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SECRETARY OF THE AIR FORCE**

**AIR FORCE MANUAL 11-2RQ-4,
Volume 2**



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Flying Operations

***RQ-4—AIRCREW EVALUATION
CRITERIA***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This volume implements Air Force Instruction (AFI) 11-200, *Aircrew Training, Standardization/Evaluation and General Operations Structure*. This manual is consistent with Air Force Manual (AFMAN) 11-202, Volume 2, Aircrew Standardization and Evaluation Program. It establishes the minimum Air Force (AF) standards for qualifying and evaluating personnel performing duties in the RQ-4. It applies to all United States Air Force (USAF) active duty and Air Force Reserve personnel who operate USAF RQ-4 air vehicles. This publication does not apply to the Air National Guard or the United States Space Force. 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. Recommendations for improvements to this volume should be submitted on Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication*, through Numbered Air Force (NAF) Standardization/Evaluation (Stan/Eval) channels, to the parent Major Command (MAJCOM) Stan/Eval. Parent MAJCOM Stan/Eval will forward approved recommendations to lead command Office of Primary Responsibility (OPR) (Air Combat Command Standardization and Evaluations Branch (ACC/A3TV), 205 Dodd Blvd, Suite 234, Langley AFB VA 23665-2789). MAJCOMs, Direct Reporting Units (DRUs), and Field Operating Agencies (FOAs) may forward proposed MAJCOM/DRU/FOA-level supplements to this volume through ACC/A3TV to Air Force Flight Standards Agency (AFFSA) for approval prior to publication. This publication may be supplemented at any level, but all supplements must be routed to the OPR of this publication for coordination prior to certification. 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*, Table A10.1, 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 ACC/A3TV for non-tiered compliance items.

SUMMARY OF CHANGES

This document has been revised and should be completely reviewed. Major changes include realigning [paragraph 2.4.2](#) and associated subparagraphs under [paragraph 2.4.1.8](#) to clearly define the minimum requisites for the sensor operator (SO) QUAL/MSN evaluation and removing the EQ-4.

Chapter 1—ROLES AND RESPONSIBILITIES	4
1.1. Flight Examiners (FEs).....	4
1.2. Examinees:.....	4
Chapter 2—EVALUATION REQUIREMENTS	5
2.1. General.....	5
2.2. Formal Course Evaluations.....	5
2.3. Pilot Instrument and Qualification Evaluations.....	6
2.4. Mission (MSN) Evaluations.	6
2.5. Emergency Procedures Evaluations (EPEs).	7
2.6. Instructor Evaluations.....	8
2.7. Difference Qualification Evaluations and Familiarization Certification.	9
Table 2.1. Aircrew Evaluation Grading Areas.....	10
Table 2.2. Emergency Procedure Evaluations.	12
Chapter 3—PILOT EVALUATION CRITERIA	15
3.1. General Grading Standards.....	15
3.2. General Aircrew Evaluation Criteria.	15
Table 3.1. Table of Evaluation Criteria.....	15
Chapter 4—SENSOR OPERATOR (SO) EVALUATION CRITERIA	32
4.1. General Grading Standards.....	32
4.2. Sensor Operator (SO) Grading Criteria.	32
Table 4.1. Sensor Operator (SO) Grading Criteria.	32

Chapter 5—EMERGENCY PROCEDURES EVALUATION (EPE) EVALUATION CRITERIA	44
5.1. General Grading Standards.....	44
5.2. Pilot Emergency Procedures Evaluation (EPE) Grading Criteria.....	44
Table 5.1. Pilot Emergency Procedures Evaluation (EPE) Grading Criteria.....	44
5.3. Sensor Operator (SO) Emergency Procedures Evaluation (EPE) Grading Criteria.	45
Table 5.2. Sensor Operator (SO) Emergency Procedure Evaluation (EPE) Grading Criteria. .	45
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION	48

Chapter 1

ROLES AND RESPONSIBILITIES

1.1. Flight Examiners (FEs).

1.1.1. should exercise judgment when assigning subjective area grades, when assigning the overall qualification level, and when evaluating in situations not covered explicitly by this document.

1.1.2. will brief the examinee on the purpose, conduct, and extent of each evaluation. (T-3)

1.1.3. may assist in evaluation mission planning/briefing as tasked by the examinee.

1.1.4. may evaluate from any flight position necessary to conduct a thorough evaluation.

1.1.5. will apply the grading criteria contained in Chapters 3, 4 and 5 as applicable. (T-1)

1.1.6. will debrief the examinee's overall rating, specific deviations, area grades assigned (if other than qualified), and any required additional training, at a minimum. (T-3) If the result of the evaluation is a Q2 or Q3, the evaluation will be debriefed with the squadron commander. (T-3)

1.1.7. should use all means available to reconstruct, evaluate, and debrief the mission adequately.

1.2. Examinees:

1.2.1. will accomplish required flight planning in accordance with the flight position assigned during the evaluation. (T-2)

1.2.2. will furnish FEs a copy of necessary mission data and mission materials, if appropriate. (T-2)

Chapter 2

EVALUATION REQUIREMENTS

2.1. General. Conduct all evaluations in accordance with (IAW) the provisions of Department of the Air Force Manual (DAFMAN) 11-401, *Aviation Management*; AFMAN 11-202V2, *Aircrew Standardization and Evaluation Program*; and this publication.

2.1.1. Publications Check/Currency of Flight Publications. All evaluations include a currency and accuracy check on the following publications:

2.1.1.1. Electronic Flight Manual (EFM). See [attachment 1](#) for definition of and evaluation procedures for electronic publications.

2.1.1.2. All changes to the data base are issued electronically; therefore, evaluation of the EFM is accomplished by ensuring the individual crewmember has the current EFM accessible on their viewing device.

2.1.1.3. Local In-flight Guide (when applicable).

2.1.1.4. Any additional publications issued to aircrews and specified in AFMAN 11-2ERQ-4 Volume 3, *E/RQ-4 Operations Procedures* or the unit addendum or supplement to AFMAN 11-202V2.

2.1.2. Cockpit/Crew Resource Management (CRM). CRM skills are integral to all phases of flight. Evaluations include assessment of CRM skills using specific CRM grading under Area 22, Crew Coordination. IAW AFMAN 11-290, *Cockpit/Crew Resource Management and Threat & Error Management Program*. CRM skills are listed on the AF Form 4031, *CRM/TRM Skills Criteria Training/Evaluation*. The Stan/Eval trend program can be used to measure the effectiveness of CRM training.

2.1.3. Combined Evaluations. Combined Instrument (INSTM), Qualification (QUAL), and Mission (MSN) evaluations require only one set of ground requisites provided requirements of all evaluations are met.

2.1.4. Required Graded Areas. Required graded areas are annotated in Tables [2.1](#) and [2.2](#), respectively. When it is impractical or impossible to accomplish a required evaluation area in-flight, an alternate method (e.g., simulator, aircrew training device (ATD), or by verbal examination) may be used in order to complete the evaluation. FEs will document the reason and type of alternate method used in the “Additional Comments” portion of the AF Form 8, *Certificate of Aircrew Qualification*. (T-2) If the FE determines the required item cannot be adequately evaluated by an alternate method, an additional flight is required to complete the evaluation. In Tables [2.1](#) and [2.2](#):

2.1.4.1. Areas annotated with an "R" are necessary items for that event.

2.1.4.2. Areas indicated with an “R1” require evaluation of at least one of the items under the associated section.

2.2. Formal Course Evaluations. Syllabus evaluations should be flown IAW syllabus mission profile guidelines, if stated, or on a mission profile developed from syllabus training objectives. FEs may modify course guidelines based on other factors, such as local operating considerations,

in order to complete the evaluation. Formal Course Evaluations will follow the pyramid structure as outlined in the MAJCOM supplement to AFMAN 11-202V2. (T-1)

2.3. Pilot Instrument and Qualification Evaluations.

2.3.1. Procedures.

2.3.1.1. Initial (INIT), re-qualification (RQ), or periodic RQ-4 pilot INSTM and QUAL evaluations may be combined into a single INSTM/QUAL evaluation and may be accomplished in the Launch and Recovery Element (LRE), the Mission Control Element (MCE), or in an approved ATD.

2.3.1.2. Evaluations during exercises or deployments are allowed. A mission flown according to instrument flight rules (IFR), to the maximum extent practical, best fulfills the objective of the INSTM/QUAL evaluation.

2.3.2. Minimum Requisites. The minimum requisites for an INSTM/QUAL evaluation are:

2.3.2.1. Qualification Exam (Closed Book)

2.3.2.2. Qualification Exam (Open Book)

2.3.2.3. Publications Check

2.3.2.4. Emergency Procedures Evaluation (EPE)

2.3.2.5. Instrument examination

2.4. Mission (MSN) Evaluations. All Combat Mission Ready (CMR) RQ-4 crewmembers complete initial and periodic MSN evaluations. Initial MSN evaluations occur after successful completion of the initial INSTM/QUAL evaluation.

2.4.1. Procedures.

2.4.1.1. Squadron Commanders ensure that FEs administer initial MSN evaluations in the primary Designed Operational Capability (DOC) of the unit unless that unit has a different assigned contingency for which to prepare.

2.4.1.2. FEs: Should tailor MSN evaluations IAW current tactics, unit's DOC statement, theater Area of Responsibility (AOR) scenarios, and should incorporate all appropriate evaluation requirements from [Table 2.1](#). The profiles should be designed to evaluate the training/flight position/special qualifications as well as basic airmanship of the examinee.

2.4.1.3. Evaluations during exercises are encouraged.

2.4.1.4. Evaluations during contingency/combat deployments should be given as a last resort in order to maintain mission qualification status.

2.4.1.5. Basic Mission Capable (BMC) aircrew should only be evaluated on those missions routinely performed in accordance with AFMAN 11-2ERQ-4 Volume 1, *E/RQ-4 Crew Training*.

2.4.1.6. Pilots accomplish INIT, RQ, or periodic MSN evaluations in the MCE, or appropriately configured beyond line-of-sight LRE (BLOS LRE) for missions that either do not require a sensor operator or the sensor operator is not collocated.

2.4.1.7. Pilots assigned to permanent party positions at forward operating locations (FOLs) may accomplish periodic MSN evaluations in the LRE, with the evaluation tailored to the mission(s) specific to the location. Pilots that complete MSN evaluations in the LRE remain mission qualified but are restricted to LRE operations only. FEs should document this restriction in the Comments block of the AF Form 8. A RQ MSN evaluation must be accomplished in the MCE to remove the restriction. **(T-3)**

2.4.1.8. For sensor operators (SOs), the MSN evaluation is a combined QUAL/MSN evaluation accomplished in the MCE.

2.4.1.8.1. Minimum Requisites. The following items are requisites for mission evaluations:

2.4.1.8.1.1. Qualification Exam (Closed Book)

2.4.1.8.1.2. Qualification Exam (Open Book)

2.4.1.8.1.3. Publications check

2.4.1.8.1.4. Emergency Procedures Evaluation (EPE)

2.4.1.9. For Pilots (P), The MSN evaluation is a standalone MSN evaluation accomplished in the MCE/LRE.

2.4.1.9.1. Minimum Requisites. The following items are requisites for mission evaluations:

2.4.1.9.1.1. Publications check

2.4.1.9.1.2. Emergency Procedures Evaluation (EPE)

2.5. Emergency Procedures Evaluations (EPEs).

2.5.1. In order of preference, conduct the EPE in a flight simulator/aircrew training device (ATD), cockpit procedure trainer (CPT), or verbally. Only conduct a verbal EPE if a flight simulator/ATD or CPT is not available or not configured appropriately for the evaluation. If this option is utilized, it is noted on the AF Form 8 in the additional comments section. **Chapter 5** of this AFMAN contains the evaluation criteria to determine individual area grades. This evaluation will include areas commensurate with examinee's Ready Aircrew Program (RAP) training level. **(T-3)** If an actual emergency occurs in-flight, these areas may be evaluated in-flight at the discretion of the FE.

