots/MPD graduates on the same sortie if practical to do so given the flight profile, flight deck seating arrangements and other circumstances.

4.3.3. INSTM/QUAL evaluations. See **Table 2.3** for required evaluation areas. Instrument and qualification evaluations will be combined. **(T-3)** Do not complete an INSTM/QUAL evaluation unless, as a minimum, the following are observed in flight: an instrument takeoff; one full low-or-high altitude instrument approach procedure (IAP); one precision approach; one non-precision approach; one landing. **Note:** One approach must be simulated engine out. **(T-3)**

- 4.3.3.1. Evaluations may be conducted in either the aircraft or the WST.

4.3.3.2. For non-instructor qualified pilot evaluations without the availability of an instructor pilot, the evaluator pilot occupies the other seat for simulated emergency approaches, landings and go-arounds. The evaluator pilot performs all normal pilot monitoring duties and sets the affected throttle for simulated three-engine operations in the aircraft.

4.3.3.3. INIT/RQ evaluations. C-130H basic INIT/RQ and instructor upgrade evaluations conducted at other C-130H locations (e.g., Little Rock AFB) are valid and update the eligibility for EC-130H INSTM/QUAL evaluations as long as the specific grading areas required by this publication are evaluated and properly documented on AF Form 8.

4.3.4. MSN evaluations. See **Table 2.3** for required evaluation areas. All MSN evaluations require a COMPASS CALL mission profile in flight with at least two turns in the mission orbit and a threat reaction. Do not simulate the mission crew. Combat descents will not be performed during MSN evaluations. **(T-3)** All defensive maneuvers may be verbally evaluated during the mission if appropriate to the scenario. MSN evaluations may only be accomplished in the WST if connected to mission event in the CCMCS (**Exception:** AAR per procedures below). **(T-3)**

4.3.4.1. AAR. Include AAR on MSN evaluations to the maximum extent possible.

4.3.4.2. Initial AAR evaluation. Initial AAR evaluations will be accomplished in the aircraft. **(T-3)** The 42d Electronic Combat Squadron (ECS) may authorize an initial AAR evaluation in the WST on a case-by-case basis for copilots/MPD graduates only.

4.3.4.3. Periodic and requalification AAR evaluations. If unable to accomplish in flight, AAR may be evaluated in the WST. Pilots may accomplish consecutive AAR evaluations in the WST with Sq/CC approval. **(T-3)**

4.3.4.4. Failure to accomplish AAR. If unable to grade AAR on the first attempt (e.g., due to scheduling, maintenance or weather limitations), evaluators should attempt additional aircraft or WST sorties (consistent with paras **4.3.4.2** and **4.3.4.3** above) for the same evaluation, if practical. If unable to evaluate AAR by any means, the evaluator will close out AF Form 8 and restrict the examinee from performing AAR without an instructor pilot. **(T-3)** Aircraft qualification is not affected by this restriction and may be removed later via a SPOT evaluation.

4.3.4.5. Examinee ineligible for mission duties. Examinees unable to perform mission duties (e.g., due to a security clearance delay) but properly trained in AAR may establish AAR qualification via a SPOT evaluation (update unit letter of certifications accordingly). The member will subsequently receive an AAR evaluation on their periodic INSTM/QUAL cycle until able to complete an INIT or RQ MSN. **(T-3)**

4.3.5. INSTR evaluations. INIT, RQ and periodic instructor evaluations may be accomplished in the WST, so long as the evaluation profile includes only INSTM/QUAL and/or AAR items (consecutive AAR evaluation restriction in **para 4.3.4.3** still applies). MSN may be accomplished in WST if connected to CCMCS.

**4.4. Grading Criteria:** See **Table 2.3** for applicability to INSTM/QUAL or MSN evaluations.

4.4.1. Areas listed in **Table 2.1** — use criteria in **Chapter 3** of this publication.

4.4.2. Areas listed in **Table 2.2** — use criteria in **Chapter 3** of this publication (if applicable).

#### 4.4.3. Area 3. Pre-Takeoff:

4.4.3.1. **Q.** Established and adhered to station, start engine, taxi and take-off times to assure thorough preflight, check of personal equipment, crew/passenger briefings, etc. Accurately determined readiness of aircraft for flight.

4.4.3.2. **Q-.** Same as above except for minor procedural deviations that did not detract from mission effectiveness.

4.4.3.3. **U.** Failed to accurately determine readiness of aircraft for flight. Major deviations in procedure which would preclude safe mission accomplishment. Crew errors directly contributed to a late takeoff that degraded the mission or made it ineffective.

#### 4.4.4. Area 4. Takeoff:

4.4.4.1. **Q.** Maintained smooth, positive aircraft control throughout takeoff. Performed takeoff IAW flight and performance manual procedures.

4.4.4.2. **Q-.** Minor deviations from published procedures which did not affect safety of flight. Control was somewhat rough or erratic. Hesitant in application of procedures or corrections.

4.4.4.3. **U.** Takeoff was potentially dangerous. Exceeded aircraft/systems limitations. Failed to establish proper climb attitude. Excessive deviation from intended flight path. Violated flight and/or performance manual procedures.

#### 4.4.5. Area 6. Departure:

4.4.5.1. **Q.** Performed departure as published/directed and complied with all restrictions or controlling agency instructions. Made all required reports. Ensured navigation aids (NAVAIDs) were properly tuned, identified, and monitored. Applied course/heading corrections promptly. Demonstrated smooth, positive aircraft control.

4.4.5.2. **Q-.** Minor deviations in navigation occurred during departure. Slow to comply with controlling agency instructions or unsure of reporting requirements. Some deviations in tuning, identifying, and monitoring NAVAIDs were observed. Slow to apply course/heading corrections. Aircraft control was not consistently smooth and positive.

4.4.5.3. **U.** Failed to comply with published/directed departure, or controlling agency instructions. Accepted an inaccurate clearance. Aircraft control was erratic.

#### 4.4.6. Area 8. Enroute Navigation:

4.4.6.1. **Q.** Satisfactory capability to navigate using all available means. Used appropriate navigation procedures. Ensured NAVAIDs were properly tuned, identified, and monitored. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.

4.4.6.2. **Q-.** Minor errors in procedures/use of navigation equipment. Some deviations in tuning, identifying, and monitoring NAVAIDs were observed. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Slow to adjust for deviations in time and course.

4.4.6.3. **U.** Major errors in procedures/use of navigation equipment. Did not ensure NAVAIDs were tuned, identified and monitored. Could not establish position. Failed to

recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace.

#### 4.4.7. Area 12. Comm/IFF:

4.4.7.1. **Q.** Complete knowledge of and compliance with correct Comm/IFF procedures. Transmissions were concise with proper terminology. Complied with and acknowledged all required instructions. Thoroughly familiar with all communications security requirements, HAVE QUICK and secure voice equipment. Correctly authenticated communications as necessary.

4.4.7.2. **Q-.** Occasional deviations from procedures which required retransmissions or resetting codes. Slow in initiating and/or missed several required radio calls. Transmissions contained extraneous matter, were not in proper sequence or used non-standard terminology. Displayed limited knowledge of communication security requirements, HAVE QUICK and secure voice equipment. Required numerous attempts to complete authentication communications as necessary.

4.4.7.3. **U.** Incorrect procedures or poor performance caused confusion and jeopardized mission accomplishment. Omitted numerous required radio calls. Displayed inadequate knowledge of communications security requirements, HAVE QUICK and secure voice equipment. Was unable to properly authenticate communications.

#### 4.4.8. Area 17. AAR/Receiver:

4.4.8.1. **Q.** Rendezvous effectively accomplished using proper procedures. Demonstrated effective and appropriate use of radio communications for briefed emission control (EMCON) level. Expeditiously established and maintained proper position. Aircraft control was positive and smooth.

4.4.8.1.1. **ACs.** Maintained the contact position for 10 minutes (at least 5 minutes continuous) with no more than one pilot-induced disconnect (either pilot initiated or causal due to erratic performance).

4.4.8.1.2. **Copilots/MPD graduates.** Maintained the pre-contact position for at least 2 minutes.

4.4.8.2. **Q-.** Rendezvous delayed by improper techniques, procedures or radio communications. Slow to recognize and apply needed corrections to establish and maintain proper position. Aircraft control was not always positive and smooth but adequate. Accomplished published/directed procedures with deviations or omissions that did not affect the successful completion of AAR.

4.4.8.2.1. **ACs.** Maintained the contact position for at least 10 minutes (at least 5 minutes continuous) with no more than two pilot-induced disconnects (either pilot initiated or causal due to erratic performance).

4.4.8.2.2. **Copilots/MPD graduates.** Maintained the pre-contact position between 1 to 2 minutes.

4.4.8.3. **U.** Displayed lack of knowledge or familiarity with procedures to the extent that AAR was or could have been jeopardized. Failed rendezvous as a result of improper procedures. Spent excessive time in trail. Aircraft control in the pre- contact/refueling

position was erratic or unsafe. Made deviations or omissions that affected flight safety and/or the successful completion of the AAR. Used unacceptable procedures.

4.4.8.3.1. ACs. Performance caused more than two pilot-induced disconnects (either pilot initiated or causal due to erratic performance) and/or delayed mission accomplishment.

4.4.8.3.2. Copilots/MPD graduates. Unable to safely maintain the pre-contact position.

#### 4.4.9. Area 18. Descent:

4.4.9.1. **Q.** Performed descent as directed. Complied with all restrictions. Properly set altimeters and tuned, identified and monitored all NAVAIDs.

4.4.9.2. **Q-.** Performed descent as directed with minor deviations that did not compromise mission safety. Slow to comply with controller instructions or set proper altimeter setting. Delayed tuning, identifying or monitoring proper NAVAIDs. Slow to make corrections.

4.4.9.3. **U.** Performed descent with major deviations. Failed to follow controller instructions. Failed to tune, identify, or monitor NAVAIDs or set altimeters properly. Erratic corrections were observed.

#### 4.4.10. Area 23. VFR Procedures/Patterns:

4.4.10.1. **Q.** Adhered to published restrictions/local guidance. Performed traffic pattern and turn to final/final approach IAW flight manual procedures. Aircraft control was smooth and positive. Did not over/undershoot final approach. Constantly cleared area of intended flight.

4.4.10.1.1. Airspeed: +10/-5 knots

4.4.10.1.2. Pattern Altitude:  $\pm$  100 feet

4.4.10.2. **Q-.** Minor deviations from published restrictions/local guidance. Performed traffic pattern and turn to final/final approach with minor deviations to procedures. Aircraft control was safe but not consistently smooth and positive. Over/undershot final approach slightly but was able to intercept a normal glide path. Adequately cleared area of intended flight.

4.4.10.2.1. Airspeed: +15/-5 knots

4.4.10.2.2. Pattern Altitude: +/- 200 feet

4.4.10.3. **U.** Major/unsafe deviations from published restrictions/local guidance. Did not perform traffic pattern and turn to final/final approach IAW technical orders, directives or published procedures. Displayed erratic aircraft control. Over/under-shot final approach by a wide margin requiring a go-around or potentially unsafe maneuvering on final. Did not clear area of intended flight. Exceeded Q- limits.

#### 4.4.11. Area 26. After Landing/Engine Shutdown:

4.4.11.1. **Q.** Appropriate after-landing/engine shutdown checks and aircraft taxi procedures accomplished IAW published procedures.

4.4.11.2. **Q-.** Minor deviations or omissions were made to published procedures.

4.4.11.3. **U.** Appropriate after-landing/engine shutdown checks or aircraft taxi procedures were not IAW technical orders, directives or published procedures. Major deviations or omissions occurred which could have jeopardized safety.

4.4.12. Area 57. Reverse Taxi:

4.4.12.1. **Q.** Complied with all directives concerning reverse taxi. Adequately briefed procedures and complied with AMT directions. Aircraft control/throttle technique was smooth and positive.

4.4.12.2. **Q-.** Minor deviations to reverse taxi procedures. Briefing hard to follow but no compromise of safety. Slow to respond to AMT directions. Some over/under control.

4.4.12.3. **U.** Major deviations to procedures/directives. Failed to brief procedures and/or briefing created doubts or confusion. Failed to respond to AMT directions. Aircraft control was unsafe or could have resulted in damage to the aircraft or property, or injury to personnel.

4.4.13. Area 61. Holding/Procedure Turn:

4.4.13.1. **Q.** Performed entry and holding IAW published procedures and directives. Tuned, identified and monitored proper NAVAIDs, if required.

4.4.13.2. **Q-.** Performed entry and holding procedures with minor deviations. Delayed tuning, identifying or monitoring proper NAVAIDs.

4.4.13.3. **U.** Holding was not IAW technical orders, directives, or published procedures. Failed to tune, identify or monitor NAVAIDs, if required.

4.4.14. Area 63. Arrival Procedures (IFR):

4.4.14.1. Subarea 63a. Instrument Approach Procedure/Penetration (Initial Approach Fix to Final Approach Fix/Descent Point) **Note:** Use Area 63 criteria and the criteria below for procedure turn approaches.

4.4.14.1.1. **Q.** Performed the approach procedure/penetration as published/directed and IAW applicable directives. Tuned, identified and monitored proper NAVAIDs at the appropriate time. Complied with all restrictions. Made smooth and timely corrections.

4.4.14.1.2. **Q-.** Performed the approach procedure/penetration with minor deviations. Delayed tuning, identifying and monitoring proper NAVAIDs. Complied with all restrictions. Slow to make corrections.

4.4.14.1.3. **U.** Performed the approach procedure/penetration with major deviations. Failed to tune, identify and monitor NAVAIDs, resulting in major deviations and/or unsafe conditions. Erratic corrections. Failed to comply with restrictions.

4.4.14.2. Subarea 63b. Instrument Pattern/RADAR Vectors to Final:

4.4.14.2.1. **Q.** Performed procedures IAW applicable directives. Smooth and timely response to controller instructions.

4.4.14.2.2. **Q-.** Performed procedures with minor deviations. Slow to respond to controller instructions.

