DEPARTMENT OF THE AIR FORCE
WASHINGTON, DC

AFMAN11-2-E3GV2_AFGM2023-01

29 DECEMBER 2023

MEMORANDUM FOR DISTRIBUTION C
MAJCOMs/FLDCOMs/FOAs/DRUs

FROM: ACC/A3
205 Dodd Blvd, Ste 101
JB Langley-Eustice VA 23665

SUBJECT: Air Force Guidance Memorandum to AFMAN11-2E-3G Volume 2, *E-3G Aircrew Evaluation Criteria*

By Order of the Secretary of the Air Force, this Air Force Guidance Memorandum (AFGM) immediately changes Air Force Manual (AFMAN) 11-2E-3GV2. Compliance with this Memorandum is mandatory. To the extent its directions are inconsistent with other Department of the Air Force publications, the information herein prevails, in accordance with Department of the Air Force Instruction (DAFI) 90-160, *Publications and Forms Management* and Department of the Air Force Manual (DAFMAN) 90-161, *Publishing Processes and Procedures*. This guidance is applicable to Regular Air Force and Air Force Reserve.

This AFGM changes AFMAN11-2E-3GV2 as listed in Attachment 1.

Ensure 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 in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System.

This Memorandum becomes void after one year has elapsed from the date of this Memorandum, or upon incorporation by interim change to, or rewrite of AFMAN 11-2E-3GV2, whichever is earlier**.**

JAMES C. SLIFE, Lt Gen, USAF
Deputy Chief of Staff, Operations

Attachment:
Attachment 1

AFMAN11-2-E3GV2_AFGM2023-01
Attachment 1

The below changes to AFMAN11-2E-3GV2, *E-3G Aircrew Evaluation Criteria* are effective immediately.

5.2.1.4.3.1. For INIT, RQ, and Qual Evaluations the following area(s) will be evaluated during a live sortie: Area 4, Takeoff; Area 17, Air Refueling; Area 23, Visual Flight Rules (VFR) Approach (Base, Final Turn, Final Approach), Area 21, Simulated Engine(s) Out Pattern/Landing; and Area 25, Landing. **(T-2)**

BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE MANUAL 11-2E-3G, VOLUME 2

3 NOVEMBER 2022

Incorporating Change 1, 17 MARCH 2023

Flying Operations

E-3G AIRCREW EVALUATION CRITERIA

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: This publication is available for downloading or ordering on the e-Publishing website at **www.e-Publishing.af.mil**.

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OPR: ACC/A3CA

Certified by: AF/A3T
(Maj Gen Albert G. Miller)

Pages: 63

This manual implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations*, and establishes the minimum Air Force standards for qualifying personnel performing duties in the E-3G. This manual applies to all civilian employees and uniformed members of the Regular Air Force and the Air Force Reserve operating E-3G aircraft. This publication does not apply to the Air National Guard or the United States Space Force. Air Force Directorate of Operations (AF/A3) is the approval authority for changes to this manual. This manual requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by Department of Defense (DoD) 5400.11-R, *Department of Defense Privacy Program*. The applicable SORN F011 AF XO A, Aviation Resource Management System (ARMS) membership programs is available at **http://dpclo.defense.gov/Privacy/SORNs.aspx**. Ensure 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 in accordance with (IAW) 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) listed above using the Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication*; route DAF Form 847 from the field through the appropriate chain of command to Air Combat Command Airborne Command and Control Systems Branch (ACC/A3CA). Major Command (MAJCOM), Direct Reporting Unit (DRU) and Field Operating Agency (FOA) are to forward propose MAJCOM/DRU/FOA-level supplements to this volume to Air Force Total Force Aircrew Management (AF/A3TF), through Air Combat Command Standardization and Evaluation Branch (ACC/A3TV) for approval prior to

publication IAW AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*. The issuing office provides copies of approved and published supplements to ACC/A3CA, and the user MAJCOM/DRU/FOA OPRs. Field units below MAJCOM/DRU/FOA level forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA OPR for post publication review. 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. See Department of the Air Force Manual (DAFMAN) 90-161, *Publishing Process and Procedures* for a description of the authorities associated with the Tier numbers. 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. 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 Air Force.

SUMMARY OF CHANGES

This interim change revises AFMAN 11-2E-3GV2 by adding provisions to **Chapter 8** for pilots and flight engineers permanently assigned to an ACC recognized test unit to be authorized to gain and maintain a Multiple Qualification for AWACS DRAGON (DMA) and non-DMA aircraft. A margin bar (|) indicates newly revised material.

Chapter 1

GENERAL INFORMATION

1.1. General. This volume, in conjunction with Air Force Manual (AFMAN) 11-202V2, *Aircrew Standardization and Evaluation Program* provides both flight examiners and aircrew members with the procedures and evaluation criteria that will be used during aircrew evaluations. Adherence to these procedures and criteria will ensure an accurate assessment of the proficiency and capabilities of aircrew members.

1.2. Roles and Responsibilities.

1.2.1. MAJCOM Director of Operations (A3). The MAJCOM A3 is responsible for establishing and managing the MAJCOM Standardization and Evaluation (Stan/Eval) program, IAW AFMAN 11-202V2.

1.2.2. Group Commander (GP/CC). The owning GP/CC is responsible for establishing and maintaining the unit-level Stan/Eval program and ensuring flight examiners administer evaluations IAW AFMAN 11-202V2, and this publication.

1.2.3. Flight Examiner. Flight examiners are responsible for administering Stan/Eval programs IAW AFMAN 11-202V2, and this publication.

1.3. Waivers. Unless specified otherwise in the appropriate section, MAJCOM/A3 is the waiver authority for this publication, IAW AFMAN 11-202V2. Route waivers through the parent MAJCOM Stan/Eval office. **(T-2)** Waiver authority for supplemental guidance will be specified in the supplement and approved through the higher-level coordination authority. **(T-1)**

1.4. Procedures.

1.4.1. Flight examiners will use the criteria contained in this volume for conducting all E-3G aircrew evaluations. **(T-2)** To ensure standard and objective evaluations, flight examiners will be thoroughly familiar with the prescribed evaluation criteria. **(T-2)**

1.4.1.1. Flight examiners will brief the examinee on evaluation requirements prior to the evaluation. **(T-2)**

1.4.1.2. Flight examiners will not intentionally fail any equipment during flight evaluations, but may deny the use of systems not affecting safety of flight. **(T-2)**

1.4.1.3. The flight examiner will thoroughly debrief/critique all aspects of the flight. **(T-2)** During the critique, the flight examiner will review the examinee's specific deviations, assigned area/sub area grades, recommended additional training for areas marked down, and overall qualification level. **(T-2)**

1.4.1.4. The flight examiner should not occupy a primary crew position during evaluations.

1.4.1.5. The flight examiner will be qualified in and certified for the crew positions for which they are examining, see AFMAN 11-202V2 for exceptions. **(T-2)**

1.4.1.5.1. Evaluator Aircraft Commanders (AC) may evaluate either ACs, First Pilots (FPs), or Copilots (CPs).

1.4.1.5.2. Pilot flight examiners will disregard minor deviations from tolerances for the purpose of clearing conflicting traffic, provided the examinee initiates timely corrective action. **(T-2)**

1.4.1.5.3. Evaluator Air Battle Manager (ABM)/ Mission Systems Operator (MSO) may evaluate Legacy crew positions in areas if the evaluator is certified to those duties IAW the Letter of X (LoX) and Squadron Commander (SQ/CC).

1.4.1.5.4. Evaluator MSOs who possess the Data Link Operator (DLO) certification may evaluate ABMs in Area 42, Data Link Operations.

1.4.1.5.5. Evaluator ABMs may evaluate MSOs. The evaluator ABM must possess the DLO certification on the LoX to evaluate an MSO in Area 42, Data Link Operations.

1.4.1.5.6. Evaluators in Legacy crew positions may evaluate ABMs/MSOs in areas in which the evaluator holds a current qualification (QUAL), IAW the LoX and SQ/CC.

1.4.1.6. Civilian flying contractors will follow all examination procedures outlined in AFMAN 11-202V2 and this manual to include any supplements.

1.4.2. Acceptance of evaluations from outside owning MAJCOM.

1.4.2.1. E-3G evaluations will be accepted between Air Combat Command (ACC), Air Force Reserve Command (AFRC), and Pacific Air Forces (PACAF). **(T-2)**

1.4.2.2. North Atlantic Treaty Organization (NATO) Evaluations. Evaluations from the NATO will not be accepted. Members require a current United States (US) E-3G evaluation with an accompanying Air Force (AF) Form 8, *Certificate of Aircrew Qualification*, IAW AFMAN 11-202V2 and current MAJCOM supplement. **(T-2)** **Exception:** NATO Communications, Navigation, and Surveillance (CNS)/Air Traffic Management (ATM) qualifications are not accepted outright, but they will be taken into account by allowing for an initial (INIT)/requalification (RQ) QUAL by going through a GP/CC approved differences or conversion training. **Note:** NATO CNS/ATM qualified instructor pilots and/or flight engineers may combine their INIT instructor (INSTR) and INIT/RQ QUAL evaluations after completing difference training.

1.4.2.3. Except as detailed in **paragraph 1.4.2.2**, evaluations from any non-US nations owning E-3 aircraft will not be accepted. **(T-2)**

1.4.3. Administering evaluations outside MAJCOM. Unit flight examiners may administer evaluations outside of their organization, to include administering evaluations outside of their MAJCOM. If administering evaluations outside of the flight examiner's MAJCOM, the evaluation will be specifically requested by the MAJCOM Stan/Eval organization of the examinee and approved by the MAJCOM Stan/Eval organization of the examiner IAW AFMAN 11-202V2. **(T-2)**

1.4.4. Flight Examiner Objectivity evaluations, or "SPOT" evaluations, will be annotated on the AF Form 8, Section III, "Aircrew Evaluation Information," with additional remarks in Section VIII. **(T-2)** Flight Examiners will brief the examinee prior to the flight.

1.5. Grading Policies.

1.5.1. Flight examiners will use the grading policies prescribed in AFMAN 11-202V2 and the evaluation criteria in this manual for conducting aircrew evaluations. **(T-2)** Flight examiners and crewmembers will be thoroughly familiar with the prescribed grading criteria in this manual. **(T-2)**

1.5.2. A three-level grading system (Q, Q-, or U) will be used for all grading areas except those designated as “CRITICAL”. **(T-2)**

1.5.3. Critical Grading Areas. Critical areas are defined as areas where marginal performance is unacceptable. A two-level grading system (Q or U) will be used for critical areas. **(T-2)** If an examinee receives a "U" grade in any critical area, the overall grade of the evaluation will also be unqualified. Critical areas are identified by "(CRITICAL)" following the applicable area title.

Chapter 2

EVALUATION REQUIREMENTS

2.1. General. This manual standardizes the criteria for instrument (INSTM), qualification (QUAL), mission (MSN), instructor (INSTR), requalification (RQ), emergency procedures evaluation (EPE), SPOT, and no-notice (N/N) evaluations. All evaluations will follow the guidelines established in AFMAN 11-202V2. Evaluation requirements are outlined in each crew position's evaluation criteria with grading areas identified in **Chapter 3**, **Chapter 4**, **Chapter 5**, **Chapter 6**, and **Chapter 7**. **(T-2)**

2.1.1. Required Evaluation Areas. The Flight Examiner will evaluate the examinee's performance in all required areas annotated with an "R". **(T-2)**

2.1.2. When a required area is unable to be evaluated in flight, if allowed, it may be evaluated either verbally or in the Aircrew Training Device (see notes in grading area tables). Flight Examiners will make every effort to evaluate required areas during the flight before resorting to alternative methods of evaluation. **(T-2)** However, the natural flow of events should not be drastically altered to accomplish examination items. Flight examiners will annotate the area(s) evaluated using alternate methods on the back of the AF Form 8. **(T-2)** The areas allowed to be graded alternatively are listed in the grading criteria in **Chapter 3**, **Chapter 5**, **Chapter 6**, and **Chapter 7**.

2.2. Ground Phase Requisites. Except where specified, the following QUAL evaluation requisites are common to all crew positions and will be accomplished IAW AFMAN 11-202V2 and unit directives. **(T-2)** The examinee must satisfy all ground phase requisites within their eligibility period to complete recurring evaluations or within six months of their INIT QUAL evaluation (example for INIT QUAL, EPE completed on 1 Jan 21 it expires on 30 Jun 21). **(T-3)** Flight examiners will record these requisites, with the exception of the publications check, in Section II, "Requisite Information", on the AF Form 8. **(T-2)**

2.2.1. Closed Book Requisite Exam. Questions for the Closed Book Exam will come from the Master Question File (MQF)/Local Operating Procedures (LOPs). **(T-2)** These questions will emphasize system knowledge and information necessary for safe flight and mission accomplishment. **(T-2)** If an aircrew member holds a multiple-qualification, the member will test for each qualification independently during each respective evaluation eligibility period. **(T-2)**

2.2.2. Boldface/Critical Action Procedures (CAPs) (AC/FP/CP only). Exam pertaining to CAPs/immediate actions. Examinee's answer(s) must be verbatim from the flight manual and in the proper sequence. **(T-2)**

2.2.3. Open Book Requisite Exam. Questions for the Open Book Exam will come from publications which contain information pertinent to the operation of the aircraft and performance of the assigned mission. **(T-2)** The Open Book subject areas and the publications used to generate the exam will be made available to aircrew. **(T-2)** Units may use a secure question bank as the source for some or all of the open book examination questions. **Note:** Open and Closed Book test requirements will be based on the qualification level of the examinee. **(T-2)** If an aircrew member holds a multiple-qualification, the member will test

for each qualification independently during each respective evaluation eligibility period. **(T-2)**

2.2.4. Emergency Procedures Evaluation (EPE). An EPE is required for all aircrew members within the eligibility period for required evaluations IAW AFMAN 11-202V2.

2.2.4.1. Flight examiners will conduct ACs, FPs, CPs, and Flight Engineer (FE) EPEs in the simulator (SIM) IAW **paragraph 2.3**. **(T-2)**

2.2.4.2. Navigator (NAV) and Mission Crew EPEs may be evaluated during flight or verbally on the ground, but will be evaluated as a ground requisite item only. Downgrades in the Emergency Equipment/Procedures grading area for NAVs and Mission Crew members will be documented as a Ground EPE discrepancy. **(T-2)**

2.2.5. ACs, FPs, CPs, and NAVs must complete the requisite INSTM examination requirement IAW AFMAN 11-210, *Instrument Refresher Program (IRP).* **(T-2)**

Table 2.1. Requisites.