2.5.2. The following graded areas are required on all EPEs:

2.5.2.1. General Knowledge. Evaluate pilots and sensor operators on general air vehicle, ground station, and mission systems knowledge as relevant to their crew position.

2.5.2.2. Emergency Procedures.

2.5.2.2.1. For pilot QUAL evaluations, a minimum of one abnormal or emergency procedure per phase of flight (e.g., pre-takeoff, takeoff, cruise, and landing) is required. For pilot MSN evaluations, a singular abnormal or emergency procedure that encompasses the scope of the phase of flight and mission setting is required.

2.5.2.2.2. Pilot-initiated stop taxi or Pilot-initiated abort procedures are evaluated on all pilot evaluations. At least one of these procedures is evaluated on all pilot

qualification (QUAL) EPEs. **(T-3)** On pilot INIT QUAL and RQ EPEs, these items must be evaluated using the ATD; they may be evaluated verbally on periodic QUAL and MSN evaluations at the discretion of the evaluator. Incorrect stop taxi procedure or pilot-initiated abort procedure requires an unqualified (Q-3) EPE grade. A pilot who receives a Q-3 as a result of stop taxi or pilot-initiated abort procedure, takeoff, cruise, or landing error is not permitted to serve in their aircrew position until a successful re-evaluation is accomplished. **(T-3)**

2.5.2.2.3. FEs will limit SO EPEs to general knowledge, checklist procedures, and crew coordination. **(T-3)** SO emergency procedure responsibilities are limited to assisting the pilot in diagnosing the problem, completing necessary tasks, and using available aids to resolve the emergency. Do not evaluate SOs on in-depth air vehicle systems knowledge related to emergency procedures except for sensor system faults. SOs may be evaluated on ground station emergencies.

2.5.3. Contingency Management, Alternates and Diverts. Evaluate pilots on overall contingency management. Include performance evaluation of at least one contingency (if using an ATD) and verbal evaluation of all contingency modes on each QUAL EPE. Include performance or verbal evaluation of coordination procedures and unique characteristics of landing an RQ-4 at alternate or divert airfields.

2.5.4. Crew Coordination. Evaluate crew coordination where applicable.

2.5.5. Examinees may use publications during the EPE that are normally available during a flight.

2.5.6. Evaluate an aircrew member's knowledge of Mission Design Series (MDS)-specific emergency procedures (EPs) and systems for all QUAL evaluations; evaluate mission-specific EPs and tactical systems knowledge during MSN evaluations. If an EPE is conducted while the examinee is within both the INSTM/QUAL and MSN evaluation eligibility windows, a single EPE may be administered to fulfill the requisites for the combined INSTM, QUAL, and MSN evaluations. The combined EPE must be of sufficient scope and length to ensure all required areas for each evaluation are accomplished.

2.6. Instructor Evaluations.

2.6.1. All crewmembers selected for instructor duty must be evaluated to determine their proficiency, judgment, technical knowledge, instructor ability (including error analysis of student activity), and use of grading documents.

2.6.2. Except for Area 33, Instructor Performance, FEs determine specific profiles and events for instructor evaluations. Subsequent evaluations (for example, INSTM/QUAL, MSN) include instructor portions during the evaluations. If an instructional mission allows completion of all requirements for a periodic check, the evaluation may be used to update periodic evaluation providing all other requisites are completed.

2.6.3. Instructors should demonstrate timely, effective and efficient instruction to a student (or qualified individual acting as a student). The evaluator may require the examinee to present verbal explanations of equipment operations, procedures, and techniques. Evaluators should ensure questions and instructions are clear, concise, pertinent to the individual's crew duties, and do not interfere with normal mission accomplishment. The evaluator may forego additional

demonstration or instruction based on time available and other factors. An evaluator who desires a critique of areas not covered in the examinee's pre-brief should allow the examinee sufficient time to prepare the critique. For higher headquarters Stan/Eval administered evaluations, the evaluator will provide the examinee a performance critique as soon as possible following the examinee's evaluation. **(T-3)**

2.6.4. Initial Instructor (INSTR) Evaluations.

2.6.4.1. Pilots or SOs must demonstrate the ability to instruct in some phase of the unit's mission. Specific profiles and/or events will be determined by the FE and must include any specific requirements delineated under Area 20 in [Table 3.1](#) or [Table 4.1](#), as appropriate.

2.6.4.2. Crewmembers who desire to re-align their INSTM, QUAL, or MSN evaluation during the initial INSTR evaluation must complete requisite written examinations, publications check, and EPE. **(T-2)**

2.6.5. Periodic INSTR Evaluations.

2.6.5.1. Periodic evaluations (INSTM/QUAL, MSN, and QUAL/MSN) will include evaluation of the crewmember's instructional ability.

2.6.5.2. If an instructor receives an area grade of U in any instructor area identified by this volume, an overall Q-3 grade is assigned. The instructor may not perform instructor duties until additional training and/or a successful re-evaluation is complete. This restriction is placed in the comments and an X is marked in the "restrictions" block on the AF Form 8.

2.6.5.3. An instructor receiving an area grade of U or Q- with additional training required in any grading area will not perform instructor duties until additional training is complete. **(T-3)** This restriction is placed in the comments and an X is marked in the "restrictions" block on the AF Form 8.

2.6.5.4. If an instructor receives an area grade of Q- in any instructor area, but the flight examiner determines additional training is not appropriate or necessary, the overall qualification level (e.g., Q-1, Q-2, Q-3) awarded for the INSTR evaluation resides within the flight examiner's judgment.

2.6.6. Periodic INSTR Evaluations. Periodic evaluations (INSTM/QUAL, MSN, and QUAL/MSN) include evaluation of the crewmember's instructional ability.

2.7. Difference Qualification Evaluations and Familiarization Certification. Crewmembers require difference qualification training and in different series aircraft within the same MDS (e.g., RQ-4B vs RQ-4D). Lead MAJCOM will determine if the differences between the series are great enough to warrant training in a formal training course and a difference qualification evaluation to document qualifications in different air vehicle models.

2.7.1. System changes within the same MDS are classified as minor or major. The operations group commander (OG/CC) will determine what constitutes a minor or major system changed. **(T-3)**

2.7.2. A minor system change within the same mission design series air vehicle requires a familiarization certification. Difference certification training will be accomplished by a qualified instructor and certified by the squadron commander (SQ/CC). **(T-3)** Units will

document the difference certification on the squadron letter of certification (Letter of Xs).
(T-3)

2.7.3. A major system change requires a familiarization qualification evaluation. A difference familiarization evaluation does not have an expiration date established because the evaluation does not satisfy the requirements for the “full” periodic evaluation. For administrative purposes, annotate AF Form 8, flight phase for difference qualification evaluations as a SPOT evaluation.

Table 2.1. Aircrew Evaluation Grading Areas.

AREA	NOTE	AREA TITLE	PILOT	PILOT	SO
			I/Q	MSN	Q/M
AIRCREW EVALUATION REQUIREMENTS - GENERAL					
1		MISSION PLANNING	R	R	R
2		BRIEFINGS	R	R	R
3		TAKEOFF AND LANDING DATA	R		N/A
4		PRE-TAKEOFF	R		
5		TAKEOFF	R		
6		IN-FLIGHT CHECKS/PLANNING	R	R	R
7		TRANSFER OF AIR VEHICLE CONTROL	R		N/A
8		FUEL MANAGEMENT	R	R	N/A
9		COMMUNICATIONS AND IFF/SIF	R	R	
10		STEERING COMMANDS	R	R	N/A
11		CONTINGENCY MANAGEMENT	R	R	N/A
12		LINK PROCEDURES	R	R	R
13		LANDING	R		N/A
14		AFTER LANDING	R		
15		DEBRIEFING AND CRITIQUE	R	R	R
16		KNOWLEDGE	R	R	R

17	(Critical)	AIRMANSHIP AND SITUATIONAL AWARENESS	R	R	R
18	(Critical)	SAFETY	R	R	R
19	(Critical)	FLIGHT AND CREW DISCIPLINE	R	R	R
20	1	INSTRUCTOR PERFORMANCE	R	R	R
21		TASK PRIORITIZATION	R	R	R
22		CREW COORDINATION	R	R	R
INSTRUMENT					
30		DEPARTURE	R		N/A
31		CRUISE/NAVIGATION	R		N/A
32		SUSPEND ORBIT	R		N/A
33		ENROUTE DESCENT	R		N/A
34		APPROACH	R		N/A
35		MISSED APPROACH/CLIMB OUT	R		N/A
36		CROSS-CHECK	R		R
MISSION EMPLOYMENT					
40		MISSION PLAN		R	R
41		MISSION EXECUTION		R	R
42		RADIO USE AND MISSION COMMUNICATIONS		R	R
43		MISSION NAVIGATION		R	N/A
44		INGRESS			N/A
45		EGRESS			N/A
46		TRAINING RULES AND RULES OF ENGAGEMENT		R	R

47	2	SENSOR/PAYLOAD MANAGEMENT		R	R
48	2	CREW CHANGE-OVER		R	R
49		COMMAND AND CONTROL (C2) INTEGRATION		R	R
Notes: <ol style="list-style-type: none"> Required only for instructor qualified pilots and SOs. Awarding a U in any of the Instructor Grading Criteria areas will result in a Q-3 for the overall instructor grade. The overall grade for the instructor portion of the evaluation will be no higher than the lowest overall grade awarded under INSTM/QUAL or MSN evaluation. <ul style="list-style-type: none"> Critical areas, if graded U, require overall evaluation grade of Q-3 R indicates areas required for each evaluation. Does not apply for permanent party personnel at the FOLs, except FOLs that fly the entire mission set. 					

Table 2.2. Emergency Procedure Evaluations.