- 4.4.14.2.3. **U.** Performed procedures with major deviations/erratic corrections. Failed to comply with controller instructions.
- 4.4.15. Area 64. Non-Precision Approach:
- 4.4.15.1. **Q.** Approach was IAW published procedures. Used appropriate descent rate to arrive at minimum decent altitude (MDA) at or before visual descent point (VDP). Position permitted a safe landing. Initiated missed approach/go-around as directed or appropriate, if planned.
- 4.4.15.1.1. Airspeed: +10/-5 knots indicated airspeed (KIAS)
- 4.4.15.1.2. Heading: Within 5 degrees approach surveillance radar (ASR)
- 4.4.15.1.3. Course: Within one dot deflection
- 4.4.15.1.4. MDA: +100/-0 feet
- 4.4.15.2. **Q-.** Performed approach with minor deviations. Arrived at MDA at or before the missed approach point (MAP), but past the VDP. Initiated missed approach/go-around as directed or appropriate.
- 4.4.15.2.1. Airspeed: +15/-5 KIAS
- 4.4.15.2.2. Heading: Within 10 degrees (ASR)
- 4.4.15.2.3. Course: Within two dots deflection
- 4.4.15.2.4. MDA: +150/-50 feet
- 4.4.15.3. **U.** Approach not IAW flight manual, directives or published procedures. Maintained steady-state flight below the MDA. Could not land safely from approach and did not initiate missed approach/go-around when appropriate or directed. Exceeded Q-criteria.
- 4.4.16. Area 65. Precision Approach:
- 4.4.16.1. Subarea 65a. Precision Approach RADAR (PAR):
- 4.4.16.1.1. **Q.** Approach was IAW published procedures. Smooth and timely response to course and glide slope or controller's instructions. Complied with decision altitude. Position permitted a safe landing. Initiated missed approach at decision altitude +50/-0 feet, if planned.
- 4.4.16.1.1.1. Airspeed: +10/-5 KIAS
- 4.4.16.1.1.2. Heading: Within 5 degrees
- 4.4.16.1.1.3. Glide slope: Within "above/below glide slope"
- 4.4.16.1.2. **Q-.** Performed approach with minor deviations. Slow to initiate procedures, follow controller's instructions or make corrections. Improper glide slope control. Position would have permitted a safe landing. Initiated missed approach at decision altitude +50/-0 feet, if applicable.
- 4.4.16.1.2.1. Airspeed: +15/-5 KIAS
- 4.4.16.1.2.2. Heading: Within 10 degrees

4.4.16.1.2.3. Glide slope: Within “well above/below glide slope”

4.4.16.1.3. **U.** Approach not IAW flight manual, directives or published procedures. Erratic course and glide slope control. Did not make corrections or react to controller’s instructions. Did not comply with decision altitude or position would not have permitted a safe landing. Exceeded Q- criteria.

4.4.16.2. Subarea 65b. Instrument Landing System (ILS) Approach:

4.4.16.2.1. **Q.** Performed procedures as published and IAW applicable directives. Smooth and timely corrections to azimuth and glide slope. Complied with decision height and position permitted a safe landing.

4.4.16.2.1.1. Airspeed: +10/-5 KIAS

4.4.16.2.1.2. Glide slope/Azimuth: Within one dot

4.4.16.2.2. **Q-.** Performed procedures with minor deviations. Slow to make corrections or initiate procedures. Position would have permitted a safe landing. Initiated missed approach at decision height +50/-0 feet, if applicable.

4.4.16.2.2.1. Airspeed: +15/-5 KIAS

4.4.16.2.2.2. Glide slope: Within one dot low/two dots high

4.4.16.2.2.3. Azimuth: Within two dots

4.4.16.2.3. **U.** Performed procedures with major deviations. Erratic course/glide slope corrections. Did not comply with decision height or position would not have permitted a safe landing. Exceeded Q- criteria.

4.4.17. Area 67. Missed Approach/Go-around:

4.4.17.1. **Q.** Executed missed approach IAW published procedures and restrictions. Initiated and performed go-around promptly. Complied with controller’s instructions. Applied smooth control inputs. Attained and maintained a positive climb.

4.4.17.2. **Q-.** Executed missed approach with minor deviations to published procedures/directives. Was slow or hesitant to initiate go-around. Slow to respond to controller's instructions. Slightly over-controlled the aircraft.

4.4.17.3. **U.** Did not execute missed approach IAW technical orders, directives or published procedures. Did not comply with controller’s instructions. Deviations or misapplication of procedures could have led to an unsafe condition. Exceeded Q- criteria.

4.4.18. Area 68. Circling/Side-Step Approach:

4.4.18.1. **Q.** Properly identified aircraft category for the approach and remained within the lateral limits for that category. Complied with controller’s instructions. Attained runway alignment without excessive bank angles. Did not descend from the MDA until in a position to place the aircraft on a normal glide path or execute a normal landing.

4.4.18.1.1. Airspeed: +10/-5 knots

4.4.18.1.2. Altitude: +100/-0 feet

4.4.18.2. **Q-**. Slow to comply with controller's instructions. Attained runway alignment but occasionally required excessive bank angles or maneuvering.

4.4.18.2.1. Airspeed: +15/-5 knots

4.4.18.2.2. Altitude: +150/-50 feet

4.4.18.3. **U**. Did not properly identify aircraft category or exceeded the lateral limits of circling airspace. Did not comply with controller's instructions. Excessive maneuvering to attain runway alignment was potentially unsafe. Descended from the MDA before the aircraft was in position for a normal glide path or landing. Exceeded Q- criteria.

4.4.19. Area 70. Engine-out Approach--use approach criteria for the type of approach being flown and the following:

4.4.19.1. **Q**. Performed all required procedures IAW the flight manual and associated directives. Applied smooth, positive, and coordinated control inputs. Rudder and aileron inputs were in the correct direction.

4.4.19.2. **Q-**. Errors were made that did not affect safety. Aircraft control was not consistently smooth and positive. Rudder and aileron inputs were in the correct direction with some over/under control.

4.4.19.3. **U**. Rudder and/or aileron inputs were incorrect. Failed to perform the maneuver IAW the flight manual and associated directives. Exceeded Q- criteria.

4.4.20. Area 71. 100 Percent Flap Landing.

4.4.21. Area 72. No Flap Landing.

4.4.22. Area 73. Engine-out Landing.

4.4.23. Area 80. 50 Percent Flap Landing.

4.4.24. Areas 71 through 73 and 80--use the following criteria: **Notes:** 1. The following criterion is written to generally apply to all landings. FEs apply these criteria judiciously to allow for the unique characteristics of each type of landing. Where runway configuration, arresting cable placement or flight manual limitations require an adjustment to the desired touchdown point, identify a simulated runway threshold and the grading criteria applied accordingly. For instrument approaches, the examinee utilizes a normal glide slope from either the decision height or from a point where visual acquisition of the runway environment is made. 2. Specific items to evaluate include threshold altitude/airspeed, runway alignment, flare, touchdown zone, touchdown speed and landing in a crab.

4.4.24.1. **Q**. Performed landings as published/directed IAW flight manual and met the following criteria:

4.4.24.1.1. Airspeed: +/- 5 KIAS

4.4.24.1.2. Touchdown Zone: 1000-2000 feet

4.4.24.1.3. Centerline: +/- 15 feet left or right

4.4.24.1.4. Performed braking/propeller reversing commensurate with landing conditions and IAW the flight manual and applicable directives

4.4.24.2. **Q-**. Performed landings with minor deviation to procedures as published/directed. Landed in a slight crab. Exceeded Q limits but not the following:

4.4.24.2.1. Airspeed: +10/-5 KIAS

4.4.24.2.2. Touchdown Zone: Threshold – 3000 feet

4.4.24.2.3. Centerline: +/- 25 feet left or right

4.4.24.2.4. Braking or propeller reversing action not applied smoothly, nor accomplished commensurate with landing conditions; safety not jeopardized.

4.4.24.3. **U** Landing not performed as published/directed. Exceeded Q- limits. Braking or propeller reversing accomplished in an unsafe manner.

4.4.25. Area 74. Engine-out Go-Around—use Area 70 criteria and the following:

4.4.25.1. **Q**. Performed all required procedures IAW the flight manual and associated directives. Applied smooth, positive and coordinated control inputs. Rudder and aileron inputs were in the correct direction.

4.4.25.2. **Q-**. Errors were made which did not affect safety. Aircraft control was not consistently smooth and positive. Rudder and aileron inputs were in correct direction with some over/under control.

4.4.25.3. **U**. Rudder and/or aileron inputs were incorrect. Failed to perform the maneuver IAW the flight manual and associated directives. Exceeded Q- limits.

4.4.26. Area 75. Touch and Go Landing (touchdown through lift-off):

4.4.26.1. **Q**. Performed procedures in a timely manner and IAW the flight manual and local directives. Smooth and positive control. Maintained runway centerline within 15 feet left or right throughout the touch and go.

4.4.26.2. **Q-**. Performed procedures with minor deviations. Aircraft control was safe but not consistently smooth and positive. Delayed accomplishment of required checklists. Consistently left or right of centerline but within 25 feet.

4.4.26.3. **U**. Major deviations to procedures. Displayed erratic/unsafe aircraft control. Excessively delayed and/or misapplied required checklists. Allowed aircraft to drift/remain more than 25 feet left or right of centerline.

4.4.27. Area 96. Defensive Systems Tactics:

4.4.27.1. **Q**. Demonstrated satisfactory knowledge of defensive systems and applied appropriate tactics. Made timely and appropriate inputs to crew during mission.

4.4.27.2. **Q-**. Limited knowledge of defensive systems and/or appropriate tactics. Minor errors in tactics selection/execution. Did not make timely inputs to crew during mission.

4.4.27.3. **U**. Knowledge of defensive systems was unsatisfactory. Unfamiliar with the appropriate tactic for a given scenario. Major errors in tactics selection would have resulted in an unsuccessful mission.

4.4.28. Area 151. Threat Analysis/Avoidance:

4.4.28.1. **Q.** Able to plot threats in-flight and formulate a plan of action to avoid lethal range of given threat system. Executed the proper evasive maneuver in a timely manner for immediate threats. Adequately analyzed and degraded all threats ensuring effective mission accomplishment. Aware of appropriate tactics to avoid threats and exposure.

4.4.28.2. **Q-.** Made minor errors in plotting and avoiding the lethal range of a given threat system. Slow to execute the proper evasive maneuver. Minor errors in threat analysis or tactics selection.

4.4.28.3. **U.** Was unable to plot a given threat. Did not avoid lethal range of given threat system. Did not execute an effective evasive maneuver when given an immediate threat. Failed to ensure mission effectiveness by not adequately analyzing or degrading threat(s). Was not aware of appropriate tactics for specific threats or terrain.

4.4.29. Areas 1051-1055. Reserved for future use.

## Chapter 5

### NAVIGATOR EVALUATIONS

**5.1. General.** The criteria contained here and in **Chapter 3** apply to all navigator flight evaluations.

**5.2. Objective.** The examinee satisfactorily demonstrates the ability to perform all navigator duties safely and effectively, including the operation of appropriate aircraft systems, IAW applicable flight manuals, and directives.

**5.3. Requirements:** EC-130H navigators receive a combined (MSN/QUAL) evaluation when possible. Conduct initial evaluations IAW applicable ACC syllabi.

5.3.1. Qualification evaluations. See **Table 2.4** for required evaluation areas. QUAL evaluations (including the QUAL portion of a combined MSN/QUAL) may be accomplished in the WST.

5.3.2. Mission evaluations. See **Table 2.4** for required areas. Base MSN evaluations on unit scenarios and mission crew training with a minimum two turns in the mission orbit and a threat reaction. Do not simulate the mission crew. Base threats for takeoff, on-station, tactical repositioning, retrograde procedures and recovery on training required by COMPASS CALL mission crew. MSN evaluations may be accomplished in the WST if connected to mission event in CCMCS at squadron commander discretion. (**Exception:** for AAR only, per procedures below). (**T-3**)

5.3.2.1. Air-to-Air Refueling. Include AAR on MSN evaluations to the maximum extent possible.

5.3.2.1.1. Alternate means of AAR evaluation. Navigators may be evaluated on AAR in the aircraft or the WST. If unable to meet a tanker (e.g., due to scheduling, maintenance or weather limitations), evaluators may grade AAR procedures IAW AFMAN 11-2EC-130HV1, paragraph A2.1.1.3. In this case, the entire crew will participate in the simulation for checklist and crew coordination. (**T-3**) As a last resort, Sq/CCs may authorize verbal evaluation on a case-by-case basis for periodic and requalification AAR evaluations only. Navigators will not receive consecutive verbal AAR evaluations. (**T-3**)

5.3.2.1.2. Failure to accomplish AAR. If unable to grade AAR on the first attempt, evaluators should attempt additional aircraft or WST sorties for the same evaluation, if practical. If unable to evaluate AAR by any means, the evaluator will close the Form 8 and restrict the examinee from performing AAR without an instructor navigator. (**T-3**) Aircraft qualification is not affected by this restriction and may be removed later via a SPOT evaluation.

5.3.2.1.3. Examinee ineligible for mission duties. Examinees unable to perform mission duties (e.g. due to a security clearance delay) but properly trained in AAR may establish AAR qualification via a SPOT evaluation (update unit Letter of Certifications accordingly). The member will subsequently receive an AAR evaluation on their periodic QUAL cycle until able to complete an INIT or RQ MSN. (**T-3**)

5.3.3. Instructor evaluations. INIT, RQ and periodic instructor evaluations may be accomplished in the WST, so long as the evaluation profile includes only QUAL and/or AAR items. MSN may be accomplished in WST if connected to CCMCS at squadron commander discretion.

#### 5.4. Grading Criteria:

5.4.1. Areas listed in **Table 2.1** — use criteria in **Chapter 3** of this publication.

5.4.2. Areas listed in **Table 2.2** — use criteria in **Chapter 3** of this publication (if applicable).

5.4.3. Area 6. Departure:

5.4.3.1. **Q.** Monitored headings, airspeeds, altitudes and aircraft position throughout departure. Used a standard instrument departure (SID)/departure procedure and/or appropriate scale departure area chart, printed or on EFB. Provided headings, estimated times of arrival (ETAs) and other required information in a timely manner. Monitored appropriate radios and clearances to ensure crew compliance. Provided updated information when the clearance caused a change in the planned departure. Ensured terrain clearance during departure by use of all available aids and the area chart.

