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Flying Operations

E-4--AIRCREW EVALUATION CRITERIA

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFPD 11-2, *Aircraft Rules and Procedures*; AFPD 11-4, *Aviation Service*; and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. It applies to all E-4 units. This publication does not apply to Air National Guard or Air Force Reserve Command units and members. MAJCOMs/DRUs/FOAs are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ USAF/XOOT, through HQ ACC/DISA, for approval prior to publication IAW AFPD 11-2, paragraph 4.2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DISA, and the user MAJCOM/DRU/FOA offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. **NOTE:** The terms Direct Reporting Unit (DRU) and Field Operating Agency (FOA) as used in this paragraph refer only to those DRUs/FOAs that report directly to HQ USAF. Keep supplements current complying with AFI 33-360V1, *Air Force Publication Management Program*.

This instruction requires collecting and maintaining information protected by the Privacy Act of 1974, authorized by 37 USC 301a, Incentive Pay: Public law 92-204 (Appropriations Act for 1973), Section 715; Public Law 93-570 (Appropriations Act for 1974); Public law 93-294 (Aviation Career Incentive Act of 1974); DOD Directive 7730.57, Aviation Career Incentive Act and Required Annual Report; Air Force Instruction 11-401, *Flight Management*; and E.O. 9397. System of records notice F011 AF XO A, Air Force Operations Resource Management Systems (AFORMS) applies.

Chapter 1— GENERAL INFORMATION **4**

1.1. General. 4

1.2. Recommendation for Change of Publication. 4

1.3. Waivers. 4

1.4. Procedures: 4

1.5. General Evaluation Requirements: 5
Table 1.1. Flight Publications. 5
1.6. Grading Instructions and General Grading Criteria. 7
Table 1.2. General Qualification Grading Criteria. 7
Table 1.3. General Mission Grading Criteria. 9
Table 1.4. Instructor Criteria. 9
1.7. Explanation of Terms: 10

Chapter 2— PILOT EVALUATIONS 12
2.1. Instructions: 12
2.2. Evaluation Requirements: 13
Table 2.1. Pilot Evaluation Requirements. 14
2.3. Grading Criteria. 15
Table 2.2. Pilot-Specific Grading Criteria. 16

Chapter 3— NAVIGATOR EVALUATIONS 25
3.1. Instructions: 25
3.2. Evaluation Requirements: 25
Table 3.1. Navigator Evaluation Requirements. 26
3.3. Grading Criteria: 26
Table 3.2. Navigator-Specific Grading Criteria. 27

Chapter 4— FLIGHT ENGINEER EVALUATIONS 35
4.1. Instructions: 35
4.2. Evaluation Requirements: 36
Table 4.1. Flight Engineer Evaluation Requirements. 36
4.3. Grading Criteria: 36
Table 4.2. Flight Engineer-Specific grading Criteria. 37

Chapter 5— INFLIGHT PASSENGER SERVICE SPECIALIST EVALUATION CRITERIA 42
5.1. Instructions: 42
5.2. Evaluation Requirements: 43
Table 5.1. IPSS Evaluation Requirements. 43
5.3. Grading Criteria: 43

Table 5.2. IPSS-Specific Grading Criteria. 44

Chapter 6— COMMUNICATIONS CONTROL OFFICER (CCO)/AIRBORNE COMMUNICATION SPECIALISTS (ACS) EVALUATIONS 49

6.1. Instructions: 49

6.2. Evaluation Requirements: 50

Table 6.1. CCO/ACS Evaluation Requirements. 50

6.3. Grading Criteria: 50

Table 6.2. CCO/ACS-Specific Grading Criteria. 51

Chapter 7— INFLIGHT MAINTENANCE TECHNICIAN EVALUATIONS 54

7.1. Instructions: 54

7.2. Evaluation Requirements: 55

Table 7.1. IMT Evaluation Requirements. 55

7.3. Grading Criteria: 55

Table 7.2. IMT-Specific Grading Criteria. 56

Table 7.3. IMT-Specific Grading Criteria. 57

Chapter 1

GENERAL INFORMATION

1.1. General. This instruction provides flight examiners and aircrew members with procedures and evaluation criteria used during flight evaluations. It is a reference document and a standard for evaluation purposes. Adherence to these procedures and criteria will ensure an accurate assessment of the proficiency and capabilities of aircrew members. Each crew specialty has a separate chapter in this AFI that provides specific information and grading criteria for that specialty.

1.2. Recommendation for Change of Publication. Recommendations for improvements to this volume will be submitted on AF Form 847 **Recommendation for Change of Publication,** IAW AFI 11-215, *Flight Manuals Program,* to HQ ACC/DISA. Recommendations approved will be forwarded to HQ ACC/DOTV. AF/XO approves interim changes to this instruction.

1.3. Waivers. IAW AFI 11-202V2 procedures, waiver requests must be routed through the Numbered Air Force (NAF) for comment. Waiver approval authority is HQ ACC/DIS, with HQ ACC/DOT coordination. All waiver requests must include the following, as applicable:

1.3.1. Name, rank, crew position, type aircraft, type of evaluation, expiration date, and applicable paragraph.

1.3.2. Justification for waiver.

1.3.3. Unit plan of action.

1.4. Procedures:

1.4.1. Standardization Evaluation Flight Examiners (SEFEs) will use the grading policies contained in AFI 11-202V2 and the evaluation criteria in this instruction for conducting all ACC E-4 Flight, Aircrew Training Device (ATD), and Emergency Procedures evaluations (EPE). All evaluations assume smooth air and a stable platform. Deliberately misleading questions and compound Emergency Procedures (EP) will not be used.

1.4.2. All evaluations fall under the Qualification (QUAL), Instrument (INSTM), Mission (MSN), Instructor (INSTR), or SPOT categories listed in AFI 11-202V2. For difference evaluations which do not update an eligibility zone, list as "Spot" on the front of the AF Form 8, **Certificate of Aircrew Qualification** and explain that it was a difference evaluation under "Mission Description." Instrument evaluations apply to pilots only. Schedule all evaluation activity on one sortie and in a mission aircraft to the greatest extent possible. OG/CC will determine when use of training aircraft for evaluations is allowable and publish guidance in the unit supplement to AFI 11-202V2. Do not begin an evaluation until all training items required for that evaluation are complete.

1.4.2.1. During all evaluations, any grading areas observed by the SEFE may be evaluated. If additional training is required for areas outside of the scheduled evaluation, document the training required under the appropriate area on the AF Form 8. **Example:** On a scheduled Mission evaluation the evaluatee demonstrates a need for additional training in Emergency Procedures (based on the Qualification grading criteria for the Emergency Procedures area). Document the discrep-

ancy and additional training required by adding "QUAL" to the "MSN" evaluation in "Flight Phase" of Section II of the AF Form 8 and adding the appropriate entries under Discrepancies and Recommended Additional Training. Assign the appropriate overall grade for the "QUAL" portion of the sortie (Q-2 or Q-3).

1.4.2.2. Each chapter in this AFI contains a table of requirements for various evaluations. Accompanying each table are notes that may be found at the bottom of each table (designated by a number), or at the bottom of the individual grading criteria (designated by an "X"). To complete an evaluation, all areas annotated with an "R" must be successfully completed. SEFEs will make every effort to evaluate all required areas during flight. When a required area cannot be evaluated inflight because of equipment malfunctions, weather conditions, operational requirements, or lack of adequate operating airspace, the area may be graded using a ground simulator or a verbal evaluation at OG/CC discretion. OGV will define, in their local supplement to AFI 11-202V2 those areas which MUST be evaluated inflight (example: Receiver Air Refueling).

1.4.3. Prior to beginning an evaluation, the SEFE will explain the purpose of the evaluation and how it will be conducted to the evaluatee. After the briefing, the evaluatee will accomplish any required mission planning and will provide the SEFE with copies of any mission planning materials upon request.

1.4.4. During an evaluation, the SEFE will assess the evaluatee's performance for each required grading area and note discrepancies when deviations occur. SEFEs must intervene to prevent or correct breaches of flying safety or flight discipline and to prevent aircraft/equipment limitations from being exceeded.

1.4.5. Post-evaluation, the SEFE will compare the evaluatee's performance with the tolerances provided in the grading criteria and assign an appropriate grade for each area. The SEFE will consider momentary deviations, see-and-avoid deviations, and cumulative deviations. The SEFE will thoroughly critique all aspects of the evaluation. During this critique, the SEFE will review the evaluatee's overall rating, specific deviations, area grades assigned, and any required additional training.

1.5. General Evaluation Requirements:

1.5.1. Publications Check. Per AFI 11-202V2, review all publications for qualification evaluations. Satisfactory performance for individual flight publications requires they be current and properly posted. Annotate any publications discrepancies in the Comments block of the AF Form 8.

Table 1.1. Flight Publications.

Publications	Pilot	Navigator	Flight Engineer	IPSS
T.O. 1E-4B-1	X	X	X	X
T.O. 1E-4B-1CL-1	X		X	
T.O. 1E-4B-1CL-2		X		
T.O. 1E-4B-1CL-4				X
T.O. 1E-4B-1-1	X		X	
T.O. 1-1C-1	X	X	X	
T.O. 1-1C-1-28	X	X	X	

Publications	Pilot	Navigator	Flight Engineer	IPSS
T.O. 1-1C-1-28CL-1	X		X	
T.O. 1-1C-1-28CL-3		X		

1.5.2. Examinations:

1.5.2.1. Qualification Examination (open book). This exam consists of 100 questions derived from applicable flight manuals and governing directives. 10 questions should come from local directives. 10 questions should be derived from each applicable aircraft Technical Order.

1.5.2.2. Emergency Procedures Examination (closed book). A general knowledge EP exam containing two parts; 25 questions covering a cross-section of Warnings and Cautions from flight manuals applicable to the individual's crew position/unit mission, and a Bold Face test for each critical action procedure. A correct Bold Face response will include proper order and intent; not spelling.

1.5.2.3. Instrument Examination. Required for pilots taking periodic instrument evaluations and all navigators (included in the unit Instrument Refresher Course).

1.5.3. Emergency Procedures Evaluation (EPE). An EPE is required only on Qualification evaluations. Instrument and Mission evaluations may include, but are not required an EPE, combining them wherever possible; e.g. a Qual/Msn eval would have one EPE. SEFEs will administer the pilot EPE in the ATD when available. When not available, these evaluations may be conducted in a static aircraft, cockpit trainer, or through verbal discussion and/or simulated action on the ground. For any EPE not conducted in the ATD, document method of evaluation in the Additional Comments section of the AF Form 8. EPEs must contain a sufficient number of scenarios to accurately evaluate the required areas. Qualification EPEs must cover applicable Bold Face and Critical Action Procedures, emergency procedures, and systems operation. Inflight Maintenance Technician crewmembers may also cover troubleshooting and repair. Mission EPEs will be tailored to unit tasking and include items requiring ground evaluation. Use applicable area grading criteria to evaluate the EPE.

1.5.4. Qualification Evaluation. This evaluation will be combined with Mission and Instrument evaluations, as applicable for the crew position, to the maximum extent possible. An individual that has an expired Qualification evaluation can not perform Qualification or Mission activities unsupervised.

1.5.5. Mission Evaluation. This evaluation will reflect unit Designed Operational Capability (DOC) and other taskings, provide realistic assessment of evaluatee capabilities, and provide assessment of the application of current tactics. Mission evaluation profiles will be developed by OGV. SEFEs will evaluate Basic Mission Capable (BMC) crewmembers based upon their ability to fly missions routinely performed at that training level. An individual that has an expired Mission evaluation may accomplish Qualification areas unsupervised if the qualification evaluation remains current.