Test Type	Aircraft Commander /First Pilot/Copilot		Navigator	Flight Engineer	Mission Crew	
	QUAL/MSN	INSTM	QUAL/MSN	QUAL/MSN	QUAL	MSN
OPEN BOOK	R		R	R	R	
CLOSED BOOK	R		R	R	R	
INSTRUMENT EXAM		R	R			
EPE	R		R	R	R	R
BOLDFACE	R					
Note: None **Key:** R - Required						

2.3. Flight Simulator (SIM) Evaluation Procedures. For ACs, FPs, CPs, and FEs, the EPE will be conducted in the Operational Flight Trainer (OFT) or Full Flight Simulator (FFS). **(T-3)** For ACs/FPs/CPs only, the INSTM/QUAL/MSN evaluation may also be conducted in the OFT. Normally, the EPE is conducted separately from the INSTM/QUAL/MSN evaluation, but may be combined. All evaluations will be conducted IAW the criteria in **Chapter 3** and **Chapter 5**, and will be administered by a flight examiner. **(T-2)**. Units will outline local procedures/profiles to accomplish all SIM evaluation requirements below. **(T-2)**

2.3.1. Emergency Procedure Evaluation (EPE) – (AC/FP/CP/FE). During the EPE, the following requirements will be accomplished: **Note:** Units will develop local procedures/profiles to accomplish these requirements. **(T-2)**

2.3.1.1. Unusual attitudes (AC/FP/CP). **(T-2)**

2.3.1.2. Initial buffet/stick shaker recovery (AC/FP/CP). **(T-2)**

2.3.1.3. Low visibility approach and landing (AC/FP/CP; graded under Precision Approach and Landing). **(T-2)**

2.3.1.4. Systems operation, normal/emergency (minimum of eight systems). **(T-2)**

2.3.1.5. Three-engine rudder boost out or two-engine approach, to a landing or go-around. **(T-2)**

2.3.2. When a SIM is not available, the EPE may be conducted in a Cockpit Procedural Trainer, or through a verbal discussion on the ground.

2.4. Mission (MSN) Evaluation.

2.4.1. Mission Profiles. Mission profiles will accomplish the following: reflect unit daily training mission and tasking, and provide realistic assessment of the examinee's capabilities, and the application of current tactics. **(T-2)** Units will define scenarios based on information from operational theaters utilizing Air Tasking Orders, Airspace Control Orders, Special Instructions, Operational Tasking Data Link (OPTASKLINK), intelligence data, etc. **(T-2)**

2.4.2. Evaluations will be accomplished on sorties with sufficient mission activities (if deployed, with Detachment Commander (DETCO) approval) to the maximum extent possible. **(T-2)** The examinee will demonstrate knowledge and abilities in all required areas on E-3G specified mission profiles IAW **Chapter 2** of this manual. **(T-2)** If all required areas cannot be evaluated on a single sortie, remaining areas will be evaluated in the SIM, on a subsequent sortie, or by verbal evaluation in a ground evaluation scenario. **(T-2)**

2.4.2.1. Examinees will be evaluated in the crew position of their highest qualification and all certifications. **(T-2)** If briefed, and at the flight examiner's discretion, portions of the evaluation may be flown as another crew position. However, the emphasis is to evaluate examinees as their highest qualification. Based on the examinee's experience level, a crewmember may be required to brief (to include tactics) and/or lead certain phases of the mission, but will not be evaluated using higher grading criteria: e.g., an experienced crewmember who does not hold an INSTR QUAL and is not on an INSTR QUAL evaluation, providing instruction to another crewmember at the discretion of the flight examiner, will not be held to the instructor grading criteria. **(T-2)**

2.4.2.2. Mission Simulator Evaluation Procedures. The mission SIM or sim-over-live in-flight may be used to administer any portion of a flight evaluation not requiring a specific live scenario. Simulation may be used to complete flight evaluations, accomplish additional training, or conduct reevaluations. The flight examiner determines if use of simulation is effective.

Chapter 3

GENERAL GRADING AREAS

3.1. General Grading Areas (All Crew Position Evaluations). Flight examiners will use **Table 3.1** for all evaluation types. **(T-2)**

Table 3.1. General Grading Areas (All Crew Positions).

AREA	DESCRIPTION	QUAL/MSN/SPOT
30	Airmanship (CRITICAL)	R
32	Aircrew Discipline (CRITICAL)	R
31	Safety (CRITICAL)	R
37	Cockpit/Crew Resource Management (CRM) (CRITICAL)	R
51	Publications/Personal and Professional Equipment	R
1	Mission Planning	R
3	Preflight/Ground Operations	R
52	Emergency Equipment/Procedures	R(1,2,3)
29	General/Systems Knowledge	R(3)
85	Communications/Coordination	R
744	Operational Security (OPSEC)/ Communications Security (COMSEC)	R(4)
302	Checklist Usage	R
26	Post-Flight/Mission	R
2	Briefings/Debriefings	R
50	Documentation	R
49	E-3 Defense Procedures	R(4,5)

Note:

1. The SIM EPE satisfies requirement for AC/FP/CP and FE
2. BOLD FACE (CRITICAL) will be evaluated during SIM EPE. **(T-2)**
3. May be accomplished either verbally or in the Aircrew Training Device (ATD). (AC, FP, CP, and FE see **paragraph 2.3**.)
4. Required area for MSN Evaluation only.
5. Not required for INIT evaluation for FP, CP, N, FE, ARO, ADST, ART.

Key:

R – Required. Areas only required for SPOT evaluation if utilized to update evaluation

expiration date.

3.2. General Grading Criteria.

3.2.1. Area 30 -- Airmanship (CRITICAL):

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

3.2.1.2. **U** . Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

3.2.2. Area 32 -- Aircrew Discipline (CRITICAL):

3.2.2.1. **Q** . Provided required direction/information. Correctly adapted to meet new situational demands. Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

3.2.2.2. **U** . Did not provide direction/information when needed. Did not correctly adapt to meet new situational demands. Failed to exhibit strict flight or crew discipline. Intentionally violated or ignored rules or instructions.

3.2.3. Area 31 -- Safety (CRITICAL):

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

3.2.3.2. **U** . Was not aware of or did not comply with all safety factors required for safe operations or conduct of the mission. Did not adequately identify and/or assess risk. Operated the aircraft and/or mission and emergency equipment in a dangerous manner.

3.2.4. Area 37 -- Cockpit/Crew Resource Management (CRM) (CRITICAL):

3.2.4.1. CRM is an encompassing term that can be separated into seven specific skills. Those skills and further guidance on CRM can be found in AFMAN 11-290, *Cockpit/Crew Resource Management and Threat & Error Management Program*. At a minimum, the four skills listed below will be evaluated for all E-3G crewmembers:

3.2.4.1.1. Crew/Flight Coordination. **(T-2)**

3.2.4.1.2. Risk Management/Decision-Making. **(T-2)**

3.2.4.1.3. Situational Awareness. **(T-2)**

3.2.4.1.4. Task Management. **(T-2)**

3.2.4.2. **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 and maximize mission success.

3.2.4.3. **U** . Failed to coordinate with other aircrew members, which jeopardized mission accomplishment. Did not provide timely direction/information, which would have clarified/rectified a situation. Unsatisfactory knowledge of other crewmembers' duties and responsibilities negatively affected mission accomplishment or safety of flight. Did not use available resources to manage workload.

3.2.5. Area 51 -- Publications/Personal and Professional Equipment:

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

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

3.2.5.3. **U** . Did not have all required personal/professional equipment. Publications contained major deviations/omissions. Did/would impact flight safety or mission accomplishment.

3.2.6. Area 1 -- Mission Planning:

3.2.6.1. **Q** . Checked all factors applicable to flight. Ensured live or simulated activity was correct and adequately coordinated, de-conflicted, and briefed. When required, correctly interpreted information and extracted necessary information from available and applicable sources. Thoroughly analyzed plans to identify potential problem areas. Checked for possible contingencies. Planned for alternate missions as required. Adhered to specific crew position mission planning guidance IAW AFMAN 11-2E-3GV3, *E-3G Operations Procedures* and applicable governing publications.

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

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

3.2.7. Area 3 -- Preflight/Ground Operations:

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

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

3.2.7.3. **U** . Errors or omissions could have/did jeopardized mission accomplishment or flight safety. Demonstrated unsatisfactory knowledge.

3.2.8. Area 52 -- Emergency Equipment/Procedures (AC/FP/CP/FE, see additional guidance in **Table 3.1**):

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

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

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

3.2.9. Area 29 -- General/Systems Knowledge:

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

3.2.9.1.1. AC/FP/CP/FE. Demonstrated knowledge of systems listed in **Table 3.2**, ensuring operations within prescribed limits. Properly diagnosed system problems/malfunctions. Explained/executed proper corrective action for each type of malfunction.

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

3.2.9.2.1. AC/FP/CP/FE. Knowledge of systems, **Table 3.2**, and/or operating limits was marginal. Slow to analyze system problem or apply proper corrective action.

3.2.9.3. **U** . Errors or omissions could have/did jeopardized mission accomplishment or flight safety. Exceeded “Q-”grading criteria.

3.2.9.3.1. AC/FP/CP/FE. Unsatisfactory knowledge of systems listed in **Table 3.2**.

Table 3.2. Systems Operation (Normal/Emergency).

System
Electrical
Hydraulic/Pneumatic
Air Conditioning/Bleed Air
Pressurization
Electronic Cooling

Engine/Engine Systems
Fuel
Ice/Rain Protection
Auxiliary Power Unit (APU)/APU Systems
Oxygen/Lighting Equipment
Landing Gear/Wheels/Brakes
Flight Controls
Fire Protection/Extinguishing
Instruments/Communications/Flight Management Systems
Note: - A minimum of eight systems will be evaluated. **(T-2)** - These systems may be observed/discussed in the SIM, during flight, or during mission planning/debrief. - Documentation of discrepancies will specify the affected system.

3.2.10. Area 85 -- Communications/Coordination:

3.2.10.1. **Q** . Effectively monitored, understood, and executed proper internal/external communications/coordination. Communications were standard, clear, and concise. Examinee effectively configured/operated communication equipment applicable to their position.

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

3.2.10.3. **U** . Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.2.11. Area 744 -- OPSEC/COMSEC:

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

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

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

3.2.12. Area 302 -- Checklist Usage:

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

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

3.2.12.3. **U** . Errors or omissions could have jeopardized mission accomplishment or flight safety.

3.2.13. Area 26 -- Post-Flight/Mission:

3.2.13.1. **Q** . Completed all post-flight checks and procedures IAW applicable flight manual, checklist, and applicable directives. Completed appropriate forms and paperwork as applicable.

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

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

3.2.14. Area 2 -- Briefings/Debriefings:

3.2.14.1. **Q** . Effectively organized and professionally presented briefings and debriefings in a logical sequence. Covered all applicable items IAW all governing directives. When required participated in or conducted all mission planning/execution briefs. Prepared for brief at the designated briefing time.

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

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

3.2.15. Area 50 -- Documentation:

3.2.15.1. **Q** . All required forms, reports, and logs were complete and accurate IAW applicable directives.

3.2.15.2. **Q** -. Errors, omissions, or deviations caused some information to be omitted or incorrectly reported.

3.2.15.3. **U** . Important information or major events omitted or reported incorrectly, which affected mission accomplishment or reconstruction of the mission.

3.2.16. Area 49 -- E-3 Defense Procedures:

3.2.16.1. **Q** . Properly explained/executed E-3 Defense procedures in a timely/accurate manner IAW established guidance (e.g., Air Force Tactics, Techniques, and Procedures (AFTTP) 3-1.AWACS, *Tactical Employment*, AFTTP 3-3.AWACS, *Combat Aircraft Fundamentals*, and Theater Directives).

3.2.16.2. **Q** -. Explained/executed E-3 Defense procedures with minor errors or omissions that did not jeopardize E-3 safety or mission accomplishment.

3.2.16.3. **U** . Unfamiliar with and/or unable to explain/execute E-3 Defense procedures with errors or omissions that could have jeopardized E-3 safety or mission accomplishment.

Chapter 4

INSTRUCTOR EVALUATIONS

4.1. Instructor (INSTR) Evaluation. (T-2) All flying personnel selected for instructor duty must be evaluated on judgment, technical knowledge, instructor ability (including error analysis of student activity), and use of grading documents as well as proficiency in their aircrew specialty. **(T-2)** To initially qualify as an instructor, a crewmember must successfully complete an INIT INSTR evaluation. **(T-2)** INIT INSTR evaluations may be conducted in conjunction with the examinee's periodic qualification evaluation and should be accomplished on actual instructional missions whenever possible. The ability of aircrew members to instruct will be evaluated during all subsequent periodic evaluations. **(T-2)**

4.1.1. Instructors must demonstrate proficiency by instructing an actual student whenever possible (or qualified individual acting as a student). **(T-2)** The examiner may require the examinee to present verbal explanations of equipment operations, procedures, and techniques pertinent to their crew position duties and responsibilities.

4.1.2. Instructor Pilot (IP) Evaluations. In addition to all AC INSTM/QUAL/MSN requirements in this manual, IP evaluations will include the following:

4.1.2.1. Air Refueling Demonstration (in flight), touch-and-go landing as pilot flying or pilot monitoring (in flight or in the SIM), abnormal flap landing (in flight or in the SIM) or landing attitude demonstration as pilot flying (in flight). **(T-2)** Deficiencies in these events are to be documented in Area 56, Demonstration and Performance, unless the deficiency is due to errors performing the basic maneuver (e.g., Landing or Air Refueling), which are graded in the corresponding grading area.

4.1.2.2. INIT INSTR evaluations will be administered with the examinee in the right seat. **(T-2)** An IP/flight examiner will be in the left seat for maneuvers that require IP/flight examiner supervision. **(T-2)**. **Note:** Diminishing Manufacturing Sources Replacement of Avionics for Global Operations and Navigation (DRAGON) Conversion IPs can complete their DRAGON Modified Aircraft (DMA) INIT QUAL in either seat.

4.1.2.3. INIT INSTR evaluations will include all areas on AC evaluations IAW **Chapter 3** and **Chapter 5**. **(T-2)** The examinee must accomplish a takeoff, instrument approach, and touch-and-go landing from the right-seat. **(T-2)**

4.1.2.4. Recurring evaluations may be administered with a student AC, FP, CP, IP, or Flight Examiner occupying the other pilot position. The examinee may occupy either the left or the right seat on recurring evaluations unless the flight examiner desires a specific position. The flight examiner will evaluate the instructor's ability to recognize student difficulties and provide effective, timely corrective action. **(T-2)** Recurring evaluations will be administered in conjunction with required qualification flight evaluations and will include all areas using both QUAL and INSTR criteria. **(T-2)** INSTR only evaluations are not permitted. If examinee is not in the eligibility window for their periodic evaluation, the eligibility period will automatically be opened upon entering instructor upgrade. **(T-2)**

4.1.3. Other Aircrew Instructor Flight Evaluations. Instructor flight evaluations will be conducted with a student occupying the applicable aircrew position whenever possible. **(T-2)**

The student will perform those duties prescribed by the instructor for the mission being accomplished. **(T-2)**

4.1.3.1. The instructor examinee will monitor all phases of flight from an advantageous position and be prepared to demonstrate or explain any area or procedure. **(T-2)**

4.1.3.2. The flight examiner will evaluate the instructor's ability to recognize student difficulties and provide effective, timely corrective action. **(T-2)**

4.1.3.3. Recurring evaluations will be administered in conjunction with required qualification flight evaluations and will include all areas using both QUAL and INSTR criteria. **(T-2)**

4.1.3.4. During all instructor evaluations (with the exception of INIT INSTR-only evaluations), the examinee must occupy the seat position for a sufficient period of time to demonstrate their proficiency in the crew position. **(T-2)** The flight examiner determines the timing and duration, within the mission profile, when the examinee will occupy the seat position in order to sufficiently evaluate the examinee's proficiency in their crew position. This can be determined during mission planning or during the course of the mission.