5.4.3.2. **Q-.** Monitored aircraft position, but slow to provide headings, ETAs or other required information. Performance did not degrade mission accomplishment or compromise flight safety.

5.4.3.3. **U.** Did not monitor departure headings, airspeeds or altitudes. Unaware of aircraft position and unable to provide updated information when required. Did not use a SID and/or an appropriate scale departure area chart, printed or on EFB. Allowed major deviations that degraded mission accomplishment or compromised safety. Did not ensure terrain clearance during the departure. No area chart available.

5.4.4. Area 8. Radio Navigation:

5.4.4.1. **Q.** Accurately tuned, identified, and interpreted readings of tactical air navigation system (TACANs), very High Frequency Omni-directional Range Stations (VORs) or non-directional beacons (NDBs). Consistently selected stations that afforded the best Lines of Position (LOPs). Position accuracy within 4 NM.

5.4.4.2. **Q-.** Better use of radio aids could have enhanced navigation. Displayed weakness in fixing or plotting procedures. Position accuracy did not exceed 8 NM.

5.4.4.3. **U.** Unable to accurately tune and identify radio aids. Did not understand VOR/TACAN/NDB bearing procedures or was unable to obtain position by means of radio aids. Position error greater than 8 NM.

5.4.5. Area 11. Fuel Management:

5.4.5.1. **Q.** Maintained fuel management IAW directives. Advised pilot of significant deviations from preplanned fuel status. Calculated and updated bingo fuels for flight conditions, as required to safely arrive at landing base with required fuel reserves.

5.4.5.2. **Q-.** Adequate fuel management control with minor computation errors noted. Did not adequately update the pilot on fuel status. Calculated and updated bingo fuels for

flight conditions, as required to safely arrive at landing base with required fuel reserves with minor computation errors.

5.4.5.3. **U.** Failed to demonstrate an understanding of fuel management procedures. Fuel computations not accomplished or contained significant errors. Failed to inform pilot of fuel status. Failed to calculate and update bingo fuels for flight conditions, as required to safely arrive at landing base with required fuel reserves.

5.4.6. Area 1037. Fuel Planning:

5.4.6.1. **Q.** Demonstrated satisfactory knowledge of the type and use of data contained in fuel planning instructions. “Enroute fuel” computation errors did not exceed 3%. Correctly computed and performed fuel management procedures. Correctly computed an equal time point (ETP), when required.

5.4.6.2. **Q-.** Displayed limited knowledge of fuel planning instructions. “Enroute fuel” computation errors did not exceed 5%. Fuel management procedures and/or ETP computed with minor mathematical errors or omissions that would not adversely affect mission accomplishment.

5.4.6.3. **U.** Displayed inadequate knowledge of fuel planning instructions. Fuel computations and/or ETP were not completed or contained major errors or omissions.

5.4.7. Area 12. Navigation Systems: **Note:** All references to navigation systems refer to all onboard aircraft systems (e.g., Inertial Navigation System (INS), Computer-Aided Navigation System (CANS), Flight Management System (FMS) or Global Positioning System (GPS)).

5.4.7.1. **Q.** Demonstrated a thorough knowledge of onboard navigation system operating procedures. Effectively used navigation systems to direct the aircraft and updated systems as required.

5.4.7.2. **Q-.** Demonstrated only a basic knowledge of onboard navigation systems. Made minor errors in operation/interpretation of navigation system data. More selective updating could have increased system effectiveness.

5.4.7.3. **U.** Displayed inadequate knowledge of onboard navigation system procedures. Improper operation procedures could have resulted in damage to equipment or affected mission accomplishment. Failed to update or correctly interpret navigation system data.

5.4.8. Area 17. Air-to-Air Refueling Procedures:

5.4.8.1. **Q.** Effectively accomplished rendezvous and AAR procedures. Planned optimum use of all available rendezvous aids. Thorough and complete knowledge of in-flight AAR procedures. Arrived at the coordinated AAR point within 5 minutes of planned control time.

5.4.8.2. **Q-.** Overlooked use of some rendezvous aids that resulted in a delayed or inefficient rendezvous. Knowledge was sufficient to accomplish rendezvous and AAR. Arrived at the coordinated AAR point within 10 minutes of planned control time.

5.4.8.3. **U.** Displayed lack of knowledge or familiarity with the checklist, equipment and procedures. Limited use of rendezvous aids adversely affected the rendezvous. Arrived at the coordinated AAR point in excess of 10 minutes from planned control time.

5.4.9. Area 20. Descent/Approach/Landing:

5.4.9.1. **Q.** Monitored aircraft position, approach instructions and primary approach navigation aids. Provided headings, ETAs and other information to the pilot as required. Thoroughly understood approach and missed approach procedures. Ensured terrain clearance during approach by use of all available aids and area chart.

5.4.9.2. **Q-.** Monitored aircraft position but did not fully understand approach instructions/procedures. Slow to provide headings, ETAs or other appropriate information.

5.4.9.3. **U.** Failed to monitor aircraft position. Did not ensure terrain clearance during the approach. No area chart (printed or on EFB) available.

5.4.10. Area 85. Communication Procedures:

5.4.10.1. **Q.** Complete knowledge of and compliance with communications procedures. Radio communications were concise, accurate and effectively used to direct actions by the crew to update appropriate agencies of the tactical situation. Consistently monitored primary radio to aid in crew situational awareness. Thoroughly familiar with all communications security requirements and secure voice equipment.

5.4.10.2. **Q-.** Minor terminology errors or omissions occurred but did not significantly detract from situational awareness, threat warning or mission accomplishment. Extraneous comments over primary and secondary radios presented minor distractions. Slow to switch to primary radio; inconsistently monitored primary radio. Displayed limited knowledge of communication security requirements and secure voice equipment.

5.4.10.3. **U.** Unsatisfactory knowledge of or failure to comply with communications procedures. Radio communications over primary/secondary radios were inadequate or excessive. Inaccurate or confusing terminology significantly detracted from situational awareness, threat warning, or mission accomplishment. Did not monitor primary radio. Displayed inadequate knowledge of communications security requirements and secure voice equipment.

5.4.11. Area 88. Navigation Procedures:

5.4.11.1. **Q.** Certain of exact aircraft position. Remained within 3 NM of course centerline unless maneuvering. Thorough knowledge of enroute time status in relation to objective area. Complied with all altitude and airspace restrictions. Avoided inclement weather IAW regulation.

5.4.11.2. **Q-.** Uncertain of exact aircraft position due to marginal navigational procedures. Management of required timing events caused excessive, unplanned maneuvering. If operating aboard an AVP configured aircraft, flew within 1 NM of course centerline

5.4.11.3. **U.** Exceeded Q- criteria and/or evaluator had to alter aircraft heading to remain within course tolerance, observe airspace restrictions, or correctly deviate around weather. Unable to maintain position awareness throughout most of the route. Unable to accurately assess required timing or unaware of mission time status, jeopardizing mission accomplishment. Poor airspeed control resulted in numerous or extreme airspeed adjustments. Violated altitude or airspace restrictions.

5.4.12. Area 92. Course and ETA Tolerance:

5.4.12.1. **Q.** Remained within 10 NM of course centerline, or within tolerances specified for Required Navigation Performance (RNP) airspace. ETAs/Revised Estimated Times of Arrival (RETAs) were within 2 minutes of Actual Times of Arrival (ATAs). Made effective use of dead reckoning (DR) procedures when required. Accurately determined course deviation for weather.

5.4.12.2. **Q-.** Remained within 15 NM of course centerline or within tolerances specified for RNP airspace. ETAs/RETAs were within 3 minutes of ATAs. Occasionally used improper DR procedures resulting in erroneous ETAs or headings.

5.4.12.3. **U.** Exceeded Q- criteria and/or evaluator had to alter aircraft heading to remain within course tolerance, clear special use airspace, or correctly deviate around weather. Unfamiliar of usage of DR procedures.

#### 5.4.13. Area 96. Defensive Systems/Tactics:

5.4.13.1. **Q.** Demonstrated satisfactory knowledge of defensive system and applied appropriate tactics. Made timely and appropriate inputs to crew during mission. Correctly configured defensive system.

5.4.13.2. **Q-.** Limited knowledge of defensive system tactics. Minor errors in tactic selection/execution. Did not make timely inputs to crew during mission. Minor errors configuring defensive system but did not hinder the mission.

5.4.13.3. **U.** Knowledge of defensive system was unsatisfactory. Unfamiliar with the appropriate tactic for a given scenario. Major errors in tactic selection would have resulted in an unsuccessful mission. Major errors in defensive system configuration resulted in an unsuccessful mission.

#### 5.4.14. Area 151. Threat Analysis/Avoidance:

5.4.14.1. **Q.** Able to plot threats in-flight and formulate a plan of action to avoid lethal range of given threat system. Executed the proper evasive maneuver in a timely manner when given an immediate threat. Adequately analyzed and degraded all threats ensuring effective mission accomplishment. Was aware of appropriate tactics to avoid threats and exposure.

5.4.14.2. **Q-.** Made minor errors in plotting and avoiding the lethal range of a given threat system. Slow to execute the proper evasive maneuver. Minor errors in threat analysis or tactic selection.

5.4.14.3. **U.** Was unable to plot a given threat. Did not avoid lethal range of given threat systems. Did not execute an effective evasive maneuver when given an immediate threat. Failed to ensure mission effectiveness by not adequately analyzing or degrading threats. Was not aware of appropriate tactics for specific threats or terrain.

#### 5.4.15. Area 285. Flight Plan/Charts:

5.4.15.1. **Q.** Completed the flight plan with time errors not exceeding 5 minutes of total time to destination or satisfactorily reviewed a provided computer flight plan. Selected current navigation charts of a proper scale and type of the sortie profile. Charts were constructed IAW current directives. Plotting errors did not exceed 5 NM.

5.4.15.2. **Q-**. Minor errors or omissions that would not have adversely affected mission accomplishment. Time errors did not exceed 10 minutes. Plotting errors did not exceed 10 NM.

5.4.15.3. **U**. Flight plan was not completed. Failed to review computer flight plan. Navigator flight plan contained major errors/omissions. Selected an improper or obsolete chart.

5.4.16. Area 290. RADAR Navigation:

5.4.16.1. **Q**. Demonstrated thorough knowledge and understanding of RADAR equipment. Used correct procedures for RADAR operation and weather avoidance procedures. RADAR position error did not exceed 5 NM.

5.4.16.2. **Q-**. Demonstrated adequate knowledge of equipment but occasionally used improper operating procedures. Had difficulty identifying RADAR returns. RADAR position error did not exceed 10 NM. Weather avoidance was safe with minor deviations from prescribed procedures. Did not update RADAR/weather analysis during deteriorating weather conditions.

5.4.16.3. **U**. Displayed unsatisfactory knowledge of RADAR equipment. Used improper operating procedures that were potentially harmful to system components. Failed to correctly interpret RADAR returns. Displayed unsatisfactory knowledge of weather avoidance procedures. RADAR position error exceeded Q- limits.

5.4.17. Area 295. Orbit Procedures:

5.4.17.1. **Q**. Thorough knowledge of orbit procedures. Timing requirements met within 3 minutes. Accurately flew orbit pattern and accomplished computations without significant errors or omissions. Properly coordinated mission location and orbit ETAs with the MCC.

5.4.17.2. **Q-**. Adequate knowledge of orbit procedures. Minor deviations from published procedures. Timing requirements met within 5 minutes. Excessive time devoted to performing computations. Minor coordination errors or omissions with the MCC.

5.4.17.3. **U**. Unsatisfactory knowledge of orbit procedures. Did not meet Q- criteria for time requirements. Displayed lack of coordination with MCC. Unable to perform orbit pattern; jeopardized mission accomplishment. Failed to position the aircraft within planned orbit area.

5.4.18. Areas 1056-1060. Reserved for future use.

## Chapter 6

### FLIGHT ENGINEER EVALUATIONS

**6.1. General.** The criteria contained in this chapter and **Chapter 3** applies to all flight engineer flight evaluations.

**6.2. Objective.** The examinee satisfactorily demonstrates the ability to perform flight engineer duties safely and effectively IAW applicable technical orders, instructions, and directives.

**6.3. Requirements:** Flight Engineers receive a combined MSN/QUAL evaluation when possible. Conduct initial evaluations IAW applicable ACC syllabi.

6.3.1. Qualification evaluations. See **Table 2.5** for required evaluation areas. QUAL evaluations (including the QUAL portion of a combined MSN/QUAL) may be performed in the WST. Do not conduct consecutive QUAL evaluations in the WST.

6.3.2. Mission evaluations. Mission evaluations are based on established training scenarios and mission crew training requirements, but require as a minimum two turns in the mission orbit and a threat reaction. Base threats for takeoff, on-station, tactical repositioning, retrograde procedures and recovery on training required by COMPASS CALL mission crew. MSN evaluations may be accomplished in the WST if connected to mission event in CCMCS at squadron commander discretion. **(T-3)** Evaluation of Area 17 in the WST will be based on the procedures below:

6.3.2.1. Air-to-Air Refueling. Include AAR on MSN evaluations to the maximum extent possible.

6.3.2.1.1. Alternate means of AAR evaluation. Flight engineers may be evaluated on AAR in the aircraft or the WST. If unable to accomplish AAR via either of these options (e.g., due to scheduling, maintenance or weather limitations), then as a last resort, Sq/CCs may authorize verbal evaluation on a case by case basis for periodic and requalification AAR evaluations only. Flight engineers will not receive consecutive verbal AAR evaluations. **(T-3)**

6.3.2.1.2. Failure to accomplish AAR. If unable to grade AAR on the first attempt, evaluators should attempt additional aircraft or WST sorties for the same evaluation, if practical. If unable to evaluate AAR, the evaluator will close out the AF Form 8 and restrict the examinee from performing AAR without an instructor flight engineer. **(T-3)** Aircraft qualification is not affected by this restriction and may be removed later with a SPOT evaluation.