1.5.6. Instructor Evaluation. All instructor aircrew members will be evaluated on their ability as an instructor during their initial instructor upgrade evaluation and on all periodic evaluations. Instructor flight evaluations will be conducted with a student occupying the applicable aircrew position whenever possible (exception-pilot instructor evaluations, see paragraph **2.1.5.**). The student will perform those duties prescribed by the instructor for the mission being accomplished. If an actual student is not available, the SEFE will identify to the evaluatee (prior to the mission) the level of performance to be expected from the SEFE acting as the student. If this option is utilized, at least one event or brief-

ing must be instructed as an "initial demo." The instructor evaluatee will monitor all phases of flight from an advantageous position and be prepared to demonstrate or explain any area or procedure. The SEFE will particularly note the instructor's ability to recognize student difficulties and provide effective, timely corrective action. The SEFE will also evaluate grade assignment/Training Accomplishment Report (TAR) completion for all instructor checks. All instructor evaluations will include a student briefing based on a thorough review of an actual or simulated student training folder/required documentation. To initially qualify as an instructor, a crewmember must successfully complete a dedicated initial instructor evaluation. This evaluation may be combined to realign an evaluation zone, provided primary emphasis remains on instructional ability. Accomplish initial instructor evaluations on actual student instructional missions whenever possible. Periodic instructor evaluations will be administered in conjunction with required qualification, instrument and mission flight evaluations. During these evaluations, the evaluatee must occupy the primary duty position for an adequate period of time to demonstrate proficiency in the crew position.

1.5.7. No-Notice Evaluations. OG/CC will determine no-notice evaluation procedures/quotas.

1.5.8. Unlike Specialty Evaluation. All SEFEs must report deviations/discrepancies from established procedures/directives in any area, regardless of the individual's crew specialty, to the Chief of OGV for action. Annotate SPOT in the Flight Phase block of the AF Form 8. The Chief of OGV will sign as the flight examiner. If a SEFE is flying as an instructor or crewmember and deviations are observed, report deviations to appropriate individuals (No AF Form 8).

1.6. Grading Instructions and General Grading Criteria. Standards and performance parameters are contained in AFI 11-202V2 and this instruction. A three-level grading system is used for most areas, however a "Q-" grade will not be indicated under critical areas.

1.6.1. Critical Areas. Critical areas are defined as events that require adequate accomplishment by the evaluatee in order to successfully achieve the sortie objectives and complete the evaluation. If an evaluatee receives a "U" grade in any critical area, the overall grade for the evaluation will be Q-3. Critical areas are identified by "(CRITICAL)" following the applicable area title.

1.6.2. Non-critical Areas. If an evaluatee receives a "U" grade in a non-critical area, then the overall grade awarded will be no higher than Q-2. An evaluatee receiving a "Q-" grade in a non-critical area or areas may still receive a Q-1 overall grade at SEFE discretion.

1.6.3. General Criteria. The following general qualification, mission, and the instructor grading criteria are common to all crew positions, and will be used for all applicable evaluations:

Table 1.2. General Qualification Grading Criteria.

PERSONAL/ PROFESSIONAL EQUIPMENT	AREA 1
Q	Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications according to directives.
Q-	Possessed personal/professional equipment and publications with minor omissions. Maintained equipment in serviceable condition. Posted publications with omissions, deviations or errors which detracted from sortie execution. Did not jeopardize sortie success.

U	Failed to possess all personal/professional equipment or to maintain equipment in serviceable condition. Posted publications with major omissions, deviations or errors which could jeopardized sortie success.
MISSION PLANNING	**AREA 2**
Q	Developed a sound plan to accomplish the mission. Checked all factors applicable to mission success (i.e., weather, fuel requirements, DV coordination, systems degrades, etc.,) as prescribed by the flight manual and other applicable directives. Checked Flight Crew Information File (FCIF), Vol. 1, Part B and annotated FCIF card. Complied with local directives and participated in all required briefings. Aware of alternatives available if flight cannot be completed as planned. Effectively coordinated with other crewmembers. Mission planning was adequate with no more than minor omissions, deviations or errors which did not impact planned sortie success.
Q-	Same as above, except minor errors or omissions that could detract from mission effectiveness. Knowledge of performance capabilities or approved operating procedures/rules marginal in some areas. Did not fully comply with local directives. Omissions, deviations or errors detracted from planned sortie execution. Did not jeopardize planned sortie success.
U	Major errors or omissions that would preclude safe/effective mission accomplishment. Faulty knowledge of operating data or procedures. Failed to check FCIF, Vol. 1, Part B and/or annotate FCIF card. Failed to comply with local directives or participate in all required briefings. Mission planning was inadequate and/or jeopardized planned sortie success.
EMERGENCY PROCEDURES (BOLDFACE) (CRITICAL)	**AREA 5**
Q	Made correct immediate responses. Coordinated proper actions
U	Incorrect sequence, unsatisfactory response, or unsatisfactory performance of corrective action
SAFETY (CRITICAL)	**AREA 6**
Q	Aware of and complied with all safety factors required for safe operation and mission accomplishment.
U	Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.
AIRMANSHIP (CRITICAL)	**AREA 7**

Q	Demonstrated effective situational awareness and sound judgment throughout all phases of flight. Recognized and corrected task saturation or channelized attention. Decisions were timely and logical and did not jeopardize sortie success.
U	Demonstrated poor judgment or a lack of situational awareness. Failed to recognize or correct task saturation or channelized attention. Decisions, or a lack thereof, jeopardized sortie success or were not timely or logical.

Table 1.3. General Mission Grading Criteria.

MISSION EMPLOYMENT	
Q	Accomplished mission goals. Applied operational procedures consistent with mission objectives, threats and current directives. Mission equipment was properly configured IAW mission priorities and timing. Adapted to meet changing mission situation.
Q-	As above but with minor deviations, omissions or errors which did not prevent accomplishment of mission goals. Slow to adapt to changing mission situation.
U	Did not accomplish mission goals. Applied operational procedures inconsistent with mission objectives, threats, and current directives. Mission equipment was not configured. Failed to adapt to changing mission situation.
MISSION COMMUNICATIONS, LOGS AND REPORTS	
Q	Communicated required mission information within the aircraft and with external agencies. Communications were clear, concise, timely and used standard terminology/format. All logs, reports, media and forms required for the mission were completed in accordance with applicable directives, tasking and policy. Information was provided in sufficient detail to allow accurate and timely analysis of associated mission data. Complied with security procedures.
Q-	As above but with minor deviations, omissions or errors which did not significantly impact the planned mission. Complied with security procedures.
U	Major deviations, omissions or errors which significantly impacted the planned mission. Communications caused confusion or delay. Logs, reports, media or forms required for the mission contained errors or omissions precluding analysis of mission data. Failed to comply with security procedures.

Table 1.4. Instructor Criteria.

INSTRUCTIONAL ABILITY

Q	Demonstrated ability to communicate effectively. Provided appropriate corrective guidance when necessary. Planned ahead and made timely decisions. Correctly analyzed student errors.
Q-	Minor discrepancies in the above criteria that did not adversely impact student progress.
U	Unable to effectively communicate with the student. Did not provide corrective action where necessary. Did not plan ahead or anticipate student problems. Incorrectly analyzed student errors. Adversely impacted student progress.
Note: Awarding a "U" in any of the following 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 QUAL/MSN/INSTM.	
BRIEFINGS/CRITIQUE	
Q	Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Demonstrated ability during critique to reconstruct the flight, offer mission analysis, and provide corrective guidance where appropriate. Completed all training documents according to prescribed directives. Correct grades awarded.
Q-	As above but with minor errors or omissions in briefings, critique, and/or training documents that did not adversely impact student progress.
U	Briefings were marginal or nonexistent. Did not review student's training folder or past performance. Failed to adequately critique student or conducted an incomplete mission analysis which compromised learning. Student strengths or weaknesses were not adequately identified. Adversely impacted student progress. Inappropriate grades awarded. Overlooked or omitted major discrepancies.
DEMONSTRATION AND PERFORMANCE	
Q	Effectively demonstrated procedures and techniques on the ground and inflight. Demonstrated thorough knowledge of aircraft systems, procedures and all applicable publications and regulations.
Q-	Minor discrepancies in the above Q criteria that did not adversely impact student progress.
U	Did not demonstrate correct procedure or technique. Insufficient depth of knowledge about aircraft systems, procedures, or proper source material. Adversely impacted student progress.

1.7. Explanation of Terms:

1.7.1. Airmanship. An aircrew member's continuous perception of self and aircraft in relation to the dynamic environment of flight, threats, and mission, and the ability to forecast, then execute, tasks based upon that perception.

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

1.7.3. Omission. To leave out a required action or annotation.

1.7.4. Error. Departure from standard procedure. Performing incorrect actions or recording inaccurate information.

The following definitions apply to the above:

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

1.7.4.2. Major. Detracted from task accomplishment, adversely affected use of equipment, or violated safety.

Chapter 2

PILOT EVALUATIONS

2.1. Instructions:

2.1.1. The grading criteria contained in this chapter are applicable to evaluations for pilots and were established by experience, policies and procedures set forth in flight manuals and other directives. SEFEs must realize that grading criteria contained herein cannot cover every situation. Written parameters must be tempered with mission objectives and, more importantly, mission/task accomplishment in the determination of overall aircrew performance. Specific requirements for each evaluation are as follows:

2.1.2. Qualification Evaluations.

2.1.2.1. Ground Requisites. Qualification Examination (open book), Emergency Procedures Examination (closed book and Boldface/CAPs), and Emergency Procedures Evaluation (EPE/ATD).

2.1.2.2. Flight Phase. All areas required in **Table 2.1.** under "QUAL" will be evaluated. During evaluations, a right seat approach and landing is required.

2.1.3. Instrument Evaluations.

2.1.3.1. Ground Requisites. Instrument Refresher Course (IRC) and Instrument Examination, and Emergency Procedures Evaluation (EPE/ATD). The instrument EPE will normally be combined with the qualification EPE.

2.1.3.2. Flight Phase. All areas required in **Table 2.1.** under "INSTM" will be evaluated, unless not applicable to the specific aircraft as noted. The instrument flight phase will normally be combined with the qualification flight phase.

NOTE:

Pilots with an expired Instrument check must fly under the direct supervision of an IP.

2.1.4. Mission Evaluations. Mission evaluations may be combined with instrument and qualification evaluations.

2.1.4.1. Ground Requisites. Single Integrated Operations Plan (SIOP) Study and Certification Boldface/CAPs exam, and Emergency Procedures Evaluation (EPE/ATD). The mission EPE may be combined with the instrument and/or qualification EPE.

2.1.4.2. Flight Phase. All areas required in **Table 2.1.** under "MSN" will be evaluated.

2.1.5. Instructor Pilot Evaluations. Pilots receiving initial instructor evaluations must occupy the right seat during the evaluation. An IP or SEFE must occupy the left seat. On periodic evaluations, instructors may occupy either seat to accomplish required items. A student, pilot, IP, or SEFE may occupy the other seat. In all cases the examinee will occupy the position normally occupied for instruction and will perform all tasks as demonstration items. The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on air refueling, emergency procedures/equipment, aircraft systems (location, configuration,

operation, procedures, and techniques), mission knowledge, or any other operating procedures and techniques. Demonstrations will be prebriefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee's crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All "INSTR" areas must be evaluated.

2.1.5.1. Additional Instructor Pilot Demonstration and Performance Requirements. The following items will be demonstrated/instructed by the examinee:

2.1.5.1.1. Outboard engine out approach/go around.

2.1.5.1.2. Outboard Engine Failure Take Off Continued (EFTOC).

2.1.5.1.3. 3 Engine Touch (outboard engine out)/4 Engine Go.

2.1.5.1.4. Air Refueling Envelope Demonstration.

NOTE:

During instructor evaluations, SEFEs must exercise sound judgment to ensure questions are not only comprehensive, but more importantly, pertinent to the crew member's duties and responsibilities.