AREA	NOTES	AREA TITLE	PILOT	PILOT	SO
			I/Q	MSN	Q/M
GENERAL					
101		AIR VEHICLE FIRE ON THE GROUND			
102		CONTINGENCY 1 – LOST COMMUNICATIONS			
103		CONTINGENCY 2 – RETURN TO BASE			
104		CONTINGENCY 3 – EMERGENCY LANDING			
105		CONTROLABILITY CHECK			
106		DEPARTURE FROM PREPARED SURFACE			
107		ENGINE FIRE IN FLIGHT			
108		FLIGHT TERMINATION			
109		HOT BRAKES			
PRE-TAKEOFF					

110	(Critical) 1	PILOT-INITIATED STOP TAXI	R		
111	(Critical) 1	PILOT-INITIATED ABORT	R		
112		TAKEOFF ABORT			
113		TIRE FAILURE – TAKEOFF			
114		TIRE FAILURE – LANDING			
SYSTEMS OPERATION / KNOWLEDGE / LIMITS					
115		SYSTEMS OPERATION / KNOWLEDGE / LIMITS	R	R	R
GROUND STATION EMERGENCIES					
120		EMERGENCY EGRESS	R	R	R
121		EQUIPMENT OVERTEMPERATURE			
122		LOSS OF ELECTRICAL POWER			
123		SMOKE OR FUMES	R	R	R
AIR VEHICLE SYSTEM EMERGENCIES (PAYLOAD)					
150		MISSION PAYLOAD			R
154		RECORDER			
AIR VEHICLE SYSTEM EMERGENCIES (AIRCRAFT)					
130		ACTUATORS – FLIGHT CONTROL SYSTEM			
131		AIR DATA			
132		AIR TRAFFIC CONTROL			
133		COMMON DATA LINK			
134		DIFFERENTIAL GLOBAL POSITIONING SYSTEM			
135		ELECTRICAL SYSTEM			

136		ENGINE			
137		ENVIRONMENTAL CONTROL SYSTEM			
138		FADEC			
139		FLIGHT TERMINATION SYSTEM			
140		FUEL SYSTEM			
141		GEAR AND BRAKES			
142		GUIDANCE AND CONTROL			
143		ICE DETECTION SYSTEM			
144		IFF			
145		INERTIAL NAVIGATION SYSTEM			
146		INMARSAT			
147		INTEGRATED MISSION MANAGEMENT COMPUTER			
148		KU-BAND SATCOM			
149		MISSION LOAD			
152		OMNISTAR			
153		RADIO ALTIMETER			
155		UHF LINK CONTROL PROCESSOR 1			
156		UHF LINK CONTROL PROCESSOR 2			
Note: 1. Pilot QUAL EPEs require evaluation of either Area 110 or Area 111. — Critical areas, if graded U, require overall evaluation grade of Q-3					

Chapter 3

PILOT EVALUATION CRITERIA

3.1. General Grading Standards.

3.1.1. FEs assign appropriate area grades by comparing examinee performance against standards per descriptions in this chapter. The overall flight evaluation grade should be derived from individual area grades based on a composite for the observed events and tasks. The grading criteria in this chapter are divided into three sections: General, Instrument, and Mission.

3.1.2. Grade all observed areas. Assign only one grade to each area. Where major areas are divided into subareas, grades will be assigned to each subarea for which grading criteria is provided. Annotate discrepancies (less than Q performance) IAW AFMAN 11-202V2 and this publication.

3.1.3. Criteria are intended to ensure objective and standardized evaluations. Evaluators must realize these grading criteria cannot cover every situation. Overall performance ratings combine in-flight and ground requisite performance tempered by sound evaluator judgment.

3.1.4. If the examinee receives an unqualified area grade in any of the areas identified as “critical” by this volume, an overall unqualified grade is assigned.

3.1.5. If an FE assigns a qualification level of unqualified (Q3), or if the FE assigns a qualification level of qualified (Q2) but assigns additional training:

3.1.5.1. FEs recommend whether or not such an examinee is allowed to fly before the additional training or re-evaluation is successfully completed.

3.1.5.2. Squadron commanders determine whether or not such an examinee is allowed to fly before the additional training or re-evaluation is successfully completed.

3.2. General Aircrew Evaluation Criteria.

Table 3.1. Table of Evaluation Criteria.

GRADE	CRITERIA
<i>AREA 1 – MISSION PLANNING</i>	
1A. Mission Preparation	

Q	Clearly defined the mission overview and mission goals. Provided specific information on what needed to be done. Solicited feedback from other crewmembers to ensure understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas and ensured all flight members understood possible contingencies. Checked all factors applicable to flight IAW applicable directives. Adequate knowledge in mission requirements including (if applicable) Special Instructions (SPINs), Air Tasking Order (ATO), Memorandums of Agreement (MOAs), Memorandums of Understanding (MOUs), Standard Operating Procedures (SOPs), coordination with liaison officer and participating ground-based mission agencies. Aware of alternatives available if flight cannot be completed as planned. Read and initialed all items in the Flight Crew Information File (FCIF) and read files. Prepared at briefing time. Able to understand and interpret the current mission plan.
Q-	Did not adequately define the mission overview and mission goals. Did not adequately address potential problem areas. Did not adequately solicit feedback or critique the plans to ensure understanding of possible contingencies. Minor errors or omissions detracted from mission effectiveness but did not affect mission accomplishment. Demonstrated limited knowledge of performance capabilities or approved operating procedures and rules in some areas.
U	Did not define the mission overview and goals. Lack of specific information on required items. Did not solicit feedback from other crewmembers to ensure understanding. Did not critique plans to identify potential problem areas. Major errors or omissions would have prevented a safe or effective mission.
1B. Publications	
Q	Publications were current, complete, and usable for any of the unit's missions or combat taskings.
Q-	Publications contained minor deviations, omissions, and/or errors; however, they contained everything necessary to effectively accomplish the mission and did not compromise safety of flight.
U	Publications contained major deviations, omissions, and/or errors which could compromise safety of flight or effective mission accomplishment.
AREA 2 – BRIEFINGS	
2A. Organization	
Q	Well organized, included all applicable information, and presented in a logical sequence. All areas of AFMAN 11-2RQ-4V3 briefing guide were accomplished to effectively execute the mission. Concluded briefing in time to allow for preflight of personal equipment, shelter, and air vehicle.
Q-	Events out of sequence, hard to follow, some redundancy. Not fully prepared for briefing. Failed to brief some required items but had no mission impact and did not compromise safety.

U	Confusing presentation. Poorly organized and not presented in a logical sequence. Failed to brief several required areas. Did not allow time for preflight of personal equipment, shelter, and air vehicle.
2B. Presentation	
Q	Presented briefing in a professional manner covering all pertinent items. Effectively used available briefing aids. Crewmembers clearly understood mission objectives, requirements, and targets.
Q-	Some difficulty communicating clearly. Did not make effective use of available briefing aids. Dwelled on non-essential mission items.
U	Failed to conduct or attend required briefings. Failed to use available briefing aids. Redundant with lack of continuity. Lost interest of crew members. Demonstrated lack of subject knowledge. Presentation created doubts or confusion.
2C. Mission Coverage	
Q	Established objectives for the mission. Presented all training events and special interest items. Clearly communicated mission plan including target area study, EEIs, weather impacts, threats, terrain, potential contingencies, aircraft deconfliction plan and specifics relating to crew coordination as applicable.
Q-	Omitted items or objectives pertinent, but not critical, to the mission. Limited discussion of training events or special interest items. Dwelled on non-essential items. Limited discussion of valid techniques.
U	Did not establish relevant objectives for the mission. Omitted essential items. Failed to discuss training events or special interest items. Presented erroneous information and/or did not correct erroneous information that would affect safe and effective mission accomplishment.
AREA 3 – TAKEOFF AND LANDING DATA	
Q	Accurately computed and checked all required takeoff and landing data. Complete understanding of abort considerations, runway condition, and impact of weather on takeoff and landing operations. All distances computed to within ± 500 feet and all speeds ± 5 knots.
Q-	Computed and checked required takeoff data with minor omissions or errors, which did not detract from mission accomplishment or safety. Limited understanding of abort considerations, runway condition, and impact of weather on takeoff and landing operations. Computed distances within ± 800 feet and speeds ± 8 knots.
U	Major errors or omissions which compromise safety. Faulty or improper knowledge of takeoff and landing data. Computed distances and speeds tolerances greater than Q- parameters.
AREA 4 – PRE-TAKEOFF	

Q	Established and adhered to step, start engine, taxi, and take-off times to assure thorough preflight, check of personal equipment, individual crew briefing, etc. Accurately determined readiness of shelter and air vehicle for flight. Performed all checks and procedures during engine start and taxi IAW the flight manual and applicable directives. Coordinated with safety observer and ground crew.
Q-	Same as “Q” in this section except for minor procedural deviations which did not detract from mission effectiveness. Operated the air vehicle safely.
U	Omitted major item or items of the appropriate checklist. Major deviations in procedure which would preclude safe mission accomplishment. Failed to accurately determine readiness of shelter and air vehicle for flight. Errors directly contributed to a late takeoff which degraded the mission or made it non-effective. Failed to coordinate with ground crew and safety observer prior to air vehicle movement. Failed to adequately monitor taxi operation.
<i>AREA 5 – TAKEOFF</i>	
Q	Completed all checks correctly IAW flight manual and local procedures. Operated air vehicle safely. Performed takeoff IAW flight manual procedures.
Q-	Minor deviations from published procedures without affecting safety of flight. Hesitant in application of procedures and corrections.
U	Failed to comply with air traffic control (ATC) instructions or adequately monitor takeoff operation.
<i>AREA 6 – INFLIGHT CHECKS AND PLANNING</i>	
Q	Effectively performed in-flight checks including changing profile or route segments as required. Used current checklist and accomplished all items in proper sequence with no deviations or omissions. Effectively adapted to dynamic mission plan changes. Demonstrated ability to adjust mission profile to comply with time and fuel limitations, area weather conditions, and mission constraints and objectives.
Q-	In-flight checks, checklist use and in-flight planning included minor deviations which did not compromise safety, or significantly detract from the mission.
U	Did not perform in-flight checks or adapt to changing mission requirements. Used incorrect checklist, omitted checklist items or did not complete a required checklist. Unable to re-plan in-flight or adapt to changing mission requirements. Consistently unable to maintain situational awareness. Action or inaction compromised safety and successful mission accomplishment.
<i>AREA 7 – TRANSFER OF AIR VEHICLE CONTROL</i>	

Q	Monitored basic air vehicle control within specified tolerances dictated by the software and mission plan while orchestrating the transfer of control between ground stations. Promptly reacted to flight deviations as a result of anomalies, contingency reactions triggered by software and air vehicle conditions, manually initiated overrides, etc. Constantly aware of which ground station had air vehicle control.
Q-	Minor procedural deviations which did not detract from the overall mission. Minor confusion over which ground station had air vehicle control due to communications or communication link problems. Did not pose an unsafe condition.
U	Failed to adhere to procedures for transfer of air vehicle control. Failed to anticipate air vehicle actions dictated by the software and mission plan. Failed to monitor basic air vehicle control while transferring control. Failed to promptly react to flight deviations. Confusion over which ground station has air vehicle control which caused an unsafe condition to develop.
<i>AREA 8 – FUEL MANAGEMENT</i>	
Q	Actively monitored fuel required for mission completion. Complied with all established fuel requirements.
Q-	Errors in fuel management procedures which did not preclude mission accomplishment.
U	Failed to monitor fuel status or comply with established fuel requirements. Poor fuel management led to severe mission degradation and/or precluded accomplishment. Did not adhere to briefed fuel requirements.
<i>AREA 9 – COMM/IFF/SIF</i>	
Q	Complete knowledge of and compliance with correct COMM and Identification Friend or Foe (IFF)/ Selective Identification Feature (SIF) procedures. Transmissions over radio and interphone were concise, accurate and used proper terminology. Complied with and acknowledged all required instructions. Thoroughly familiar with secure voice equipment. Understood and executed proper internal and external communications capabilities and employment for the mission.
Q-	Occasional deviations from correct COMM and IFF/SIF procedures required retransmissions or resetting codes. Slow in initiating or missed several required calls. Minor errors or omissions did not significantly detract from situational awareness, threat warning, or mission accomplishment. Transmissions contained extraneous matter, were not in proper sequence or used nonstandard terminology. Demonstrated limited knowledge of secure voice equipment.