4.2. Grading Areas. All instructors will be graded using the criteria stated in **Table 4.1**. **(T-2)**

Table 4.1. Instructor Evaluation Required Grading Areas.

AREA	DESCRIPTION	INSTR
33	Instructional Ability	R
47	Briefings/Debriefings/Critique	R
56	Demonstration and Performance	R

Note: A grade of "U" in any of the Instructor Grading Areas results in an overall grade of 3 for the instructor portion of the evaluation. **(T-2)** Examinee is responsible for knowledge of Areas 1-16 in **Table 3.1** and crew position specific requirements.

Key:

R - Required

4.2.1. Area 33 -- Instructional Ability:

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

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

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

4.2.2. Area 47 -- Briefings/Debriefings/Critique:

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

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

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

4.2.3. Area 56 -- Demonstration and Performance:

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

4.2.3.2. **Q** -. Demonstration of procedures and/or techniques not always effective. Did not always distinguish between procedures and techniques. Minor discrepancies in knowledge of aircraft systems, procedures, and/or applicable publication and regulations. Minor discrepancies did not affect safety or adversely affect student progress.

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

Chapter 5

FLIGHT CREW EVALUATIONS

5.1. General. This chapter contains the task-oriented criteria for all Flight Crew Evaluations IAW AFMAN 11-202V2 and DAFMAN 11-401, *Aviation Management.* Evaluation requirements are outlined in matrices for IP, AC, FP, CP, NAV, and FE.

5.2. Instructor Pilot (IP), Aircraft Commander (AC), First Pilot (FP), Copilot (CP) Qualification (QUAL)/Mission (MSN), and Instrument (INSTM) Flight Evaluations.

5.2.1. General. This section contains guidance for IP, AC, FP, and CP QUAL/MSN and INSTM evaluations.

5.2.1.1. AC/FP/CP that are unqualified in the crew position being evaluated will have a qualified instructor/flight examiner AC in the other pilot position during engine start, taxi, takeoffs, air refueling, instrument approaches, and landings during the in-flight portion of the evaluation. **(T-2)**

5.2.1.2. QUAL/MSN and INSTM evaluations will encompass all areas identified in **Table 3.1** and **Table 5.1** or [With-DMA] **Table 5.2** except as noted below. **(T-2)** The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. **(T-2)**

5.2.1.2.1. INIT QUAL. Contact position does not apply to CP candidates and may be deferred by FP candidates. If the requirement for the contact position is deferred for an FP, the flight examiner will annotate the restriction on the AF Form 8 IAW AFMAN 11-202V2. **(T-2)**

5.2.1.2.2. FP candidates who successfully demonstrate proficiency in Air Refueling may accomplish the complete Air Refueling qualification, including the Contact Position, as part of their INIT QUAL evaluation at the discretion of the 966th Airborne Air Control Squadron Commander (966 AACS/CC).

5.2.1.2.3. FPs may accomplish an Air Refueling SPOT evaluation that includes the Contact Position (Area 17, Air Refueling), to remove an Air Refueling restriction. Once the restriction is removed, subsequent MSN evaluations will require a full evaluation of Area 17, Air Refueling. FPs must successfully accomplish an Air Refueling evaluation, to include the Contact Position, no later than their next INSTM/QUAL/MSN evaluation. **(T-2)**

5.2.1.2.4. CPs may accomplish an air refueling SPOT evaluation that includes the Contact Position (Area 17, Air Refueling), to become air refueling qualified. Once qualified, all subsequent MSN evaluations will require full evaluation of Area 17, Air Refueling. **(T-2)**

5.2.1.2.5. CPs will not be evaluated in Area 21, Simulated Engine(s) Out Pattern/Landing, or Area 19, Simulate Engine(s) Out Go-Around. **(T-2)**

5.2.1.3. QUAL/MSN and INSTM evaluations may be conducted on either pilot proficiency or mission sorties (combat training sorties, surveillance sorties, etc.). If

conducted on a sortie where Area 14, On-Station Procedures, is not performed, the flight examiner will verbally evaluate this area. **(T-2)**

5.2.1.4. Use of flight crew SIM for Flight Phase portions of the evaluation.

5.2.1.4.1. Area 61, Holding, may be evaluated in the ATD and graded during the EPE, or a separate ATD sortie, due to time/mission constraints.

5.2.1.4.2. Area 64, Non-Precision Approach, area navigation (RNAV) procedures may be evaluated in the ATD and graded during the EPE, or a separate ATD sortie, due to time/mission constraints.

5.2.1.4.3. Flight Phase areas may be evaluated in the OFT IAW AFMAN 11-202V2 except for areas listed below:

5.2.1.4.3.1. For INIT, RQ, and Qual (Non DMA) Evaluations (Reference **Table 5.1** and **Table 5.2** Notes) the following areas (s) will be evaluated during a live sortie: Area 4, Takeoff; Area 17, Air Refueling; Area 23, Visual Flight Rules (VFR) Approach (Base, Final Turn, Final Approach), Area 21, Simulated Engine(s) Out Pattern/Landing; and Area 25, Landing. **(T-2)**

5.2.1.4.3.2. Area 17, Air Refueling, when the examinee is qualified to air refuel in the contact position or is seeking such qualification.

5.2.1.4.4. Areas evaluated in the OFT to finish an incomplete aircraft evaluation will be documented by the flight examiner in Section III of the AF Form 8, under "Aircrew Evaluation Information" as a "SIM INSTM/QUAL/MSN". **(T-2)**. In Section VIII, the Mission Description will be documented as "Second Sortie". **(T-2)**

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

5.2.2. Evaluation Objectives:

5.2.2.1. INSTM Evaluation. The examinee must demonstrate the ability to operate the aircraft under instrument flight conditions using appropriate flight manuals, directives, and operating procedures. **(T-2)**

5.2.2.2. QUAL/MSN Flight Evaluation. The examinee must demonstrate the ability to accomplish the mission and operate the aircraft and systems using appropriate flight manuals, directives, and operating procedures. **(T-2)**

5.3. Navigator QUAL/MSN Flight Evaluations.

5.3.1. General. This section contains guidance for QUAL/MSN evaluations for the NAV and Instructor NAV (INAV) crew positions.

5.3.2. INIT/QUAL/MSN and INIT INSTR evaluations will encompass all areas identified in **Table 3.1** and **Table 5.1**. **(T-2)** The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. **(T-2)** Additionally, instructor examinees must demonstrate/perform Area 473, Global Positioning Integrated Navigation System (GINS) Operations, and provide instruction in Area 17, Air Refueling, as a minimum. **(T-2)**

5.3.3. Either a CFP or a manual flight plan may be used for qualification evaluations.

5.4. Flight Engineer (FE) QUAL/MSN Flight Evaluations.

5.4.1. General. This section contains the task-oriented criteria for QUAL/MSN evaluations of a FE and Instructor Flight Engineer (IFE).

5.4.1.1. INIT/QUAL/MSN, QUAL/MSN, and INIT/INST/QUAL evaluations will encompass all areas identified in **Table 3.1** and **Table 5.1** or [With-DMA] **Table 5.2**. **(T-2)** The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. **(T-2)**

5.4.1.2. Department of Defense (DD) Form 365-4, *Weight and Balance Clearance Form F Transport/Tactical*. Examinee will complete/accomplish the DD Form 365-4 utilizing the load adjuster, computerized load adjuster, or other MAJCOM approved method. **(T-2)** Completion of the Form F may be evaluated during the written examination.

5.4.1.3. DMA Flight Engineers may be evaluated on either DMA or non-DMA aircraft.

5.4.2. QUAL/MSN Evaluation. The examinee must demonstrate the ability to accomplish all required duties safely, effectively, and IAW appropriate flight manuals, directives and operating procedures. **(T-2)** Examiners will conduct FE qualification evaluations on a live E-3G sortie. **(T-2)**

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

5.6. Criteria. Flight examiners will evaluate the areas identified in **Table 5.1** or [With-DMA] **Table 5.2** using the grading policy in AFMAN 11-202V2 and any criteria listed within the individual areas. **(T-2)**

Table 5.1. Flight Crew Evaluation Requirements.

AREA	DESCRIPTION	AC	FP	CP	NAV	FE
38	Takeoff and Landing Data (TOLD)	I, Q/M	I, Q/M	Q/M		Q/M
238	Weight and Balance	Q/M				Q/M
1	Flight Plan/Charts				Q/M	
85	Air Traffic Control (ATC)	I, Q/M	I, Q/M	Q/M		
4	Takeoff	I, Q/M(1)	I, Q/M(1)	Q/M(1)	Q/M	Q/M
6	Departure/Climb-Out	I, Q/M	I, Q/M	Q/M	Q/M	Q/M
7	Level-Off	I, Q/M	I, Q/M	Q/M		
8	Cruise/Navigation	I, Q/M	I, Q/M	Q/M	Q/M	Q/M
14	On-Station Procedures	Q/M	Q/M	Q/M	Q/M	Q/M
17	Air Refueling	Q/M(5)	Q/M(5)	Q/M(5)	Q/M(1)	Q/M(3)
10	In-Flight Checks	Q/M	Q/M	Q/M	Q/M	Q/M
473	GINS Operations				Q/M	

12	General/Radio Navigation	I, Q/M	I, Q/M	Q/M	Q/M	
832	Weather Radar Operation				Q/M	
88	Mission Patterns				Q/M	
18	Descent/Penetration	Q/M	Q/M	Q/M	Q/M	Q/M
15	Unusual Attitudes	I(2)	I(2)	I(2)		
61	Holding	I	I	I	Q/M(3)	
63	Instrument Flight Rules (IFR) Traffic Pattern	I	I	I		
64	Non-Precision Approach	I	I	I		
66	Precision Approach	I	I	I		
67	Missed Approach	I, Q/M	I, Q/M	I, Q/M		
23	VFR Approach	Q/M(1)	Q/M(1)	Q/M(1)		
21	Simulated Engine(s) Out Pattern/Landing	Q/M(1)	Q/M(1)			
19	Simulated Engine(s) Out Go-Around	Q/M(1)	Q/M(1)			
624	Initial Buffet/Stick Shaker Recovery	Q/M(2)	Q/M(2)	Q/M(2)		
25	Landing	I, Q/M (1,4)	I, Q/M (1,4)	Q/M (1,4)		Q/M
26	After Landing	I, Q/M	I, Q/M	Q/M		Q/M
102	Pilot Monitoring	Q/M	Q/M	Q/M		

Note:

1. Must be evaluated in flight for INIT evaluations (NAVs) and INIT/RQ/Qual evaluations (AC/FP/CP) **(T-2)**

2. Must be evaluated in the SIM. **(T-2)**

3. May be evaluated in the OFT (INIT/RQ) or verbally (recurring) if live activity cancels. OFT or verbal evaluation must incorporate heavyweight Air-to-Air Refueling (AAR) procedures.

4. Landing may be evaluated on a touch-and-go.

5. Must be evaluated in flight except for periodic non-contact position CP evaluations. See **paragraph 5.2.1.3.2.2**. **(T-2)**.

Key:

I – Instructor examinee must accomplish all requirements identified as INSTM evaluations.

(T-2)

Q/M – Examinee must accomplish all requirements identified as QUAL/MSN evaluations. **(T-2)**

Table 5.2. [With-DMA] Flight Crew Evaluation Requirements.

AREA	DESCRIPTION	AC	FP	CP	FE
38	Takeoff and Landing Data (TOLD)	I, Q/M	I, Q/M	Q/M	Q/M
238	Weight and Balance	Q/M			Q/M
85	Air Traffic Control (ATC)	I, Q/M	I, Q/M	Q/M	
4	Takeoff	I, Q/M(1)	I, Q/M(1)	Q/M(1)	Q/M
6	Departure/Climb-Out	I, Q/M	I, Q/M	Q/M	Q/M
7	Level-Off	I, Q/M	I, Q/M	Q/M	
8	Cruise/Navigation	I, Q/M	I, Q/M	Q/M	Q/M
14	On-Station Procedures	Q/M	Q/M	Q/M	Q/M
17	Air Refueling	Q/M(6)	Q/M(6)	Q/M(6)	Q/M(3)
10	In-Flight Checks	I, Q/M	I, Q/M	Q/M	Q/M
31	Flight Management System (FMS)	Q/M	Q/M	Q/M	
12	General/Radio Navigation	I, Q/M	I, Q/M	Q/M	
832	Weather Radar Operation	Q/M	Q/M	Q/M	
88	Mission Patterns	Q/M	Q/M	Q/M	
18	Descent/Penetration	I, Q/M	I, Q/M	Q/M	Q/M
15	Unusual Attitudes	I(2)	I(2)	I(2)	
61	Holding	I	I	I	
63	Instrument Flight Rules (IFR) Traffic Pattern	I	I	I	
64	Non-Precision Approach	I(5)	I(5)	I(5)	
66	Precision Approach	I	I	I	
67	Missed Approach	I, Q/M	I, Q/M	I, Q/M	
23	VFR Approach	Q/M(1)	Q/M(1)	Q/M(1)	
21	Simulated Engine(s) Out Pattern/Landing	Q/M(1)	Q/M(1)		
19	Simulated Engine(s) Out Go-Around	Q/M(1)	Q/M(1)		

624	Initial Buffet/Stick Shaker Recovery	Q/M(2)	Q/M(2)	Q/M(2)	
25	Landing	I, Q/M (1,4)	I, Q/M (1,4)	Q/M (1,4)	Q/M
26	After Landing	I, Q/M	I, Q/M	Q/M	Q/M
102	Pilot Monitoring	Q	Q	Q	

Note:

1. Must be evaluated in flight for INIT/RQ evaluations. **(T-2)**

2. Must be evaluated in the SIM. **(T-2)**

3. May be evaluated in the ATD (INIT/RQ) or verbally (recurring) if live activity cancels. ATD or verbal evaluation must incorporate heavyweight AAR procedures.