2.1.5.2. Instructor Requalification Evaluation. Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to requalify as instructors will receive an instructor flight evaluation consisting of a student prebriefing, inflight instruction based on student (real or simulated) needs, and a postflight critique/TAR. Inflight instruction will include the demos listed in paragraph **2.1.5.1.** and "INSTR" areas listed in **Table 2.1.**, but no other specific inflight events are required. If the former instructor requires initial instructor training/ evaluation based on guidance in the training volume, or if the instructor requalification is concurrent with the aircraft requalification, comply with paragraph **2.1.5.**

2.1.6. Emergency Procedures Evaluation. Additional guidance.

2.1.6.1. Qualification and Instrument EPEs will evaluate the pilot's performance of all Boldface/ Critical Action Procedures, a cross section of noncritical emergency procedures, knowledge and performance of general systems operation, a cross-section of instrument procedures, holding, and unusual attitude recoveries. Use the Emergency Procedures - Bold Face criteria for Bold Face/ Critical Action emergencies, and the Emergency Procedures criteria for all other emergency situations given. Use Systems Knowledge/Operation criteria to evaluate general systems operation. Use Instrument areas plus Takeoff, Departure, Cruise/Navigation, and Descent areas to evaluate general instrument procedures. Squadrons will develop written Qualification and Instrument EPE profiles.

2.2. Evaluation Requirements:

2.2.1. The table below lists areas for pilot qualification, instrument, mission, and instructor evaluations. An "R" indicates a requirement for that evaluation. The NOTES column will indicate either an "X" or a number. The "X" refers to a general note found in the specific grading criteria table. A number refers to a note at the end of the table.

Table 2.1. Pilot Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTM	MSN	INSTR
1. Personal/Professional Equipment		R			
2. Mission Planning		R			
3. Checklist Procedures		R			
4. Emergency Procedures (General)		R			
5. Emergency Procedures (Boldface) (Critical)		R			
6. Safety (Critical)		R			
7. Airmanship (Critical)		R			
8. Aircrew Discipline/Crew Coordination/CRM (Critical)		R			
9. Pre-Takeoff		R			
10. Takeoff		R			
11. Departure		R			
12. Cruise/Navigation		R			
13. ATC Communications/IFF/SIF		R			
14. Unusual Attitudes	1,X		R		
15. Holding			R		
16. Air Refueling	X	R			
17. Descent		R			
18. IFR Traffic Pattern			R		
19. Precision Approach			R		
20. Non-Precision Approach			R		
21. Category II/IIIa ILS Procedures	X		R		
22. Missed Approach	X		R		
23. Go Around	X	R			
24. VFR Pattern		R			
25. Landings	X	R			
26. Touch and Go Landings	3,X	R			
27. Simulated Outboard Engine Out Takeoff Continued	X	R			
28. Simulated Outboard Engine Out approach/go around	X	R			
29. Systems Knowledge/Operation	X	R			
30. After Landing		R			
31. Postflight/Debrief		R			
32. Alert Procedures	X			R	
33. Mission Employment				R	
34. Mission Debriefing	X			R	

AREA/TITLE	NOTES	QUAL	INSTM	MSN	INSTR
35. Instructional Ability					R
36. Briefings/Critique					R
37. Demonstration and Performance					R

NOTE 1	Unusual Attitudes will be accomplished as part of the EPE.
NOTE 2	Both a PAR and ILS are required if equipment and facilities are available or traffic flow permits. If not available, the flight evaluation may be completed with one precision approach flown. Do not verbally evaluate the approach that was not flown.
NOTE 3	At OG/CC discretion aircraft commanders may be trained, qualified, and certified to perform touch and go landings without IP supervision.

2.3. Grading Criteria. Standards and performance parameters are contained in AFI 11-202V2 and this instruction. For all evaluations, the SEFE will disregard minor deviations from tolerances for the purpose of clearing conflicting traffic provided the evaluatee initiates timely corrective action. When VMC, see and avoid responsibilities are paramount.

2.3.1. For the following areas, see **Chapter 1** for grading criteria:

2.3.1.1. Qualification:

2.3.1.1.1. Personal/Professional Equipment.

2.3.1.1.2. Mission Planning.

2.3.1.1.3. Checklist Procedures.

2.3.1.1.4. Emergency Procedures. (General)

2.3.1.1.5. Emergency Procedures. (Boldface) (Critical)

2.3.1.1.6. Safety. (Critical)

2.3.1.1.7. Airmanship. (Critical)

2.3.1.1.8. Aircrew Discipline/Crew Coordination/CRM. (Critical)

2.3.1.1.9. Postflight/Debrief.

2.3.1.2. Mission:

2.3.1.2.1. Mission Employment.

2.3.1.3. Instructor:

2.3.1.3.1. Instructional Ability.

2.3.1.3.2. Briefings/Critique.

2.3.1.3.3. Demonstration and Performance.

2.3.2. Specific Grading Criteria:

Table 2.2. Pilot-Specific Grading Criteria.

AIRCREW DISCIPLINE CREW COORDINATION/CRM (CRITICAL)	
Q	Demonstrated strict professional flight and crew discipline throughout all phases of flight. Complied with directives. Coordinated effectively with other crewmembers without confusion or undue delay. Exercised sound CRM skills. See AFI 11-290, Atch 2.
U	Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations. Crew coordination/CRM was ineffective.
PRE-TAKEOFF	**AREA 9**
Q	Established and adhered to engine start, taxi and takeoff times as required to assure thorough preflight. Performed all checks and procedures prior to takeoff according to approved checklists and applicable directives. Was knowledgeable of applicable sections and checked AFTO Forms 781. Accurately determined aircraft's readiness for flight. Taxi speeds appropriate for conditions. Visually cleared area.
Q-	Same as above except for minor procedural deviations which would not detract from mission effectiveness. Displayed limited knowledge of AFTO Forms 781. Accurately determined aircraft's readiness for flight. Taxi speeds appropriate for conditions. Visually cleared area.
U	Did not use checklist or omitted major item(s). Major deviation in procedures which would preclude safe mission accomplishment. Failed to accurately determine aircraft's readiness for flight. Taxi speeds unsafe for conditions. Did not adequately clear area.
TAKEOFF	**AREA 10**
Q	Smooth, positive aircraft control throughout takeoff. Performed according to flight manual procedures and techniques.
Q-	Minor deviations from published procedures not affecting safety of flight. Control rough or erratic. Hesitant in application of corrections.
U	Liftoff potentially dangerous. Exceeded aircraft limitations. Failed to establish proper climb attitude. Marginal control of the aircraft. Violated flight manual procedures.
DEPARTURE	**AREA 11**
Q	Performed departure as published/directed and complied with all restrictions. Applied heading/course correction promptlyAltitude +/- 150 ft (intermediate level off)Airspeed +/- 10 Kts/.03 MachHeading/Course +/- 5 degrees (when assigned or specified)TACAN Arc +/- 2 miles Smooth, positive aircraft control throughout takeoff. Performed according to flight manual procedures and techniques.
Q-	Performed departure as published/directed and complied with all restrictions. Slow to apply course/heading corrections.Altitude +/- 200 ft (intermediate level off)Airspeed +/- 15 Kts/.04 MachHeading/Course +/- 10 degrees (when assigned or specified)TACAN Arc +/- 3 miles Minor deviations from published procedures not affecting safety of flight. Control rough or erratic. Hesitant in application of corrections.
U	Failed to comply with published/directed departure instructions or exceeded Q- criteria. Failed to maintain positive rate of climb.

CRUISE/NAVIGATION	**AREA 12**
Q	Leveled off smoothly at specified altitude within +/- 150 ft. Established proper cruise airspeed promptly. Properly used appropriate navigation equipment/procedures. Ensured navaids were properly tuned, identified and monitored. Aware of position at all times. Visually cleared the area. Maintained/adjusted speeds as required to meet mission timing.
Q-	Level off erratic, maintained altitude within +/- 200 ft. Slow in establishing proper cruise airspeed. Minor errors in procedure/use of navigation equipment. Some deviations in tuning, identifying and monitoring navaids. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and maintaining/adjusting speed to meet mission requirements. Visually cleared the area.
U	Level off erratic, exceeded Q- criteria. Excessive delay or failed to establish proper cruise airspeed. Major errors in procedures/use of navigation equipment to the extent that position was unreliable. Did not maintain/adjust speed to meet mission requirements. Did not visually clear the area.
ATC Communications/IFF/SIF	**AREA 13**
Q	Complete knowledge of, and compliance with, correct procedures. Transmissions concise with proper terminology utilized. Complied with and acknowledged all required instructions. Understood clearances and complied with controlling agency instructions. Made required radio calls. Correctly operated equipment.
Q-	Occasional deviations from correct procedures that required retransmissions. Slow in initiating required actions. Transmissions contained extraneous information, were not in proper sequence, non-standard terminology. Understood clearances. Complied with controlling agency instructions with minor errors or omission not effecting mission safety. Slow to comply with controlling agency instructions. Missed several radio calls from ATC. Minor errors, deviations, or omissions in operating equipment.
U	Incorrect procedures or poor performance caused confusion and reduced mission effectiveness. Omitted required checks or procedures. Erroneous IFF/SIF codes used. Did not understand clearance or accepted clearance that could not be complied with. Did not read back clearance accurately (when required). Did not comply with clearance. Did not make required reports. Major errors, deviations, or omissions in operating equipment.
UNUSUAL ATTITUDES	**AREA 14**
Q	Smooth positive recovery to level flight, correct recovery procedures used, or demonstrated satisfactory knowledge of correct procedures
Q-	Slow to analyze attitude, or erratic in recovery to level flight, correct recovery procedures followed
U	Unable to determine attitude, or improper recovery procedures
NOTE	Accomplish in the simulator when available or verbally as part of the EPE
HOLDING	**AREA 15**
Q	Entry and holding procedures according to applicable directives.Altitude +/- 150 ftAirspeed +/- 10 kts

Q-	Inappropriate entry and holding procedures but remained within airspace limits.Altitudes +/- 200 ftAirspeed +/- 15 kts
U	Exceeded holding airspace limits or exceeded Q- criteria.
AIR REFUELING	**AREA 16**
Q	Established and maintained proper refueling position. Aircraft control was positive and smooth. Accomplished pre-refueling check and satisfactorily followed procedures and techniques outlined in the flight manual, checklist and local directives. Continuous contact for 15 minutes for initial qualification, no more than 3 inadvertent disconnects. Continuous contact for 10 minutes with not more than 3 inadvertent disconnects for recurring evaluations. Used correct procedures during emergency separation.Airspeed +/- 10 kts (1/2 mile)Altitude +/- 150 ft (1 mile) +100 ft to –300 ft (1 mile to 1/2 mile)
Q-	Slow to recognize and apply needed corrections to establish and maintain proper refueling position. Aircraft control not always positive and smooth, but adequate. Continuous contact for 15 minutes for initial qualification, more than 3 but less than 6 inadvertent disconnects. Continuous contact for 10 minutes with more than 3 but less than 6 inadvertent disconnects for recurring evaluations. Accomplished procedures required by the flight manual and local directives with minor errors, deviations, and/or omissions which did not affect safety of flight or the successful completion of the air refueling. Minor errors, deviations, and/or omissions in emergency separation procedures.Airspeed +/- 15 kts (1/2 mile)Altitude +/- 200 ft (1 mile) +150 ft to – 300 ft (1 mile to 1/2 mile)
U	Erratic or dangerous in the refueling position. Errors/deviations/omissions that affected flight safety and/or the successful completion of air refueling. Exceeded the Q- criteria. More than 6 inadvertent disconnects. Major errors/deviations/omissions in emergency separation procedures.
NOTE 1	Pilots will perform a Rendezvous and practice emergency separation..
NOTE 2	For instructor pilots performing an Air Refueling envelope demonstration, inadvertent disconnects are permissible during demonstration and therefore will not be counted against the examinee.
DESCENT	**AREA 17**
Q	Performed descent as directed. Complied with all restrictions. Visually cleared the area. Accomplished required checks in accordance with flight manual.Altitude +/- 150 ft (level off)Airspeed +/- 10 kts Heading/Course +/- 5 degrees (when assigned or specified)TACAN Arc +/- 2 miles
Q-	Performed descent as directed with minor deviations. Visually cleared the area adequately. Slow to accomplish required checks in accordance with the flight manual. Altitude +/- 200 ft (level off)Airspeed + 15/-10 ktsHeading/Course +/- 10 degrees (when assigned or specified)TACAN Arc +/- 3 miles
U	Performed descent with major deviations. Did not accomplish required checks. Failed to visually clear the area adequately. Exceeded Q- criteria
IFR TRAFFIC PATTERN	**AREA 18**