6.3.2.1.3. Examinee ineligible for mission duties. Examinees unable to perform mission duties (e.g., due to a security clearance delay) but properly trained in AAR may establish AAR qualification with a SPOT evaluation (update unit letter of certifications accordingly). The member will subsequently receive an AAR evaluation on their periodic QUAL cycle until able to complete an INIT or RQ MSN. **(T-3)**

6.3.3. Instructor evaluations. INIT, RQ and periodic instructor evaluations may be accomplished in the WST so long as the evaluation profile includes only QUAL and/or AAR items. MSN evaluations may be accomplished in the WST if connected to mission event in CCMCS at squadron commander discretion.

#### 6.4. Grading Criteria:

- 6.4.1. Areas listed in **Table 2.1** — use criteria in **Chapter 3** of this publication.
- 6.4.2. Areas listed in **Table 2.2** — use criteria in **Chapter 3** of this publication (if applicable).
- 6.4.3. Area 3. Before Takeoff/Lineup.
- 6.4.4. Area 6. After Takeoff.
- 6.4.5. Area 8. Enroute.
- 6.4.6. Area 18. Descent/Before Landing.
- 6.4.7. Area 26. After Landing.
- 6.4.8. Area 83. Tactical/Mission Employment
- 6.4.9. Area 222. Cockpit.
- 6.4.10. Area 223. Before Starting Engines/Starting Engines.
- 6.4.11. Area 224. Before Taxi/Taxi.
- 6.4.12. Area 225. Engine Shutdown.
- 6.4.13. Area 226. Before Leaving Airplane
- 6.4.14. Areas listed in **paragraph 6.4.3** through **paragraph 6.4.13** – use the following criteria:
  - 6.4.14.1. **Q.** Accomplished required checklists without errors, omissions or deviations. Supported pilots on flight parameters (e.g., altitudes, airspeeds and clearances). Satisfactorily monitored engines/system indicators. Fully knowledgeable of performance charts and procedures required to obtain and record in-flight performance data. Fuel system usage and configuration IAW flight manuals and applicable directives. Recognized and corrected minor omissions or deviations. Recognized, reported and properly documented out of limit conditions or malfunctions.
  - 6.4.14.2. **Q-.** Accomplished required checklists with minor errors, omissions or deviations. Supported pilots on flight parameters (e.g., altitudes, airspeeds, and clearances) with some deviations. Monitored engines/system indicators with minor deviations. Limited knowledge of performance charts and procedures required to obtain and/or record in-flight performance data. Limited knowledge of fuel system usage and configuration caused deviations from prescribed manuals and directives. Slow to recognize, report and/or document out of limit conditions or malfunctions.
  - 6.4.14.3. **U.** Failed to accomplish required checklists or made numerous errors, omissions or deviations. Failed to back up pilots on flight parameters (e.g., altitudes, airspeeds and clearances). Failed to monitor engines/system indicators. Inadequate knowledge of performance charts and/or procedures required to obtain data for two or three engine operations demonstrated. Inadequate knowledge of fuel system usage and configuration. Exceeded limitation which without correction/intervention would cause equipment damage.
- 6.4.15. Area 17. Air-to-Air Refueling System/Procedures:

6.4.15.1. **Q.** Was fully knowledgeable of AAR operations and procedures. Performed all pre-refueling, refueling and post-refueling system checks IAW applicable checklists and directives. Correctly identified and located system components, explained and related their functions and specified the limitations. Stated correct system status and its effect on related systems. Recognized malfunctions and applied proper corrective actions.

6.4.15.2. **Q-.** Limited knowledge of AAR operations and procedures. Performed pre-refueling, refueling, and post-refueling checks with minor deviations/omissions that did not affect successful accomplishment of AAR. Displayed limited knowledge of identification and location of system components, their functions and limitations. Stated correct system status but could not determine its effect on related systems. Delay in recognizing malfunctions and/or applying proper corrective actions.

6.4.15.3. **U.** Inadequate knowledge of AAR operations and procedures. Deviations/omissions would have affected successful accomplishment of AAR. Could not identify, locate or relate system functions and limitations. Could not determine status of system or the effect on related systems. Failed to recognize malfunctions and/or apply corrective actions.

6.4.16. Area 38. Takeoff and Landing Data (TOLD): **Note:** If TOLD error is a result of an incorrect gross weight and not due to incorrect computations of performance data, document under Area 238 (Weight and Balance).

6.4.16.1. **Q.** Correctly computed the TOLD data using applicable performance data and corrections for existing field conditions. Transcribed Mini TOLD data correctly. Was fully knowledgeable of takeoff and landing performance data.

6.4.16.1.1. TOLD criteria:

6.4.16.1.1.1. Required Airspeeds: +/-2 knots.

6.4.16.1.1.2. Required Distances: +/- 200 feet.

6.4.16.1.1.3. Predicted Takeoff Torque: +/- 200 in/lbs.

6.4.16.2. **Q-.** Minor errors in the use of applicable performance charts, computation of performance data or corrections for existing field conditions resulted in data exceeding Q criteria. Incorrectly transcribed Mini TOLD data. Displayed limited knowledge of takeoff and landing performance data that would not have compromised safety of flight.

6.4.16.2.1. TOLD criteria:

6.4.16.2.1.1. Required Airspeeds: +/- 4 knots.

6.4.16.2.1.2. Required Distances: +/- 400 feet.

6.4.16.2.1.3. Predicted Takeoff Torque: +/- 400 in/lbs.

6.4.16.3. **U.** Failed to compute TOLD data, omitted necessary corrections for existing field conditions or errors in computation of performance data resulted in airspeeds and/or distances exceeding Q- criteria. Demonstrated a lack of knowledge of takeoff and landing performance data that would have compromised safety of flight.

6.4.17. Area 50. AFTO Form 781, ARMS Aircrew/Mission Flight Data Document:

6.4.17.1. **Q.** Identified and reported discrepancies in a clear, concise, accurate and timely manner IAW T.O. 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies and Procedures* and other applicable directives.

6.4.17.2. **Q-.** Reported some information incorrectly or incompletely due to errors, omissions or deviations. Limited knowledge of proper discrepancy reporting IAW T.O. 00-20-1.

6.4.17.3. **U.** Did not identify or report discrepancies. Omitted or incorrectly reported significant information due to errors, omissions or deviations.

6.4.18. Area 1038. Mission Procedures:

6.4.18.1. **Q.** Fully knowledgeable of unit mission procedures. Knowledgeable of mission events.

6.4.18.2. **Q-.** Had limited knowledge of unit mission procedures. Demonstrated limited knowledge of mission events.

6.4.18.3. **U.** Inadequate knowledge of unit mission procedures. Displayed inadequate knowledge of mission events.

6.4.19. Area 96. Defensive Systems/Tactics:

6.4.19.1. **Q.** Demonstrated satisfactory knowledge of defensive systems/tactics. Applied appropriate tactics to avoid threats and minimize exposure. Made timely and appropriate inputs to crew during mission.

6.4.19.2. **Q-.** Limited knowledge of defensive systems/tactics. Minor errors in threat analysis or tactics selection/execution. Did not provide timely inputs to crew during mission.

6.4.19.3. **U.** Knowledge of defensive systems was unsatisfactory. Unfamiliar with the appropriate tactics for the scenario. Major errors in threat analysis or tactic selection would have resulted in an unsuccessful mission.

6.4.20. Area 220. Ground Support Equipment:

6.4.20.1. **Q.** Demonstrated a satisfactory knowledge of positioning, normal operation, and emergency shutdown of required ground support equipment with no errors, omissions or deviations.

6.4.20.2. **Q-.** Demonstrated a limited knowledge of positioning, normal operations and emergency shutdown of required ground support equipment with minor errors, omissions or deviations that did not jeopardize safety.

6.4.20.3. **U.** Failed to demonstrate adequate knowledge of positioning, normal operation and emergency shutdown of required ground support equipment that could have jeopardized safety.

6.4.21. Area 221. Refuel/Defuel:

6.4.21.1. **Q.** Demonstrated a satisfactory knowledge of or accomplished refuel/defuel operations with no errors, omissions or deviations from established procedures. Demonstrated a working knowledge of the aircraft the refueling/defueling system.

Satisfactory knowledge of concurrent refueling procedures and appropriate safety precautions IAW T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*.

6.4.21.2. **Q-**. Demonstrated a limited knowledge of or accomplished refuel/defuel operations with minor errors, omissions or deviations that did not jeopardize safety. Limited knowledge of the aircraft refueling/defueling system and components.

6.4.21.3. **U**. Demonstrated inadequate knowledge of or failed to accomplish refuel/defuel operations, made errors, omissions or deviations that would have jeopardized safety. Demonstrated inadequate knowledge of concurrent refueling operations and appropriate safety precautions.

6.4.22. Area 227. Post flight:

6.4.22.1. **Q**. Accomplished required checklists without errors, omissions or deviations. Ensured aircraft properly configured for parking. (e.g., nose gear pin, ground wires (if applicable), intakes, door locks).

6.4.22.2. **Q-**. Accomplished required checklists with minor errors, omissions, or deviations. Minor errors ensuring aircraft properly configured for parking.

6.4.22.3. **U**. Failed to accomplish required checklists. Did not ensure aircraft was properly configured for parking.

6.4.23. Area 238. Weight and Balance:

6.4.23.1. **Q**. Had satisfactory knowledge of aircraft limitations and weight and balance directives. Completed DD Form 365-4, *Weight and Balance Clearance Form F – Transport/Tactical*, legibly and accurately with only minor errors.

6.4.23.1.1. Takeoff or landing gross weights: +/- 500 lbs.

6.4.23.1.2. Percent of Mean Aerodynamic Chord (MAC): +/- 0.5 percent.

6.4.23.1.3. Aircraft gross takeoff limits: Not exceeded.

6.4.23.1.4. Center of gravity limitations: Not exceeded.

6.4.23.2. **Q-**. Limited knowledge of aircraft limitations and weight and balance directives. Completed DD Form 365-4 legibly.

6.4.23.2.1. Takeoff or landing gross weights: +/- 501 to 1,000 lbs.

6.4.23.2.2. Percent of MAC: +/- 0.6 to 1.0 percent.

6.4.23.2.3. Aircraft gross takeoff limits: Not exceeded.

6.4.23.2.4. Center of gravity limitations: Not exceeded.

6.4.23.3. **U**. Had inadequate knowledge of aircraft limitations and weight and balance directives. Failed to complete DD Form 365-4 accurately.

6.4.23.3.1. Takeoff or landing gross weights: Exceeded +/- 1,000 lbs.

6.4.23.3.2. Percent of MAC: Exceeded +/- 1.0 percent.

6.4.23.3.3. Aircraft gross takeoff limits: Exceeded.

6.4.23.3.4. Center of gravity limits: Exceeded.

6.4.24. **Areas 1061-1065. Reserved for future use.**

## Chapter 7

### AIRBORNE MAINTENANCE TECHNICIAN EVALUATIONS

**7.1. General.** The criteria in this chapter and **Chapter 3** apply to all AMT flight evaluations. The CCMCS will not be used for any AMT evaluation. **(T-3)**

**7.2. Objective.** The examinee satisfactorily demonstrates the ability to safely and effectively perform the AMT duties within their assigned area of responsibility, including the operation of appropriate aircraft systems. These duties are performed IAW applicable manuals, instructions, and directives.

#### **7.3. Requirements:**

7.3.1. Mission/Qualification Evaluations. See **Table 2.6** for required areas (as applicable).

7.3.1.1. All COMPASS CALL AMT MSN/QUAL evaluations are conducted on a mission sortie. Scenarios will be based on mission crew training requirements. AAR duties will be evaluated. If a tanker is not available, AAR duties are evaluated in-flight by demonstration of procedures (if possible). If AAR cannot be evaluated in flight, AAR may be verbally evaluated at FE discretion. All initial and periodic MSN/QUAL evaluations require a full mission preflight.

#### **7.4. Grading Criteria:**

7.4.1. Areas listed in **Table 2.1** — use criteria in **Chapter 3** of this publication.

7.4.2. Areas listed in **Table 2.2** — use criteria in **Chapter 3** of this publication (if applicable).

7.4.3. Area 3. Pre-Takeoff: **Note:** Includes all activity from after preflight to takeoff.

7.4.3.1. **Q.** Accomplished procedures IAW approved checklists and applicable directives. Monitored engine start from the correct position. Used correct ground marshaling signals. Recognized and correctly responded to malfunctions in a safe and timely manner. Properly configured aircraft and equipment prior to takeoff. Effectively monitored and assisted the pilot by clearing outside the aircraft for obstacles/ground traffic during taxi.

7.4.3.2. **Q-.** Accomplished procedures with minor errors, omissions or deviations. Slow to recognize or respond to malfunctions. Displayed minor errors when positioning to monitor engine start or giving required ground marshaling signals. Minor errors in preparing aircraft and equipment prior to takeoff. Provided limited or inadequate monitoring outside the aircraft for clearing of obstacles/ground traffic during taxi.

7.4.3.3. **U.** Accomplished procedures with major errors, omissions or deviations. Major errors when positioning to monitor engine area during start sequence. Failed to ensure engine/GTC (Gas Turbine Compressor) was clear of personnel or equipment before starting. Failed to recognize or respond to malfunctions. Major errors when providing ground marshaling signals that jeopardized safety. Major errors or omissions in preparing aircraft and equipment prior to takeoff. Failed to provide any monitoring or assistance to the pilot during taxi operations that jeopardized safety.

7.4.4. Area 6. After Takeoff/System Startup:

7.4.4.1. **Q.** Conducted procedures IAW applicable checklist items and procedures. Conducted a thorough inspection of cargo compartment and ensured that passengers complied with instructions. Ensured applicable mission system equipment was started properly. Performed all required checks.

7.4.4.2. **Q-.** Conducted procedures with minor errors or omissions which did not affect safety of flight. Conducted a limited inspection of cargo compartment. Performed required checks with omissions or deviations, which did not affect safety of flight. Slow to initialize mission system which did not affect mission accomplishment.

7.4.4.3. **U.** Failed to accomplish procedures or made major errors, omissions or deviations which affected or could have affected safety of flight. Failed to inspect cargo compartment or ensure passenger compliance with instructions. Failed to initialize mission system in a timely manner which negatively affected mission accomplishment.