U	Incorrect COMM and/or IFF/SIF procedures or poor performance caused confusion and jeopardized mission accomplishment. Omitted numerous required radio calls. Inaccurate or confusing terminology significantly detracted from situational awareness or mission accomplishment. Displayed inadequate knowledge of secure voice equipment.
AREA 10 – STEERING COMMANDS	
Q	Correctly operated steering commands including Auto, On-Track, Override, and Suspend. Successfully recognized actual or potential conflicts and adjusted air vehicle performance to safely avoid these conflicts. Made timely and correct steering commands to ensure compliance with ATC clearances and/or published procedures.
Q-	Operation of steering commands included minor deviations which did not compromise safety, deviate from ATC clearances or published procedures, or significantly detract from successful mission accomplishment.
U	Improper or inappropriate operation of steering commands which compromised safety, violated an ATC clearance or published procedure, or significantly detracted from successful mission accomplishment.
AREA 11 – CONTINGENCY MANAGEMENT	
Q	Complete understanding of all contingency modes and their proper use during the mission. Mission effectiveness was enhanced by the proper use of the appropriate contingency. Decision to use or not use specific contingency logic was made in a timely manner. Contingency logic selected ensured compliance with ATC clearances, published procedures, and/or SPINs/ROE.
Q-	Partial understanding of some contingency modes and their proper use during the mission. Overall mission effectiveness was not affected by improper use of the appropriate contingency. Decision to use or not use specific contingency logic was delayed significantly.
U	Did not understand all contingency modes and their proper use during the mission. Mission was negatively impacted by improper use of the appropriate contingency. Either no decision was made, or the decision to use or not use specific contingency logic did not comply with ATC clearances, published procedures, and/or SPINs/ROE. The contingency logic used was unsafe.
AREA 12 – LINK PROCEDURES	
Q	Understood and executed proper communication links protocols for effective air vehicle control, sensor/payload management, and mission accomplishment.
Q-	Minor errors or omissions occurred in establishing and maintaining communications links, but did not significantly detract from air vehicle control, sensor/payload management, and mission accomplishment.
U	Incomplete understanding of the communications links led to ineffective or improper use. Mission effectiveness was negatively impacted.

<i>AREA 13 – LANDING</i>	
Q	Performed landings IAW procedures outlined in the flight manual, operational procedures, and local directives.
Q-	Performed landings with minor deviations to procedures outlined in the flight manual, operational procedures, and local directives.
U	Landing not performed IAW procedures outlined in the flight manual, operational procedures and local directives.
<i>AREA 14 – AFTER LANDING</i>	
Q	Appropriate after landing checks and air vehicle taxi procedures accomplished IAW the flight manual and applicable directives. All required forms, reports and logs were complete, accurate, readable, accomplished on time and IAW applicable directives. Accurate debrief of significant events to applicable agencies (intelligence, maintenance, etc.).
Q-	Some deviations or omissions noted in performance of after landing check and/or air vehicle taxi procedures in which safety was not jeopardized. Minor errors on forms, reports, or logs did not affect conduct of the mission. Incorrect or incomplete reporting of information due to minor errors, omissions, and/or deviations.
U	Major deviations or omissions were made in performance of after-landing check or air vehicle taxi procedures which could have jeopardized safety. Forms, reports, or logs were incomplete, inaccurate, or improperly filled out. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.
<i>AREA 15 – DEBRIEFING AND CRITIQUE</i>	
Q	Thoroughly debriefed the mission (or applicable portions) in a timely manner. Correctly analyzed mission results with respect to established objectives. Provided specific, objective, positive and negative feedback on team and individual performance. Debriefed deviations. Offered corrective guidance as appropriate. Thoroughly debriefed any breakdowns in roles and responsibilities. Asked for reactions and inputs from other mission participants.
Q-	Limited debriefing. Did not thoroughly discuss performance relative to mission objectives. Minor time management problems. Debriefed mission without specific, objective positive and negative feedback on individual and team performance. Did not debrief significant deviations to an acceptable level. Did not consistently seek input from other mission participants. Incomplete or inadequate recap of key points and comparison of mission results to mission objectives.

U	Did not correctly debrief mission deviations or offer corrective guidance. Used excessive time to debrief. Failed to debrief breakdowns in roles and responsibilities. Did not provide objective positive and negative feedback during debriefing. Did not seek input from other mission participants. Did not recap key mission points nor compare mission results to mission objectives.
AREA 16 – KNOWLEDGE	
16A. General: Air Vehicle and Ground Station	
Q	Thorough knowledge of air vehicle and ground station systems, limitations, and performance characteristics.
Q-	Knowledge of air vehicle and ground station systems, limitations, and performance characteristics sufficient to perform the mission safely. Demonstrated deficiencies either in depth of knowledge or comprehension.
U	Unsatisfactory knowledge of air vehicle and ground station systems, limitations, or performance characteristics.
16B. Emergency Procedures	
Q	Operated within prescribed limits and correctly diagnosed problems. Performed and explained proper corrective action for each type of malfunction. Effectively used checklists.
Q-	Operated within prescribed limits, but slow to analyze problems or apply proper corrective actions. Used the checklist when appropriate, but slow to locate required data.
U	Attempted to exceed limitations. Unable or failed to analyze problems or take proper corrective action. Did not use checklist or lacked acceptable familiarity with its arrangement or contents.
16C. Flight Rules, Regulations and Procedures	
Q	Thorough knowledge of flight rules, regulations, and procedures.
Q-	Deficiencies in depth of knowledge of flight rules, regulations, and procedures.
U	Inadequate knowledge of flight rules, regulations, and procedures.
16D. Local Area Procedures	
Q	Thorough knowledge of local procedures.
Q-	Limited knowledge of local procedures.
U	Inadequate knowledge of local procedures.
16E. Plans and Theater Procedures	
Q	Adequate knowledge of plans applicable to the unit mission. Thoroughly familiar with theater-specific procedures and contingencies.

Q-	Deficiencies in depth of knowledge or comprehension of plans or theater-specific procedures applicable to the unit mission.
U	Knowledge of plans and theater-specific procedures insufficient to ensure effective mission accomplishment.
<i>AREA 17 – AIRMANSHIP AND SITUATIONAL AWARENESS (CRITICAL)</i>	
Q	Conducted the flight with a sense of understanding and comprehension. Aware of aircraft status and location in relation to procedural boundaries and ATC clearances. Made appropriate decisions based on available information. Recognized the need for action. Aware of on-going mission status. Executed the assigned mission in a timely and efficient manner. Recognized, verbalized, and correctly acted on unexpected events. Aware of performance of self and other crew members.
U	Decisions or lack thereof resulted in failure to accomplish the assigned mission. Improperly analyzed flight conditions and/or failed to recognize and understand mission developments or demonstrated poor judgment to the extent that flight safety could have been compromised. Did not correctly adapt to meet new situational demands. Did not recognize the need for action. Not aware of performance of self or other crew members. Not aware of on-going mission status. Failed to recognize, verbalize, and act on unexpected events.
<i>AREA 18 – SAFETY (CRITICAL)</i>	
Q	Aware of and complied with all safety factors required for safe air vehicle operation and mission accomplishment.
U	Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Failed to adequately clear air vehicle flight path. Operated air vehicle and mission equipment in a dangerous manner.
<i>AREA 19 – FLIGHT AND CREW DISCIPLINE (CRITICAL)</i>	
Q	Provided required direction and information. Correctly adapted to meet new situational demands. Demonstrated strict professional flight and crew discipline throughout all phases of the mission.
U	Failed to provide direction and information when needed. Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.
<i>AREA 20 – INSTRUCTOR PERFORMANCE</i>	
20A. Briefing and Debriefing	

Q	Reviewed student's performance history and present level of training. Established measurable and achievable objectives tailored to the student's needs. Presented a comprehensive and well organized instructional briefing. Defined mission events to be performed and clearly articulated objectives. Debrief included a reconstruction and analysis of relevant events. Recapped key points and compared mission results with objectives. Offered specific, objective, constructive feedback based on observable behavior. When appropriate, shared operational knowledge and experience and made use of training aids. Provided specific recommendations for performance improvement. Briefed student's requirements for the next mission.
Q-	Minor errors or omissions in briefing and/or debriefing or mission critique. Occasionally unclear in reconstruction and analysis of events. Debrief covered the mission highlights but was not specific enough. Did not adversely affect student training.
U	Major errors or omissions in briefing and/or debriefing. Did not use training aids and/or reference material effectively. Did not review student's training folder or past performance. Failed to define student's training requirements and mission objectives. Reconstruction and analysis of events was incomplete, inaccurate, or confusing. Failed to adequately critique student or provide complete mission analysis. Overlooked or omitted major discrepancies. Briefing and/or debriefing below the caliber of that expected of instructors.
20B. Demonstration and Performance	
Q	Effectively demonstrated procedures and techniques on the ground and in-flight. Provided concise, meaningful instructional commentary. Rendered positive and negative performance feedback at appropriate times.
Q-	Demonstration and performance included minor errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Some feedback given but was not always constructive or at appropriate times. Instructional commentary was sometimes unclear. Did not adversely affect student training.
U	Unable to demonstrate correct procedure or technique. Made major procedural errors. Demonstrated below average instructor proficiency. Did not provide feedback or instructional commentary. Adversely affected student training.
20C. Instructor Knowledge	
Q	Demonstrated in-depth knowledge of procedures, requirements, applicable publications and regulations, air vehicle systems and performance characteristics, ground station systems, mission, and tactics.
Q-	Deficiencies in depth of knowledge, comprehension of procedures, requirements, applicable publications and regulations, air vehicle systems and performance characteristics, ground station systems, mission, or tactics.

U	Unfamiliar with procedures, requirements, applicable publications and regulations, air vehicle systems and performance characteristics, ground station systems, mission, or tactics. Lack of knowledge in certain areas seriously detracted from instructor effectiveness.
20D. Ability to Instruct	
Q	Identified mission and training requirements as well as any prescribed corrective actions. Assessed student's learning style and tailored instruction appropriately. Communicated effectively. Aware of air vehicle and mission situation at all times, maintaining safety and compliance with clearances and directives, while allowing for profile changes when practical to maximize training opportunities. Able to assess student performance and provide timely, accurate and appropriate feedback and, when necessary, corrective guidance. Anticipated student actions, planned ahead and made timely decisions.
Q-	Instructional performance included minor errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Problems in communication or analysis degraded effectiveness of instruction or evaluation. Did not adversely affect student training.
U	Demonstrated inadequate ability to instruct or evaluate. Unable to perform, teach, or assess techniques, procedures, systems use, or tactics. Did not remain aware of air vehicle and mission situation at all times. Unable to effectively communicate or provide timely feedback to the student. Gave instruction that was unsafe or contradicted published directives. Did not provide corrective action where necessary. Did not plan ahead or anticipate student problems.
20E. Training and Evaluation Forms Preparation	
Q	Completed appropriate training or evaluation records accurately IAW directives. Adequately assessed and recorded performance relative to standard. Comments were clear and pertinent.
Q-	Minor errors or omissions in training or evaluation records. Comments were incomplete or slightly unclear.
U	Did not complete required forms or records. Comments were invalid, unclear, or did not accurately document performance.
AREA 21 – TASK PRIORITIZATION	
Q	Correctly identified, prioritized, and managed tasks based on existing and new information that assured mission success. Used available resources to manage workload. Communicated task priorities to other crewmembers. Asked for assistance when required. Identified contingencies and alternatives. Gathered and crosschecked available data before acting. Clearly stated decisions and ensured they were understood. Investigated doubts and concerns of other crewmembers when necessary.