Q	Procedures and checklist items required by the flight manual and applicable directives were accomplished. Followed controller's instructions and complied with all restrictions. Made smooth and timely corrections.Altitude +/- 150 ftAirspeed + 20/-5 kts (Did not exceed Flap Placard)Heading/Course +/- 5 degreesTACAN Arc +/- 2 miles
Q-	Procedures and checklist items required by the flight manual and applicable directives were accomplished with omissions or deviations. Slow or hesitant in following controller's instructions. Over controlled slightly or occasionally and/or slow in making corrections.Altitude +/- 200 ftAirspeed + 30/-10 kts (Did not exceed Flap Placard)Heading/Course +/- 10 degreesTACAN Arc +/- 3 miles
U	Made major deviations or omissions in procedures and checklist items required by the flight manual and applicable directives. Failed to comply with controller's instructions. Exceeded Q- criteria.
PRECISION APPROACH	**AREA 19**
Q	Performed procedures as directed and according to applicable flight manual. Smooth and timely corrections to azimuth and glide slope. Established initial glide path and adjusted for deviations throughout the approach. Complied with decision height. Position would have permitted a safe landing. Glide slope Did not exceed slightly above/slightly below (PAR) or +/- 1 dot (ILS)Airspeed +10/-5 ktsHeading/Course +/- 5 degrees of controller's instructions (PAR) or +/- 1 dot (ILS)DH +/- 25 ft (ILS) or prompt response to DH (PAR)
Q-	Performed procedures with minor deviations. Slow to respond to controller's instructions/make corrections. Slow to establish initial glide path and adjust for deviations throughout the approach. Complied with decision height. Position would have permitted a safe landing.Glideslope Did not exceed well above or well below glide path (PAR) or 2 dots above/1 dot below (ILS)Airspeed +15/-5 ktsHeading/Course +/-10 degrees of controller' s instructions (PAR) or +/- 2 dots (ILS)DH +50/-25 ft
U	Performed procedures with major deviations. Erratic corrections. Did not respond to controller' s instructions and/or exceeded Q- criteria. Did not comply with decision height and/or position would not have permitted a safe landing. Too high or below glide path for safe approach.
NOTE 1	Both a PAR and an ILS will be graded if available.
NOTE 2	A manual ILS flown to CAT II minimums is required for CAT II/IIIa certification.
NON-PRECISION APPROACH	**AREA 20**
Q	Performed procedures as published/directed and according to applicable flight manual. Made smooth and timely corrections. Arrived at MDA prior to or at VDP. Position would have permitted safe landing.Airspeed +10/-5 ktsAltitude +100/-50 ft (after reaching MDA and prior to MAP)Heading/Course +/- 5 degrees or within one dotTiming Computed to within 10% of actual timing (when applicable).

Q-	Performed procedures with minor deviations. Slow to make corrections. Arrived at MDA prior to or at missed approach point. Position would have allowed safe landing.Airspeed +15/-5 ktsAltitude +125/-50 ft (after reaching MDA and prior to MAP)Heading/Course +/- 10 degrees or within two dotsTiming Computed to within 20% of actual timing (when applicable).
U	Performed procedures with major deviations. Erratic corrections. Exceeded Q- criteria. Did not arrive at MDA prior to or at missed approach point. Position would not have permitted safe landing. Failed to compute or adjust timing to determine MAP.
Cat II/IIIa ILS PROCEDURES	**AREA 21**
Q	Performed procedures as published and according to applicable flight manual and other directives. Ensured the aircraft systems were configured correctly at the proper time. Monitored the aircraft and systems throughout the maneuver and took corrective action for any malfunctions or deviations. Proper landing/go-around procedures applied.
Q-	Performed procedures with minor deviations. Slow to configure aircraft systems. Slow to recognize and correct aircraft/system deviations. Slow to take correct actions at alert/decision height.
U	Performed procedures with major deviations. Did not recognize aircraft/system deviations or take corrective action. Exceeded Q- criteria.
NOTE	A coupled approach to an Auto-Go and Autoland as well as a manual ILS to CAT II minimums is required for CAT II/IIIa certification.
MISSED APPROACH	**AREA 22**
Q	Executed missed approach as published or directed. Completed all procedures according to applicable flight manual and directives.Level off altitude +/- 150 ftAirspeed +/- 10 kts Heading/Course +/- 5 degreesTACAN Arc +/- 2 miles
Q-	Executed missed approach with minor deviations. Slow to comply with published procedures, controller's instructions, flight manual procedures, or directives. Level off altitude +/- 200 ftAirspeed +15/-10 kts Course/Heading +/- 10 degreesTACAN Arc +/- 3 miles
U	Executed missed approach with major deviations. Failed to comply with published procedure, controller's instructions, flight manual procedures, or directives. Exceeded Q- criteria.
NOTE 1	Missed Approach must be initiated from an Instrument Approach.
GO AROUND	**AREA 23**
Q	Aircraft control was smooth and positive. Promptly established appropriate go around pitch and power settings. Performed procedures IAW the flight manual. Complied with pattern/maneuver and flap retraction speed limitations.
Q-	Slow to establish appropriate go around pitch and power settings. Minor errors/deviations/omissions in flight manual procedures. Complied with pattern/maneuver and flap retraction speed limitations.

U	Rough or erratic aircraft control. Pitch and power settings were inappropriate. Major errors/deviations/omissions in flight manual procedures. Failed to comply with pattern/ maneuver and/or flap retraction speed limitations.
NOTE 1	May be flown from any type of approach, IFR or VFR. SEFE may direct a go around at any point in an approach or landing to evaluate go around procedures.
NOTE 2	May be graded during a missed approach.
VFR PATTERN	**AREA 24**
Q	Performed traffic patterns according to the flight manual, operational procedures manual and directives. Aircraft control was positive and smooth. Effectively cleared ahead of flight-path. Did not over/under shoot final.Pattern Altitude +/- 150 ftAirspeed (Pattern) +20/-5 kts (Did not exceed Flap Placard)Airspeed (final) +10/-5 kts
Q-	Performed traffic patterns with minor deviations to procedures outlined in the flight manual, operational procedures manual, and local directives. Aircraft control was not consistently positive and smooth, but safe. Adequately cleared area of intended flight. Minor over/under shoot of final.Altitude +/- 200 ftAirspeed (Pattern) +30/-5 kts (Did not exceed Flap Placard)Airspeed (Final) +15/-5 kts
U	Traffic patterns not performed according to procedures outlined in the flight manual, operational procedures manual, and local directives. Erratic aircraft control. Did not clear area of intended flight. Exceeded Q- criteria. Significant Over/under shoot of final.
LANDINGS	**AREA 25**
Q	Performed landings according to procedures outlined in the flight manual, operational procedures manual and local directives. Correct reverse thrust procedures.Threshold Speed: +10/-5 ktsTouchdown Point: +/- 1000 feet as compared to computed flare distance and within stopping distance for runway available.
Q-	Performed landings with minor deviations to procedures outlined in the flight manual, operational procedures manual and local directives. Landed in a slight crab or slightly long. Touchdown within stopping distance for runway available, and within the first 3000 feet of runway available. Slow reverse thrust procedures or minor deviations.
U	Landings not performed according to procedures outlined in the flight manual, operational procedures manual and local directives. Improper reverse thrust procedures. Exceeded Q- criteria.
NOTE 1	An outboard engine out, reverse thrust landing must be performed.
NOTE 2	Evaluatee must perform both a right and left seat landing.
TOUCH and GO LANDINGS	**AREA 26**
Q	Complied with flight manual procedures, operational restrictions, and local directives. Ensured adequate runway length to permit a safe stop. Corrected to centerline prior to rotation. Smooth, positive aircraft control throughout takeoff phase.
Q-	Minor errors/deviations/omissions in the flight manual procedures, operational restrictions, or local directives. Ensured adequate runway length to permit a safe stop. Slow to correct to centerline. Control rough, erratic, or hesitant during takeoff phase.

U	Major errors/deviations/omissions in the flight manual procedures, operational restrictions, or local directives. Failed to ensure adequate runway length available to permit a safe stop. Did not correct to centerline. Liftoff potentially dangerous. Over controlled aircraft.
NOTE 1	Evaluatee must perform a touch and go from both the left and right seat.
NOTE 2	Initial Instructor evaluatees must perform as pilot not flying from the right seat.
SIMULATED OUTBOARD ENGINE FAILURE (TAKEOFF CONTINUED)	**AREA 27**
Q	Performed procedures according to the flight manual, operational procedures manual and local directives. Smooth aircraft control, maintained positive climb/level altitude; maintained directional control; reconfigured the aircraft for maximum performance capabilities. Accomplished emergency procedure checklists and reviewed considerations.
Q-	Performed procedures with minor deviations. Aircraft control was somewhat erratic. Did not maintain positive climb when capable but did not lose altitude. Slow to apply proper inputs. Slow to call for and accomplish required checklist.
U	Erratic aircraft control compromising safety. Poor asymmetric control. Lost unnecessary altitude. Did not perform emergency procedures checklists or accomplished with major deviations.
NOTE	The following additional criteria is added to the appropriate grading area:Pattern altitude +25/-0 ftairspeed +5/-0 ktscourse/heading +/- 2 degrees
SIMULATED OUTBOARD ENGINE OUT (Approach/Missed Approach)	**AREA 28**
Q	Accomplished emergency procedure checklist and reviewed considerations. Performed applicable approach procedures outlined in the flight manual and other directives. Smooth aircraft response to applicable controller instructions. Complied with MDA/DH and initiated Missed Approach instructions. Maintained stable aircraft control and established positive climb when able. Aircraft control was positive and smooth.
Q-	Performed procedures with minor deviations. Slow to review considerations. Aircraft control somewhat erratic but safe. Complied with MDA/DH. Slow to establish the missed approach attitude but maintained positive climb when able.
U	Did not perform applicable emergency procedures or with major deviations. Erratic aircraft control compromising safety. Did not adhere to MDA/DH. Poor asymmetric control on missed approach. Did not establish/maintain positive climb when able. Failed to recognize and apply corrections to avoid over/undershoots, did not comply with procedures outlined in the flight manual/other directives. Exceeded Q- criteria.
NOTE	The following criteria is added to the appropriate grading area:Pattern altitude +25/-0 ftAirspeed +5/-0 ktsCourse/heading +/- 2 degreesMDA/DH +25/-0 ft
SYSTEMS KNOWLEDGE/OPERATION	**AREA 29**
Q	Satisfactory knowledge of systems ensuring effective operation within prescribed limits and diagnosis of problems. Explained proper corrective action for each type of malfunction. Effectively utilized checklist and/or available aids.

Q-	Incomplete knowledge of system operating limits. Slow to analyze problems or take proper corrective action. Did not effectively use checklist and/or available aids.
U	Unsatisfactory knowledge of systems. Unable to analyze problems or take corrective action. Did not use checklist and/or available aids.
NOTE	A sampling of the following areas should be discussed/evaluated:ElectricalHydraulicAir Conditioning/Heating/VentilationPressurizationFuel/OilAnti-iceEnginesOxygen Systems
AFTER LANDING	**AREA 30**
Q	Appropriate after landing checks and aircraft taxi procedures accomplished in accordance with the flight manual and applicable directives. Taxi speeds appropriate for conditions. Visually cleared area. Safely followed marshaling instructions. Completed all required forms accurately.
Q-	Same as Q except minor errors, deviations or omissions were noted in performance of after landing check and/or aircraft taxi procedures in which safety was not jeopardized. Taxi speeds appropriate for conditions. Visually cleared area. Some confusion over marshaller's instructions. Required forms completed with minor inaccuracies.
U	Major errors, deviations or omissions were made in performance of after landing check or aircraft taxi procedures which could have jeopardized safely. Taxi speeds inappropriate for conditions. Failed to clear. Disregarded marshaller's instructions, or allowed marshaller to direct an unsafe situation. Data recorded inaccurately or omitted.
ALERT PROCEDURES	**AREA 32**
Q	Satisfactory knowledge of required procedures as outlined in applicable flight manuals and other directives. Performed engine start and taxi procedures without hesitation and met current minimum timing requirements.
Q-	Knowledge of required procedures was adequate. Did not display urgency for engine start and taxi. Within current timing requirements. Made deviations or omissions which detracted from the alert mission.
U	Inadequate knowledge of required procedures. Major deviations or omissions. Did not meet current timing requirements adequately.
NOTE 1	Alert Procedures (Alert Cocking, Engine Start, Before Takeoff) will be accomplished on all mission evaluations. Aircraft commanders on initial mission evaluations will occupy the right seat and perform pilot duties. Alert aircraft commanders will occupy the left seat and perform those duties.
NOTE 2	Aircraft commanders will complete all other alert related activities from the left seat and those events will be graded under "Mission Employment."
MISSION DEBRIEFING	**AREA 34**
Q	Conducted or fully participated in a thorough crew critique of mission performance IAW current directives.
Q-	Some important aspects of crew performance were not critiqued. Hesitant to make needed inputs during crew critique of mission performance.
U	Did not conduct, or participate in, a thorough crew critique of mission performance.