7.4.5. Area 8. Level Off/Cruise/Enroute:

7.4.5.1. **Q.** Performed all required checks thoroughly with no deviations. Monitored operations of aircraft/mission systems on a frequent basis. Corrective maintenance actions were implemented in a timely manner as capabilities permitted.

7.4.5.2. **Q-.** Performed required checks with minor errors, omissions or deviations which did not affect safety of flight or mission accomplishment. Conducted limited/infrequent monitoring of aircraft/mission systems.

7.4.5.3. **U.** Failed to perform required checks or made major errors, omissions or deviations which affected safety of flight or mission accomplishment. Failed to provide adequate monitoring of aircraft/mission systems.

7.4.6. Area 17. Air-to-Air Refueling:

7.4.6.1. **Q.** Adequate knowledge of AAR system components and locations. Accomplished all AAR procedures without error, including leak checks during contact, IAW approved checklist and directives. Properly configured the aircraft and mission systems (if applicable) prior to completion of the Preparation for Contact checklist. Accomplished a post AAR mission system configuration IAW checklists and directives (if applicable).

7.4.6.2. **Q-.** Limited knowledge of AAR system components and locations. Accomplished AAR procedures with minor errors, omissions or deviations. Performed limited system checks during contact. Performed aircraft and mission system configuration with minor errors or omissions prior to the completion of the preparation for contact checklist that did not affect mission accomplishment.

7.4.6.3. **U.** Inadequate knowledge of AAR system components and/or locations. Accomplished AAR procedures with major errors, omissions or deviations critical to safety of flight. Failed to properly configure aircraft and mission systems (if applicable) before completion of preparation for contact checklist. Failed to perform required system checks during contact. Accomplished post AAR mission system configuration with major errors, omissions or deviations causing critical loss of data or unsuccessful completion of the mission.

7.4.7. Area 18. System Shutdown/Descent:

7.4.7.1. **Q.** Ensured applicable mission system equipment was shutdown properly. Performed all required duties. Inspected cargo/mission compartment for security.

7.4.7.2. **Q-.** Accomplished applicable procedures and duties with minor errors, omissions, or deviations that did not affect safety of flight or jeopardize mission accomplishment. Performed a limited inspection of cargo/mission compartment for security.

7.4.7.3. **U.** Major errors, omissions, or deviations during shutdown of applicable mission system equipment and other required duties adversely affecting mission accomplishment. Failed to accomplish a satisfactory inspection of the cargo/mission compartment for security.

7.4.8. Area 26. After Landing/Engine Shutdown:

7.4.8.1. **Q.** Completed all applicable checklist items and post flight duties in a safe and timely manner. Shut off all equipment and stowed gear properly. Fully debriefed maintenance personnel.

7.4.8.2. **Q-.** Minor omissions or deviations, which did not cause equipment damage. Maintenance debrief was adequate with minor omissions.

7.4.8.3. **U.** Major omissions or deviations while completing applicable checklist items and duties. Performed improper equipment stowage or shutdown, which would result in damage to equipment, was improper. Displayed an unsafe procedures that could cause damage to aircraft or harm to personnel. Failed to stow equipment. Failed to accomplish debriefing requirements.

7.4.9. Area 29. Basic Aircraft Systems: **Note:** Evaluate the following areas: Engines/GTC/ATM (Air Turbine Motor), hydraulic systems, ramp and door, landing gear, flaps, electrical systems, bleed air/air conditioning and aircraft defensive systems. These areas are allowed to be divided into sub-areas by local supplement for trending purposes.

7.4.9.1. **Q.** Demonstrated or determined proper system operation. Correctly identified and located applicable system components. Correctly determined status of system. Knowledgeable of, and could identify associated system warnings/cautions/notes.

7.4.9.2. **Q-.** Minor deviations in systems operation which did not affect mission accomplishment. Made omissions or deviations in identification or location of system components. Was unsure of system status. Limited knowledge of required duties or applicable system warning/cautions/notes.

7.4.9.3. **U.** Improperly operated systems. Could not identify/locate system components. Could not determine status of system. Had insufficient knowledge of required duties or applicable systems warning/cautions/notes. Major errors, omissions or deviations, which adversely affected mission accomplishment.

7.4.10. Area 57. Reverse Taxi:

7.4.10.1. **Q.** Complied with all directives concerning reverse taxi. Properly configured mission compartment for reverse taxi. Provided timely instructions to the pilot. Positioned aircraft as briefed by the pilot.

7.4.10.2. **Q-** Minor deviations to reverse taxi procedures. Used non-standard terminology but did not compromise of safety. Slow to provide instructions. Aircraft not positioned as briefed by the pilot.

7.4.10.3. **U.** Major deviations to procedures/directives. Failed to use appropriate terminology that created doubts or confusion. Aircraft control was unsafe or could have resulted in damage to the aircraft or property, or injury to personnel.

7.4.11. Area 59. Before Landing:

7.4.11.1. **Q.** Inspected cargo/mission compartment. Accomplished procedures IAW approved checklist and directives. Visually inspected applicable aircraft systems. Confirmed applicable equipment was shutdown.

7.4.11.2. **Q-** Performed required duties with minor errors, omissions or deviations which did not affect safety of flight.

7.4.11.3. **U.** Failed to inspect cargo/mission compartment. Failed to perform required checks or made major errors, omissions or deviations. Failed to properly secure loose equipment/cargo. Failed to visually inspect applicable aircraft systems.

7.4.12. Area 85. Communications:

7.4.12.1. **Q.** Monitored/correctly set up communication systems. Monitored/employed communication systems as necessary. Exercised proper interphone/radio procedures, using correct terminology. Knowledge/operations of communication systems was thorough. Responded to all radio calls, checklist responses and maintained awareness of all appropriate communications systems.

7.4.12.2. **Q-** Occasionally interrupted transmissions. Displayed limited knowledge/operation of communications systems. Occasionally failed to respond to radio calls, checklist responses or used non-standard terminology.

7.4.12.3. **U.** Failed to respond to radio calls, checklist responses. Made excessive transmissions that denied interphone/radio access to other essential information. Displayed unsatisfactory knowledge of and operation of communication systems. Did not monitor communication systems or failed to employ them effectively. Created confusion which jeopardized mission accomplishment or caused excessive delays.

7.4.13. Area 736. Trouble Analysis/Corrective Action:

7.4.13.1. **Q.** Displayed adequate knowledge of system analysis and troubleshooting techniques IAW manuals, directives and local procedures. Performed logical techniques and procedures when using the computer terminal, operator keyboard, Built-in-Test (BIT), and available test equipment to confirm and evaluate primary mission equipment (PME) malfunctions. Effective in isolating and applying corrective action to PME malfunctions. Properly applied available resources to maintain an operational system. Informed mission crew of operational limitations and apprised of system updates.

7.4.13.2. **Q-** Displayed limited knowledge of system analysis and logical troubleshooting techniques. Displayed limited knowledge of procedures and techniques when using the computer terminal, operator keyboard, BIT, and available test equipment to confirm, diagnose and isolate PME malfunctions. Uncertain of applications of appropriate

corrective action. Unfamiliar of resources were available to maintain an operational system. Informed mission crew of system status but did not supply information in an accurate or timely manner.

7.4.13.3. **U.** Knowledge of system analysis and troubleshooting techniques were inadequate. Failed to use the computer terminal, operator keyboard, BIT and available test equipment to confirm, diagnose and isolate PME malfunctions. Unable to apply corrective action to the system malfunctions. Unfamiliar of necessary resources to maintain an operational system. Did not inform mission crew of system limitations or system status

7.4.14. Area 775. Mission Termination:

7.4.14.1. **Q.** Accomplished mission termination procedures IAW applicable checklists and directives. Attended required mission debriefings. Provided accurate and concise mission inputs. Ensured all mission materials were given to debriefers. Returned equipment to the appropriate storage areas.

7.4.14.2. **Q-.** Accomplished mission termination procedures with minor errors, omissions or deviations. Inattentive during mission debriefings. Provided limited but accurate information. Unsure of proper mission material accountability. Accomplished debriefing with minor, errors, omissions or deviations. Unfamiliar with equipment storage procedures when returning professional equipment to appropriate storage areas.

7.4.14.3. **U.** Accomplished mission termination procedures with major errors, omissions or deviations. Failed to attend required mission debriefings. Failed to provide accurate information. Did not return required mission materials to debriefers. Did not return equipment to appropriate storage areas.

7.4.15. Area 1039. External Communications.

7.4.16. Area 737. DF Subsystem.

7.4.17. Area 776. RFR.

7.4.18. Area 777. Acquisition Subsystem.

7.4.19. Area 778. SCM.

7.4.20. Area 779. Analysis Subsystem.

7.4.21. Area 780. Exciter Subsystem.

7.4.22. Area 781. RFT.

7.4.23. Area 782. SPEAR Subsystems.

7.4.24. Area 783. Tech Station Subsystem.

7.4.25. Area 784. Human-Machine Interface.

7.4.26. Area 785. Counter RADAR Subsystem.

7.4.27. Area 786. System Enhancements, Clip-Ins, and AME.

7.4.28. Areas in [paragraph 7.4.15](#) through [paragraph 7.4.27](#) – use the following criteria.

7.4.28.1. **Q.** Adequate operational system knowledge. Demonstrated proper procedure to call up, use and exit the help file. Performed call up of appropriate pages applicable to

mission accomplishment and was familiar with the contents and use of these pages. Familiar with operator keyboard functions. Explained Line Replaceable Unit (LRU) interfacing and functions of operations for the applicable subsystems. Properly monitored system performance.

7.4.28.2. **Q-**. Limited operational knowledge of the applicable subsystem. Accomplished procedures to call up and exit the help file, with minor errors or omissions that did not adversely impact mission accomplishment. Unsure or hesitant when calling up appropriate pages or demonstrated a limited knowledge of the use and contents of the pages. Unfamiliar with operator keyboard functions. Limited knowledge of LRU interfacing and functional operation of each LRU within the applicable subsystems. Slow to monitor system performance during operation.

7.4.28.3. **U**. Unsatisfactory operational knowledge of the applicable subsystem. Unable to call up, use and exit the help file, with major errors or omissions that caused critical loss of mission data or adversely affecting mission accomplishment. Failed to call up appropriate pages and/or unfamiliar with the use and contents of these pages. Failed to use keyboard functions. Did not understand LRU interface or the functional operation of the applicable subsystem. Failed to monitor system performance during operation.

7.4.29. Areas 1066-1070. Reserved for future use.

## Chapter 8

### MISSION CREW COMMANDER/WEAPON SYSTEM OFFICER EVALUATIONS

**8.1. General.** The criteria contained in this chapter and **Chapter 3** applies to COMPASS CALL MCC and WSO flight evaluations.

**8.2. Objective.** The examinee satisfactorily demonstrates the ability to perform all mission crew duties safely and effectively, including the operation of appropriate aircraft systems IAW applicable technical orders, instructions and directives.

#### **8.3. Requirements:**

8.3.1. Qualification/Mission Evaluations. See **Table 2.7** for required evaluation areas. Develop evaluation profiles by area of responsibility based on mission kit and simulator scenario availability. Threats for takeoff, on station, recovery, tactical repositioning and retrograde procedures may be input by the FE and are based on the scenario and evaluation requirements. Scenarios should incorporate sufficient threats to adequately assess the examinee's knowledge of potential enemy orders of battle and threat capabilities.

8.3.1.1. Conduct initial evaluations IAW applicable ACC syllabi. All other MCC and WSO evaluations may be conducted in the aircraft and/or CCMCS.

8.3.1.2. More than one mission crew position may be evaluated on a sortie provided a separate evaluator is assigned for each crew position.

8.3.1.3. Additional crewmembers are allowed to complete elements from previously incomplete evaluations provided the primary evaluation is not impacted.

#### **8.4. Grading Criteria:**

8.4.1. Areas listed in **Table 2.1** — use criteria in **Chapter 3** of this publication.

8.4.2. Areas listed in **Table 2.2** — use criteria in **Chapter 3** of this publication (if applicable).

8.4.3. Area 1. Mission Crew Planning

8.4.3.1. Mission Crew Commander Criteria:

8.4.3.1.1. **Q.** Efficiently supervised the mission crew in analyzing the combat mission tasking. Developed a comprehensive EA plan to include counter-communication and counter-radar subsystems, and advanced capabilities as needed for successful mission accomplishment and/or at FE discretion. Extracted all information from the Air Tasking Order (ATO), Airspace Control Order (ACO), Special Instructions (SPINS) and any other applicable scenario documentation. Coordinated, prioritized and refined an effects based EA plan with support from the air and space operations center (AOC) and liaison elements. Specific mission objectives support mission profile, commander's intent and aircrew training. Incorporated required mission planning forms.

8.4.3.1.2. **Q-.** Supervised mission crew in analysis of the combat mission requirements and coordinated mission tasking, but with minor errors or omissions that did not degrade overall mission accomplishment. Performed minor errors or omissions

in developing a plan to execute required EA to support of the ATO. Mission objectives and EA planning lacked specificity required for optimal mission and training support.

8.4.3.1.3. **U.** Failed to correct errors or omissions while supervising the mission crew in analyzing the combat mission tasking that prevented mission accomplishment. Developed an ineffective EA plan in support the ATO. Mission objectives and EA plans did not support commander's intent and/or training requirements.

8.4.3.2. Weapon System Officer Criteria:

8.4.3.2.1. **Q.** Effectively participated during combat mission tasking planning at the discretion of MCC guidance. Supported the development of comprehensive EA plans to include counter-communication and counter-RADAR subsystems. Extracted, as applicable, all information from the ATO, ACO, SPINS and other applicable documentation. Incorporated required mission planning forms.

8.4.3.2.2. **Q-.** Supported combat mission tasking planning but with minor errors or omissions that did not degrade overall mission accomplishment. Mission objectives and EA planning lacked specificity required for optimal mission and training support.

8.4.3.2.3. **U.** Failed to support combat mission tasking at the discretion of the MCC's guidance that prevented mission accomplishment. Did not help to develop an effective EA plan in support of the ATO. Mission objectives and EA plan did not support commander's intent and/or training requirements.

8.4.4. Area 12. Communications Equipment (MCC only):

8.4.4.1. **Q.** Knowledge of equipment and its operation was thorough. Performed system loading IAW published procedures. Checked and verified equipment for proper system operation.