Q-	Made minor errors in prioritization, management of tasks, and system knowledge which did not affect safe or effective mission accomplishment. Did not completely communicate task priorities to other crewmembers. Made minor errors in identifying contingencies, gathering data, or communicating a decision which did not affect safe or effective mission accomplishment.
U	Incorrectly prioritized or managed tasks. Displayed lack of systems knowledge causing task overload that seriously degraded mission accomplishment or safety of flight. Failed to communicate task priorities to other flight members. Failed to ask for assistance when overloaded. Improperly or ineffectively identified contingencies, gathered data, or communicated a decision that seriously degraded mission accomplishment or safety of flight.
AREA 22 – CREW COORDINATION	
Q	Effectively coordinated with other crewmembers without misunderstanding. Effective use of Crew Resource Management (CRM). See AFMAN 11-290 and use AF Form 4031, <i>CRM Skills Criteria Training/Evaluation</i> , as a reference.
Q-	Coordinated with other crewmembers with minor exceptions. Intra-crew communications were not clear or concise. CRM was the minimum acceptable.
U	Breakdown in coordination with other crewmembers precluded mission accomplishment or jeopardized safety. CRM was lacking to the extent the mission accomplishment was severely degraded.
AREA 30 – DEPARTURE	
Q	Complied with all restrictions or controlling agency instructions. Made all required reports. Applied course or heading corrections promptly. Effectively monitored air vehicle control, performance, and departure position.
Q-	Minor deviations in navigation occurred during departure. Slow to comply with controlling agency instructions or unsure of reporting requirements. Slow to apply course or heading corrections. Minor deviations in monitoring air vehicle control, performance, and departure position.
U	Failed to comply with published or directed departure or with controlling agency instructions. Accepted an inaccurate clearance.
AREA 31 – CRUISE AND NAVIGATION	
Q	Demonstrated satisfactory capability to navigate using all available means. Used appropriate navigation procedures. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.
Q-	Minor errors in procedures and use of navigation equipment. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course.

U	Major errors in procedures and use of navigation equipment. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace.
AREA 32 – SUSPEND ORBIT	
Q	Performed entry and suspend orbit IAW ATC clearance or procedural guidance. Understood all aspects of the suspend command and the orbit pattern flown by the air vehicle after a suspend command is issued.
Q-	Performed entry and suspend orbit procedures with minor deviations. Unclear on some aspects of the suspend command and the orbit pattern flown by the air vehicle after a suspend command is issued.
U	Suspend orbit was not IAW ATC clearance or procedural guidance. Unable to effectively or safely execute a suspend orbit of the air vehicle. Did not understand the suspend command and the suspend pattern flown by the air vehicle after a suspend command is issued.
AREA 33 – ENROUTE DESCENT	
Q	Performed the enroute descent as published or directed and IAW flight manuals. Complied with all restrictions and with mission plan constraints. Complied with ATC instructions and procedures. Effectively monitored air vehicle control, performance, and position orientation within air vehicle limitations.
Q-	Performed the enroute descent as published with minor deviations in procedures and monitoring air vehicle control, performance, and position. Complied with all restrictions.
U	Performed the enroute descent as published with major deviations in procedures and monitoring air vehicle control, performance, and position. Unable to maintain position orientation or ATC assigned airspace.
AREA 34 – APPROACH	
Q	Performed approach IAW procedures outlined in the flight manual, operational procedures, and local directives. Maintained basic control and position orientation within air vehicle performance limitations. Complied with ATC instructions and procedures. Complied with mission plan approach and flight manual standards. Complied with ATC instructions and procedures.
Q-	Performed approach with minor deviations to procedures outlined in the flight manual, operational procedures, and local directives.
U	Approach not performed IAW procedures outlined in the flight manual, operational procedures, and local directives. Unable to maintain position orientation or ATC assigned airspace. Unsafe inputs jeopardized safety.
AREA 35 – MISSED APPROACH AND CLIMBOUT	

Q	Executed Contingency 4 IAW published procedures and directives. Understood the Contingency 4 logic and accurately predicted air vehicle programmed actions. Complied with ATC instructions.
Q-	Executed Contingency 4 with minor deviations to published procedures. Slow to comply with published procedures, ATC instructions, or flight manual procedures. Unclear on minor aspects of Contingency 4 logic.
U	Executed Contingency 4 with major deviations or did not comply with applicable directives. Did not anticipate or understand Contingency 4 logic or incorrectly predicted programmed actions of the air vehicle. Did not comply with ATC instructions.
<i>AREA 36 – CROSS-CHECK</i>	
Q	Performed proper crosscheck of air vehicle instruments and other displays during all phases of flight.
Q-	Minor deviations in crosscheck. Slow to utilize air vehicle instruments. Slow to recognize actual or potential conflicts or system faults. Did not compromise safety or significantly detract from mission accomplishment.
U	Improper or ineffective crosscheck. Unable to maintain situational awareness of air vehicle instruments and other displays. Failed to recognize actual or potential conflicts or system faults.
<i>AREA 40 – MISSION PLAN</i>	
Q	Realistic, well-developed plan that encompassed mission objectives, threats, and crewmember capabilities. Addressed contingencies in development of plan. Adequate knowledge in mission requirements including (if applicable) SPINs, ATO, coordination with liaison officer and participating ground-based mission entities. Effectively coordinated with other crewmembers.
Q-	Minor omissions in the plan resulted in less than optimum achievement of objectives and detracted from mission effectiveness. Planned tactics resulted in unnecessary difficulty.
U	Major errors in the plan precluded accomplishment of the stated objectives.
<i>AREA 41 – MISSION EXECUTION</i>	
Q	Applied tactics consistent with the threat, current directives, and good judgment. Executed the plan and achieved mission goals. Quickly adapted to changing environment. Maintained situational awareness.
Q-	Minor deviations from tactical plan which did not result in an ineffective mission. Slow to adapt to changing environment. Low situational awareness.
U	Unable to accomplish the mission due to major errors of commission or omission during plan execution. Situational awareness lost.
<i>AREA 42 – RADIO USE AND MISSION COMMUNICATIONS</i>	

Q	Radio communications were standard, concise, accurate, and effective.
Q-	Minor terminology errors or omissions occurred but did not significantly detract from situational awareness or mission accomplishment. Extraneous comments over primary or secondary radios presented minor distractions.
U	Radio communications over primary or secondary radios were inadequate or excessive. Inaccurate or confusing terminology significantly detracted from situational awareness or mission accomplishment.
AREA 43 – MISSION NAVIGATION	
Q	Navigated effectively to the desired destination, met required mission times, recognized all major threats, and maintained situational awareness during the operational portion of the mission. Adhered to airspace restrictions. Note: Airspace restrictions include buffer zones, restrictive fire plans, fire support coordination lines, friendly artillery fans, ingress and egress corridors, and other airspace restrictions.
Q-	Recognized and corrected deviations from planned route of flight. Minor deviations from required mission times. Minor deviations from situational awareness and limited consideration of some threats. Adhered to airspace restrictions.
U	Did not recognize or correct deviations from planned route of flight or mission times. Failed to identify threats effectively resulting in unnecessary exposure. Did not maintain operational situational awareness. Did not adhere to airspace restrictions.
AREA 44 – INGRESS	
Q	Aware of all known or simulated threats and defenses. Employed effective route selection to complete an expeditious ingress to the mission area. Appropriately ran ingress checklist.
Q-	Ignored or unaware of some of the known or simulated threats and defenses. Ingress route contributed to unnecessary exposure to threats and delayed arrival in mission area. Minor deviations from ingress checklist.
U	Ignored, unaware or failed to honor known or simulated threats and defenses. Ingress egress route and/or plan caused excessive exposure to threats. Failed to properly use ingress checklists.
AREA 45 – EGRESS	
Q	Aware of all known and simulated threats and defenses. Employed effective route selection to complete an expeditious egress from the mission area. Appropriately ran egress checklist.

Q-	Ignored or unaware of some of the known or simulated threats and defenses. Egress route contributed to unnecessary exposure to threats and delayed departure from mission area. Minor deviations from egress checklist.
U	Ignored, unaware or failed to honor known and simulated threats and defenses. Egress route and/or plan caused excessive exposure to threats. Failed to properly use egress checklist.
<i>AREA 46 – TRAINING RULES AND RULES OF ENGAGEMENT</i>	
Q	Adhered to and knowledgeable of all training rules and ROE.
Q-	Minor deviations. Adhered to and knowledgeable of all training rules and ROE. Made timely and positive corrections. Did not jeopardize safety of flight.
U	Significant deviations indicating a lack of knowledge of training rules and ROE.
<i>AREA 47 – SENSOR/PAYLOAD MANAGEMENT</i>	
Q	Correctly planned, briefed, prioritized, and executed a sound sensor/payload management plan. Operated sensor/payload IAW all technical requirements. Executed effective troubleshooting when required. Accounted for threats, changes in tasking, ad-hoc tasking, weather and crewmember experience. Re-prioritized tasks based on existing and new information to ensure mission success. Displayed sound sensor/payload systems knowledge. Successfully placed the air vehicle in position to allow optimum sensor/payload employment IAW mission requirements.
Q-	Made minor errors in planning, prioritization, management and troubleshooting of sensor/payload without seriously degrading mission accomplishment. Did not completely account for threats, changes in tasking, ad-hoc tasking, weather, or crewmember experience. Air vehicle maneuvering or poor positioning affected or reduced sensor/payload employment.
U	Incorrectly prioritized or managed sensors in a manner which seriously degraded mission accomplishment or safety of flight. Displayed lack of sensor/payload systems knowledge. Unable to troubleshoot and follow technical directives for sensor/payload abnormal conditions. Air vehicle maneuvering or poor positioning affected or reduced sensor/payload employment.
<i>AREA 48 – CREW CHANGE-OVER</i>	
Q	Effective transfer of air vehicle and mission control to the next crew or effective receipt of air vehicle and mission control.
Q-	Transfer had minor errors because of poor communication or incomplete briefing but did not endanger the mission or air vehicle.
U	Change-over adversely affected the safety of the mission or air vehicle. Incomplete briefing caused major mission deviations.

<i>AREA 49 – COMMAND-AND-CONTROL (C2) INTEGRATION</i>	
Q	Effectively planned for and worked with C2 agencies to enhance mission and achieve objectives. Effectively integrated theater airspace control, ground-based mission agencies, and Air Operations Center (AOC) information into tactical plan when necessary. Requested threat declarations when required. Communicated changes in the tactical situation, weather, and threats to C2 agencies.
Q-	Less than optimum planning for and working with C2 agencies. Slow to integrate theater airspace control, DGS, and AOC information into tactical plan when necessary. Slow to request threat declarations. Incomplete communication of changes in the tactical situation, weather and threats to C2 agencies. Minor deviations which did not affect mission collection.
U	Inadequate planning for and ineffective work with C2 agencies. Failed to integrate theater airspace control, DGS, and AOC information into tactical plan when necessary. Failed to request or did not abide by threat declarations. Inadequate communication of changes in the tactical situation, weather and threats to C2 agencies.