NOTE 1	When mission eval is flown on a simulated sortie, the SEFE may evaluate this area through verbal questioning of the evaluatee.
NOTE 2	When mission and qualification evaluations are combined, only grade mission critique items under this area. Use Postflight/Debrief criteria for other crew debriefings.

Chapter 3

NAVIGATOR EVALUATIONS

3.1. Instructions:

3.1.1. The grading criteria contained in this chapter are applicable to evaluations for navigators in E-4 aircraft and were established by experience, policies and procedures set forth in flight manuals and other directives. Flights conducted over land on established airways will make maximum use of available equipment and aids. SEFEs must realize that grading criteria contained herein cannot cover every situation. Performance parameters must be tempered with mission objectives and, more importantly, mission/task accomplishment in the determination of overall aircrew performance. Specific requirements for each evaluation are as follows:

3.1.2. Qualification Evaluations:

3.1.2.1. Ground Requisites. Qualification Examination (open book), Emergency Procedures Examination (closed book and Boldface/CAPs), Instrument Refresher Course (IRC) and Instrument Examination, and Emergency Procedures Evaluation (EPE). Closed book and boldface exams will be logged separately on AF Form 8.

3.1.2.2. Flight Phase. All areas required in **Table 3.1.** will be evaluated.

3.1.3. Mission Evaluations. Mission evaluations may be combined with qualification evaluations.

3.1.3.1. Ground Requisites. SIOP Study and Certification CAPs exam, and Emergency Procedures Evaluation (EPE). The mission EPE may be combined with the qualification EPE.

3.1.3.2. Flight Phase. All areas required in **Table 3.1.** under "MSN" will be evaluated.

3.1.4. Instructor Evaluations. The SEFE may, during any phase of the check, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on air refueling, emergency equipment, aircraft systems, location, configuration, operation, procedures, and techniques. Demonstrations will be prebriefed to the examinee and will be accomplished inflight at an appropriate time so as not to interfere with the examinee's crew duties and pacing.

NOTE:

During instructor evaluations, SEFEs must exercise sound judgment to ensure questions are not only comprehensive, but more importantly, pertinent to the crew member's duties, responsibilities, and experience level.

3.1.4.1. Instructor Requalification Evaluations. Former instructors who have regained currency and qualification in the aircraft, and meeting training regulation criteria to requalify as instructors will receive an instructor flight evaluation consisting of a student prebriefing, inflight instruction, and a postflight critique/TAR. Inflight instruction will include the areas listed in **Table 3.1.**, but no other specific inflight events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume, or if the instructor requalification is concurrent with the aircraft requalification, comply with paragraph **3.1.2.**

3.2. Evaluation Requirements:

3.2.1. The table below lists areas for navigator qualification, mission, and instructor evaluations. An "R" indicates a requirement for that evaluation. The NOTES column may include an "X" which refers to a general note found in the specific grading criteria table.

Table 3.1. Navigator Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	MSN	INSTR
1. Personal/Professional Equipment		R		
2. Mission Planning		R		
3. Checklist Procedures		R		
4. Emergency Procedures (General)		R		
5. Emergency Procedures (Boldface) (Critical)		R		
6. Safety (Critical)		R		
7. Airmanship (Critical)		R		
8. Aircrew Discipline/Crew Coordination/CRM(Critical)		R		
9. Flight Plan/Charts	X	R		
10. Briefing		R		
11. Pre takeoff		R		
12. Departure		R		
13. Level Off/Departure/Coast Out		R		
14. Instrument Checks		R		
15. Dead Reckoning	X	R		
16. Inflight Information/Fixing	X	R		
17. Radio Navigation		R		
18. Pacing		R		
19. Celestial Navigation	X	R		
20. Comm/IFF/SIF		R		
21. System Knowledge/Operation	X	R		
22. Air Refueling	X	R		
23. Descent/Approach/Landing		R		
24. Postflight/Debrief		R		
25. Mission Employment			R	
26. Alert Procedures			R	
27. Instructional Ability				R
28. Briefings/Critique				R
29. Demonstration and Performance				R

3.3. Grading Criteria:

3.3.1. For the following general areas, see **Chapter 1** for grading criteria:

3.3.1.1. Qualification:

3.3.1.1.1. Personal/Professional Equipment.

3.3.1.1.2. Mission Planning.

3.3.1.1.3. Checklist Procedures.

3.3.1.1.4. Emergency Procedures. (General)

3.3.1.1.5. Emergency Procedures. (Boldface) (Critical)

3.3.1.1.6. Safety. (Critical)

3.3.1.1.7. Airmanship. (Critical)

3.3.1.1.8. Aircrew Discipline/Crew Coordination/CRM. (Critical)

3.3.1.1.9. Postflight/Debrief.

3.3.1.2. Mission:

3.3.1.2.1. Mission Employment.

3.3.1.3. Instructor:

3.3.1.3.1. Instructional Ability.

3.3.1.3.2. Instructional Briefings/Critique.

3.3.1.3.3. Demonstration and Performance.

3.3.2. Specific Grading Criteria:

Table 3.2. Navigator-Specific Grading Criteria.

AIRCREW DISCIPLINE CREW COORDINATION/CRM (CRITICAL)	
Q	Demonstrated strict professional flight and crew discipline throughout all phases of flight. Complied with directives. Coordinated effectively with other crewmembers without confusion or undue delay. Exercised sound CRM skills. See AFI 11-290, Atch 2.
U	Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations. Crew coordination/CRM was ineffective.
FLIGHT PLAN/CHARTS AREA 9	
Q	Selected current navigation charts of proper scale and type for the mission. Charts and flight plan were prepared in accordance with the flight manual and governing directives. All coordinates transcribed correctly. Route was plotted with errors not to exceed 5 NM. Flight plan was complete with no more than minor errors or omissions. No error exceeded:Heading 5 degrees Time 2 minutes

Q-	No more than one error made in transcribing coordinates. Route plotting errors did not exceed 10 NM. No more than four errors exceeded Q tolerances and no error exceeded:Heading 10 degrees Time 4 minutes
U	Flight plan or chart was not completed, or contained major errors or omissions which would affect mission accomplishment. Selected improper or obsolete charts. Exceeded Q- criteria.
NOTE 1	Failure to check the Computer Flight Plan(CFP) when used for current route of flight will result in an UNQUALIFIED grade in this area.
NOTE 2	Errors that occur as a result of a previous error will not be considered when applying the grading criteria.
NOTE 3	Either computer or manual flight plans may be used.
BRIEFINGS	AREA 10
Q	Attended all required briefings. Presented a clear and concise briefing which covered all pertinent items. Briefing aids, when required, were used effectively.
Q-	Excessively late to or inattentive during briefings. Briefing lacked continuity or contained unnecessary repetition. Items pertinent, but not critical, to the mission were omitted. Briefing aids were not effectively used.
U	Failed to attend required briefings. Omitted critical items or presented erroneous information which would affect safe mission accomplishment.
PRE-TAKEOFF	**AREA 11**
Q	Completed all required checks. Recognized evidence of malfunctions and took proper corrective actions. Was knowledgeable of applicable sections and checked AFTO Forms 781. Monitored and copied clearance. Coordinated with the pilots on the procedures to be followed. If required, gave precise countdown for start engines, taxi and takeoff. Cross-checked instruments and navigation aids.
Q-	Same as Q except for minor procedural deviations which did not result in delay or misunderstanding of departure procedures.
U	Did not accomplish all required checklist items. Was not prepared for takeoff. When required, did not accomplish countdown for engine start, taxi and takeoff. Was not aware of ATC clearance.
DEPARTURE	**AREA 12**
Q	Monitored headings, altitudes and aircraft position throughout the departure. Provided headings, ETAs and other required information in a timely manner. Ensured adequate terrain clearance by monitoring the departure on airborne radar and followed through on a SID, if applicable.
Q-	Monitored headings, altitudes, position and terrain clearance. Was slow to provide headings, ETAs or other appropriate information. Performance did not degrade mission accomplishment nor compromise flight safety. Procedures to monitor the departure/SID were minimally acceptable.
U	Did not monitor headings, altitude or terrain clearance during the departure. Was not aware of aircraft position and was unable to provide updated information when required. Did not use a SID or appropriate local area chart.

LEVEL OFF/DEPARTURE/COAST OUT	AREA 13
Q	Established an accurate position within 5 minutes after attaining initial cruise altitude, arrival at departure point or at an appropriate coast out point. Position was in error of less than 6 NM. Cross checked instruments and recorded appropriate log entries accurately.
Q-	Level off position was established within 10 minutes after attaining initial cruise altitude, arrival at departure point or at an appropriate coast out point. Position was in error by more than 6, but less than 10 NM. Did not accurately cross check instruments or log entries were incomplete or contained minor inaccuracies.
U	Level off position was not established within Q- criteria, or position was in error by more than 10 NM. Log entries were incomplete or contained major inaccuracies.
INSTRUMENT CHECKS	**AREA 14**
Q	Correctly computed deviation checks when required by the flight manual or mission requirements. Correctly computed TAS check when a known or suspected TAS instrument failure occurs. Errors did not exceed 1 degree or 4 knots. Compass cross checks were made periodically and other instruments were monitored as applicable.
Q-	Same as for Q except minor errors in readings or computations were made not affecting accuracy of checks by more than 2 degrees or 8 knots.
U	Did not accomplish deviation or TAS checks when required. Computation errors exceeded Q- criteria. Did not monitor other instruments as applicable.
DEADRECKONING	AREA 15
Q	During general navigation, did not allow the airplane to deviate outside the ATC allowable airspace and in no case was the deviation more than 10 NM (4 NM or as specified for operations below FL 180) from the course. Did not deviate outside the ATC assigned/protected lateral airspace. Met/attempted to meet planned air refueling mission timing using all reasonable effort. If unable to make the refueling time, coordinated a revised ARCT. No training was lost by the tanker or receiver which could be attributed to the navigator's error. Navigation leg departure position was accurate within 5 NM.
Q-	During general navigation, did not allow the plane to deviate outside the ATC allowable airspace and in no case was the deviation more than 15 NM (10 NM or as specified for operations below FL 180) from the course. Ineffective timing control resulted in unnecessarily delaying the air refueling rendezvous; however, no significant training was lost by either tanker or receiver. Navigation leg departure position was accurate within 10 NM.
U	Exceeded Q- standards. Allowed the aircraft to deviate outside ATC assigned/protected lateral airspace. Significant training was lost by tanker/receiver.
NOTE 1	Navigators must demonstrate procedures and techniques of INS/FMS navigation (when available) as the primary means of navigation (aid to DR) for the entire mission.
NOTE 2	General navigation for the navigator commences upon level off, and ceases when the pilot or air traffic controller assumes navigation to the terminal facility.
NOTE 3	Inflight information/fixing requirements are not applicable during a departure, holding, air refueling orbit, anchor patterns, rendezvous, weather avoidance, Airway/Jet Route navigation and upon initiation of penetration and approach. The position of the aircraft, however, must be monitored at all times.