8.4.4.2. **Q-.** Knowledge of equipment and its operation was limited. Minor errors or occasional deviations in correct loading or check/verification procedures. Unnecessary delays loading, checking or verifying equipment for proper operation.

8.4.4.3. **U.** Knowledge of equipment and its operation was inadequate. Induced errors or used incorrect procedures that prevented loading and use of the equipment. Failed to load, check or verify equipment for proper operation.

8.4.5. Area 28. Mission Crew Debrief (Mission Crew Commander only):

8.4.5.1. **Q.** Developed and delivered an effective debrief incorporating at least one debriefing focus point. Led discussion resolving contributing factors, root causes, analysis, fixes and lessons learned.

8.4.5.2. **Q-.** Minor errors and omissions in debriefing process and delivery. Limited crew interaction and mission reconstruction/data collection resulted in vague lessons learned.

8.4.5.3. **U.** Errors and omissions in debriefing and delivery. Did not comply with debriefing process and/or did not include crew inputs that prevented the development of lessons learned.

8.4.6. Area 29. Mission Equipment System Knowledge/Operation:

8.4.6.1. **Q.** Manipulated required system to obtain the desired mission results. Thorough knowledge of system components, operation, and limitations to accomplish all tasks defined in directives or as assigned by tasking authorities.

8.4.6.2. **Q-.** Minor errors in manipulating required system to obtain the desired mission results. Could not identify all major system components. Assigned tasks were completed in a consistently slow or hesitant manner that did not significantly degrade mission effectiveness.

8.4.6.3. **U.** Failed to manipulate the required system to obtain desired mission results. Displayed inadequate knowledge of system components, operation, and limitations. Could not complete assigned tasks due to unsatisfactory knowledge of system operation. Task accomplishments consistently slow to the point that mission effectiveness was significantly degraded.

#### 8.4.7. Area 83. Tactical Employment:

8.4.7.1. **Q.** Employed weapon system IAW directives. Made timely adjustments for limitations imposed by tactical situation, threats, terrain, or equipment failure/degraded operations and tasking.

8.4.7.2. **Q-.** Minor errors or deviations from directives while employing weapon system but did not prevent accomplishment of the mission. Slow to make adjustments for limitations imposed by tactical situation, threats, terrain, or equipment failure/degraded operations.

8.4.7.3. **U.** Major errors or deviations from directives that prevented accomplishment of the mission. Made inadequate adjustments for limitations imposed by tactical situation, threats, terrain, or equipment failure/degraded operations.

#### 8.4.8. Area 85. Communications: (Mission Crew Commander only):

8.4.8.1. **Q.** Thorough knowledge of and compliance with correct communications procedures. Monitored/employed radios as necessary. Transmissions were concise and used proper terminology. Monitored all appropriate communications systems per mission tasking. Used approved COMSEC procedures and employed encryption and authentication correctly. Displayed satisfactory knowledge and use of intercommunication system.

8.4.8.2. **Q-.** Occasional deviations from correct procedures that required retransmissions. Occasionally interrupted other transmissions. Used extraneous or non-standard terminology. Demonstrated procedural errors employing encryption and authentication. Displayed limited knowledge of COMSEC procedures. Minor deviations in configuration and use of intercommunication system.

8.4.8.3. **U.** Rarely monitored radios or failed to employ them effectively. Responsible for confusion, which jeopardized effective mission accomplishment or caused excessive delays. Major procedural errors employing encryption and authentication. Displayed inadequate knowledge of COMSEC procedures. Major deviations in configuration and use of intercommunication system.

#### 8.4.9. Area 187. Post-Engagement:

8.4.9.1. **Q.** Thoroughly accomplished or supervised required checks after termination of engagement. Ensured mission equipment was shut down and all loose equipment was secured before landing.

8.4.9.2. **Q-.** Accomplished or supervised required actions after termination of engagement with minor errors or deviations which did not jeopardize safety. Minor errors or omissions in ensuring mission equipment was shut down and all loose equipment was secured before landing.

8.4.9.3. **U.** Failed to successfully accomplish or supervise required actions after termination of engagement which could have jeopardized safety. Failed to shut down equipment or secure loose items before landing.

8.4.10. Area 227. Post flight:

8.4.10.1. **Q.** Thoroughly accomplished post flight duties. Shut down all equipment and stowed gear properly.

8.4.10.2. **Q-.** Minor deviations or omissions, which would not cause equipment damage.

8.4.10.3. **U.** Improperly stowed or turned off equipment which could have resulted in damage to the equipment.

8.4.11. Area 297. Target/Threat Knowledge:

8.4.11.1. **Q.** Had sufficient knowledge of the applicable theater of operations and orders of battle. Accurately described the operations, components and limitations of targeted weapon systems.

8.4.11.2. **Q-.** Limited knowledge of the theater of operations and orders of battle which degraded mission accomplishment. Minor errors in describing the operations, components and limitations of targeted weapon systems.

8.4.11.3. **U.** Knowledge of the theater of operations and orders of battle was inadequate and prevented mission accomplishment. Could not describe operations, components and limitations of targeted weapon systems.

8.4.12. Area 736. Mission Equipment System Malfunction Analysis:

8.4.12.1. **Q.** Had sufficient knowledge of work-around measures or recovery procedures for system malfunctions. Recognized and analyzed malfunction indications in a timely and applied or directed the crew/AMT to apply corrective action or recovery procedures as the tactical situation dictated.

8.4.12.2. **Q-.** Limited knowledge of work-around measures or recovery procedures for system malfunctions. Slow to recognize or analyze malfunction indications. Slow to apply corrective action or recovery procedures. Applied corrective actions/recovery procedures at a time impractical for the tactical situation.

8.4.12.3. **U.** Displayed inadequate knowledge of work-around measures or recovery procedures for system malfunctions. Failed to recognize or properly analyze malfunction indications or failed to apply corrective action or recovery procedures as needed. Untimely application of corrective actions/recovery procedures significantly degraded mission accomplishment.

#### 8.4.13. Area 791. System Setup:

8.4.13.1. **Q.** Had complete knowledge of system operating parameters and mission data entries. Entered/checked appropriate parameters and data required for successful mission accomplishment. Completed system setup in a timely manner.

8.4.13.2. **Q-.** Limited knowledge of systems operating parameters and mission data entries. Minor errors or omissions when entering/checking parameters and data but did not deter mission accomplishment. Slow to complete system setup.

8.4.13.3. **U.** Displayed inadequate knowledge of system operating parameters and mission data entries. Major errors or omissions when entering/checking parameters and data that prevented successful mission accomplishment. Delay in system setup was detrimental to mission accomplishment.

#### 8.4.14. Area 792. Jamming Operations/Antenna Orientation/Timing:

8.4.14.1. **Q.** Initiated jamming of required systems IAW EA plan within one minute of preplanned or scheduled window. Adjustments were made to accommodate the tactical situation, as necessary. Conducted jam look-through periods to ensure situational awareness was maintained throughout the entire window. Applicable system antennas were oriented toward the target environment prior to jam initiation and applied appropriately throughout the mission.

8.4.14.2. **Q-.** Delayed jamming of a preplanned or scheduled window for more than one minute but less than two minutes. EA adjustments were made but not optimal for the situation. Conducted limited jamming look-through periods that resulted in degraded situational awareness. Antennas momentarily oriented away from the target environment prior to the initiation of jamming or throughout the mission.

8.4.14.3. **U.** Failed to initiate jamming within two minutes of a preplanned or scheduled window. Failed to make EA adjustments when the tactical situation required a change. Failed to conduct jam look-through periods that resulted in a complete loss of situational awareness. Antennas were consistently oriented away from the target environment that resulted in an adverse impact on mission accomplishment.

#### 8.4.15. Area 793. Allocation/Use of Jamming/Radiate Resources:

8.4.15.1. **Q.** Demonstrated thorough operational knowledge for appropriate jam management displays and evaluated system effectiveness. Used appropriate jam resources. Allocated jam resources optimally for required operations. Effectively deconflicted systems. Appropriate targets were loaded, activated and jammed as required for mission accomplishment.

8.4.15.2. **Q-.** Displayed limited knowledge of appropriate management displays and jam resources. Minor errors in system allocation that did not deter from overall operations. Minor errors or omissions when deconflicting systems that did not prevent mission accomplishment. Unnecessarily delayed activation of appropriate targets.

8.4.15.3. **U.** Demonstrated inadequate knowledge and failed to monitor jam management displays. Inadequate usage of resources. Major errors in allocation of resources that prevented mission accomplishment. Failed to deconflict systems which resulted in

prevention of mission accomplishment. Failed to activate targets at the appropriate times and failed to jam appropriate targets.

8.4.16. Area 794. Tactical Situation Monitoring:

8.4.16.1. **Q.** Correlated intelligence and operations inputs that enhanced tactical awareness of the situation. Analyzed information and disseminated appropriate data in a timely manner, both internally and externally.

8.4.16.2. **Q-.** Did not correlate operations and intelligence inputs. Delayed dissemination of critical information to internal and external agencies.

8.4.16.3. **U.** Failed to remain aware of the situation that impaired mission accomplishment. Failed to pass critical data to internally and externally.

8.4.17. Area 796. Mission Crew Supervision: (Mission Crew Commander only):

8.4.17.1. **Q.** Effectively supervised all mission crew functions to produce smooth and efficient mission accomplishment.

8.4.17.2. **Q-.** Supervised mission crew functions, but minor disorganization and management of crew degraded mission accomplishment.

8.4.17.3. **U.** Supervision of mission crew personnel was insufficient. Lack of mission crew management had majors impact on mission accomplishment.

8.4.18. Areas 1071-1075. Reserved for future use.

## Chapter 9

### MISSION CREW SUPERVISOR, ANALYSIS OPERATOR, AND ACQUISITION OPERATOR EVALUATIONS

**9.1. General.** The criteria contained in this chapter and **Chapter 3** applies to all COMPASS CALL MCS, ANO and AO flight evaluations.

**9.2. Objective.** The examinee satisfactorily demonstrates the ability to perform all mission crew duties safely and effectively including the operation of appropriate aircraft systems IAW applicable technical orders, instructions and directives.

#### **9.3. Requirements:**

9.3.1. Mission/Qualification Evaluations. See **Table 2.8** for required evaluation areas. Vary evaluation profiles by area of responsibility based on mission kit and simulator scenario availability. Threats for takeoff, on station, recovery, tactical repositioning and retrograde procedures may be introduced by the FE. These scenarios will be based on evaluation requirements. Scenario should incorporate sufficient threats to adequately assess the examinee's knowledge of potential enemy orders of battle and threat capabilities. MCS/ANO/AO position identifiers are similar aircrew specialties for evaluation purposes.

9.3.1.1. Conduct initial evaluations IAW applicable ACC syllabi. All other MCS, ANO and AO evaluations may be conducted in the aircraft and/or CCMCS.

9.3.1.2. More than one mission crew position may be evaluated on a sortie provided a separate evaluator is assigned for each crew position.

9.3.1.3. Additional crewmembers are allowed to complete elements from previously incomplete evaluations, provided the primary evaluation is not impacted, without additional evaluators.

9.3.1.4. MCS evaluations should be conducted by evaluators of like crew position. Cross-crew position evaluations may be used to update MCS and ANO/AO qualifications as required. MCS evaluations should include search and targeting of signals to update ANO or AO qualification. This should be completed during phases of flight where the examinee will not be performing primary duties as the MCS. If these areas are not evaluated, ANO or AO qualification will not be updated and the examiner will annotate applicable restrictions on the AF Form 8.

9.3.1.5. When the individual upgrading to MCS is already an instructor qualified ANO/AO, instructional ability will be evaluated as an ANO/AO. **(T-3)** Instructional ability will not be evaluated in the upgrade crew position. **(T-3)**

#### **9.4. Grading Criteria:**

9.4.1. Areas listed in **Table 2.1** — use criteria in **Chapter 3** of this publication.

9.4.2. Areas listed in **Table 2.2** — use criteria in **Chapter 3** of this publication (if applicable).

9.4.3. Area 1. Mission Crew Planning:

9.4.3.1. **Q.** Checked all factors applicable to the mission. Complied with MCC/WSO/MCS directives. Demonstrated sufficient knowledge to complete mission

planning in an effective manner. Complied with directives. Demonstrated knowledge of available alternatives.

9.4.3.2. **Q-**. Checked all information required to complete mission planning but with minor errors or omissions that did not degrade mission accomplishment. Knowledge was incomplete or inaccurate but sufficient to complete mission planning. Minor deviations from directives or MCC/WSO/MCS instructions.

9.4.3.3. **U**. Omitted information during mission planning that prevented mission accomplishment. Target knowledge was insufficient to complete mission planning. Deviations in procedures resulted in incomplete/inaccurate planning.

#### 9.4.4. Area 29. Mission Equipment System Knowledge/Operation:

##### 9.4.4.1. Subarea 29a. Compass Call Operational System (CCOS) Knowledge/Operations

9.4.4.1.1. **Q**. Operated system effectively. System was configured/operated according to prescribed procedures and directives. Used acceptable techniques and procedures when utilizing human-machine interface (HMI) and demonstrated thorough knowledge of applicable menu options.

9.4.4.1.2. **Q-**. Operated system in a hesitant or slow manner. Examinee made minor omissions, deviations or errors in prescribed procedures and directives and displayed limited knowledge of system menu options. Inaction or lack of knowledge did not jeopardize mission success.

9.4.4.1.3. **U**. Did not configure/operate system IAW prescribed procedures and directives. Failed to use acceptable techniques and procedures when utilizing HMI. Displayed insufficient knowledge of appropriate menu options. Made significant omissions, deviations or errors that resulted in a significant mission impact.

##### 9.4.4.2. Subarea 29b. DF Subsystem

9.4.4.2.1. **Q**. Appropriately demonstrated the ability to take, verify and manipulate lines of bearing (LOBs) IAW mission requirements and mission effectiveness. Examinee displayed a thorough knowledge of the emitter LOB database (ELDB) associated commands and was able to geo-locate emitters. Demonstrated a sufficient knowledge of the DF subsystem and how to effectively employ DF commands.