Chapter 4

SENSOR OPERATOR (SO) EVALUATION CRITERIA

4.1. General Grading Standards.

4.1.1. The grading criteria in this chapter are divided into two sections: General and Mission. Use both sections for criteria applicable to the events performed on the evaluation.

4.1.2. Grade all observed areas. Assign only one grade to each area. Where major areas are divided into subareas, grades will be assigned to each subarea for which grading criteria is provided. Annotate discrepancies (less than Q performance) IAW AFMAN 11-202V2 and this publication.

4.1.3. Criteria are intended to ensure objective and standardized evaluations. Evaluators must realize these grading criteria cannot cover every situation. Overall performance ratings combine in-flight and ground requisite performance tempered by sound evaluator judgment.

4.2. Sensor Operator (SO) Grading Criteria.

Table 4.1. Sensor Operator (SO) Grading Criteria.

<i>AREA 1 – MISSION PLANNING</i>	
1A. Mission Preparation	
Q	Clearly defined the mission overview and mission goals. Created a sound collection plan to accomplish the mission. Provided specific information on what needed to be done. Solicited feedback from other crewmembers to ensure understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas and ensured all crewmembers understood possible contingencies. Checked all factors applicable to flight IAW applicable directives. Demonstrated adequate knowledge in mission requirements including (if applicable) SPINs, ATO, RSTA and coordination with outside agencies. Aware of alternatives available if mission cannot be completed as planned. Read and initialed all items in the FCIF and read files. Prepared at briefing time. Able to understand and interpret the current mission plan.
Q-	Did not adequately define the mission overview and mission goals. Did not adequately address potential problem areas. Did not adequately solicit feedback or critique the plans to ensure understanding of possible contingencies. Minor errors or omissions detracted from mission effectiveness but did not affect mission accomplishment. Demonstrated limited knowledge of performance capabilities or approved operating procedures and rules in some areas.

U	Did not define the mission overview and goals. Lack of specific information on required items. Did not solicit feedback from other crewmembers to ensure understanding. Did not critique plans to identify potential problem areas. Major errors or omissions would have prevented a safe or effective mission. Displayed unsatisfactory knowledge of operating data or procedures. Did not understand or comply with FCIF and read file directives. Did not review or initial Go/No Go items. Not prepared at briefing time.
1B. Publications	
Q	Publications were current, complete, and usable for any of the unit's missions or combat taskings.
Q-	Publications contained minor deviations, omissions, and/or errors; however, they contained everything necessary to effectively accomplish the mission and did not compromise safety of flight.
U	Publications contained major deviations, omissions, and/or errors which could compromise safety of flight or effective mission accomplishment.
AREA 2 - BRIEFINGS	
2A. Organization	
Q	Well organized, included all applicable information, and presented in a logical sequence. All areas of AFMAN 11-2RQ-4V3 briefing guide were accomplished to effectively execute the mission. Concluded briefing in time to allow for preflight of personal equipment, shelter, and air vehicle.
Q-	Events out of sequence, hard to follow, some redundancy. Not fully prepared for briefing. Did not brief all required areas which did not compromise safety, or significantly detract from the mission accomplishment or effectiveness.
U	Confusing presentation. Poorly organized and not presented in a logical sequence. Failed to brief several required areas. Did not allow time for preflight of personal equipment, shelter, and air vehicle.
2B. Presentation	
Q	Presented briefing in a professional manner covering all pertinent items. Effectively used available briefing aids. Crewmembers clearly understood mission objectives, requirements, and targets.
Q-	Some difficulty communicating clearly. Did not make effective use of available briefing aids. Dwelled on non-essential mission items.
U	Failed to conduct or attend required briefings. Failed to use available briefing aids. Redundant with lack of continuity. Lost interest of crew members. Demonstrated lack of subject knowledge. Presentation created doubts or confusion.
2C. Mission Coverage	

Q	Established objectives for the mission. Presented all training events and special interest items. Included effective technique discussion for accomplishing the mission.
Q-	Omitted items or objectives pertinent, but not critical, to the mission. Limited discussion of training events or special interest items. Dwelled on non-essential items. Limited discussion of valid techniques.
U	Did not establish relevant objectives for the mission. Omitted essential items. Failed to discuss training events or special interest items. Presented erroneous information and/or did not correct erroneous information that would affect safe and effective mission accomplishment. Omitted major training events. Did not discuss valid techniques.
<i>AREA 4 – PRE-TAKEOFF</i>	
Q	Completed all pre-flight checks and procedures without omissions IAW approved checklists and applicable directives. Accurately coordinated with pilot and maintenance when required. Accurately determined readiness of cockpit, air vehicle, and sensor payload for flight.
Q-	Minor procedural deviations which did not detract from mission effectiveness.
U	Omitted major item or items of the appropriate checklist. Major deviations in procedure which would preclude safe mission accomplishment. Failed to accurately determine readiness of shelter and air vehicle for flight. Errors directly contributed to a late takeoff which degraded the mission or made it non-effective. Failed to coordinate with pilot or maintenance.
<i>AREA 6 – IN-FLIGHT CHECKS AND PLANNING</i>	
Q	Effectively performed in-flight checks as required including changing profile by adding or deleting collections. Used current checklist and accomplished all items in proper sequence with no deviations or omissions. Effectively adapted to dynamic mission plan changes. Demonstrated ability to adjust collection profile to comply with time and fuel limitations, area weather conditions, and mission constraints and objectives.
Q-	In-flight checks, checklist use, and collection management included minor deviations which did not compromise safety, or significantly detract from the mission.
U	Did not perform in-flight checks or adapt to changing mission requirements. Used incorrect checklist, omitted checklist items or did not complete a required checklist. Unable to re-plan in-flight or adapt to changing mission requirements. Consistently unable to maintain situational awareness. Action or inaction compromised safety and successful mission accomplishment.
<i>AREA 12 – LINK PROCEDURES</i>	
Q	Understood and executed proper communication links protocols for effective air vehicle control, sensor/payload management, and mission accomplishment.

Q-	Minor errors or omissions occurred in establishing and maintaining communications links but did not significantly detract from sensor/payload management and mission accomplishment.
U	Incomplete understanding of the communications links led to ineffective or improper use. Mission effectiveness was negatively impacted.
<i>AREA 14 – AFTER LANDING</i>	
Q	Appropriate after landing checks accomplished IAW the flight manual and applicable directives. All required forms, reports and logs were complete, accurate, readable, accomplished on time and IAW applicable directives. Accurate debrief of significant events to applicable agencies (intelligence, maintenance, etc.).
Q-	Same as qualified except some deviations or omissions noted in performance of after landing checks. Minor errors on forms, reports, or logs did not affect conduct of the mission. Incorrect or incomplete reporting of information due to minor errors, omissions, and/or deviations.
U	Major deviations or omissions were made in performance of after landing checks which could have jeopardized safety. Forms, reports, or logs were incomplete, inaccurate, or improperly filled out. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.
<i>AREA 15 – DEBRIEFING AND CRITIQUE</i>	
Q	Thoroughly debriefed the mission (or applicable portions) in a timely manner. Correctly analyzed mission results with respect to established objectives. Provided specific objective, positive and negative feedback on team and individual performance. Debriefed deviations. Offered corrective guidance as appropriate. Thoroughly debriefed any breakdowns in roles and responsibilities. Asked for improvement opportunities and inputs from other mission participants. Re-capped key points and compared mission results with mission objectives.
Q-	Limited debriefing. Did not thoroughly discuss performance relative to mission objectives. Minor time management problems. Debriefed mission without specific, objective positive and negative feedback on individual and team performance. Did not debrief significant deviations to an acceptable level. Did not consistently seek input from other mission participants. Incomplete or inadequate re-cap of key points and comparison of mission results to mission objectives.
U	Did not correctly debrief mission deviations or offer corrective guidance. Used excessive time to debrief. Failed to debrief breakdowns in roles and responsibilities. Did not provide objective positive and negative feedback during debriefing. Did not seek input from other mission participants. Did not re-cap key mission points nor compare mission results to mission objectives.
<i>AREA 16 - KNOWLEDGE</i>	

16A. Sensor Systems and Ground Station Knowledge	
Q	Demonstrated thorough knowledge of sensor systems, ground station operations/limitations and proper procedural use of systems. Demonstrated familiarity when referencing flight manual and available aids.
Q-	Demonstrated marginal knowledge of sensor systems, ground station operations/limitations in some areas. Demonstrated deficiencies either in depth of knowledge or comprehension. Occasionally displayed lack of familiarity when referencing flight manual and available aids.
U	Unsatisfactory knowledge of sensor and ground station systems, limitations, or performance characteristics. Unable to demonstrate or explain the procedures for sensor system and ground station operations. Unfamiliar with flight manual and available aids.
16B. Emergency Procedures	
Q	Operated within prescribed limits and correctly diagnosed problems. Performed and explained proper corrective action for each type of malfunction. Effectively used checklists.
Q-	Operated within prescribed limits, but slow to analyze problems or apply proper corrective actions. Used the checklist when appropriate, but slow to locate required data.
U	Attempted to exceed limitations. Unable or failed to analyze problems or take proper corrective action. Did not use checklist or lacked acceptable familiarity with its arrangement or contents.
16C. Operating Rules and Procedures	
Q	Thorough knowledge of operating rules and procedures.
Q-	Deficiencies in depth of knowledge.
U	Inadequate knowledge of operating rules and procedures.
16D. Local Area Procedures	
Q	Thorough knowledge of local procedures.
Q-	Limited knowledge of local procedures.
U	Inadequate knowledge of local procedures.
16E. Plans and Procedures	
Q	Adequate knowledge of plans applicable to the unit mission. Thoroughly familiar with procedures and contingencies.
Q-	Deficiencies in depth of knowledge or comprehension of plans or procedures applicable to the unit mission.

U	Knowledge of plans and procedures insufficient to ensure effective mission accomplishment.
AREA 17 – AIRMANSHIP AND SITUATIONAL AWARENESS (CRITICAL)	
Q	Executed the assigned mission in a timely and efficient manner. Conducted the flight with a sense of understanding and comprehension. Made appropriate decisions based on available information. Recognized the need for action. Aware of performance of self and other crewmembers. Aware of on-going mission status. Recognized, verbalized, and correctly acted on unexpected events.
U	Decisions or lack thereof resulted in failure to accomplish the assigned mission. Improperly analyzed flight conditions and/or failed to recognize and understand mission developments or demonstrated poor judgment to the extent that flight safety could have been compromised. Did not recognize the need for action. Not aware of performance of self or other crewmembers. Not aware of on- going mission status. Failed to recognize, verbalize, and act on unexpected events.
AREA 18 – SAFETY (CRITICAL)	
Q	Aware of and complied with all safety factors required for safe equipment operation and mission accomplishment.
U	Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Operated mission equipment in a dangerous manner.
AREA 19 – FLIGHT AND CREW DISCIPLINE (CRITICAL)	
Q	Provided required direction and information. Correctly adapted to meet new situational demands. Demonstrated strict professional flight and crew discipline throughout all phases of the mission.
U	Did not provide direction and information when needed. Did not correctly adapt to meet new situational demands. Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.
AREA 20 – INSTRUCTOR PERFORMANCE	
20A. Briefing and Debriefing	
Q	Presented a comprehensive and well-organized instructional briefing and debriefing encompassing all mission events. Made excellent use of training aids. Reviewed student's present level of training and defined mission events to be performed. Excellent reconstruction and analysis of all events. Clearly defined objectives. Gave positive and negative performance feedback at appropriate times. Feedback was specific, objective, based on observable behavior, and given constructively. Re-capped key points and compared mission results with objectives. When appropriate, took the initiative and time to share operational knowledge and experience. Briefed student's requirements for the next mission.