INFLIGHTINFORMATION/FIXING	AREA 16
Q	Adequate information was recorded to permit complete and accurate reconstruction of the mission. A fix/MPP/position and time were recorded at intervals not exceeding 30 minutes and at each planned turn point. An ETA was recorded for the majority of positions. Demonstrated radar fixing, when available as the primary aid to dead reckoning. If radio navigation aids are used, errors in obtaining, correcting and/or plotting bearings did not exceed 3 degrees. All deviations from planned route and altitude were recorded at the point of occurrence.
Q-	Information recorded was not always accurate and complete, but was sufficient to allow reconstruction of the mission. A fix/MPP/position and time were recorded at intervals not exceeding 40 minutes. Turn points were not always recorded. Over reliance was placed on other navigation aids when radar fixing was available.
U	Exceeded Q- criteria.
NOTE	The primary method of monitoring aircraft position will be INS/FMS when available. Visual, radio and radar fixing may be used when INS/FMS positions are not available. INS/FMS, DR or any other authorized means of obtaining a position may be used for planned turns.
RADIONAVIGATION	**AREA 17**
Q	Demonstrated satisfactory knowledge and proficiency in all installed radio navigation aids. Used satisfactory techniques in obtaining, evaluating and using radio navigation data. Errors in obtaining, correcting and/or plotting bearings did not exceed 3 degrees.
Q-	Did not use radio aids when the use of them could have enhanced navigation, or was weak in fixing techniques and/or plotting procedures. Errors in obtaining, correcting and/or plotting bearings did not exceed 8 degrees.
U	Used unsatisfactory techniques or procedures in using radio data or was unable to obtain position by means of radio aids. Errors in obtaining, correcting and/or plotting bearings exceeded 8 degrees.
PACING	**AREA 18**
Q	Held an even work flow achieving maximum use of available time. Stayed ahead of flight progress. Maintained a fixing schedule ensuring accurate and timely position reports, alter headings, and/or control times. Expeditiously dealt with deviations from original flight plan. Navigation leg departure position obtained no later than 10 minutes after departure point
Q-	Pacing was adequate, but occasionally worked behind aircraft. Position reports not over 5 minutes late and turn points not overflown by more than 2 minutes. Navigation leg departure position was obtained no later than 15 minutes after navigation leg departure point.
U	Overall pacing and fixing schedule was unsatisfactory. Worked behind aircraft throughout most of flight. Position reports were late by more than 5 minutes and turn points were overflown by more than 2 minutes.
CELESTIAL NAVIGATION	**AREA 19**

Q	Plotted a DR position, (INS/FMS or Manual), using the most current information, in order to evaluate fixes/MPPs. Fixes, MPPs and average LOPs were logically interpreted. Errors did not exceed QUALIFIED grading criteria outlined in note 16. If information available to the navigator (dead reckoning, automatic/manual DR, etc.) indicated that the aircraft would be outside the corridor tolerances before the next fix/MPP could be resolved, heading was altered as necessary to keep the aircraft within the prescribed corridor. When after a fix/MPP, the aircraft is determined to be outside the corridor, an alteration was made within l0 minutes after the fix/MPP to return the aircraft to within corridor limits.
Q-	Plotted a DR position (INS/FMS or Manual) to evaluate the majority of positions. Interpretation of fixes, MPPs and average LOPs was not always logical. Did not exceed Q-grading criteria outlined in note 16. If information available to the navigator (dead reckoning, automatic/manual DR, etc.) indicated that the aircraft had exceeded the corridor by no more than 10 nautical miles before the next fix/MPP could be resolved, the aircraft was altered as necessary to return the aircraft to within corridor limits.
U	Used an unauthorized aid during any portion of the nav leg. Failed to accomplish minimum requirements for the specific type nav leg or terminated the nav leg for other than reasons stated in NOTE 2. Navigator error caused the navigation leg to exceed established terminal CE limits. Failed to record sufficient information to permit reconstruction of the celestial navigation leg. Exceeded other Q- criteria.
NOTE 1	Navigators must demonstrate celestial procedures by flying a systems navigation leg.
NOTE 2	If the navigation leg must be terminated or abbreviated for weather, equipment malfunction, an emergency or mission profile change, the SEFE may give credit for this requirement if the minimum accomplishments were met.
NOTE 3	During qualification checks, the navigator is required to manually compute and plot the LOP(s) for at least one celestial fix/MPP inflight.
NOTE 4	Annotate “Not Used” on the Precomp Sheet for all LOPs resolved but not used to determine aircraft position.
NOTE 5	Replot celestial solutions using the navigator’s precomp information for TRACK and GS except when the track differs more than 30 kts as determined from the information available to the navigator. If the precomp information exceeds these tolerances, the navigator incurs a precomp error.
NOTE 6	Do not downgrade a navigator for an error resulting from a previous error, (for example, an erroneous wind, when a wind was accurately computed from an erroneous fix).
NOTE 7	An error affecting one LOP only is considered as one error, even when the LOP is subsequently averaged with other LOPs; e.g. a math error in computing an intercept, motion error affecting only one LOP. Determine the magnitude of the error by comparing the correct intercept with the erroneous intercept values for that single LOP, not the effect on the average LOP.
NOTE 8	An error affecting more than one LOP derived for the same celestial body is considered as one error e.g. incorrect tag HC, motion error, etc. Determine the magnitude of the error by comparing the correct average intercept with the erroneous average intercept.

NOTE 9	Only LOPs used to resolve fix and MPP positions will be used to enter the scoring table for solutions.			
NOTE 10	There can be no more than one overall DR error awarded for each DR position. The magnitude of the error is the distance in NM between the navigator's DR and the correct or replotted DR. Do not score DR positions used only to determine assumed position. Failure to plot an air position or a DR position at each heading change of 20 degrees or more will be graded as a major error.			
NOTE 11	Azimuth errors referred to under precomp errors and celestial plotting errors committed in azimuth used to establish celestial fixes/MPPs.			
NOTE 12	Grade an erroneous computation of an LHA or an entry into the sight reduction tables using an incorrect LHA, DEC or LAT as one major error.Enter a number for each celestial observation in the sequence they were obtained. For example, if three observations were obtained for Fix/MPP No. 1, enter LOP numbers 1, 2, 3 under Fix or MPP No. 1.The following will be used to determine the **classification** of an error: **Precomp Error**. An error caused by incorrect information on the precomp, e.g., wrong LHA, addition or subtraction errors, motion errors, azimuth, etc.**Celestial Plotting Error**. An error caused by incorrect celestial information on the chart; e.g., LOP plotted incorrectly, either intercept or azimuth, erroneous assumed position, etc.**Other error**. Error that are difficult to determine without precision fixing at the time of the observation. Examples include observation error, acceleration error and wander error. Comments regarding such suspicions may be entered in this block but not used for error points and grading. Make a note of explanation in the remarks block.The following will be used to determine the **magnitude** of an error:**Minor**. An error affecting a DR or LOP 3 through 6 NM or an azimuth error 3 through 6 degrees**Significant**. An error affecting a DR or LOP more than 6 but less than 10 degrees**Major**. Any error exceeding the criteria of significant.			
NOTE 13	**DR error**. Any error that causes an erroneous DR to be plotted. Erroneous drift, ground speed, time or failure to properly use or compute compass deviation or gyro precession, or erroneous plotting can be causes of DR errors.			
NOTE 14	**Fix/MPP error**. Enter the difference in nautical miles measured from the navigator's Fix/MPP to correct replotted Fix/MPP.			
NOTE 15	**GRADE LOPS Accomplished** 1 thru 5678910111213 1415161718192 0	**QMaximum Error** 56789101112 13141516171 81920	**Q-Maximum Error** 89111214151 71820212324 26272930	Award each **MAJOR** error four points, each **SIGNIFICANT** error two points and each **MINOR** error one point. Total the points for all errors and refer to this table to determine the grade. If the navigator terminates a briefed navigation leg without a valid reason before the accomplishment of the minimum of LOPS the grade is UNQUALIFIED. The grade will be UNQUALIFIED when the Q-maximum error points are exceeded.
COMM/IFF/SIF		**AREA 20**		
Q	Satisfactory knowledge of and compliance with correct procedures and required instructions, including Safe Passage. Voice communications were prompt and clear.			

Q-	Deviations or incorrect procedures resulted in excessive transmissions. Slow in initiating required actions. Limited knowledge of procedures and equipment. Equipment malfunctions were incorrectly analyzed or corrective action were incomplete or incorrect. Variations or omissions in procedures or faulty techniques caused significant degradation of equipment performance. In any case, actions would not have damaged equipment or jeopardized sortie success.
U	Incorrect procedures or non-compliance caused excessive confusion. Actions would have damaged equipment or jeopardized sortie success.
SYSTEM KNOWLEDGE/OPERATION	**AREA 21**
Q	Navigation equipment was operated IAW prescribed procedures with no more than minor deviations or omissions that could not cause damage to equipment or significantly degrade system performance. Equipment malfunctions were correctly analyzed and corrected when possible for satisfactory equipment capability. INS/FMS coordinates were never more than 5 NM in error provided there were no equipment malfunctions. Radar positioning accuracy did not exceed 10 NM (using 50 NM or less range).
Q-	Navigation equipment was not operated IAW prescribed procedures. Equipment malfunctions were incorrectly analyzed or corrective actions were incomplete or incorrect. Variations or omissions in prescribed procedures, erroneous data insertion or faulty techniques caused a significant degradation of equipment performance. In any case, actions could not have damaged equipment or jeopardized mission objectives. INS/FMS coordinates were never more than 10 NM in error provided there were no equipment malfunctions. Radar positioning accuracy did not exceed 15 NM (using 50 NM or less range).
U	Exceeded Q- criteria.
NOTE	The extent of inflight corrective action required of the navigator to alleviate a search radar malfunction will be determined by the mission requirements and the criticality of the malfunctioning radar
AIR REFUELING	**AREA 22**
Q	Rendezvous and air refueling procedures were in accordance with prescribed directives and all checklists were accomplished with no more than minor discrepancies. Every reasonable effort was made to make RZIP timing within +/- 1 minute, or the ARCT within +/- 2 minutes of scheduled. Positive identification of the tanker beacon made. Turn range and offset were computed, cross-checked, and correctly used within 2 NM.
Q-	Displayed lack of knowledge and familiarity with the checklists and/or rendezvous and air refueling procedures. However, knowledge was sufficient to ensure rendezvous and air refueling with minimal loss of training time/activity. Computations were in error by more than 2 NM, but did not exceed 5 NM in error. Arrival at ARCT greater than 2 minutes, but less than 4 minutes. RZIP timing was greater than 1 minute but did not exceed 2 minutes.
U	Displayed lack of knowledge and familiarity with the checklists and/or rendezvous and air refueling procedures to the extent that the rendezvous or air refueling was jeopardized or precluded or significant training time/activity was lost. Effort to make timing good was possible to within 2 minutes but failed to attempt. Failure to accomplish positive aircraft identification resulted in an actual or attempted rendezvous with the wrong aircraft. Timing and computations exceeded Q- criteria.

NOTE 1	Navigators must demonstrate proficiency in receiver air refueling tactics IAW TO 1-1C-28.
NOTE 2	Air refueling includes rendezvous (point parallel or en route), interplane communications, breakaway, and post refueling. GCI/AWACS directed rendezvous is not creditable toward qualification requirement.
DESCENT/APPROACH/LANDING AREA 23	
Q	Monitored aircraft position and approach instructions. Furnished the pilot with headings, ETAs, and other information when required. Thoroughly understood approach and/or missed approach instructions and procedures. Monitored appropriate FLIP terminal approach plate. Ensured terrain clearance.
Q-	Monitored aircraft position but did not monitor or understand approach and/or missed approach instructions/procedures Slow in providing headings, ETAs, and other information when required.
U	Failed to monitor aircraft position. Did not ensure terrain clearance during approach. Exceeded Q- criteria.
ALERT PROCEDURES AREA 26	
Q	Accomplished either a block time control exercise (BTCE) or low pass visual maneuver (LPVR) to within +/-2 minutes of established time.
Q-	Accomplished either BTCE or LPVR to within +/-4 minutes of established time.
U	Exceeded Q- criteria

Chapter 4

FLIGHT ENGINEER EVALUATIONS

4.1. Instructions:

4.1.1. The grading criteria contained in this chapter are applicable to evaluations for flight engineers and were established by experience, policies, and procedures set forth in flight manuals and other directives. SEFEs must realize that grading criteria contained herein cannot cover every situation. Written parameters must be tempered with mission objectives and more importantly, mission/task accomplishment in the determination of overall aircrew performance. Specific requirements for each evaluation are as follows:

4.1.2. Qualification Evaluations:

4.1.2.1. Ground Requisites. Qualification Examination (open book), Emergency Procedures Examination (closed book and Boldface/CAPs), and Emergency Procedures Evaluation (EPE/ATD). Closed book and boldface exams will be logged separately on AF Form 8.