9.4.4.2.2. **Q-**. Had difficulty taking or verifying LOBs, manipulating LOBs or geo-locating emitters. Had limited knowledge of the DF subsystem, ELDB and how to effectively employ DF commands with minor mission impact.

9.4.4.2.3. **U**. Failed to appropriately demonstrate the ability to take, verify and manipulate LOBs. Was unable to geo-locate emitters IAW mission requirements. Displayed insufficient knowledge on the DF subsystem, ELDB and could not utilize DF commands in an effective manner. Errors or lack of knowledge did/could have resulted in a significant impact of mission accomplishment.

##### 9.4.4.3. Subarea 29c. Acquisition/Analysis Subsystems

9.4.4.3.1. **Q**. Demonstrated the ability to manipulate receivers and adjust system settings. Operated the panoramic display (PAN) (MCS/AO only) and effectively manipulated analysis requests/High-Speed Alarm (HSA) readouts IAW mission

requirements. Displayed adequate knowledge of Acquisition/Analysis subsystem. Demonstrated familiarity with prescribed operating parameters of Acquisition/Analysis subsystem.

9.4.4.3.2. **Q-**. Hesitated when manipulating receivers, adjusting system settings, operating the PAN display (MCS/AO only) and conducting analysis requests/HSA readouts. Manipulated system with limited proficiency that did not hinder overall mission effectiveness. Minor deviations from prescribed operating parameters.

9.4.4.3.3. **U**. Lacked knowledge/ability to manipulate receivers, adjust system settings, operate the PAN display (MCS/AO only) or conduct analysis/HSA readouts. Lacked adequate knowledge of Acquisition/Analysis subsystem which impacted mission effectiveness. Major deviations from prescribed parameters impacted mission accomplishment.

9.4.5. Area 85. Communications (Mission Crew Supervisor only):

9.4.5.1. **Q**. Displayed thorough knowledge of correct communications procedures. Monitored/employed external communications as when assigned. Transmissions were concise and used proper terminology. Monitored all appropriate external communications systems. Effectively used interphone and external communications systems.

9.4.5.2. **Q-**. Occasionally deviated from correct procedures that required retransmission. Slow to monitor/respond to external communications. Occasionally interrupted other transmissions. Used extraneous or non-standard terminology. Demonstrated procedural errors employing encryption and authentication. Minor deviations in configuration and use of interphone system.

9.4.5.3. **U**. Failed to monitor external communications or failed to employ them effectively. Major procedural errors employing encryption and authentication. Major deviations in configuration and usage of interphone system.

9.4.6. Area 12. Communications Equipment (Mission Crew Supervisor only):

9.4.6.1. **Q**. Displayed thorough knowledge of equipment and system operation. Performed system loading IAW published procedures. Checked and verified equipment for proper system operation.

9.4.6.2. **Q-**. Displayed limited knowledge of equipment and its operation. Minor errors or occasional deviations with correct loading or check/verification procedures. Caused unnecessary delays loading, checking or verifying equipment for proper operation.

9.4.6.3. **U**. Inadequate knowledge of system equipment and its operation. Performed major errors or used incorrect procedures that prevented correct usage of the equipment. Failed to load, check or verify equipment for proper operation.

9.4.7. Area 187. Post-Engagement:

9.4.7.1. **Q**. Thoroughly accomplished and supervised required checks after termination of engagement. Ensured mission equipment was shut down and loose items and equipment were secured or stowed before landing.

9.4.7.2. **Q-**. Accomplished and supervised required actions after termination of engagement with minor errors or deviations. Performed minor errors or omissions in

ensuring mission equipment was shut down and loose items and equipment were secured or stowed before landing.

9.4.7.3. **U.** Failed to successfully accomplish and supervise required actions after termination of engagement. Failed to shut down equipment or secure loose items before landing.

9.4.8. Area 227. Post flight:

9.4.8.1. **Q.** Thoroughly accomplished post flight duties. Secured classified information/equipment. Coordinated with crew to ensure any mission equipment discrepancies are addressed with maintenance. Ensured mission compartment clear of aircrew personal protection equipment (PPE) and trash.

9.4.8.2. **Q-.** Did not thoroughly accomplish post-flight duties. Caused confusion when securing classified material. Lacked knowledge of how to debrief mission system maintenance issues or provided inaccurate information to crew during maintenance debrief.

9.4.8.3. **U.** Improperly stowed or collected classified material. Failed to coordinate with crew to address any mission system maintenance issues. Left aircrew PPE/trash on aircraft after crew departed.

9.4.9. Area 297. Target/Threat Knowledge:

9.4.9.1. **Q.** Had sufficient knowledge of the applicable theater of operations and orders of battle. Accurately described the operations, components and limitations of targeted weapon systems.

9.4.9.2. **Q-.** Displayed limited knowledge of the theater of operations and orders of battle that degraded mission accomplishment. Minor errors in describing the operations, components and limitations of targeted weapon systems.

9.4.9.3. **U.** Knowledge of theater of operations and orders of battle was inadequate and prevented mission accomplishment. Could not describe operations, components and limitations of targeted weapon systems.

9.4.10. Area 736. Mission Equipment System Malfunction Analysis:

9.4.10.1. Mission Crew Supervisor Criteria:

9.4.10.1.1. **Q.** Sufficient knowledge of recovery measures and procedures to address system malfunctions. Identified malfunctions and discussed their impact to mission operations. Analyzed malfunction indications and applied or directed the crew/AMT to apply corrective action or recovery procedures.

9.4.10.1.2. **Q-.** Displayed limited knowledge recovery measures and procedures to address system malfunctions or system degradation. Slow to recognize or analyze malfunctions. Slow to apply corrective action or recovery procedures. Applied corrective actions/recovery procedures at impractical times.

9.4.10.1.3. **U.** Displayed inadequate knowledge of recovery procedures for system malfunctions. Failed to properly address malfunction indications and apply appropriate corrective action. Failed to apply corrective actions at the appropriate time that impacted mission effectiveness.

#### 9.4.10.2. Acquisition Operator, Analysis Operator Criteria:

9.4.10.2.1. **Q.** Recognized and analyzed malfunction indications and reported malfunction to MCC/WSO/MCS in a timely manner. Recognized impact of malfunction and applied corrective actions.

9.4.10.2.2. **Q-.** Limited knowledge of work-around measures for system malfunctions. Slow to identify or report malfunction indications. Inadequate knowledge of malfunction analysis resulted in minor impact on mission accomplishment.

9.4.10.2.3. **U.** Displayed inadequate knowledge of work-around measures for system malfunctions. Failed to recognize or properly report malfunction indications. Untimely application of recognition/reporting procedures significantly degraded mission accomplishment.

#### 9.4.11. Area 791. System Setup:

9.4.11.1. **Q.** Demonstrated knowledge of system operating parameters and mission data entries. Entered/checked appropriate parameters and data required for successful mission accomplishment. Completed system setup in a timely manner.

9.4.11.2. **Q-.** Limited knowledge of systems operating parameters and mission data entries. Omitted data when entering/checking parameters that did not deter mission accomplishment. Slow to complete system setup.

9.4.11.3. **U.** Displayed inadequate knowledge of system operating parameters and mission data entries. Major errors or omissions during entry of parameters and data that prevented successful mission accomplishment. Delay in system setup was detrimental to mission accomplishment.

#### 9.4.12. Area 794. Tactical Situation Monitoring (Mission Crew Supervisor only):

9.4.12.1. **Q.** Monitored and correlated intelligence, provided off board inputs and updated mission system data to enhance tactical air picture. Analyzed information and properly prioritized tasks based on the tactical situation. Disseminated appropriate data to crew in a timely manner to optimize search/target strategy.

9.4.12.2. **Q-.** Did not effectively monitor or correlate intelligence, off board inputs or update mission system data to improve tactical air picture. Inability to monitor and correlate data caused delays when passing critical information to crew. Inefficient task prioritization caused minor mission delays.

9.4.12.3. **U.** Failed to maintain awareness of the tactical situation. Failed to monitor or correlate intelligence, provide off board inputs or correlate mission system data. Failed to prioritize tasks that impacted mission accomplishment. Failed to pass critical information to crew.

#### 9.4.13. Area 795. Signal Environment Analysis:

##### 9.4.13.1. Mission Crew Supervisor Criteria:

9.4.13.1.1. **Q.** Completed tasked echelon construction actions. Accurately and efficiently placed targeted signals in proper echelons based on prioritization and rules

of engagement (ROE). Effectively used the target page to monitor the status of echelons/target signals and directed target reverification. Demonstrated sufficient knowledge about target page and associated data. Able to prioritize search/jam cycle based on information provided by the target page. Coordinated effective use of resources and accurately analyzed and targeted signals of interest.

9.4.13.1.2. **Q-**. Echelon construction did not accurately reflect mission planning documents but did not significantly degrade mission accomplishment. Slow to echelon targeted signals. Displayed difficulties using the target page to monitor the status of echelon/targets and direct reverification. Demonstrated limited knowledge regarding target page and associated data. Unable to prioritize search/jam cycle due to lack of knowledge of information provided by the target page. Inefficient usage of allocated resources.

9.4.13.1.3. **U**. Failed to construct echelon system or deviated significantly from tasked priorities. Failed to use the target page to monitor the tactical situation, re-verify targets and signals. Insufficient knowledge regarding target page and associated data led to inability to accomplish assigned tasks. Lack of target information caused major errors which degraded effectiveness of assigned mission. Failed to echelon or analyze signals that prevented mission accomplishment.

#### 9.4.13.2. Acquisition Operator, Analysis Operator Criteria:

##### 9.4.13.2.1. Sub-area 795a. Signal Environment Search Strategy

9.4.13.2.1.1. **Q**. Employed effective signal search procedures. Accurately identified target signals. Adjusted operations/dispositioned signal IAW existing directives, MCC/WSO/MCS guidance and the tactical situation.

9.4.13.2.1.2. **Q-**. Occasionally demonstrated ineffective signal search procedures. Signal analysis was occasionally inaccurate or slow and impaired mission accomplishment. Minor errors in signal disposition or adjusting operations IAW existing directives, MCC/WSO/MCS guidance and the tactical situation.

9.4.13.2.1.3. **U**. Ineffective use of signal search procedures. Signal analysis consistently inaccurate or excessively slow that prevented mission accomplishment. Failed to disposition signals IAW existing directives, MCC/WSO/MCS guidance or the tactical situation.

#### 9.4.14. Area 796. Mission Crew Supervision (Mission Crew Supervisor only):

9.4.14.1. **Q**. Effectively supervised all mission crew functions to produce smooth and efficient mission accomplishment.

9.4.14.2. **Q-**. Supervised mission crew functions, but complacent personnel management resulted in minor impact on mission accomplishment.

9.4.14.3. **U**. Ineffectively and insufficiently supervised mission crew personnel. Lack of crew engagement had a major impact on mission accomplishment.

#### 9.4.15. Areas 1076-1080. Reserved for future use.

## Chapter 10

### MISSION COMMANDER EVALUATIONS

**10.1. General.** The criteria contained in this chapter and **Chapter 3** applies to COMPASS CALL MC flight evaluations.

**10.2. Objective.** The examinee satisfactorily demonstrates the ability to perform all MC duties safely and effectively, including the operation of appropriate aircraft systems IAW applicable technical orders, instructions and directives.

#### 10.3. Requirements:

10.3.1. Qualification/Mission Evaluations. See **Table 2.9** for required evaluation areas. Develop evaluation profiles by area of responsibility based on mission kit and simulator scenario availability. Threats for takeoff, on station, recovery, tactical repositioning and retrograde procedures may be introduced by the FE and are based on the scenario and evaluation requirements. Scenarios should incorporate sufficient threats to adequately assess the examinee's knowledge of potential enemy orders of battle and threat capabilities.

10.3.1.1. Conduct initial evaluations IAW applicable ACC syllabi. All other MC evaluations may be conducted in the aircraft, CCMCS mission connected WST or CCMCS at the discretion of the squadron commander.

10.3.1.2. More than one mission crew position may be evaluated on a sortie provided a separate evaluator is assigned for each crew position.

10.3.1.3. Additional crewmembers are allowed to complete elements from previously incomplete evaluations provided the primary evaluation is not impacted.

#### 10.4. Grading Criteria:

10.4.1. Areas listed in **Table 2.1** — use criteria in **Chapter 3** of this publication.

10.4.2. Areas listed in **Table 2.9** — use criteria in **Chapter 3** of this publication (if applicable).

10.4.3. Area 227. Post flight:

10.4.3.1. **Q.** Thoroughly accomplished post flight duties. Shut down all equipment and stowed gear properly.

10.4.3.2. **Q-.** Minor deviations or omissions, which would not cause equipment damage.

10.4.3.3. **U.** Improperly stowed or turned off equipment which could have resulted in damage to the equipment.

10.4.4. Area 297. Target/Threat Knowledge:

10.4.4.1. **Q.** Had sufficient knowledge of the applicable theater of operations and orders of battle. Accurately described the operations, components and limitations of targeted weapon systems.

10.4.4.2. **Q-.** Limited knowledge of the theater of operations and orders of battle which degraded mission accomplishment. Minor errors in describing the operations, components and limitations of targeted weapon systems.

10.4.4.3. **U.** Knowledge of the theater of operations and orders of battle was inadequate and prevented mission accomplishment. Could not describe operations, components and limitations of targeted weapon systems.

10.4.5. Area 794. Tactical Situation Monitoring:

10.4.5.1. **Q.** Correlated intelligence and operations inputs to stay abreast of the tactical situation. Analyzed incoming information and disseminated appropriate data in a timely manner.

10.4.5.2. **Q-.** Did not completely correlate operations and intelligence inputs to remain abreast of the tactical situation. Disseminated critical information but caused some delays.

10.4.5.3. **U.** Failed to remain sufficiently abreast of the tactical situation that impaired effective mission accomplishment. Failed to pass critical data to operators in need of the information.

10.4.6. Area 1081. Multi-ship Mission Planning:

10.4.6.1. **Q.** Effectively met all mission planning objectives IAW 3-3 IPE, or as required for specific situations. Mission products developed aided in successful mission execution.