4. Landing may be evaluated on a touch-and-go.

5. RNAV must be flown during evaluation as the Non-Precision approach.

6. Must be evaluated in flight except for periodic non-contact position CP evaluations. See **paragraph 5.2.1.3.2.2**. **(T-2)**

Key:

I – Instructor examinee must accomplish all requirements identified as INSTM evaluations. **(T-2)**

Q/M – Examinee must accomplish all requirements identified as QUAL/MSN evaluations. **(T-2)**

5.7. Flight Crew Grading Criteria.

5.7.1. Area 38 -- Takeoff and Landing Data (TOLD):

5.7.1.1. **Q** . Fully knowledgeable/completed takeoff and landing performance data. Ensured TOLD is computed within column A tolerances, **Table 5.3**.

5.7.1.2. **Q** -. Computed required takeoff and landing data within column B tolerances, **Table 5.3** Limited knowledge of takeoff and landing data.

5.7.1.3. **U** . Unable to complete/did not ensure takeoff and landing data card was completed. Computations exceeded column B tolerances, **Table 5.3** Inadequate knowledge of performance data.

5.7.2. Area 238 -- Weight and Balance:

5.7.2.1. Q. Demonstrated knowledge of aircraft limitations and weight and balance. Completed DD Form 365-4 accurately and legibly. Errors in percent of mean aerodynamic chord (MAC) or gross weight did not exceed column A tolerances, **Table 5.3**.

5.7.2.2. **Q** -. Demonstrated a limited knowledge of aircraft limitations and weight and balance. Completed a legible DD Form 365-4 with errors or omissions that did not affect safety. Errors in percent of MAC or gross weight did not exceed column B tolerances, **Table 5.3**.

5.7.2.3. **U** . Unable to complete DD Form 365-4. Errors in percent of MAC or gross weight exceeded column B tolerances, **Table 5.3** Displayed inadequate knowledge of weight and balance directives.

Table 5.3. Consolidated Performance Data Tolerances.

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

5.7.3. Area 1 -- Flight Plan/Charts: [With-DMA, Not Applicable (N/A)]

5.7.3.1. **Q** . Selected current navigation charts of proper scale and type for the mission. Charts reflected special use airspace where required, orbit airspace, air refueling track, emergency and alternate airfields, high terrain or obstacle, and other data as required by mission directives for the planned route of flight. All coordinates were transcribed correctly. Completed Flight plan/charts did not exceed column A tolerances, **Table 5.4**.

5.7.3.2. **Q** -. Flight plan/chart completed with minor errors or omissions that did not affect mission accomplishment. No more than one error made in transcribing coordinates. Route plotted with errors that exceeded column A tolerances, **Table 5.4** No more than four errors exceeded column A tolerances, **Table 5.4** and no error exceeded column B tolerances, **Table 5.4**.

5.7.3.3. **U** . Flight plan/chart was not completed or contained major errors or omissions that jeopardized mission accomplishment. Failed to verify the CFP waypoints against current Flight Information Publications (FLIP) when using an expired navigation system database. Selected improper/obsolete charts. Route plotting errors exceeded column B tolerances, **Table 5.4** More than four errors exceeded column A tolerances, **Table 5.4**, or one or more errors exceeded column B tolerances, **Table 5.4**.

Table 5.4. Consolidated Flight Plan/Charts Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Heading	+/- 5 degrees	+/- 10 degrees
Time	+/- 2 minutes	+/- 4 minutes
Distance	5 nautical miles (NM)	10 NM

Note:

1. Errors that occur as a result of the previous error will not be considered when applying the limits of the grading criteria.

2. Either computer or manual flight plan may be used.

5.7.4. Area 85 -- Air Traffic Control (ATC):

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

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

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

5.7.5. Area 4 -- Takeoff (May be evaluated on initial takeoff or subsequent touch-and-go takeoffs):

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

5.7.5.1.1. AC/FP/CP: Aircraft control was smooth throughout takeoff. Performed takeoff IAW flight manual procedures. Did not exceed column A tolerances, **Table 5.5**.

5.7.5.1.2. FE: Applied power smoothly. Continuously monitored aircraft/engine system to ensure compliance with all limitations.

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

5.7.5.2.1. AC/FP/CP: Aircraft Control was rough or erratic. Hesitant in application of procedures/corrections. Did not exceed column B tolerances, **Table 5.5**.

5.7.5.2.2. FE: Applied power in an acceptable manner. Deviations in monitoring of aircraft/engine systems did not exceed limitations.

5.7.5.3. **U** . Violated flight manual procedures or exceeded column B tolerances, **Table 5.5** Errors or omissions could have jeopardized mission accomplishment or flight safety.

5.7.5.3.1. AC/FP/CP: Liftoff was potentially dangerous. Exceeded aircraft/systems limitations. Failed to establish proper climb attitude. Over controlled the aircraft.

5.7.5.3.2. FE: Applied power in an unacceptable manner. Did not monitor engine/system indicators. Failed to comply with AC's instructions.

Table 5.5. Takeoff Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Airspeed	+ 10/- 5 knots	+ 15/- 5 knots
Heading	+/- 5 degrees	+/- 10 degrees

5.7.6. Area 6 -- Departure/Climb-Out:

5.7.6.1. **Q** . Performed departure as published/directed and complied with all instructions. Applied course/heading corrections promptly. Visually cleared the area and demonstrated appropriate procedural knowledge. Did not exceed column A tolerances, **Table 5.6**.

5.7.6.1.1. NAV: Monitored headings, altitudes, and aircraft position throughout departure. Used a Standard Instrument Departure (SID) (if applicable) and had local area chart of Operational Navigation Chart (ONC) or larger scale immediately available for reference (i.e., out on the table). Monitored terrain/obstacle clearance. Provided appropriate information in a timely manner. Monitored departure instructions to ensure ATC compliance.

5.7.6.1.2. FE: Monitored aircraft/engine systems to ensure compliance with limitations. Maintained charted climb power.

5.7.6.1.2.1. [With-DMA] FE: Monitored terrain/obstacle clearance. Monitored departure instructions to ensure ATC compliance.

5.7.6.2. **Q-** . Performed departure as published/directed and complied with all restrictions. Slow to apply course/heading corrections. Visually cleared the area, but slow in applying procedural knowledge. Did not exceed column B tolerances, **Table 5.6**.

5.7.6.2.1. NAV: Monitored headings, altitudes, position, and terrain clearance. Displayed difficulty in appropriate information. Performance did not degrade mission accomplishment or compromise flight safety. Monitored SID (if applicable) but did not have local area chart of ONC or larger scale immediately available for reference.

5.7.6.2.2. FE: Deviations in monitoring aircraft/engine systems; did not exceed limitations. Minor deviations in maintaining charted climb power.

5.7.6.2.2.1. [With-DMA] FE: Monitored terrain/obstacle clearance. Monitored departure instructions to ensure ATC compliance. Displayed difficulty in appropriate information. Performance did not degrade mission accomplishment or compromise flight safety.

5.7.6.3. **U** . Failed to comply with published/directed departure instructions or exceeded column B tolerances, **Table 5.6** Failed to visually clear the area. Lack of procedural knowledge resulted in a loss of situational awareness or jeopardized mission accomplishment.

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

5.7.6.3.2. FE: Did not monitor aircraft/engine systems indicators; actions performed inadequately. Major deviations in maintaining charted climb power. Did not accomplish required checks and procedures.

5.7.6.3.2.1. [With-DMA] FE: Did not monitor terrain/obstacle clearance. Failed to monitor departure instructions to ensure ATC compliance. Could not reference appropriate information. Performance degraded mission accomplishment or

compromised flight safety.

Table 5.6. Departure/Climb Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Altitude	+/- 100 feet	+/- 200 feet
Airspeed	+/- 10 knots or +/- .04 Mach	+/- 15 knots or +/- .07 Mach
Course/Heading	+/- 5 degrees (1)	+/- 10 degrees (1)
Note: 1. When assigned or specified		

5.7.7. Area 7 – Level-Off:

5.7.7.1. **Q** . Leveled off smoothly at specified altitude. Established proper cruise airspeed promptly. Visually cleared the area. Did not exceed column A tolerances, **Table 5.7**.

5.7.7.2. **Q-** . Level off was slightly erratic. Some difficulty in maintaining proper altitude. Slow in establishing proper cruise airspeed. Visually cleared the area. Did not exceed column B tolerances, **Table 5.7**.

5.7.7.3. **U** . Level off was erratic. Delayed excessively or failed to establish proper cruise airspeed. Failed to clear the area. Exceed column B tolerances, **Table 5.7**.

Table 5.7. Level Off Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Altitude	+/- 100 feet	+/- 200 feet
Course/Heading	+/- 5 degrees (1)	+/- 10 degrees (1)
Note: 1. When assigned or specified.		

5.7.8. Area 8 -- Cruise/Navigation:

5.7.8.1. **Q** . GINS [With-DMA, FMS] operations/procedures. Ensured navigational aids (NAVAIDS) were properly tuned, identified, and monitored (when available). Aware of exact position and speeds at all times. Visually cleared the area. Did not exceed column A tolerances, **Table 5.8**.

5.7.8.1.1. [With-DMA] AC/FP/CP: Cruise/On-Station speeds and altitudes used were accomplished effectively to support mission requirements.

5.7.8.1.2. NAV: Cruise/On-Station speeds and altitudes used were accomplished effectively to support mission requirements.

5.7.8.1.3. FE: Cruise/Orbit data and fuel endurance computations were accurate and updated at timely intervals.

5.7.8.2. **Q** -. Displayed knowledge of GINS operations/procedures with errors or omissions that did not jeopardize mission accomplishment. Some deviations in tuning, identifying, and monitoring NAVAIDS. Had difficulty in establishing exact position and/or speed. Visually cleared the area. Did not exceed column B tolerances, **Table 5.8**.

5.7.8.2.1. [With-DMA] AC/FP/CP: Speeds and altitudes used were accomplished with minor errors that did not affect safety of flight or mission accomplishment.

5.7.8.2.2. NAV: Speeds and altitudes used were accomplished with minor errors that did not affect safety of flight or mission accomplishment.

5.7.8.2.3. FE: Cruise/Orbit data and fuel endurance computations reflected procedural/mathematical errors or omissions.

5.7.8.3. **U** . Displayed major errors in GINS operations/procedures that jeopardized mission accomplishment, or to the extent that position and/or speed were unreliable. Did not visually clear the area. Exceeded column B tolerances, **Table 5.8**.

5.7.8.3.1. [With-DMA] AC/FP/CP: Improper speeds and/or altitudes used could have affected flight safety or jeopardized mission accomplishment.

5.7.8.3.2. NAV: Improper speeds and/or altitudes used could have affected flight safety or jeopardized mission accomplishment.

5.7.8.3.3. FE: Improper speeds and/or altitudes used could have affected flight safety or jeopardized mission accomplishment.

5.7.9. Area 14 -- On-Station Procedures:

5.7.9.1. **Q** . Maintained situational awareness of mission developments and requirements. Updated mission information as applicable for real time mission changes. Did not exceed applicable column A tolerances, **Table 5.8**.

5.7.9.1.1. [With-DMA] AC/FP/CP: Coordinated effectively with all required agencies. Effectively established aircraft in mission orbit IAW applicable directives. Performed on-station procedures IAW governing directives as soon as practical. Established a suitable orbit location within directed airspace.

5.7.9.1.2. NAV: Performed on-station procedures IAW governing directives as soon as practical. Established a suitable orbit location within directed airspace.

5.7.9.1.3. FE: In-flight data computations were accurate and accomplished in a timely manner. Data computations accomplished IAW applicable directives.

5.7.9.2. **Q** -. Performance included errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Demonstrated limited knowledge. Did not exceed applicable column B tolerances, **Table 5.8**.

5.7.9.2.1. [With-DMA] AC/FP/CP: Coordinated and established the aircraft in mission orbit IAW applicable directives with minor deviations. Performed limited on-station procedures or exhibited orbit positioning knowledge that did not jeopardize mission accomplishment.

5.7.9.2.2. NAV: Performed limited on-station procedures or exhibited orbit positioning knowledge that did not jeopardize mission accomplishment.

5.7.9.2.3. FE: Cruise/Orbit data and fuel endurance computations reflected procedural/mathematical errors or omissions.

5.7.9.3. **U** . Errors or omissions could have jeopardized mission accomplishment or flight safety. Exceeded column B tolerances, **Table 5.8**.

5.7.9.3.1. [With-DMA] AC/FP/CP: Failed to properly coordinate and establish a mission orbit IAW applicable directives. Improper speeds and/or altitudes used could have affected flight safety or jeopardized mission accomplishment.

5.7.9.3.2. NAV: Improper speeds and/or altitudes used could have affected flight safety or jeopardized mission accomplishment.

5.7.9.3.3. FE: Inadequate knowledge of procedures. Required checks/procedures were inadequate or not accomplished.

Table 5.8. Consolidated Cruise/Navigation/On-Station Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Altitude	+/- 100 feet	+/- 200 feet
Airspeed	+/- 5% or 5 knots (1)	+/- 10% or 10 knots (1)
Course	+/- 5 NM	+/- 10 NM
Heading	+/- 5 degrees	+/- 10 degrees
Point-to-Point	+/- 2 miles	+/- 4 miles
Target ground speed	+/- 50 knots (2)	+/- 70 knots (2)
Note: 1. Whichever is greater (not below min maneuver speed). 2. Unless indicated airspeed (IAS) compromises flight safety.		

5.7.10. Area 17 -- Air Refueling:

5.7.10.1. **Q** . Demonstrated thorough knowledge of air refueling and rendezvous procedures were conducted IAW prescribed procedures.

5.7.10.1.1. AC/FP: Established and maintained proper refueling position. Aircraft control was smooth and stable. Correct application of emergency separation procedures. AC/FP air refueling requires 10 minutes in contact. One inadvertent disconnect is permitted. **Note:** Autopilot-on contact time may be reduced (after at least 5 continuous minutes) if the examinee demonstrates the ability to maintain a smooth, stable receiver platform. Time spent performing air refueling envelope demonstration counts towards the 5 minute minimum. Autopilot-off contact is required for all INIT and RQ evaluations.

5.7.10.1.1.1. [With-DMA] Air to air refueling rendezvous was conducted IAW prescribed procedures. Correctly computed expected turn range within +/- 2 NM and offset within +/- 2 NM.

5.7.10.1.2. IPs will demonstrate a stable air refueling envelope demonstration. IPs must safely maneuver the aircraft to and from the envelope limits in all three dimensions (fore/aft, up/down, left/right), not exceeding the tanker boom limits as defined in Allied Tactical Publication (ATP) 3.3.4.2., *Air-to-Air Refueling*. **(T-2)**

5.7.10.1.3. CP: Performance of duties during rendezvous and refueling operations will be evaluated. **(T-2)** CPs must establish and maintain a stable pre-contact position (approximately 5 minutes). **(T-2)** CPs who are qualified for air refueling (contact position) will be evaluated IAW **paragraph 5.7.10.1.1**. **(T-2)**

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

5.7.10.1.5. FE: Knowledgeable of air refueling operations. Managed and on loaded fuel IAW applicable flight manuals and directives.