4.1.2.2. Flight Phase. All areas required in **Table 4.1.** under "QUAL" will be evaluated.

4.1.3. Mission Evaluations. Mission evaluations may be combined with qualification evaluations. Conduct mission evaluations in a mission aircraft.

4.1.3.1. Ground Requisites. SIOP Study and Certification Boldface/CAPs exam, and Emergency Procedures Evaluation (EPE/ATD). The mission EPE may be combined with the qualification EPE.

4.1.3.2. Flight Phase. All areas required in **Table 5.1.** under "MSN" will be evaluated.

4.1.4. Instructor Evaluations. The examinee will occupy the position normally occupied for instruction and will perform all tasks as demonstration items. The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on air refueling, emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), mission knowledge, or any other operating procedures and techniques. Demonstrations will be prebriefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee's crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All "INSTR" areas must be evaluated.

4.1.4.1. Instructor Requalification Evaluations. Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to requalify as instructors will receive an instructor flight evaluation consisting of a student prebriefing, inflight instruction based on student (real or simulated) needs, and a postflight critique/TAPR. Inflight instruction will include the demos listed in **Table 4.1.**, under "INSTR," but no other specific inflight events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume, or if the instructor requalification is concurrent with the aircraft requalification, comply with paragraph **4.1.2.**

4.2. Evaluation Requirements:

4.2.1. **Table 4.1.** lists areas for qualification, mission, and instructor evaluations. An "R" indicates a requirement for that evaluation. An "X" in the notes column refers to a general note found in the specific grading criteria table.

Table 4.1. Flight Engineer Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	MSN	INSTR
1. Personal/Professional Equipment		R		
2. Mission Planning		R		
3. Checklist Procedures		R		
4. Emergency Procedures (General)		R		
5. Emergency Procedures (Boldface) (Critical)		R		
6. Safety (Critical)		R		
7. Airmanship (Critical)		R		
8. Aircrew Discipline/Crew Coordination/CRM (Critical)		R		
9. Weight and Balance		R		
10. Takeoff and Landing Data		R		
11. Pre-Takeoff	X	R		
12. Takeoff/Climb		R		
13. Cruise		R		
14. Air Refueling		R		
15. System Knowledge/Operation	X	R		
16. Descent/Landing		R		
17. After Landing/Engine Shutdown		R		
18. Postflight/Debrief		R		
19. Mission Communications, Logs and Reports			R	
20. Alert Procedures			R	
21. Mission Employment			R	
22. Instructional Ability				R
23. Briefings/Critique				R
24. Demonstration and Performance				R

4.3. Grading Criteria:

4.3.1. For the following common areas, see **Chapter 1** for grading criteria.

4.3.1.1. Qualification:

4.3.1.1.1. Personal/Professional Equipment.

4.3.1.1.2. Mission Planning.

4.3.1.1.3. Checklist Procedures.

4.3.1.1.4. Emergency Procedures. (General)

4.3.1.1.5. Emergency Procedures. (Boldface) (Critical)

4.3.1.1.6. Safety. (Critical)

4.3.1.1.7. Airmanship. (Critical)

4.3.1.1.8. Aircrew Discipline/Crew Coordination/CRM. (Critical)

4.3.1.1.9. Postflight/Debrief.

4.3.1.2. Mission:

4.3.1.2.1. Mission Communications, Logs and Reports.

4.3.1.2.2. Mission Employment.

4.3.1.3. Instructor:

4.3.1.3.1. Instructional Ability.

4.3.1.3.2. Instructional Briefings/Critique.

4.3.1.3.3. Demonstration and Performance.

4.3.2. Specific Grading Criteria:

Table 4.2. Flight Engineer-Specific grading Criteria.

AIRCREW DISCIPLINE CREW COORDINATION/CRM (CRITICAL	
Q	Demonstrated strict professional flight and crew discipline throughout all phases of flight. Complied with directives. Coordinated effectively with other crewmembers without confusion or undue delay. Exercised sound CRM skills. See AFI 11-290, Atch 2.
U	Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations. Crew coordination/CRM was ineffective.
WEIGHT AND BALANCE	**AREA 9**
Q	Had satisfactory knowledge of aircraft weight and balance directives. Was able to complete DD Form 365-4, Weight and Balance Clearance Form, accurately and legibly; errors were within the following tolerances: Aircraft gross weight +/- 2000 lbsT/O gross weight +/- 4000 lbsLanding gross weight +/- 7000 lbsMAC +/- 1.0 % (not to exceed aircraft limits)
Q-	Same as Q, but completed DD Form 365-4 with minor errors or omissions not affecting safety. Limited knowledge of weight and balance directives. Errors exceeded Q tolerances, but were within the following tolerances:Aircraft gross weight +/- 7000 lbsT/O gross weight +/- 7000 lbsLanding gross weight +/- 10000 lbsMAC +/- 1.5 % (not to exceed aircraft limits)

U	Unable to complete DD Form 365-4. Errors exceeded Q- tolerances and/or aircraft limitations. Inadequate knowledge of weight and balance directives.
TAKEOFF AND LANDING DATA	**AREA 10**
Q	Completed TOLD Card in accordance with existing directives. Fully knowledgeable of performance data and all factors which affect performance data. Computed data within the following tolerances:Airspeeds +/- 2 ktsCFL/Takeoff dist. +/- 200 ftLanding dist. +/- 400 ftAssumed temp. +/- 2 degrees CN1 +/- .3 %Stab Trim +/- .2
Q-	Completed TOLD Card in accordance with existing directives with minor deviations which would not detract from mission effectiveness. Adequate knowledge of performance data and most factors which affect performance data. Computed data outside of Q criteria, but within the following tolerances:Airspeeds +/- 4 ktsCFL/Takeoff dist. +/- 400 ftLanding dist. +/- 600 ftAssumed temp. +/- 5 degrees CN1 +/- .6 %Stab Trim +/- .4
U	Unable to complete TOLD Card. Computations exceeded Q- criteria. Inadequate knowledge of performance data.
PRE-TAKEOFF	**AREA 11**
Q	Accomplished required inspections in a thorough and proficient manner as outlined in applicable manuals, checklists or directives. Properly checked warning/emergency systems; displayed complete knowledge of information contained in AFTO Form 781 series, **Aerospace Vehicle Flight Report and Maintenance Document**. Correctly determined aircraft status.
Q-	Minor deviation in accomplishment of required inspections as outlined in applicable manuals, checklists or directives. Checked warning/emergency systems. Incomplete knowledge of information contained in the aircraft 781 series. Able to determine aircraft status
U	Accomplished inspections, but not in a thorough or proficient manner. Omitted or improperly checked warning/emergency systems. Little or no knowledge of information in aircraft 781 series. Could not determine correct status of aircraft.
NOTE	Equipment/system discussions may be accomplished at any time prior to the critique. SEFEs must ensure discussions do not interfere with the evaluatee's crew duties
TAKEOFF/CLIMB	**AREA 12**
Q	Monitored engine/aircraft system indicators; complied with the aircraft commander's briefing; accomplished required procedures as outlined in the applicable flight manual.

Q-	Minor deviations in accomplishing required procedures as outlined in applicable manuals, checklists, and directives; monitored engine/aircraft system indicators; minor exceptions when complying with the aircraft commander's instructions.
U	Did not monitor engine/aircraft systems indicators; did not comply with aircraft commander's instructions; did not accomplish required procedures as outlined in applicable flight manual.
CRUISE	**AREA 13**
Q	Satisfactory knowledge in the use of required cruise control/range prediction procedures. Accomplished inflight data logs and proper fuel management procedures. Accomplished checks/procedures as outlined in applicable directives.
Q-	Incomplete but adequate knowledge of cruise control/range prediction procedures, inflight data logs and fuel management procedures. Accomplished checks/procedures as outlined in applicable directives with minor deviations. Logs contained errors or omissions.
U	Inadequate knowledge of cruise control/range prediction procedures, inflight Data Logs and Fuel management procedures. Required checks/procedures were inadequate or not accomplished at all.
AIR REFUELING	**AREA 14**
Q	Accomplished appropriate checklists/flight manual procedures and adhered to other governing directives. Accomplished fuel management as outlined in the applicable flight manual with only minor deviations that did not detract from mission success.
Q-	Accomplished appropriate flight manual procedures with minor deviations or omissions which detracted from, but did not jeopardize mission accomplishment. Unsure of proper fuel management procedures. Failed to demonstrate complete familiarity with the fuel system.
U	Inadequate knowledge of air refueling procedures/directives. Unacceptable procedures for fuel management.
SYSTEM KNOWLEDGE/OPERATION	**AREA 15**
Q	Satisfactory knowledge of system components, functions and limitations; demonstrated proper management and operation of system; analyzed simulated or actual malfunctions and applied proper corrective action; fully determined status of related systems.
Q-	Incomplete knowledge of system components, functions and limitations; minor deviations in management or operation of systems when analyzing simulated or actual malfunctions and applying corrective action; adequately determined status of related systems.

U	Inadequate knowledge of system components, functions and limitations; improper management or operation of systems; unable to analyze simulated or actual malfunctions or apply corrective action; could not determine status of related systems.
NOTE	System discussion may be accomplished before, during, or after the flight; prior to critique. The following systems/areas should be discussed/evaluated:ElectricalHydraulicAir Conditioning/Heating/VentilationPressurizationFuel/OilAnti-ice/De-icingEnginesOxygen SystemFlight Controls/FlapsLanding Gear/Brakes/SteeringDoors/ hatchesLightingFire DetectionRadio/Navigation Equipment Communication/IFFMission Equipment
DESCENT/LANDING	**AREA 16**
Q	Satisfactorily monitored engine/aircraft system indicators; complied with aircraft commander's briefing. Accomplished required checks and procedures as outlined in applicable flight manual.
Q-	Minor deviations in accomplishing required procedures as outlined in applicable manuals, checklists, and directives. Monitored engine/aircraft systems indicators; minor exceptions when complying with aircraft commander's briefing.
U	Did not monitor engine/system indicators; did not accomplish required checks or procedures as outlined in applicable flight manual. Did not comply with the aircraft commander's briefing.
AFTER LANDING/ENGINE SHUTDOWN	**AREA 17**
Q	Satisfactory knowledge of required procedures as outline in applicable manuals. Complied with instruction and directives in a satisfactory and timely manner.
Q-	Incomplete knowledge of required procedures as outlined in applicable manuals. Slow to accomplish, or minor deviations in complying with instructions and directives.
U	Inadequate knowledge as outlined in applicable manuals; did not comply with instructions or directives.
ALERT PROCEDURES	**AREA 20**
Q	Satisfactory knowledge of required procedures as outlined in applicable flight manuals and other directives. Properly configured aircraft to comply with alert mission requirements.
Q-	Incomplete knowledge of required flight manual procedures. Had difficulty properly configuring aircraft to comply with alert mission requirements. Made minor deviations or omissions which detracted from the alert mission.

U	Inadequate knowledge of required procedures as outlined in applicable flight manual/directives. Made major deviations or omissions which could potentially damage aircraft equipment. Could not properly configure aircraft to comply with alert mission requirements.