Q-	Minor errors or omissions in briefing and/or debriefing or mission critique. Occasionally unclear in reconstruction and analysis of events. Some feedback given but was not always given at appropriate times and not always a positive learning experience. Debrief covered the mission highlights but was not specific enough. Did not adversely affect student training.
U	Major errors or omissions in briefing and/or debriefing. Did not use training aids and/or reference material effectively. Did not review student's training folder or past performance. Failed to define student's training requirements and mission objectives. Reconstruction and analysis of events or was incomplete, inaccurate, or confusing. Failed to adequately critique student or provide complete mission analysis. Overlooked or omitted major discrepancies. Briefing and/or debriefing below the caliber of that expected of instructors.
20B. Demonstration and Performance	
Q	Effectively demonstrated and performed required sensor operations within prescribed parameters. Provided concise, meaningful instructional commentary. Demonstrated excellent instructor proficiency.
Q-	Demonstrated and performed required sensor operations with minor deviations from prescribed parameters. Instructional commentary was sometimes unclear. Did not adversely affect student training.
U	Unable to demonstrate or perform required sensor operations. Made major procedural errors. Did not provide instructional commentary. Demonstrated inadequate instructor proficiency.
20C. Instructor Knowledge	
Q	Demonstrated in-depth knowledge of procedures, requirements, applicable publications and regulations, sensor systems and performance characteristics, ground station systems, mission, and tactics beyond that expected of non-instructors.
Q-	Deficiencies in depth of knowledge, comprehension of procedures, requirements, applicable publications and regulations, sensor systems and performance characteristics, ground station systems, mission, or tactics.
U	Unfamiliar with procedures, requirements, applicable publications and regulations, sensor systems and performance characteristics, ground station systems, mission, or tactics. Lack of knowledge in certain areas seriously detracted from instructor effectiveness.
20D. Ability to Instruct	
Q	Demonstrated excellent instructor or evaluator ability. Clearly defined all mission requirements and any required additional training or corrective action. Instruction or evaluation was accurate, effective, and timely. Was completely aware of sensor and mission situation at all times. Demonstrated ability to communicate and instruct effectively. Provided appropriate corrective guidance when necessary. Planned ahead and made timely decisions.

Q-	Instructional performance included minor errors, omissions, or delays that did not jeopardize mission accomplishment or safety. Problems in communication or analysis degraded effectiveness of instruction or evaluation. Did not adversely affect student training.
U	Demonstrated inadequate ability to instruct or evaluate. Unable to perform, teach, or assess techniques, procedures, systems use, or tactics. Did not remain aware of sensor and mission situation at all times. Unable to effectively communicate or provide timely feedback to the student. Gave instruction that was unsafe or contradicted published directives. Did not provide corrective action where necessary. Did not plan ahead or anticipate student problems.
20E. Training and Evaluation Forms Preparation	
Q	Completed appropriate training or evaluation records accurately IAW directives. Adequately assessed and recorded performance relative to standard. Comments were clear and pertinent.
Q-	Minor errors or omissions in training or evaluation records. Comments were incomplete or slightly unclear.
U	Did not complete required forms or records. Comments were invalid, unclear, or did not accurately document performance.
<i>AREA 21 – TASK PRIORITIZATION</i>	
Q	Correctly identified, prioritized, and managed tasks based on existing and new information that assured mission success. Used available resources to manage workload. Communicated task priorities to other crewmembers. Asked for assistance when required. Displayed sound knowledge of systems. Effectively identified contingencies and alternatives. Gathered and crosschecked available data before acting. Clearly stated decisions and ensured they were understood. Investigated doubts and concerns of other crewmembers when necessary.
Q-	Made minor errors in prioritization, management of tasks, and system knowledge which did not affect safe or effective mission accomplishment. Did not completely communicate task priorities to other crewmembers. Made minor errors in identifying contingencies, gathering data, or communicating a decision which did not affect safe or effective mission accomplishment.
U	Incorrectly prioritized or managed tasks. Displayed lack of systems knowledge causing task overload that seriously degraded mission accomplishment or safety of flight. Failed to communicate task priorities to other flight members. Failed to ask for assistance when overloaded. Improperly or ineffectively identified contingencies, gathered data, or communicated a decision that seriously degraded mission accomplishment or safety of flight.
<i>AREA 22 – CREW COORDINATION</i>	

Q	Effectively coordinated with other crewmembers without misunderstanding. Effective use of CRM. See AFMAN 11-290, and use AF Form 4031, <i>CRM Skills Criteria Training/Evaluation</i> , as a reference.
Q-	Coordinated with other crewmembers with minor exceptions. Intra-crew communications were not clear or concise. CRM was the minimum acceptable.
U	Breakdown in coordination with other crewmembers precluded mission accomplishment or jeopardized safety. CRM was lacking to the extent the mission accomplishment was severely degraded.
AREA 36 – CROSS CHECK	
Q	Performed proper crosscheck of all applicable mission and mission support systems and other displays during all phases of flight. Maintained situational awareness as necessary to comply with pilot instructions and mission plan changes.
Q	Minor deviations in crosscheck. Slow to utilize air vehicle instruments. Slow to recognize actual or potential conflicts or system faults. Did not compromise safety or significantly detract from mission accomplishment.
U	Major deviations in crosscheck. Unable to utilize air vehicle instruments. Unable to recognize actual or potential conflicts or system faults. Compromised safety or significantly detracted from mission accomplishment.
AREA 40 – MISSION PLAN	
Q	Realistic, well-developed plan that encompassed mission objectives, threats, and crewmember capabilities. Addressed contingencies in development of plan. Demonstrated adequate knowledge in mission requirements including (if applicable) SPINs, ATO, RSTA, MOUs/MOAs, SOPs and coordination with outside agencies. Effectively coordinated with other crewmembers.
Q-	Minor omissions in the plan resulted in less than optimum achievement of objectives and detracted from mission effectiveness. Planned tactics resulted in unnecessary difficulty.
U	Major errors in the plan precluded accomplishment of the stated objectives.
AREA 41 – MISSION EXECUTION	
Q	Applied tactics consistent with the threat, current directives, and good judgment. Executed the plan and achieved mission goals. Quickly adapted to changing environment. Maintained situational awareness.
Q-	Minor deviations from tactical plan which did not result in an ineffective mission. Slow to adapt to changing environment. Low situational awareness.

U	Unable to accomplish the mission due to major errors of commission or omission during plan execution. Situational awareness lost.
AREA 42 – RADIO USE AND MISSION COMMUNICATIONS	
Q	Internal and/or external communications were standard, concise, accurate, and effective. Thoroughly familiar with OPSEC and COMSEC requirements.
Q-	Minor terminology errors or omissions occurred but did not significantly detract from situational awareness or mission accomplishment. Extraneous comments over interphone presented minor distractions. Demonstrated limited knowledge of OPSEC and COMSEC requirements.
U	Interphone communications were inadequate or excessive. Inaccurate or confusing terminology significantly detracted from situational awareness or mission accomplishment. Displayed inadequate knowledge of OPSEC and COMSEC requirements.
AREA 46 – TRAINING RULES AND ROE	
Q	Adhered to and knowledgeable of all training rules and ROE.
Q-	Minor deviations. Made timely and positive corrections. Did not jeopardize safety of flight.
U	Significant deviations indicating a lack of knowledge of training rules and ROE.
AREA 47 – SENSOR MANAGEMENT	
47A. General	
Q	Correctly executed a sound sensor management plan. Identified high task periods and primary sensor based on mission priorities. Accounted for threats, changes in ad-hoc tasking, weather and crewmember experience. Re-prioritized sensor tasks based on existing and new information to ensure mission success. Able to employ the sensors effectively to accomplish the mission. Possessed a high level of knowledge of all applicable sensor capabilities and functions. Performed sensor operation procedures and understood how to apply good sensor control to enhance mission accomplishment.
Q-	Made minor errors in planning, prioritization, and management of sensors. Did not completely account for threats, changes in ad-hoc tasking, weather, or crewmember experience. Possessed an adequate level of knowledge of applicable sensor capabilities and functions.
U	Incorrectly prioritized or managed sensors in a manner which seriously degraded mission accomplishment or safety of flight. Over tasked other crewmembers or failed to communicate task overload. Displayed lack of sensor systems knowledge.

47B. Collection Operations	
Q	Successfully performed Scheme of Maneuver. Successfully collected scenes while maximizing sensor/collection effectiveness. Monitored collection and completed actions to optimize sensor performance when required. Collected all desired targets for optimal coverage and resolution. Appropriately ran Time-sensitive Target (TST) and/or Ad Hoc checklist. Performed correct actions to successfully recover from faults or sensor anomalies.
Q-	Minor misapplications in collection operations. Sensor optimization operations were not consistently verified or corrected. Slow to perform basic sensor operation functions. Recognized and corrected target acquisition attempts. Minor deviations on TST and/or Ad Hoc checklist. Require excessive time to recover from sensor anomalies. Minor impact to mission effectiveness.
U	Failed to effectively conduct collection operations. Did not recognize or correct target acquisition attempts. Failed to accurately collect TST and/or Ad Hoc targets. Required assistance to perform sensor optimization and/or recover from sensor anomalies. Mission effectiveness seriously impaired.
47C. Sensor Start	
Q	Correctly performed sensor start and workstation set-up procedures IAW checklist. Correctly initiated situational awareness displays. Properly verified sensor boot-up sequence. Effectively performed initial sensor calibrations and verified sensor operation within parameters.
Q-	Missed minor set-up procedures with no significant impact to sensor operation or mission effectiveness.
U	Failed to successfully complete sensor boot-up or initiate situational awareness displays. Failed to verify the sensor boot-up sequence or perform initial sensor calibrations.
AREA 48 – CREW CHANGE-OVER	
Q	Effective transfer of sensor and mission control to the next crew or effective receipt of sensor and mission control.
Q-	Transfer had minor errors because of poor communication or incomplete briefing but did not endanger the mission or sensors.
U	Change-over adversely affected the safety of the mission or sensors. Incomplete briefing caused major mission deviations.
AREA 49 – C2 INTEGRATION	

Q	Effectively planned for and worked with C2 agencies to enhance mission and achieve objectives. Effectively integrated customer and analyst information into tactical plan when necessary. Requested threat declarations when required. Communicated changes in the tactical situation, weather, and threats to C2 agencies.
Q-	Less than optimum planning for and working with C2 agencies. Slow to integrate supported unit and analyst information into tactical plan when necessary. Slow to request threat declarations. Incomplete communication of changes in the tactical situation, weather and threats to C2 agencies. Minor deviations which did not affect mission collection.
U	Inadequate planning for and ineffective work with C2 agencies. Failed to integrate supported unit and analyst information into tactical plan when necessary. Failed to request or did not abide by threat declarations. Inadequate communication of changes in the tactical situation, weather and threats to C2 agencies.