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

5.7.10.2.1. AC/FP: Demonstrated limited ability to establish and maintain the proper air refueling contact position. Not more than three inadvertent disconnects. Took excessive time to stabilize in the contact position.

5.7.10.2.1.1. [With-DMA] Displayed lack of knowledge of rendezvous procedures. Computed expected turn range greater than +/- 2 NM, but less than +/- 5 NM, and offset greater than +/- 2 NM, but less than +/- 5 NM.

5.7.10.2.2. CP: Demonstrated limited ability to establish and maintain a stable pre-contact position.

5.7.10.2.3. FE: Limited knowledge of air refueling operations. Managed and on-loaded fuel IAW applicable flight manuals and directives with minor errors or omissions, which did not affect mission accomplishment.

5.7.10.2.4. NAV: Displayed lack of knowledge with the checklists or rendezvous procedures. Computed turn range greater than +/- 2 NM, but less than +/- 5 NM, and offset greater than +/- 2 NM, but less than +/- 5 NM.

5.7.10.3. **U** . Performance exceeded "Q-" grading criteria. Demonstrated the inability to establish and maintain the contact position. Aircraft control could have jeopardized mission accomplishment or flight safety. Errors or omissions could have jeopardized mission accomplishment or flight safety. Computations exceeded "Q-" standards.

5.7.11. Area 10 -- In-Flight Checks:

5.7.11.1. **Q** . Accomplished in-flight checks as required by the flight manual and governing directives. Ensured all systems were properly operated/monitored.

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

5.7.11.3. **U** . Errors or omissions could have jeopardized mission accomplishment or flight safety.

5.7.12. Area 473 -- GINS Operations [With-DMA, FMS]:

5.7.12.1. **Q** . Demonstrated satisfactory knowledge and understanding of GINS [With-DMA, FMS] components/In-Flight Alignment (IFA) sequencing. Effectively used GINS [With-DMA, FMS] navigational information in a precise and accurate manner. Recognized malfunctions and took appropriate corrective actions. Accomplished initialization and IFA sequencing IAW applicable directives in time to support the mission. Recognized/performed needed manual position updates. Monitored GINS [With-DMA, FMS] aiding/position to ensure accurate positional and associated information transmitted to mission equipment.

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

5.7.12.3. **U** . Failed to recognize malfunctions and/or take appropriate corrective action, which resulted in system degradation. Inadequate knowledge of GINS [With-DMA, FMS] components seriously degraded effective use of GINS [With-DMA, FMS] navigational information. Corrective action taken was inappropriate and further degraded GINS [With-DMA, FMS] operation. Failure to update or correctly interpret GINS [With-DMA, FMS] data resulted in excessive position errors. Induced a position error that resulted in degraded positional accuracy or IFA failure. Failed to crosscheck navigational information (position, TH, GS, and XTK/TKE) prior to using INU aligned in flight, or failed to crosscheck one or more navigational information (position, TH, GS, or XTK/TKE) before attempting to couple the autopilot to the INU aligned in flight.

5.7.13. Area 12 – General/Radio Navigation:

5.7.13.1. **Q** . At no time allowed the airplane to deviate more than 5 NM from the planned/re-planned course or to deviate outside the refueling track or ATC assigned/protected lateral airspace. Active flight plan waypoints were kept updated and no unscheduled turns caused by erroneous data. Properly used radio aids to determine aircraft position. Verified charted location of stations used in plotting aircraft position.

5.7.13.2. **Q** -. At no time allowed the airplane to deviate more than 10 NM from the planned/re-planned course. Active flight plan waypoints were updated and no more than one unscheduled turn was caused by erroneous data. Committed errors in the use of radio aids that did not adversely affect determining aircraft position. Made minor errors in verifying charted location of stations used in plotting aircraft position.

5.7.13.3. **U** . Allowed airplane to deviate from planned/re-planned course beyond acceptable measures of distance and/or time. Allowed airplane to deviate outside of the refueling track or ATC assigned/protected lateral airspace. Unsatisfactory techniques or

procedures in and using radio aids to determine aircraft position. Failed to verify charted location of stations used to plot aircraft position.

5.7.14. Area 832 -- Weather Radar Operation:

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

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

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

5.7.15. Area 88 -- Mission Patterns:

5.7.15.1. **Q** . Demonstrated satisfactory accomplishment or knowledge of alternate (waypoint only) and GINS [With-DMA, FMS] orbit procedures. Selected and engaged proper steering pattern and lobe and monitored orbit capture. Briefed pilot on anticipated aircraft maneuvers [With-DMA, N/A] and notified Section Lead In Command (SLIC) prior to orbit capture.

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

5.7.15.3. **U** . Selected/engaged incorrect pattern or waypoint-only orbit resulted in departing protected airspace. Insufficient knowledge or unsatisfactory accomplishment of alternate orbit procedures resulted in degraded mission radar operation. Failed to brief pilot when engaging pattern steering and/or notify SLIC prior to orbit entry. [With-DMA, Pilot notifies SLIC prior to orbit entry.]

5.7.16. Area 18 -- Descent/Penetration:

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

5.7.16.1.1. NAV: Computed minimum groundspeed within +/- 4 knots and notified pilots prior to approach. Notified pilots of deviations in heading and altitude. Monitored and complied with all weather restrictions. Monitored applicable arrival or approach procedures.

5.7.16.1.2. [With-DMA] FE: Monitored applicable arrival or approach procedures.

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

5.7.16.2.1. NAV: Provided incorrect (greater than +/- 4 knots, but less than +/- 8 knots) minimum groundspeed. Missed minor heading and altitude deviations. Missed minor arrival or approach procedure instructions that did not jeopardize flight safety.

5.7.16.3. **U** . Errors or omissions could have jeopardized mission accomplishment or flight safety. Exceeded "Q-" grading criteria.

5.7.17. Area 15 -- Unusual Attitudes (SIM Only):

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

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

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

5.7.18. Area 61 -- Holding:

5.7.18.1. **Q** . Entry and holding procedures IAW AFMAN 11-202V3, *Flight Operations* and applicable directives; remained within airspace. Did not exceed column A tolerances, **Table 5.9**.

5.7.18.1.1. NAV: Configured GINS for holding IAW AC or ATC directives. Monitored holding pattern capture and ensured compliance with **Table 5.9** standards.

5.7.18.2. **Q** -. Improper entry and holding procedures but remained within airspace limits. Exceeded column A tolerances, **Table 5.9**.

5.7.18.2.1. NAV: Properly configured GINS for holding but exceeded **Table 5.9**, Column A Standards.

5.7.18.3. **U** . Exceeded airspace or column B tolerances, **Table 5.9**.

5.7.18.3.1. NAV: Improperly configured GINS for holding or exceeded **Table 5.9**, Column B Standards.

Table 5.9. Holding Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Altitude	+/- 100 feet	+/- 200 feet
Airspeed	Airspeed +/- 10 knots	Airspeed +/- 15 knots
Leg Timing	+/- 15 seconds or TACAN +/- 2NM	+/- 20 seconds or TACAN +/- 3NM

5.7.19. Area 63 -- Instrument Flight Rules (IFR) Traffic Pattern (Prior to Final Approach Fix (FAF)):

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

5.7.19.2. **Q** -. Procedures and checklist items required by the flight manual and applicable directives were accomplished with errors or omissions that did not jeopardize mission accomplishment. Slow or hesitant to follow controller's instructions. Over-controlled slightly or occasionally slow in making corrections. Exceeded column A tolerances, **Table 5.10**.

5.7.19.3. **U** . Procedures and checklist items required by the flight manual and applicable directives were accomplished with errors or omissions that jeopardized mission accomplishment. Failed to comply with controller's instructions. Exceeded column B tolerances, **Table 5.10**.

Table 5.10. IFR Traffic Pattern Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Altitude	+/- 100 feet.	+/- 200 feet
Airspeed	+10/- 5 knots	+20/- 5 knots
Course/Heading	+/- 10 degrees	+/- 15 degrees
TACAN Arc	+/- 2 miles	+/- 3 miles

5.7.20. Area 64 -- Non-Precision Approach (FAF/Descent Point to Missed Approach Point):

5.7.20.1. **Q** . Performed procedures as published/directed and IAW the flight manual. Made smooth and timely corrections. Position would have permitted safe landing. Computed/adjusted timing to determine missed approach point (when applicable). Did not exceed column A tolerances, **Table 5.11**.

5.7.20.2. **Q** -. Performed procedures with deviations that did not jeopardize mission accomplishment or compromise safety. Slow to make corrections. Position would have permitted safe landing. Computed/adjusted timing to determine missed approach point (when applicable). Exceeded column A tolerances, **Table 5.11**.

5.7.20.3. **U** . Performed procedures with major deviations. Erratic corrections. Position would not have permitted safe landing. Failed to compute or adjust timing to determine missed approach point. Exceeded column B tolerances, **Table 5.11**.

Table 5.11. Non-Precision Approach Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Altitude	+ 100/- 0 feet (1)	+ 100/- 50 feet (2)
Airspeed	+ 10/- 5 knots	+ 15/- 5 knots
Course/Heading	+/- 5 degrees (3)	+/- 10 degrees (4)
Note: 1. After reaching Minimum Descent Altitude (MDA) and prior to the Visual Descent Point (VDP) or missed approach point (MAP). 2. After reaching MDA and prior to missed approach point. 3. Or less than half scale course deviation indicator (CDI) deflection. 4. Or less than full-scale CDI deflection.		

5.7.21. Area 66 -- Precision Approach (Glide Slope to Decision Altitude):

5.7.21.1. **Q** . Performed procedures as directed and IAW the flight manual. Smooth and timely response to controller's instructions. Established initial glide path and adjusted for deviations throughout the approach and glide slope. Complied with decision altitude. Position would have permitted a safe landing. Did not exceed column A tolerances, **Table 5.12**.

5.7.21.2. **Q** -. Performed procedures with some deviations. Slow to respond to controller instructions. Slow to establish initial glide path and adjust for deviations throughout the approach. Complied with decision altitude. Position would have permitted a safe landing. Exceeded column A tolerances, **Table 5.12**.

5.7.21.3. **U** . Performed procedures with major deviations. Erratic corrections. Did not comply with decision altitude and/or position would not have permitted a safe landing. Exceeded column B tolerances, **Table 5.12**.

Table 5.12. Precision Approach Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Airspeed	+10/-5 knots	+15/-5 knots
Heading	Within 5 degrees of controller's instructions	Within l0 degrees of controller's instructions
Glide Slope Deviation	Within 1 dot	Within 2 dots above and 1 dot below
Course Deviation	Within 1 dot	Within 2 dots

5.7.22. Area 67 -- Missed Approach:

5.7.22.1. **Q** . Executed missed approach as published/directed. Completed all procedures IAW the flight manual. Did not exceed column A tolerances, **Table 5.13**.

5.7.22.2. **Q** -. Executed missed approach with deviations that did not jeopardize mission accomplishment or compromise safety. Slow to comply with published procedures, controller instructions or flight manual procedures. Exceeded column A tolerances, **Table 5.13**.

5.7.22.3. **U** . Executed missed approach with major deviations that jeopardized mission accomplishment or compromised safety. Failed to comply with published procedure, controller's instructions, or flight manual procedures. Exceeded column B tolerances, **Table 5.13**.

Table 5.13. Missed Approach Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Level Off Altitude	+/- 100 feet	+/- 200 feet
Airspeed	+ 15/- 5 knots	+ 20/- 5 knots
Course/Heading	+/- 5 degrees	+/- 10 degrees

TACAN Arc	+/- 2 miles	+/- 3 miles

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

5.7.23.1. **Q** . Performed the traffic pattern, turn, and/or visual approach IAW procedures outlined in the flight manual and local directives. Established initial glide path and adjusted for deviations throughout the approach and glide path. Maintained centerline control and adjusted for deviations throughout the approach. Complied with appropriate altitude restrictions. Position would have permitted a safe landing. Aircraft control was smooth and positive. Constantly cleared area of intended flight. Did not over/undershoot final approach. Did not exceed column A tolerances, **Table 5.14**.

5.7.23.2. **Q** -. Performed the traffic pattern, turn, and/or visual approach with some deviations from procedures outlined in the flight manual and local directives. Slow to establish initial glide path and adjust for deviations throughout the approach. Slow to correct deviations in centerline control throughout the approach. Complied with appropriate altitude restrictions. Position would have permitted a safe landing. Aircraft control was not consistently smooth and positive, but safe. Adequately cleared area of intended flight. Over/undershot final approach slightly. Exceeded column A tolerances, **Table 5.14**.

5.7.23.3. **U** . Performed procedures with major deviations. Erratic corrections and/or aircraft control. Did not comply with appropriate altitude restrictions and/or position would not have permitted a safe landing. Turn to final and/or final approach not performed IAW procedures outlined in the flight manual and local directives. Over/undershot final approach by a wide margin. Exceeded column B tolerances, **Table 5.14**.

Table 5.14. VFR Approach Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Altitude	+/- 100 feet	+/- 200 feet
Airspeed	+ 10/- 5 knots	+ 15/- 5 knots
Final Approach	+/- l mile of recommended length or as appropriate	+/- 1 mile of recommended length or as appropriate

5.7.24. Area 21 -- Simulated Engine(s) Out Pattern/Landing:

5.7.24.1. **Q** . Performed pre-landing checks, traffic pattern, approach/landing IAW procedures outlined in the flight manual, checklist, and other directives. Aircraft control was positive and smooth. Touched down within desired area. Did not exceed column A tolerances, **Table 5.15**.

5.7.24.2. **Q** -. Procedural errors were made during pre-landing checks, traffic pattern, approach/landing which did not affect safety. Landed left or right of centerline. Touchdown was within desired area. Exceeded column A tolerances, **Table 5.15**.

5.7.24.3. **U** . Pattern poorly flown. Failed to recognize and apply corrections to avoid over/undershoots. Did not comply with procedures outlined in the flight manual, checklist, and other directives. Exceeded column B tolerances, **Table 5.15**.

Table 5.15. Simulated Engine(s) Out Pattern/Landing Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Pattern Altitude	+/- 100 feet	+/- 200 feet
Airspeed	- 5/+ 15 knots	- 5/+ 20 knots

5.7.25. Area 19 -- Simulated Engine(s) Out Go-Around:

5.7.25.1. **Q** . Initiated and performed go-around promptly IAW the flight manual. Acquired and maintained a positive climb. Did not exceed column A tolerances, **Table 5.16**.