10.4.6.2. **Q-.** Mission planning objectives, IAW 3-3 IPE, were sometimes met. Mission products allowed for a difficult but safe execution of the mission.

10.4.6.3. **U.** Mission planning objectives, IAW 3-3 IPE, were rarely met. Multiple required mission products were missing that would not have allowed for a safe, successful execution of the mission.

10.4.7. Area 1082. Package Level/Mission Coordination.

10.4.7.1. **Q.** Effectively coordinated system capabilities/resources at the package level, displayed sufficient knowledge of package requirements and communicated requirements effectively to mission planning cell (MPC) chiefs.

10.4.7.2. **Q-.** Coordinated system capabilities/resources at the package level but required minor adjustments to the plan to enable effective execution of the overall mission. Displayed limited knowledge of package requirements and did not efficiently convey requirements to MPC chiefs.

10.4.7.3. **U.** Did not coordinate system capabilities/resources at the package level. Displayed lack of knowledge of package requirements and did not convey requirements to MPC chiefs.

10.4.8. Area 1083. Multi-ship Briefing.

10.4.8.1. **Q.** Led the briefing and ensured it included all applicable information. Briefings were effectively organized and presented in a logical sequence. Covered all pertinent items and established objectives for the mission. Presented all training events and special interest items. Effectively used available briefing aids and crew members. Conducted briefing that did not interrupt mission events.

10.4.8.2. **Q-.** Allowed omission of items pertinent but not critical to the mission. Events out of sequence, hard to follow, some unnecessary repetition. Some difficulty communicating clearly. Did not make effective use of available briefing aids or crew

members. Limited discussion of training events or special interest items. Discussed non-essential items. Not fully prepared for briefing. Caused minor delays to mission event timeline.

10.4.8.3. **U.** Failed to conduct required briefings. Failed to use briefing aids. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of knowledge of subject. Brief was poorly organized and not presented in a logical sequence with redundancies. Presented erroneous information that would affect safe/effective mission accomplishment. Presentation was unclear and did not correctly convey information. Failed to discuss training events or special interest items. Caused excessive delays to mission event timeline

#### 10.4.9. Area 1084. Multi-ship Debriefing.

10.4.9.1. **Q.** Efficiently compiled data relevant to the mission. Developed and delivered an effective debrief incorporating at least one debriefing focus point. Led discussion resolving contributing factors, root causes, analysis, fixes and lessons learned.

10.4.9.2. **Q-.** Unusually slow compilation of data relevant to the mission, characterized by lack of understanding mission objectives. Identified a relevant DFP, identified a weak RC, and provided a poor Lesson Learned (LL).

10.4.9.3. **U.** Failed to compile data relevant to the mission. Failed to identify a debrief focus point, root cause, and lesson learned for debrief.

#### 10.4.10. Area 1085. Multi-ship Tactical Employment:

10.4.10.1. **Q.** Employed multiple weapon systems in accordance with directives. Made timely adjustments for limitations imposed by tactical situation, threats, terrain, or equipment failure/degraded operations and tasking.

10.4.10.2. **Q-.** Minor errors or deviations from directives while employing multiple weapon systems but did not prevent accomplishment of the mission. Slow to make adjustments for limitations imposed by tactical situation, threats, terrain, or equipment failure/degraded operations.

10.4.10.3. **U.** Major errors or deviations from directives that prevented accomplishment of the mission. Made inadequate adjustments for limitations imposed by tactical situation, threats, terrain, or equipment failure/degraded operations.

#### 10.4.11. Area 1086. Multi-ship Communications:

10.4.11.1. **Q.** Thorough knowledge of and compliance with correct communications procedures. Monitored/employed radios and/or external communications, as planned and required to accomplish multi-ship weapon system employment. Transmissions were concise and used proper terminology. Monitored all appropriate communications systems per mission tasking. Used approved COMSEC procedures and employed encryption and authentication correctly. Displayed satisfactory knowledge and use of intercommunication system (External communications covers all communication means; radio, KuSS based communications, Link-16, etc.)

10.4.11.2. **Q-.** Occasional deviations from correct procedures that required retransmissions. Occasionally interrupted other transmissions. Used extraneous or non-

standard terminology. Demonstrated procedural errors employing encryption and authentication. Displayed limited knowledge of COMSEC procedures. Minor deviations in configuration and use of intercommunication system.

10.4.11.3. **U.** Rarely monitored radios or failed to employ them effectively. Responsible for confusion, which jeopardized effective mission accomplishment or caused excessive delays. Major procedural errors employing encryption and authentication. Displayed inadequate knowledge of COMSEC procedures. Major deviations in configuration and use of intercommunication system.

10.4.12. Area 1087. Multi-Crew Leadership:

10.4.12.1. **Q.** Effectively led all crew functions, as applicable, to produce smooth and efficient mission accomplishment (“crew” or “mission crew” is defined as all crew members aboard each aircraft participating in a multi-ship operation).

10.4.12.2. **Q-.** Led crew functions, but less-than-adequate mission crew leadership resulted in minor impact on mission accomplishment.

10.4.12.3. **U.** Leadership of crew personnel was insufficient or nonexistent. Lack of crew leadership had a major impact on mission accomplishment.

10.4.13. Areas 1088-1090. Reserved for future use.

MARK H. SLOCUM, Maj Gen, USAF  
Director of Air and Space Operations

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

10 USC § 9031, *Secretary of the Air Force*

ACCMAN 11-2EC-130H, Volume 1, *EC-130H Aircrew Training*, 21 January 2022

AFI 11-215, *Flight Manuals Program*, 25 March 2019

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFMAN 11-2EC-130H, Volume 3, *EC-130H Operations Procedures*, 27 July 2018

AFMAN 11-202, Volume 2, *Aircrew Standardization and Evaluation Program*, 30 August 2021

AFMAN 11-210, *Instrument Refresher Program (IRP)*, 21 December 2021

AFMAN 11-290, *Cockpit/Crew Resource Management and Threat and Error Management Program*, 25 October 2021

AFPD 11-2, *Aircrew Operations*, 31 Jan 2019

AFPD 11-4, *Aviation Service*, 12 April 2019

AFTTP 3-1.EC-130H, *Tactical Employment EC-130H*, 27 February 2019 (Secret)

DAFMAN 90-161, *Publishing Processes and Procedures*, 15 April 2022

T.O. 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies and Procedures*, 11 July 2016

T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, 09 August 2013

***Prescribed Forms***

None

***Adopted Forms***

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 3862, *Flight Evaluation Worksheet*

AF Form 4031, *CRM/TEM Skills Criteria Training/Evaluation*

AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*

DAF Form 673, *Department of the Air Force Publication/Form Action Request*

DAF Form 847, *Recommendation for Change of Publication*

DD Form 365-4, *Weight and Balance Form F – Transport/Tactical*

***Abbreviations and Acronyms***

**AAR**—Air-to-Air Refueling

**AC**—Aircraft Commander

**ACC**—Air Combat Command  
**ACCMAN**—Air Combat Command Manual  
**ACO**—Airspace Control Order  
**AF**—Air Force  
**AFI**—Air Force Instruction  
**AFMAN**—Air Force Manual  
**AFPD**—Air Force Policy Directive  
**AFRC**—Air Force Reserve Command  
**AFRIMS**—Air Force Records Information Management Systems  
**AFTTP**—Air Force Tactics, Techniques, and Procedures  
**AME**—Alternate Mission Equipment  
**AMT**—Airborne Maintenance Technician  
**ANO**—Analysis Operator  
**AO**—Acquisition Operator  
**AOC**—Air and Space Operations Center  
**ARMS**—Aviation Resource Management System  
**ASR**—Airport Surveillance RADAR or Air Strike Request  
**ATA**—Actual Time of Arrival  
**ATM**—Air Turbine Motor  
**ATO**—Air Tasking Order  
**AVP**—Avionics Viability Program  
**BIT**—Built-In-Test  
**C/CRM**—Cockpit/Crew Resource Management  
**CANS**—Computer-Aided navigation System  
**CC**—Commander  
**CC DIR RQ**—Commander Directed Requalification  
**CCMCS**—COMPASS CALL Mission Crew Simulator  
**CCOS**—COMPASS CALL Operating System  
**COMSEC**—Communications Security  
**CRM**—Crew Resource Management  
**CT**—Continuation Training  
**DAFI**—Department of the Air Force Instruction

**DF**—Direction Finding  
**DR**—Dead Reckoning  
**DRU**—Direct Reporting Unit  
**EA**—Electromagnetic Attack  
**ECG**—Electronic Combat Group  
**ECS**—Electronic Combat Squadron  
**EFB**—Electronic Flight Bag  
**EGV**—Electronic Combat Group Standardization and Evaluation Office  
**ELDB**—Emitter LOB Database  
**EMCON**—Emission Option Communications  
**EPE**—Emergency Procedures Evaluation  
**ETP**—Equal Time Point  
**ETA**—Estimated Time of Arrival  
**EWCC**—Electronic Warfare Coordination Cell  
**EWO**—Electronic Warfare Officer  
**FCIF**—Flight Crew Information File  
**FE**—Flight Examiner  
**FMS**—Flight Management System  
**FTU**—Formal Training Unit  
**GPS**—Global Positioning System  
**GTC**—Gas Turbine Compressor  
**HMI**—Human-Machine Interface  
**HSA**—High-Speed Alarm  
**IAP**—Instrument Approach Procedure  
**IAW**—In Accordance With  
**IFF**—Identification, Friend or Foe  
**IFR**—Instrument Flight Rules  
**ILS**—Instrument Landing System  
**INIT**—Initial  
**INS**—Inertial Navigation System  
**INSTM/QUAL**—Instrument/Qualification  
**INSTR**—Instructor

**IQT**—Initial Qualification Training  
**IRC**—Instrument Refresher Course  
**KIAS**—Knots Indicated Airspeed  
**LL**—Lesson Learned  
**LOB**—Line of Bearing  
**LOP**—Line Of Position  
**LRU**—Line Replaceable Unit  
**MAC**—Mean Aerodynamic Chord  
**MAJCOM**—Major Command  
**MAP**—Missed Approach Point  
**MC**—Mission Commander  
**MCC**—Mission Crew Commander  
**MCS**—Mission Crew Supervisor  
**MDA**—Minimum Descent Altitude  
**MQF**—Master Question File  
**MPD**—Mobility Pilot Development  
**MSN**—Mission  
**NAVAID**—Navigation Aid  
**NDB**—Non-Directional Beacon  
**NM**—Nautical Mile  
**OPR**—Office of Primary Responsibility  
**Ops Sup**—Operations Supervisor  
**OPSEC**—Operations Security  
**PAN**—Panoramic Display  
**PAR**—Precision Approach RADAR  
**PEX**—Patriot Excalibur  
**PFT**—Primary Flight Training  
**PIC**—Pilot-in-Command  
**PIQ**—Pilot Initial Qualification  
**PME**—Primary Mission Equipment  
**PPE**—Personal Protection Equipment  
**Q/Q-/U**—Qualified/Qualified-/Unqualified

**QDB**—Question Database  
**QUAL**—Qualification  
**RADAR**—Radio Detection and Ranging  
**RAP**—Ready Aircrew Program  
**RegAF**—Regular Air Force  
**RETA**—Revised Estimated Time of Arrival  
**RDS**—Records Disposition Schedule  
**RF**—Radio Frequency  
**RFR**—Radio Frequency Receive  
**RFT**—Radio Frequency Transmit  
**RNP**—Required Navigation Performance  
**ROE**—Rules of Engagement  
**RQ**—Requalification  
**SCM**—System Control and Management  
**SID**—Standard Instrument Departure  
**SORN**—System of Records Notice  
**SPEAR**—Special Emitter Array  
**SPINS**—Special Instructions  
**SQ**—Squadron  
**Sq/CC**—Squadron Commander  
**Sq/DO**—Squadron Director of Operations  
**SRC**—Systems Refresher Course  
**TACAN**—Tactical Air Navigation  
**TOLD**—Take-Off and Landing Data  
**UQ**—Unqualified  
**USC**—United States Code  
**Vmca**—Air Minimum Control Speed  
**VDP**—Visual Descent Point  
**VFR**—Visual Flight Rules  
**VOR**—Very High Frequency Omni-directional Range Station  
**WSO**—Weapon System Officer  
**WST**—Weapons System Trainer

*Office Symbols*

**ACC/A3**—Air Combat Command Director Operations

**ACC/A3TV**—Air Combat Command Standardization and Evaluations Branch

**55 ECG/EGV**—55<sup>th</sup>Electronic Combat Group Standardization and Evaluation Office

## Attachment 2

## EVALUATION GROUND REQUIREMENTS

Table A2.1. Evaluation Ground Requirements.

CREW POSITION	TYPE FLIGHT EVAL	INSTM EXAM <sup>2</sup>	OPEN BOOK	MISSION OPEN BOOK	CLOSED BOOK	SRC	EPE <sup>1</sup>
Pilot	MSN	NO	NO	YES	NO	N/A	YES
	INSTM/QUAL	YES	YES	NO	YES	N/A	YES
Navigator	MSN	NO	NO	YES	NO	N/A	YES
	QUAL	YES	YES	NO	YES	N/A	YES
Flight Engineer	MSN	N/A	NO	YES	NO	N/A	YES
	QUAL	N/A	YES	NO	YES	N/A	YES
WSO/MCC	QUAL/MSN	N/A	YES	NO	YES	YES	YES
AMT	QUAL/MSN	N/A	YES	NO	YES	N/A	YES
AO/ANO/MCS	QUAL/MSN	N/A	YES	NO	YES	N/A	YES
MC	MSN	N/A	YES	NO	YES	N/A	YES
ALL	INSTR <sup>1</sup>	N/A	NO	NO	NO	N/A	NO
Flight Examiner	SPOT <sup>1</sup>	N/A	NO	NO	NO	N/A	NO
<p><b>Notes:</b></p> <p>1. EPE is required for all flight evaluations except SPOT and INSTR evaluations. BOLDFACE will be given at beginning of all QUAL and MSN EPEs.</p> <p>2. IRC will be accomplished IAW timeline outlined in AFMAN 11-210, Instrument Refresher Program (IRP). Aircrew must be current in IRC prior to taking the instrument exam.</p>							