Chapter 5

EMERGENCY PROCEDURES EVALUATION (EPE) EVALUATION CRITERIA

5.1. General Grading Standards.

5.1.1. The grading criteria in this chapter are for use during emergency procedures evaluations. Malfunctions are identified through a series of fault warnings displayed to the pilot or SO which may or may not require their interaction with the air vehicle. When crew interaction is required, use the following criteria applicable to the events performed on the evaluation.

5.2. Pilot Emergency Procedures Evaluation (EPE) Grading Criteria.

Table 5.1. Pilot Emergency Procedures Evaluation (EPE) Grading Criteria.

<i>AREAS 101-114 – GENERAL</i>	
Q	Recognized and analyzed malfunction in a timely manner. Displayed correct and immediate response to emergency situations. Operated within prescribed limits and correctly diagnosed problems. Performed and explained proper corrective action for each type of malfunction. Effectively used checklists, flight manual, and available aids.
Q-	Operated within prescribed limits, but slow to recognize or analyze problems or apply proper corrective actions. Response to certain required steps in emergency procedures was slow or confused. Used the checklist and flight manual when appropriate, but slow to locate required data and implement guidance.
U	Unable or failed to analyze problems or take proper corrective action. Did not use checklist and flight manual or lacked acceptable familiarity with their arrangement or contents.
<i>AREA 115 – SYSTEMS OPERATION KNOWLEDGE / LIMITS</i>	
Q	Thorough knowledge of air vehicle and ground station systems, limitations, and performance characteristics.
Q-	Demonstrated deficiencies either in depth of knowledge or comprehension of air vehicle and ground station systems, limitations, and performance characteristics.
U	Unsatisfactory knowledge of air vehicle and ground station systems, limitations, or performance characteristics.
<i>AREAS 120-123 – GROUND STATION EMERGENCIES</i>	
Q	Recognized and analyzed malfunction in a timely manner. Displayed correct and immediate response to emergency situations. Operated within prescribed limits and correctly diagnosed problems. Performed and explained proper corrective action for each type of malfunction. Effectively used checklists, flight manual, and available aids.

Q-	Operated within prescribed limits, but slow to recognize or analyze problems or apply proper corrective actions. Response to certain required steps in emergency procedures was slow or confused. Used the checklist and flight manual when appropriate, but slow to locate required data and implement guidance.
U	Unable or failed to analyze problems or take proper corrective action. Did not use checklist and flight manual or lacked acceptable familiarity with their arrangement or contents.
<i>AREAS 130-156 – AIR VEHICLE SYSTEM EMERGENCIES</i>	
Q	Recognized and analyzed malfunction in a timely manner. Displayed correct and immediate response to emergency situations. Operated within prescribed limits and correctly diagnosed problems. Performed and explained proper corrective action for each type of malfunction. Effectively used checklists, flight manual, and available aids.
Q-	Operated within prescribed limits, but slow to recognize or analyze problems or apply proper corrective actions. Response to certain required steps in emergency procedures was slow or confused. Used the checklist and flight manual when appropriate, but slow to locate required data and implement guidance.
U	Unable or failed to analyze problems or take proper corrective action. Did not use checklist and flight manual or lacked acceptable familiarity with their arrangement or contents.

5.3. Sensor Operator (SO) Emergency Procedures Evaluation (EPE) Grading Criteria.

Table 5.2. Sensor Operator (SO) Emergency Procedure Evaluation (EPE) Grading Criteria.

<i>AREAS 101-114 - GENERAL</i>	
Q	Effectively assisted the pilot through the proper use of checklists, flight manual, available aids, and established procedures.
Q-	Minor omissions or errors in assisting the pilot with the use of checklists, flight manual, available aids, and established procedures. Slow to locate required data and help the pilot avoid delays, omissions, or deviations in use of checklists or available aids.
U	Failed to assist the pilot with the use of checklists, flight manual, available aids, and established procedures. Unable to locate required data and help the pilot avoid delays, omissions, or deviations in use of checklists or available aids.
<i>AREA 115 – SYSTEMS OPERATION KNOWLEDGE / LIMITS</i>	
Q	Thorough knowledge of sensor systems and ground station operations and limitations and proper procedural use of systems with minimal reference to flight manual and available aids.

Q-	Marginal knowledge of sensor systems and ground station operations and limitations in some areas. Demonstrated deficiencies either in depth of knowledge or comprehension. Required moderate references to flight manual and available aids to differentiate between procedure and technique.
U	Unsatisfactory knowledge of sensor and ground station systems, limitations, or performance characteristics. Unable to demonstrate or explain the procedures for sensor system and ground station operations.
<i>AREAS 120-123 – GROUND STATION EMERGENCIES</i>	
Q	Recognized and analyzed malfunction in a timely manner. Displayed correct and immediate response to emergency situations. Operated within prescribed limits and correctly diagnosed problems. Performed and explained proper corrective action for each type of malfunction. Effectively used checklists, flight manual, and available aids, as applicable.
Q-	Operated within prescribed limits, but slow to recognize or analyze problems or apply proper corrective actions. Response to certain required steps in emergency procedures was slow or confused. Used the checklist and flight manual when appropriate, but slow to locate required data and implement guidance.
U	Unable or failed to analyze problems or take proper corrective action. Did not use checklist and flight manual or lacked acceptable familiarity with their arrangement or contents.
<i>AREAS 150, 154 – AIR VEHICLE SYSTEM EMERGENCIES (PAYLOAD)</i>	
Q	Recognized and analyzed malfunction in a timely manner. Displayed correct and immediate response to emergency situations. Operated within prescribed limits and correctly diagnosed problems. Performed and explained proper corrective action for each type of malfunction. Effectively used checklists, flight manual, and available aids.
Q-	Operated within prescribed limits, but slow to recognize or analyze problems or apply proper corrective actions. Response to certain required steps in emergency procedures was slow or confused. Used the checklist and flight manual when appropriate, but slow to locate required data and implement guidance.
U	Unable or failed to analyze problems or take proper corrective action. Did not use checklist and flight manual or lacked acceptable familiarity with their arrangement or contents.
<i>AREAS 130-149, 152-153, 155-156 – AIR VEHICLE SYSTEM EMERGENCIES (AIRCRAFT)</i>	
Q	Effectively assisted the pilot through the proper use of checklists, flight manual, available aids, and established procedures. Operated within prescribed limits and helped the pilot correctly diagnose problems.

Q-	Minor omissions or errors in assisting the pilot with the use of checklists, flight manual, available aids, and established procedures. Slow to locate required data and help the pilot avoid delays, omissions, or deviations in use of checklists or available aids.
U	Failed to assist the pilot with the use of checklists, flight manual, available aids, and established procedures. Unable to locate required data and help the pilot avoid delays, omissions, or deviations in use of checklists or available aids.

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Deputy Chief of Staff, Operations

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

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

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

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

AFMAN 11-2ERQ-4V1, *E/RQ-4—Crew Training*, 4 February 2020

AFMAN 11-2ERQ-4V3, *E/RQ-4 Operations Procedures*, 31 October 2019

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

DAFMAN 90-161, *Publishing Process and Procedures*, 18 October 2023

Adopted Forms

AF Form 8, *Certificate of Aircrew Qualification*

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

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ACC—Air Combat Command

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRIMS—Air Force Records Information Management System

AFFSA—Air Force Flight Standards Agency

AOC—Air Operations Center

AOR—Area of Responsibility

ARMS—Aviation Resource Management System

ATC—Air Traffic Control

ATD—Aircrew Training Device

ATO—Air Tasking Order

BLOS—Beyond Line-of-Sight

BMC—Basic Mission Capable

C2—Command and Control

CMR—Combat Mission Ready

COMM—Communications
COMSEC—Communications Security
CPT—Cockpit Procedure Trainer
CRM—Cockpit/Crew Resource Management
DGS—Distributed Ground System
DOC—Designed Operational Capability
DRU—Direct Reporting Unit
EEI—Essential Elements of Information
EFM—Electronic Flight Manual
EPE—Emergency Procedures Evaluation
FCIF—Flight Crew Information File
FE—Flight Examiner
FOA—Field Operating Agency
FOL—Forward Operating Location
HQ—Headquarters
IA—I
IAW—In Accordance With
IFF—Identification Friend or Foe
INIT—Initial
INSTM—Instrument
INSTR—Instructor
IR—Infrared
IRC—Instrument Refresher Course
ISS—Integrated Sensor System
LRE—Launch and Recovery Element
MAJCOM—Major Command
MCE—Mission Control Element
MOA—Military Operations Area
MOU—Memorandum of Understanding
MSN—Mission
N/A—Not Applicable
OG/CC—Operations Group Commander

OPR—Office of Primary Responsibility

OPSEC—Operations Security

QUAL—Qualification

PSAT—Pilot Stand-Alone Trainer

RAP—Ready Aircrew Program

RDS—Records Disposition Schedule

REQUAL—Requalification

ROE—Rules of Engagement

RSTA—Reconnaissance, Surveillance, and Target Acquisition

SAR—Synthetic Aperture Radar

SIF—Selective Identification Feature

SO—Sensor Operator

SOP—Standard Operating Procedure

SPINs—Special Instructions

SQ/CC—Squadron Commander

TST—Time-Sensitive Target

USAF—United States Air Force

WST—Weapon System Trainer

Office Symbols

ACC/A3TV—Air Combat Command Standardization and Evaluation Branch

AF/A3T—Air Force Training and Readiness Directorate

AF/A3—Air Force Deputy Chief of Staff for Operations

Terms

Aircrew Training Device—A training device that permits learning, development, and the practice of skills and procedures necessary for understanding and operating the integrated systems of a specific prime mission system.

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

Electronic Publications—Technical orders and publications issued to crewmembers in electronic media.

Emergency Procedures Evaluation—An evaluation of crew general knowledge and responsiveness to critical and non-critical emergency procedures conducted by a FE in an approved ATD. An EPE may be administered orally if an appropriate training device is not available.

Error—Departure from standard procedures. Performing incorrect actions or recording incorrect information.

Key Words and Definitions—“Will” indicates a mandatory requirement. —Should is normally used to indicate a preferred, but not mandatory, method of accomplishment. —May indicates an acceptable or suggested means of accomplishment.

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

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

Omission—To leave out a required action or annotation.

Other Publications—RQ-4 crewmembers also may be issued other publications in electronic (.pdf or .doc) or paper format. Units may specify evaluation of these other publications. Evaluation of electronic publications is accomplished by ensuring the individual crewmember has the current publication and changes loaded on their viewing device.

Pilot Stand-Alone Trainer (PSAT)—An RQ-4 part-task operator trainer that allows selected pilot tasks be practiced and a high degree of skill developed independently of the full elements of RQ-4 ground station operation.

SPOT Evaluation—An evaluation other than one used to satisfy the requirements of a periodic, initial instructor or requalification instructor evaluation. May be No-Notice. Requires AF Form 8/8a documentation.

Technical Orders—The electronic flight manual (EFM) is an electronic data base that comprises the RQ-4 Flight Manual and requires specialized viewing software that is issued with the data base. All changes to the data base are issued electronically; therefore, evaluation of the EFM is accomplished by ensuring the individual crewmember has the current EFM loaded on their viewing device.

Weapon System Trainer (WST)—A training device that dynamically simulates the flight characteristics of the designated aircraft to train crewmembers in normal cockpit and flight procedures, emergency procedures, and combat mission execution. Trainer combines safety-of-flight operation and warfighting tasks and provides skill integration training.