5.7.25.2. **Q** -. Slow or hesitant to initiate go-around. Procedural errors did not affect safety. Acquired and maintained a positive climb. Exceeded column A tolerances, **Table 5.16**.

5.7.25.3. **U** . Did not initiate go-around procedures when appropriate or directed. Applied unsafe or incorrect procedures. Exceeded column B tolerances, **Table 5.16**.

Table 5.16. Simulated Engine(s)-Out Go-Around Tolerances.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Climb Airspeed	+ 15/- 5 knots	+ 20/- 5 knots
Course/Heading	+/- 10 degrees	+/- 15 degrees

5.7.26. Area 624 -- Initial Buffet/Stick Shaker Recovery (SIM Only). At least one of the following three profiles must be used to evaluate Area 46: Orbit, Traffic Pattern Maneuvering, or Final Approach. **(T-2)**.

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

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

5.7.26.3. **U** . Failed to recognize initial buffet. Aircraft progressed to stalled condition before recovery was initiated. Recovery was erratic or jeopardized safety of flight. Applied improper recovery procedures.

5.7.27. Area 25 -- Landing (Normal):

5.7.27.1. **Q** . Performed landing IAW procedures outlined in the flight manual and local directives.

5.7.27.1.1. AC/FP/CP. Touchdown was within desired area, on centerline. Ensured adequate runway length to permit a safe stop. Smooth, positive aircraft control throughout touch-and-go.

5.7.27.2. **Q** -. Performed landing with deviations to procedures outlined in the flight manual and local directives.

5.7.27.2.1. AC/FP/CP: Touchdown was within desired area. Did not land on centerline.

5.7.27.3. **U** . Landing/touch-and-go was not IAW flight manual procedures, operational restrictions, or local directives.

5.7.27.3.1. AC/FP/CP: Failed to ensure adequate runway length. Did not correct to centerline. Potentially dangerous.

5.7.28. Area 26 -- After Landing:

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

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

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

5.7.29. Area 102 – Pilot Monitoring

5.7.29.1. **Q** . Effectively monitors aircraft configuration, energy state, performance, radios, and flight path. Supports Pilot Flying (PF) by advising and intervening, as appropriate. Complies with applicable flight policies and procedures and makes required flight callouts (e.g., mandatory advisory calls, Verbalize, Verify, Monitor (VVM)). Remains vigilant to identify, communicate, and mitigate events or distractions that may adversely affect safe flight operations. Watchful of and communicates erroneous or conflicting aircraft instrumentation, incongruent control inputs, and inaccurate navigational information. Effectively addresses aircraft system failures and any unexpected aircraft flight guidance, performance, or configuration.

5.7.29.2. **Q** -. Does not fully monitor aircraft configuration, energy state, performance, radios, or flight path. Slow to support PF by advising and intervening, as appropriate. Flight policies or procedures are not fully applied and required flight callouts (e.g., mandatory advisory calls, VVM) are inconsistent. Vigilance in identifying, communicating, and mitigating events or distractions is sporadic but does not adversely affect flight safety. Inconsistencies in communicating erroneous or conflicting aircraft instrumentation, incongruent control inputs, or inaccurate navigational information. Intermittently addresses aircraft system failures and any unexpected aircraft flight guidance, performance, or configuration.

5.7.29.3. **U** . Fails to support or advise the PF regarding aircraft configuration, energy state, performance, radios, or flight path. Does not intervene, as appropriate. Application of flight policies or procedures is insufficient and required flight callouts (e.g., mandatory advisory calls, VVM) are not made. Vigilance in identifying, communicating, and mitigating events/distractions is inadequate and jeopardizes flight safety. Fails to address aircraft system failures and any unexpected aircraft flight guidance, performance, or configuration.

Chapter 6

BATTLE MANAGEMENT TEAM EVALUATIONS

6.1. General. This chapter contains the task-oriented criteria for all Battle Management Team (BMT) evaluations IAW AFMAN 11-202V2 and DAFMAN 11-401. Evaluation requirements are outlined in matrices for ABM, and MSO. Because the battle management evaluation criteria below cannot explicitly address every battle management task/scenario/mission that E-3 crews may be required to execute, evaluators must use discretion to determine whether the examinee demonstrated the desired/appropriate level of knowledge or ability to satisfy the following evaluation criteria.

6.1.1. Examinees who possess the "Section Lead" (SL) certification are responsible for mission accomplishment and will be assessed broadly on their ability to plan, brief/debrief, and lead their section/crew.

6.1.2. If the examinee accomplishes all areas required for both the QUAL and MSN evaluation during the flight, the evaluation will be annotated as a QUAL/MSN evaluation. **(T-2)**

6.2. Qualification Evaluation Objectives. QUAL evaluations will occur on a live E-3G Sortie. Examinees must be graded live-in-flight in at least one of the following areas: Control (29), Active Sensor Operations (98), Electronic Support Measures (ESM) Operations (842), or Data Link Operations (42) (if certified). Any of areas 29, 98, 842, or 42 not accomplished in flight may be completed in the ATD. Local profile guides will identify which ATD events are appropriate to satisfy evaluation criteria for areas 29, 98, 842, and 42. Reference **Table 6.1**.

6.2.1. Air Battle Manager (ABM). ABM QUAL evaluations assess tactical aircraft control and E-3G system skills during checkout, configuration, and employment.

6.2.2. Mission Systems Operator (MSO). MSO QUAL evaluations assess sensor data interpretation, datalink operation, and execution of aircraft identification. Criteria established in **paragraph 6.4** MSO QUAL evaluations will also assess an examinee's ability to integrate with ABMs in the execution of aircraft identification and tactical aircraft control. MSO performance standards for Area 98, Sensor Operations, and Area 842, ESM Operations, are defined more narrowly than ABM performance standards. The narrower scope of these evaluation areas are clearly indicated in graded area definitions by the verbiage "MSOs only evaluated to the following:" However, MSOs who possess either the "Active Sensor" or "Passive Sensor" certification on the squadron's LoX will be evaluated to the entire graded area criteria on-par with baseline ABM performance standards.

6.2.3. Section Supervision. Examinee must perform duties of their highest certification and is evaluated on their ability to plan and successfully lead their section according to the mission profile (see **paragraph 2.4**). **(T-2)** This includes Mission Planning, Mission Execution, and Debrief. SL examinees must lead a BMT providing tactical control of aircraft or lead the entire crew as SLIC. QUAL/MSN Eval Only: SL examinees may lead a team providing complex Battle Management functions towards execution of Large Force Exercise (LFE) Mission Objectives (e.g., Data Fusion Team SL Integrating E-3 Sensors with external intelligence assets at a Flag level exercise).

6.3. Mission Evaluation Objectives. The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and

operating procedures to ensure successful employment and mission accomplishment. **(T-2)** Mission evaluations will encompass all areas identified in **Table 3.1** and **Table 6.1**. **(T-2)** Mission evaluations will be conducted on a live E-3G sortie whenever possible, but may be accomplished in the ATD as required. **(T-2)**

6.3.1. ABM examinee will:

6.3.1.1. Conduct battle management activity during any E-3 role, mission, or task as determined by the flight examiner. **(T-3)** Evaluation sortie profiles will be defined by the unit and will include mission characteristics defined in **paragraph 2.4**. **(T-3)**

6.3.1.2. Perform duties of the position of their highest qualification and all certifications while conducting control activity during a tactical or air sovereignty scenario. **(T-2)** Activity must demonstrate prosecution of the air battle through completion of tasks IAW applicable directives effectively managing the mission/battle through fighter flow, tanker management, communications (external agency coordination and control), ESM systems, and/or applicable data-link coordination. **(T-2)**

6.3.2. MSO examinee will act as a Battle Management Area (BMA) assist supporting an Air-to-Air, Planned Air-to-Ground/-Surface, Dynamic Air-to-Ground/-Surface controller, or ESM mission profile as determined by the examiner IAW **paragraph 2.4**. **(T-3)**

6.3.3. If an instructor examinee instructs during a mission evaluation, the examinee still has the requirement to perform primary duties during that mission evaluation. **(T-2)**

6.3.4. Section Supervision. SL examinees must lead a BMT providing tactical control of aircraft or integration of Command and Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) assets (e.g., leading a Data Fusion BMT). **(T-2)** SLIC examinees must lead the entire crew in overall mission execution, but may also be required to supervise control or sensor tasks based on the mission profile. **(T-2)** This includes Mission Planning, Mission Execution, and Debrief. SL examinees must lead a BMT providing tactical control of aircraft, integration of C2ISR assets (e.g., leading a Data Fusion BMT).

6.4. Criteria. All areas in this section will be graded using the grading policy in AFMAN 11-202V2 and any criteria listed within the individual areas. **(T-2)**

Table 6.1. Battle Management Team Evaluation Requirements.

AREA	DESCRIPTION	ABM	MSO
295	Outbound/Inbound Procedures	Q	Q
298	Assuming Station Responsibilities	Q, M	Q, M
831	AWACS Monitor Procedures	Q (6)	Q (6)
755	Console Operations and Displays	Q, M	Q, M
17	Air Refueling Procedures	Q (6)	Q (6)
855	Transferring Station Responsibilities	M	M
856	Mission Execution / Battle Management	M	M
93	SPINS / ROE / ACO	M	M
796	Section Supervision	Q (1,4,7), M (1)	
29	Control	Q (7), M(2)	Q (7), M(2)
98	Active Sensor Operations	Q (5,7), M(2)	Q (7), M (2)

42	Data Link Operations	Q (3,7), M (2)	Q (3,7), M (2)
96	EA/EP Procedures	Q (6,7), M (2)	Q (6,7), M (2)
842	ESM Operations	Q (5,7), M (2)	Q (7), M (2)
843	Integration of Intelligence Assets	M(2)	
846	Signal of Interest (SOI) Location and Reporting	M(2)	M(2)

Note:

1. Required for Section Lead (SL)-certified ABM.

2. Must only be evaluated on the MSN evaluation if observed.

3. To be evaluated if certified in this area.

4. Completing this area requires supervision of at least one of the following: Active Sensor Operations (Area 98), Data Link Operations (Area 42), ESM Operations (Area 842), Control (Area 29), or overall, Mission Crew Supervision (Section Lead in Charge).

5. Supervising a BMT performing areas 98, 42, or 842 also satisfies completion of the associated graded area(s). Section Supervision is the first level of supervision above the Battle Management task or sensor employment. Supervising a BMT perform Area 29 does not satisfy accomplishment of Area 29 during the examinees QUAL.

6. May be accomplished verbally.

7. May be accomplished in the ATD. Local profile guides will identify which ATD events are appropriate to satisfy evaluation criteria for the event.

Key:

Q - Examinee must accomplish all requirements identified as a QUAL evaluation. **(T-2)**

M - Examinee must accomplish all requirements identified as a MSN evaluation. **(T-2)**

6.4.1. Area 295 -- Outbound/Inbound Procedures:

6.4.1.1. **Q** . Coordinated, directed or performed equipment set up and checkout procedures IAW applicable directives. Reported status of console, communications, and other operator-tasked equipment in a timely manner. Performed inbound procedures IAW applicable directives. Notified/debriefed internal/external agencies/participants.

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

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

6.4.2. Area 298 -- Assuming Station Responsibilities:

6.4.2.1. **Q** . Accomplished or confirmed sensor/systems checkout and assumed station responsibility IAW applicable directives and in a timely manner.

6.4.2.2. **Q** -. Performed station assumption tasks with errors or omissions that did not jeopardize mission accomplishment.

6.4.2.3. **U** . Performed station assumption tasks with errors or omissions that jeopardized mission accomplishment.

6.4.3. Area 831 – Airborne Warning and Control System (AWACS) Monitor Procedures:

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

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

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

6.4.4. Area 755 -- Console Operations and Displays:

6.4.4.1. **Q** . Interpreted/initiated/updated data for console operations and displays IAW applicable directives. Operated console to accomplish mission while utilizing the console to optimize situational awareness.

6.4.4.2. **Q** -. Interpreted/initiated/updated data for console operations and displays IAW applicable directives with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

6.4.4.3. **U** . Interpreted/initiated/updated data for console operations and displays IAW applicable directives with errors or omissions that jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that jeopardized mission accomplishment.

6.4.5. Area 17 -- Air Refueling Procedures:

6.4.5.1. **Q** . Accomplished/performed air refueling procedures IAW applicable directives and in a timely manner.

6.4.5.2. **Q** -. Accomplished/performed air refueling procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

6.4.5.3. **U** . Accomplished/performed air refueling procedures with errors, omissions, or delays that jeopardized mission accomplishment.

6.4.6. Area 855 -- Transferring Station Responsibilities:

6.4.6.1. **Q** . Established communications with relieving unit, verified link status, and ensured effective transfer of link responsibility to relieving unit was accomplished when applicable. Established priorities and coordinated responsibilities for tactical action, briefed relieving unit on appropriate information and tactical situation, and or confirmed relieving unit had assumed station responsibilities and directed termination of data links as required.

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

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

6.4.7. Area 856 -- Mission Execution/Battle Management:

6.4.7.1. **Q.** Developed/implemented a plan of execution that provided appropriate support to other sections of the crew and external agencies to accomplish mission objectives. Supervised/performed required tasks and mission IAW applicable directives. Supervised/performed required tell functions IAW mission tasking and as directed. Conducted the mission with a sense of understanding and comprehension.

6.4.7.2. **Q** -. Executed/led the assigned mission with errors, omissions or delays that did not jeopardize overall mission accomplishment. Resources were not effectively used to the point that specific mission objectives were not achieved. Displayed minor deviations from regulations/directives and/or was slow to prepare/lead in assigned battle management functions. Maintained documentation and logs with errors or omissions that did not jeopardize mission accomplishment. Supervised/performed required tell functions with errors or omissions that did not jeopardize mission accomplishment.

6.4.7.3. **U** . Decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Errors, omissions or delays jeopardized mission accomplishment. Demonstrated poor judgment to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated. Failed to maintain documentation that jeopardized mission accomplishment. Failed to prepare and/or lead in assigned battle management functions. Supervised/performed required tell functions with errors or omissions that jeopardized mission accomplishment.

6.4.7.4. Section Lead (SL):

6.4.7.4.1. **Q** . Led the crew/section in the prosecution of the air battle through mission planning and execution of operations orders (OPORDs)/operations plans (OPLANs) IAW applicable directives. Effectively managed the mission/battle within their crew/section through applicable fighter flow, tanker management, sensor employment, target management, communications, and production of a recognizable air picture. Ensured the crew/section controlled assigned missions to the level requested and/or followed the continuum of control to the maximum extent possible. Ensured that situation/threat information was provided to aircraft in a timely and accurate manner. Allocated resources IAW tactical situations or directives. Maintained appropriate documentation and logs.

6.4.7.4.2. **Q** -. Planned, executed, and led the assigned mission with errors, omissions or delays that did not jeopardize overall mission accomplishment. Resources were not effectively used to the point that specific mission objectives were not achieved. Displayed minor deviations from regulations/directives and/or was slow to prepare/lead in assigned battle management functions. Maintained documentation and logs with errors or omissions that did not jeopardize mission accomplishment.

6.4.7.4.3. **U** . Decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Errors, omissions or delays jeopardized mission accomplishment. Demonstrated poor judgment to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated. Failed to maintain documentation that jeopardized mission accomplishment. Failed to prepare and/or lead in assigned battle management functions.

6.4.8. Area 93 -- Special Instructions (SPINS)/Rules of Engagement (ROE)/Airspace Control Order (ACO):

6.4.8.1. **Q** . Implemented SPINS, ROE, ACO and/or other tactical documents associated to the scenario. Identification (e.g., Bogey, Bandit, Hostile) procedures, engagement authorization, search and rescue (SAR) procedures, and/or other SPINS guidance were understood, briefed, and/or executed as appropriate in a timely manner. Maintained situational awareness on implemented procedures.

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

6.4.8.3. **U** . Implemented SPINS, ROE, ACO and/or other tactical documents associated to the scenario with errors or omissions that jeopardized mission requirements. Identification (e.g., Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood, briefed, and/or executed with errors, omissions or delays that jeopardized mission accomplishment. Failed to maintain an acceptable level of situational awareness on implemented procedures.

6.4.9. Area 796 -- Section Supervision:

6.4.9.1. **Q** . Supervised to the extent needed to achieve mission accomplishment IAW applicable governing documents/mission objectives. Ensured section/crew under supervision had radios, sensors, systems, and situational awareness necessary to execute assigned battle management duties or provide tactical control of aircraft. Effectively prioritized section/crew tasks IAW tactical situations or directives. Reacted to sensor/system errors in a timely manner to mitigate mission impacts. Facilitated/conducted thorough trouble-shooting to attempt to restore normal operations. Intervened when necessary to correct inadequate section/crew performance.

6.4.9.2. **Q** -. Supervised section/crew with errors, omissions, or delays that did not jeopardize mission accomplishment.

6.4.9.3. **U** . Supervised section/crew with errors, omissions, or delays that jeopardized mission accomplishment.

6.4.10. Area 29 -- Control:

6.4.10.1. ABM:

6.4.10.1.1. **Q** . Controlled aircraft consistent with continuum of control through all mission phased communications. Kept controlled aircraft informed of the tactical situation (to include changes in targets and enemy order of battle) IAW approved formats. Oriented/paired controlled aircraft to factor groups, threats, or ground targets. Threat information was timely and aided in mission accomplishment. Positioned aircraft to accomplish mission objectives IAW AFI 11-214, *Air Operations Rules and*

Procedures and/or AFTTP 3-1.AWACS, and consistent with aircraft capabilities, ROE, operations directives, and battle staff direction.

6.4.10.1.2. **Q** -. Controlled aircraft or conducted airspace control with errors or omissions that did not jeopardize mission accomplishment.

6.4.10.1.3. **U** . Controlled aircraft or conducted airspace coordination with errors or omissions that jeopardized mission accomplishment.

6.4.10.2. MSO:

6.4.10.2.1. **Q** . Accomplished assigned BMT duties and contracts, aided in mission accomplishment and passage of timely identification and threat information. Assisted in control of aircraft consistent with continuum of control and considered the enemy order of battle. Proactively passed information to crew members in support of assigned mission(s). Supervised/conducted tracking and/or resolved track attention conditions as required.

6.4.10.2.2. **Q-** . Performed assigned BMT duties and passed information with delay(s) to crew members with errors or omissions that did not jeopardize mission accomplishment. Supervised/conducted tracking or resolution of track attention conditions with errors or omissions that did not jeopardize mission accomplishment.

6.4.10.2.3. **U** . Performed assigned BMT duties and passed information with delay(s) to crew members with errors or omissions that jeopardized mission accomplishment.

6.4.11. Area 98 -- Active Sensor Operations:

6.4.11.1. **Q** Configured and optimized sensors to accomplish assigned mission. Demonstrated an understanding of sensor theory. Employed, monitored, recognized, took corrective measures, and reported degraded sensor performance. Coordinated with section lead and/or technicians to identify and correct sensor problems. Correctly interpreted sensor data to execute assigned battle management tasks. Demonstrated an understanding of sensor processing and optimization.

6.4.11.1.1. MSO: **Q**. Correctly interpreted sensor data to execute assigned battle management tasks. Demonstrated an understanding of sensor processing and optimization.

6.4.11.2. **Q-** . Configured/optimized, employed, and/or analyzed sensors with errors, omissions or delays that did not jeopardize mission accomplishment. Demonstrated minor deviations regarding sensor theory, processing, and/or optimization.

6.4.11.3. **U** . Failed to properly configure/optimize sensors for assigned mission. Employed and/or analyzed sensors with errors, omissions or delays that jeopardized mission accomplishment. Demonstrated a lack of understanding of sensor theory, processing, and/or optimization.

6.4.12. Area 42 -- Data Link Operations:

6.4.12.1. **Q** . Supervised and/or configured, operated, and terminated data links IAW applicable directives. Ensured data links were established and maintained IAW applicable directives as required. Analyzed/troubleshot data link operations as required. Assisted in troubleshooting link hardware problems as required. Monitored data link coordination net

and/or track supervision net as required. Displayed a thorough understanding of data link operations.

6.4.12.2. **Q** -. Supervised and/or performed data link procedures with errors, omissions, or delays that did not jeopardize mission accomplishment. Displayed minor deviations stemming from a misunderstanding of data link operations.

6.4.12.3. **U** . Failed to supervise and/or configure, operate, maintain or terminate data links IAW published directives. Performed data link operations with errors or omissions that jeopardized mission accomplishment. Displayed inadequate understanding of data link operations.

6.4.13. Area 96 – Electronic Attack (EA)/Electronic Protect (EP) Procedures:

6.4.13.1. **Q** . Recognized, located, tracked, and reported EA emitters and/or countered radar, Identification, Friend or Foe (IFF), and/or communications (voice and/or data link) EA. Employed/evaluated effects of EP procedures IAW mission tasking and directives. Assigned/directed the assigned team responses as required.

6.4.13.2. **Q** -. Completed EA/EP Procedures with errors or omissions that did not jeopardize mission accomplishment.

6.4.13.3. **U** . Completed EA/EP Procedures with delays, errors or omissions that jeopardized mission accomplishment.

6.4.14. Area 842 -- ESM Operations:

6.4.14.1. **Q** . Configured and optimized ESM to accomplish assigned mission. Manipulated Passive Detection System (PDS) displays, database, and scan strategy to meet mission requirements. Monitored Primary AWACS Display (PAD) and identified loss of/inconsistent data. Recognized problems and coordinated with Section Lead and/or technicians to identify and correct hardware/PDS modification issues. MSOs only evaluated to the following (ABMs still responsible): Correctly interpreted PDS displays to perform functional analysis, accurate electronic identification, and emitter correlation

6.4.14.2. **Q** -. Performed ESM operations and troubleshooting with errors or omissions that did not jeopardize mission accomplishment. Demonstrated minor deviations regarding scan requirements, frequency priority, database library modifications, and/or optimization.

6.4.14.3. **U** . Failed to properly configure/optimize ESM for assigned mission. Employed and/or analyzed emitter parametrics with errors, omissions or delays that jeopardized mission accomplishment.

6.4.15. Area 843 -- Integration of Intelligence Assets:

6.4.15.1. **Q** . Coordinated via voice or data links with intelligence assets (external agencies, Special Information System (SIS)/Voice Product Net (VPN), internal assets, other) and disseminated information in a manner that enhanced aircrew awareness and mission accomplishment.

6.4.15.2. **Q** -. Coordinated with intelligence assets and disseminated intelligence information with minor errors or omissions that did not degrade aircrew awareness or jeopardize mission accomplishment.

6.4.15.3. **U** . Failed to coordinate with intelligence assets or to disseminate intelligence information. Deviations could have degraded aircrew awareness or jeopardized mission accomplishment.

6.4.16. Area 846 -- Signal of Interest (SOI) Location and Reporting:

6.4.16.1. **Q** . Monitored and updated ESM information in data links. Used active and passive means to locate SOIs. Located ground/surface SOIs, correlated air SOIs, and maintained logs IAW applicable directives. Report SOIs to crew and external agencies as required.

6.4.16.1.1. ABM: Coordinated via voice or data links with intelligence assets (external agencies, SIS/VPN, internal assets, other) and disseminated information in a manner that enhanced aircrew awareness and mission accomplishment.

6.4.16.1.2. MSO: Assisted ABM IAW applicable directives. Coordinated with crew and maintained logs IAW applicable directives.

6.4.16.2. **Q** -. Performed SOI location and reporting with errors or omissions that did not jeopardize mission accomplishment.

6.4.16.3. **U** . Performed SOI location and reporting with errors or omissions that jeopardized mission accomplishment.

Chapter 7

AIRBORNE TECHNICIAN/SYSTEMS OPERATOR EVALUATIONS

7.1. General. This chapter contains the task-oriented criteria for Airborne Technician and Systems Operator evaluations IAW AFMAN 11- 202V2, and DAFMAN 11-401. Evaluation requirements are outlined in matrices for Airborne Radar Technician (ART), Airborne Radio Operator (ARO), and Airborne Data Systems Technician (ADST).

7.2. Evaluation Objectives:

7.2.1. QUAL/MSN evaluations will encompass all areas identified in **Table 7.1** for the position performed. **(T-2)** The examinee must demonstrate a degree of knowledge and proficiency as described in the positional task listing essential for successful mission accomplishment and safety of flight. **(T-2)** Examinee must demonstrate the ability to operate, manage and maintain all equipment associated with the position performed. **(T-2)**

7.2.2. Evaluations will be conducted on a live E-3G sortie. **(T-2)**

7.2.3. Aircraft configuration may dictate that additional systems be evaluated if the examinee has been trained and certified in those systems.

7.2.4. Airborne Radar Technician (ART).

7.2.4.1. ART QUAL/MSN evaluations will be conducted on a live E-3G sortie. **(T-2)**

7.2.4.2. Examinee must demonstrate satisfactory ability to operate and maintain the radar and IFF systems. **(T-2)** This includes loading and operation of Radar Operational Program, post-station checkout using Radar Test or Configuration Evaluation in one chain, two manual test procedures (one using a transmitter sample), and one level of Fault Isolation Test (FIT).

7.2.5. Airborne Radio Operator (ARO).

7.2.5.1. ARO QUAL/MSN evaluations will be conducted on a live E-3G sortie. **(T-2)**

7.2.5.2. Examinee must demonstrate satisfactory ability to operate and maintain the communications systems, Link 11, frequency management, and perform post mission checkout.

7.2.6. Airborne Data Systems Technician (ADST).

7.2.6.1. ADST QUAL/MSN evaluations will be conducted on a live E-3G sortie. **(T-2)**

7.2.6.2. Examinee must demonstrate satisfactory ability to operate and maintain the Mission Computing System (MCS), Link 16, ESM System, Secure Iridium™ Communications (SIC) System, and On-Board Test Monitor and Maintenance System. This includes the loading and operation of MCS Software, Network Area Storage Detox (NASDetox), and Disk Array File Transfer.

7.3. Criteria. All areas in this section will be graded using the grading policy in AFMAN 11-202V2 and any criteria listed within the individual areas. **(T-2)**

Table 7.1. Airborne Technician/Systems Operator QUAL Evaluation Requirements.

AREA	DESCRIPTION	ARO	ADST	ART
3	Before Start/Taxi	Q/M	Q/M	Q/M
295	Outbound/Inbound Procedures	Q/M	Q/M	Q/M
42	Data Link Operations	Q/M	Q/M	
83	Conducting Mission Operations	Q/M	Q/M	
755	Console Operations/Displays	Q/M	Q/M	Q/M
8	On-Station Procedures		Q/M	Q/M
29	General Use Procedures		Q/M	Q/M
828	Peripheral Device Operation		Q/M	
17	Air Refueling Procedures	Q/M	Q/M	Q/M
85	Radio/Telephone (R/T) Procedures	Q/M		
736	Malfunction Analysis/In-flight Maintenance	Q/M	Q/M	Q/M
227	Post Mission System Checkout	Q/M	Q/M	Q/M

Note:

- Tactical Chat (TACCHAT) System will not be evaluated for Init QUAL/MSN.

Key:

Q/M – Examinee must accomplish all requirements identified as QUAL/MSN evaluations. **(T-2)**

7.3.1. Area 3 -- Before Start/Taxi:

7.3.1.1. **Q** . Performed before start/taxi procedures IAW applicable directives.

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

7.3.1.3. **U** . Performed before start/taxi procedures with errors or omissions that jeopardized mission accomplishment.

7.3.2. Area 295 -- Outbound/Inbound Procedures:

7.3.2.1. **Q** . Performed outbound/inbound procedures IAW applicable directives.

7.3.2.2. **Q** -. Performed outbound/inbound procedures with errors or omissions that did not jeopardize mission accomplishment.

7.3.2.3. **U** . Performed outbound/inbound procedures with errors or omissions that jeopardized mission accomplishment.

7.3.3. Area 42 -- Data Link Operations:

7.3.3.1. **Q** . Configured, operated, and terminated data links IAW applicable directives.

7.3.3.2. **Q** -. Configured, operated, or terminated data links with errors or omissions that did not jeopardize mission accomplishment.

7.3.3.3. **U** . Failed to configure, operate, or terminate data links. Performed data link operations with errors or omissions that jeopardized mission accomplishment.

7.3.4. Area 83 -- Conducting Mission Operations:

7.3.4.1. **Q** . Monitored radios and mission nets and performed required changes (e.g., radio/ frequency/baseband distribution panel (BDP)). Performed update switch actions for HAVE QUICK A Net (HQAN), and communications related software IAW applicable directives.

7.3.4.2. **Q** -. Monitored radios or mission nets or performed required changes with errors or omissions that did not jeopardize mission accomplishment. Performed update switch actions for HQAN, Joint Tactical Information Distribution System (JTIDS), and communications related software with errors or omissions that did not jeopardize mission accomplishment.

7.3.4.3. **U** . Failed to monitor radios or mission nets or performed required changes or monitored with errors or omissions that jeopardized mission accomplishment. Failed to perform update switch actions for HQAN, JTIDS, and communications related software, or performed with errors or omissions that jeopardized mission accomplishment.

7.3.5. Area 755 -- Console Operations/Displays:

7.3.5.1. ARO/ADST

7.3.5.1.1. **Q** . Interpreted and updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives.

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

7.3.5.1.3. **U** . Interpreted and updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that jeopardized mission accomplishment.

7.3.5.2. ART

7.3.5.2.1. **Q** . Interprets/analyzes menus and screens to configure radar for optimum system performance. Interprets the Fast Fourier Transform (FFT), Plan Position Indicator (PPI), or Spectrum Analyzer displays IAW applicable directives.

7.3.5.2.2. **Q** -. Interprets/analyzes menus and screens with minor errors, omissions, or delays in an effort to configure radar for optimum system performance that did not jeopardize mission accomplishment. Interprets the FFT, PPI, or Spectrum Analyzer displays with errors or omissions that did not detract from mission operations.

7.3.5.2.3. **U** . Failed to interpret/analyze menus and screens in an effort to configure radar for optimum system performance that jeopardized mission accomplishment. Interpreted the FFT, PPI, or Spectrum Analyzer displays with errors or omissions that could have detracted from mission operations.

7.3.6. Area 8 -- On-Station Procedures:

7.3.6.1. **Q** . Performed on station procedures IAW applicable directives.

7.3.6.2. **Q** -. Performed on station procedures with errors or omissions that did not jeopardize mission accomplishment.

7.3.6.3. **U** . Performed on station procedures with errors, omissions, or delays that jeopardized mission accomplishment.

7.3.7. Area 29 -- General Use Procedures:

7.3.7.1. **Q** . Performed general use procedures IAW applicable directives.

7.3.7.2. **Q** -. Performed general use procedures with errors or omissions that did not jeopardize mission accomplishment.

7.3.7.3. **U** . Performed general use procedures with errors or omissions that jeopardized mission accomplishment.

7.3.8. Area 828 -- Peripheral Device Operation:

7.3.8.1. **Q** . Maintained and operated peripheral devices IAW applicable directives.

7.3.8.2. **Q** -. Maintained or operated peripheral devices with errors or omissions that did not jeopardize mission accomplishment.

7.3.8.3. **U** . Failed to maintain peripheral devices with errors or omissions that jeopardized mission accomplishment.

7.3.9. Area 17 -- Air Refueling Procedures:

7.3.9.1. **Q** . Performed air refueling procedures IAW applicable directives.

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

7.3.9.3. **U** . Performed air refueling procedures with errors or omissions that jeopardized mission accomplishment.

7.3.10. Area 85 -- Radio/Telephone (R/T) Procedures:

7.3.10.1. **Q** . Employed standard R/T procedures IAW applicable directives.

7.3.10.2. **Q** -. Employed standard R/T procedures with errors or omissions that did not jeopardize mission accomplishment.

7.3.10.3. **U** . Failed to employ standard R/T procedures. Used R/T procedures with errors or omissions that jeopardized mission accomplishment.

7.3.11. Area 736 -- Malfunction Analysis/In-Flight Maintenance:

7.3.11.1. **Q** . Recognized and analyzed malfunctions and performed in-flight maintenance IAW applicable directives.

7.3.11.2. **Q** -. Recognized and analyzed malfunctions or performed in-flight maintenance with errors or omissions that did not jeopardize mission accomplishment.

7.3.11.3. **U** . Failed to recognize or analyze malfunctions or performed in-flight maintenance with errors or omission that jeopardized mission accomplishment.

7.3.12. Area 227 -- Post Mission System Checkout:

7.3.12.1. **Q** . Loaded and executed diagnostic programs, interpreted and responded to indicators and codes IAW applicable directives.

7.3.12.2. **Q** -. Loaded or executed diagnostic programs, interpreted and responded to indicators and codes with errors, omissions, or delays that did not jeopardize maintenance analysis or mission accomplishment.

7.3.12.3. **U** . Failed to correctly load or execute diagnostic programs or failed to respond to indicators or codes. Misinterpreted or responded to indicators or codes with errors, omissions, or delays that jeopardized maintenance analysis or mission accomplishment.

Chapter 8

*TEST UNIT MULTIPLE QUALIFICATION

8.1. ACC E-3 Flight Deck Multiple Qualification Authorization For Test Units. Due to unique mission requirements, pilots and flight engineers permanently assigned to an ACC recognized test unit are authorized to gain and maintain a Multiple Qualification for AWACS DRAGON (DMA) and non-DMA aircraft.

8.1.1. ACC recognizes the 605 TES/Det 1 (ACC component of AWACS Combined Test Force) test unit.

8.2. Air Force Material Command (AFMC) E-3 Qualifications. Aircrew members permanently assigned to AFMC units do not require separate DMA and non-DMA qualifications. AF Form 8 shall have "E-3" as the designated Mission Design Series (MDS). Upon completion of conversion training in each variant of a 707/E-3/E-8 MDS aircraft the aircrew member's, pilot or flight engineer, qualification is considered to be a single qualification that covers all variants.

8.3. Initial Multiple Qualification. Pilots and flight engineers permanently assigned to ACC test unit must have one of the following combinations of training or qualifications to gain a Multiple Qualification:

8.3.1. Be identified on an Initial Cadre Letter that authorizes dual qualification in DMA and non-DMA E-3.

8.3.2. Possess a current multiple qualification in a DMA and Non-DMA E-3.

8.3.3. Possess a current qualification in a Non-DMA USAF E-3 and have executed an approved training plan in a DMA aircraft.

8.3.4. Possess a current qualification in a DMA USAF E-3 and have executed an approved training plan in a non-DMA aircraft.

8.4. Requalification to gain Initial Multiple Qualification. E-3 Pilots and Flight Engineers previously qualified in a USAF E-3 who were not DMA initial cadre, dual qualified (DMA/non-DMA), or E-3 multiple qualified will execute the training and qualifications IAW AFMAN 11-2E-3GV1 and this manual. **(T-2)** AFMAN 11-2E-3GV1 requirements must only be accomplished in one MDS (DMA or Non-DMA) reference **Table 4.7** Additionally, the aircrew member will execute an approved training plan for the MDS series they did not receive their Requalification evaluation in.

8.5. Requalification for Multiple Qualification. Previously Multiple Qualified USAF E-3 pilots and flight engineers who are currently unqualified will execute the training and qualifications as stated in AFMAN 11-2E-3GV1 and this manual. Requalification in one series will result in a multiple qualification.

8.6. ACC Recognized Test Units. NATO/NAEW E-3 Pilots and Flight Engineers gained by test units do not require an evaluation in a DMA aircraft for DMA qualification if the individual has a current NATO E-3 qualification. The individual's previous NATO/NAEW Communication, Navigation, Surveillance (CNS)/Air Traffic Management (ATM) qualification can be accepted by the unit's SQ/CC if a NATO USAF difference training plan is accomplished. The NATO-USAF Difference-Training, must at a minimum, include:

8.6.1. One flight in the CONUS. **(T-2)**

8.6.2. Squadron approved academic training plan that includes that addresses CNS/ATM vs DRAGON differences. **(T-2)**

8.6.3. USAF flight regulations review to include AFMAN 11-202V1/2/3, AFMAN 11-2E-3GV1/2/3, applicable wing and group supplements, and local aircrew aids. **(T-2)**

8.6.4. Additional flights and simulator sessions will be determined by the gaining unit in coordination with the unit's respective OGV. **(T-2)**

8.6.5. NATO/NAEW qualification expiration will be IAW AFMAN 11-202V2 and applicable MAJCOM supplements. **(T-2)** This only pertains to qualification on DMA aircraft. See **paragraph 8.3.2** for gain of Multiple Qualification.

8.7. Periodic Evaluations. For periodic evaluations DMA or non-DMA requisite events will count as both DMA and non-DMA events. Pilots and flight engineers can take the DMA or non-DMA closed/open book exam, can execute a DMA or non-DMA requisite EPE and can execute the annual evaluation in a DMA or non-DMA aircraft.

8.8. Evaluation Documentation:

8.8.1. ACC test unit aircrews who gain/maintain a single qualification annotate "E-3 B/C/G" or "E-3GII" for non-DMA and DMA qualifications respectively in the MDS block on the AF Form 8.

8.8.1.1. ACC test unit aircrews who gain/maintain a multiple qualification will:

8.8.1.1.1. Annotate "E-3" in the MDS block. **(T-2)**

8.8.1.1.2. Annotate "Multiple Qualification" if member is multiple qualified in DMA and non-DMA E-3 aircraft" in Comments (Section VII) under Examiners Remarks: A. Mission Description.

CHARLES S. CORCORAN, Maj Gen, USAF
Acting DCS, Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 11-214, *Air Operations Rules and Procedures*, 8 July 2020

AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, 3 May 2022

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

AFMAN 11-202V2, *Aircrew Standardization and Evaluation Program*, 30 August 2021

AFMAN 11-202V3, *Flight Operations*, 10 January 2022

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

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

AFMAN 11-2E-3V1, *E-3 Aircrew Training*, 20 June 2020

AFMAN 11-2E-3V3, *E-3 Operations Procedures*, 20 October 2020

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

AFTTP 3-1.AWACS, *Tactical Employment*, 21 August 2020

AFTTP 3-3.AWACS, *Combat Fundamentals AWACS*, 21 August 2020

ATP 3.3.4.2, *Air-to-Air Refueling*, 26 April 2019

DAFMAN 11-401, *Aviation Management*, 27 October 2020

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

DoD 5400.11-R, *Department of Defense Privacy Program*, 14 May 2007

Adopted Forms

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 847, *Recommendation for Change of Publication*

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

Abbreviations and Acronyms

AAR—Air-to-Air Refueling

ABM—Air Battle Manager

AC—Aircraft Commander

ACC—Air Combat Command

ACO—Airspace Control Order

ADST—Airborne Data Systems Technician

AF—Air Force

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFTTP—Air Force Tactics, Techniques, and Procedures

APU—Auxiliary Power Unit

ARMS—Aviation Resource Management System

ARO—Airborne Radio Operator

ART—Airborne Radar Technician

ATC—Air Traffic Control

ATD—Aircrew Training Device

ATM—Air Traffic Management

ATP—Allied Tactical Publication

AWACS—Airborne Warning and Control System

BDP—Baseband Distribution Panel

BMA—Battle Management Area

BMT—Battle Management Team

C2ISR—Command and Control, Intelligence, Surveillance, and Reconnaissance

CAPs—Critical Action Procedures

CDI—Course Deviation Indicator

CFP—Computer Flight Plan

CNS—Communications, Navigation, and Surveillance

COMSEC—Communications Security

CONUS—Continental United States

CP—Copilot

CRM—Cockpit/Crew Resource Management

DAF—Department of the Air Force

DAFI—Department of the Air Force Instruction

DAFMAN—Department the Air Force Manual

DD—Department of Defense

Det—Detachment

DETCO—Detachment Commander

DLO—Data Link Operator

DMA—DRAGON Modified Aircraft

DRAGON—Diminishing Manufacturing Sources (DMS) Replacement of Avionics for Global Operations and Navigation

DRU—Direct Reporting Unit

E—Evaluator—when used as a prefix for a crew position

EA—Electronic Attack

EP—Electronic Protect

EPE—Emergency Procedures Evaluation

EPR—Exhaust Pressure Ratio

ESM—Electronic Support Measures

FFT—Fast Fourier Transform

FAF—Final Approach Fix

FCIF—Flight Crew Information File

FE—Flight Engineer

FFS—Full Flight Simulator

FIT—Fault Isolation Test

FLIP—Flight Information Publications

FMS—Flight Management System

FOA—Field Operating Agency

FP—First Pilot

GINS—Global Positioning Integrated Navigation System

GS—Groundspeed

HQAN—HAVE QUICK A Net

IAS—Indicated Airspeed

IAW—In Accordance With

IFA—In-Flight Alignment

IFE—Instructor Flight E

IFF—Identification, Friend or Foe

IFR—Instrument Flight Rules

INAV—Instructor Navigator

INIT—Initial

INSTM—Instrument

INSTR—Instructor

INU—Inertial Navigation Unit

IP—Instructor Pilot

IRP—Instrument Refresher Program

JTIDS—Joint Tactical Information Distribution System

LFE—Large Force Exercise

LOP—Local Operating Procedures

LoX—Letter of X

MAC—Mean Aerodynamic Chord

MAJCOM—Major Command

MAP—Missed Approach Point

MCS—Mission Computing System

MDA—Minimum Descent Altitude

MSN—Mission

MSO—Mission Systems Operator

MQF—Master Question File

N/A—Not Applicable

N/N—No-Notice evaluations

NAEW—NATO Airborne Early Warning

NASDetox—Network Area Storage Detox

NAV—Navigator

NATO—North Atlantic Treaty Organization

NAVAIDS—Navigational Aids

NM—Nautical Mile(s)

OFT—Operational Flight Trainer

OPLAN—Operational Plan

OPORD—Operational Order

ONC—Operational Navigation Chart

OPR—Office of Primary Responsibility

OPSEC—Operational Security

OPTASKLINK—Operational Tasking Data Link

PACAF—Pacific Air Forces

PAD—Primary AWACS Display

PDF—Passive Detection System

PF—Pilot Flying

PPI—Plan Position Indicator

QUAL—Qualification

RNAV—Area Navigation

ROE—Rules of Engagement

RQ—Requalification

R/T—Radio/Telephone

SAR—Search and Rescue

SIC—Secure Iridium™ Communications

SID—Standard Instrument Departure

SIM—Simulator

SIS—Special Information System

SL—Section Lead

SLIC—Section Lead in Charge

SOI—Signals of Interest

SPINS—Special Instructions

SQ/CC—Squadron Commander

Stan/Eval—Standardization and Evaluation

TACCHAT—Tactical Chat

TH—True Heading

TKE—Track Angle Error

TOLD—Takeoff and Landing Data

US—United States

USAF—United States Air Force

VDP—Visual Descent Point

VFR—Visual Flight Rules

VPN—Voice Product Net

VVM—Verbalize, Verify, Monitor

XTK—Cross Track Deviation

Office Symbols

ACC/A3CA—Air Combat Command Airborne Command and Control

ACC/A3TV—Air Combat Command Standardization and Evaluation Branch

AF/A3—Air Force Directorate of Operations

AF/A3T—Air Force Training and Readiness Directorate

AF/A3TF—Air Force Total Force Aircrew Management

GP/CC—Group Commander

SQ/CC—Squadron Commander

966 AACS/CC—966th Airborne Air Control Squadron Commander

Terms

Aircrew—The complete complement of flight and mission crew personnel required to fly an operational mission.

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

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

Flight Crew—The AC, FP, CP, NAV, and FE (Less NAV for DRAGON Modified Aircraft (DMA)).

Instructor—CMR/BMC qualified aircrew member who has been trained to provide instruction in their crew position.

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

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

Mission Crew—Those individuals responsible for the command, control, surveillance, and communications/electronic/management functions to include the control and monitoring of assigned aircraft, sensor management, internal and external communications management, and onboard systems management.

Omission—Leave out a required action.

Proficiency—Demonstrated ability to successfully accomplish tasked event safely and effectively.