Chapter 5

INFLIGHT PASSENGER SERVICE SPECIALIST EVALUATION CRITERIA

5.1. Instructions:

5.1.1. The grading criteria contained in this chapter are applicable to evaluations for Inflight Passenger Service Specialists and were established by experience, policies and procedures set forth in flight manuals and other directives. SEFEs must realize that grading criteria contained herein cannot cover every situation. Written parameters must be tempered with mission objectives and, more importantly, mission/task accomplishment in the determination of overall aircrew performance. Specific requirements for each evaluation are as follows

5.1.2. Qualification Evaluations.

5.1.2.1. Ground Requisites. Qualification Examination (open book), Emergency Procedures Examination (closed book and Boldface/CAPs), and Emergency Procedures Evaluation (EPE/ATD). Closed book and boldface exams will be logged separately on AF Form 8.

5.1.2.2. Flight Phase. All areas required in **Table 5.1.** under "QUAL" will be evaluated.

5.1.3. Mission Evaluations. Mission evaluations may be combined with qualification evaluations.

5.1.3.1. Ground Requisites. SIOP Study and Certification Boldface/CAPs exam, and Emergency Procedures Evaluation (EPE/ATD). The mission EPE may be combined with the qualification EPE.

5.1.3.2. Flight Phase. All areas required in **Table 5.1.** under "MSN" (Mission) will be evaluated.

5.1.4. Instructor Evaluations. The examinee will occupy the position normally occupied for instruction and will perform all tasks as demonstration items. The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on air refueling, emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), mission knowledge, or any other operating procedures and techniques. Demonstrations will be prebriefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee's crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All "INSTR" areas must be evaluated.

5.1.4.1. Instructor Requalification Evaluations. Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to requalify as instructors will receive an instructor flight evaluation consisting of a student prebriefing, inflight instruction based on student (real or simulated) needs, and a postflight critique/TAPR. Inflight instruction will include demos of those items listed in **Table 5.1.** under "INSTR", but no other specific inflight events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume, or if the instructor requalification is concurrent with the aircraft requalification, comply with paragraph **5.1.2.**

5.2. Evaluation Requirements:

5.2.1. The table below lists areas for IPSS qualification, mission, and instructor evaluations. An "R" indicates a requirement for that evaluation. An "X" in the notes column refers to a general note found in the specific grading criteria table.

Table 5.1. IPSS Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	MSN	INSTR
1. Personal/Professional Equipment		R		
2. Mission Planning		R		
3. Checklist Procedures		R		
4. Emergency Procedures (General)		R		
5. Emergency Procedures (Boldface) (Critical)		R		
6. Safety (Critical)		R		
7. Airmanship (Critical)		R		
8. Aircrew Discipline/Crew Coordination (Critical)		R		
9. Preflight		R		
10. Loading Procedures		R		
11. Pre-Takeoff	X	R		
12. Airstairs		R		
13. Passenger Comfort			R	
14. Customs/Billing Forms Procedures			R	
15. Systems Knowledge/Operation		R		
16. Air Refueling		R		
17. Descent/Before Landing		R		
18. After Landing		R		
19. Postflight/Debrief		R		
20. Alert Procedures			R	
21. Mission Employment			R	
22. Instructional Ability				R
23. Instructional Briefings/Critique				R
24. Demonstration and Performance				R

5.3. Grading Criteria:

5.3.1. For the following general areas, see **Chapter 1** for grading criteria:

5.3.1.1. Qualification:

5.3.1.1.1. Personal/Professional Equipment.

5.3.1.1.2. Mission Planning—additional IPSS grading criteria for this area is located in section **5.2.**.

5.3.1.1.3. Checklist Procedures.

5.3.1.1.4. Emergency Procedures. (General)

5.3.1.1.5. Emergency Procedures. (Boldface) (Critical)

5.3.1.1.6. Safety. Critical)

5.3.1.1.7. Airmanship. (Critical)

5.3.1.1.8. Aircrew Discipline/Crew Coordination/CRM. (Critical)

5.3.1.1.9. Postflight/Debrief.

5.3.1.2. Mission:

5.3.1.2.1. Mission Employment.

5.3.1.3. Instructor:

5.3.1.3.1. Instructional Ability.

5.3.1.3.2. Briefings/Critique.

5.3.1.3.3. Demonstration and Performance.

5.3.2. Specific Grading Criteria:

Table 5.2. IPSS-Specific Grading Criteria.

MISSION PLANNING	**AREA 2**
Q	Coordinated all phases of mission planning requirements. Coordinated meals with the Aircraft Commander and Passenger Point of Contact in an efficient manner. Menus were properly selected to suit allotted flight times/ DV special requests. All food products were purchased, properly stored and maintained. All required food service equipment was obtained, loaded and stored according to applicable directives. Had all needed forms/supplies to complete the mission. Complied with local directives and applicable regulations. Completed all forms as directed by the Aircraft Commander.
Q-	Same as Q except for minor deviations/omissions which did not detract from satisfactory mission accomplishment. Did not fully comply with local directives/applicable regulations.
U	Major errors/omissions precluding safe/effective mission accomplishment. Failed to comply with local directives/applicable regulations.
AIRCREW DISCIPLINE CREW COORDINATION/CRM (CRITICAL	**AREA 8**
Q	Demonstrated strict professional flight and crew discipline throughout all phases of flight. Complied with directives. Coordinated effectively with other crewmembers without confusion or undue delay. Exercised sound CRM skills. See AFI 11-290, Atch 2.

U	Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations. Crew coordination/CRM was ineffective.
PREFLIGHT	**AREA 9**
Q	Thoroughly accomplished all preflight interior inspection and equipment check procedures as prescribed in applicable directives and checklists. Thoroughly accomplished all prior to passenger loading procedures as prescribed in applicable directives and checklists. Checked AFTO Form 781 and determined IPSS equipment status. Demonstrated a thorough knowledge of amplified procedures. No deviations/omissions noted.
Q-	Same as above except for minor deviations/omissions and/or incomplete knowledge of amplified procedures, but did not delay aircraft or compromise safety.
U	Major deviations/omissions. Did not demonstrate adequate knowledge of amplified procedures. Did not accomplish required items in a timely manner.
LOADING PROCEDURES	**AREA 10**
Q	Demonstrated satisfactory knowledge of passenger seating, baggage handling, and baggage/equipment securing. Demonstrated awareness of safety procedures while loading and seating passengers and hand carried baggage. Satisfactory knowledge of correct procedures and/or use of passenger manifests for identification of passengers and anti-hijacking procedures as specified in applicable regulations (all documentation checked, updated, completed, and signed, as required).
Q-	Minor errors/omissions in the above which did not detract from satisfactory mission accomplishment, safety or result in undue passenger inconveniences.
U	Major errors/omissions or inadequate knowledge that detracted from satisfactory mission accomplishment or compromised safety.
PRE-TAKEOFF	**AREA 11**
Q	Accomplished after loading and before taxi/takeoff procedures as prescribed in applicable directives and checklists. Ensured passenger compliance with after loading/before taxi/takeoff requirements. Ensured cabin/galley secured. Ensured Aircraft Commander received corrected crew/passenger manifests. Required briefings organized and presented effectively in a logical sequence. Covered all pertinent items in accordance with local directives/applicable regulations. Effective use of briefing aids.
Q-	Same as Q except for minor deviations/omissions that did not cause undue delay of flight or jeopardize safety. Briefing lacked continuity or contained unnecessary repetition. Some difficulty communicating thoughts clearly. Did not make effective use of briefing aids. Elaborated on non-essential items that did not affect safe/effective mission accomplishment.

U	Major deviations/omissions from established procedures or jeopardized personnel and/or aircraft safety. Failed to ensure passenger compliance with after loading/before taxi/takeoff requirements. Failed to ensured cabin/galley secured. Failed to ensure Aircraft Commander received corrected crew/passenger manifests. Failed to brief essential items. Failed to use briefing aids. Demonstrated lack of knowledge of subject. Briefing poorly organized and not presented in logical sequence resulting in confusion. Presented erroneous information which could affect safe/effective mission accomplishment.
NOTE	A complete passenger briefing and explanation of all emergency equipment to include oxygen equipment and emergency egress slides will be accomplished for all evaluations except no-notice.
AIRSTAIRS	**AREA 12**
Q	Accomplished procedures/operation as prescribed in flight manual/applicable directives. Demonstrated a thorough knowledge of procedures.
Q-	Same as above, however not fully knowledgeable of procedures. Hesitant to perform required operations.
U	Deviations/omission from established procedures which jeopardized personnel or damaged aircraft equipment.
PASSENGER COMFORT	**AREA 13**
Q	Demonstrated satisfactory knowledge of the proper care and use of food service equipment. Safety considerations and sanitation were observed through all phases of food preparation, service. And clean up. General passenger service was efficient, professional and added to passenger comfort. Accomplished all cruise checklist items (as necessary). All phases of passenger handling carried out in accordance with mission requirements.
Q-	Same as above except for minor errors/omissions which did not detract from mission effectiveness or success.
U	Major errors/omissions which detracted from passenger comfort and mission effectiveness or compromised safety.
CUSTOMS/BILLING FORMS PROCEDURES (if applicable)	
Q	Customs was handled satisfactorily and did not cause any undue inconveniences to passengers or flight. Billing requirements were handled efficiently and conveniently to passengers and did not interfere with other crew duties. Displayed satisfactory knowledge of proper way to complete all the required forms. Complied with local directives/regulations.
Q-	Same as above except for minor errors/omissions that did not detract from mission effectiveness
U	Major errors/omissions that detracted from mission effectiveness or success. Did not follow prescribed directives/regulations
SYSTEMS KNOWLEDGE/OPERATION	**AREA 15**

Q	Satisfactory knowledge of procedures and limitations of portable oxygen bottles and masks. Satisfactory knowledge of procedures and limitations of water and electrical systems. Satisfactory knowledge of location and use of passenger oxygen system and kits (if applicable).
Q-	Same as above except for minor errors/omissions or incomplete knowledge. Did not compromise safety.
U	Major errors/omissions or inadequate knowledge or compromised safety.
AIR REFUELING	**AREA 16**
Q	Accomplished all checklist items and procedures as prescribed in applicable directives/flight manuals. Insured passengers complied with seat belt signs. Checked NCA compartment and Forward Lower Lobe for fuel fumes/leakage.
Q-	Same as Q except for minor errors/omission that did not compromise safety.
U	Major errors/omissions that compromised safety. Did not follow established procedures. Failed to ensure passengers complied with seat belt signs and/or make required checks for fuel fumes/leakage.
DESCENT/BEFORE LANDING	**AREA 17**
Q	Accomplished all checklist items and procedures as prescribed in applicable directives/regulations as required for mission accomplishment. Ensured passenger compliance with descent/landing requirements and ensured cabin/galley securing.
Q-	Same as above except for minor errors/omissions that did not compromise safety.
U	Major errors/omissions that compromised safety. Did not follow established procedures.
AFTER LANDING	**AREA 18**
Q	Accomplished after landing/engine shutdown and post mission procedures as prescribed in applicable directives and checklists. Supervised the off-loading of passengers and baggage according to mission requirements. Completed all forms as directed by the Aircraft Commander.
Q-	Same as above except for minor errors/omissions that did not detract from mission effectiveness or compromise safety.
U	Major errors/omissions that caused undue delay/confusion in passenger off-loading, detracted from mission effectiveness or compromised safety.
ALERT PROCEDURES	**AREA 20**
Q	Satisfactory knowledge of required procedures as outlined in applicable flight manuals and other directives. Properly configured aircraft to comply with alert mission requirements. Ensured proper accountability of personnel aboard the aircraft during an alert start and relayed that information to the flight deck in a timely and efficient manner.

Q-	Incomplete knowledge of required flight manual procedures. Had difficulty properly configuring aircraft to comply with alert mission requirements. Made deviations or omissions which detracted from the alert mission. Ensured proper accountability of personnel aboard the aircraft during an alert start, but did not relay that information to the flight deck in a timely manner.
U	Inadequate knowledge of required procedures as outlined in applicable flight manual/directives. Made major deviations or omissions. Could not properly configure aircraft to comply with alert mission requirements. Did not obtain an accurate account of personnel aboard the aircraft during an alert start. Did not relay changes in manifests to the flight deck.

Chapter 6

COMMUNICATIONS CONTROL OFFICER (CCO)/AIRBORNE COMMUNICATION SPECIALISTS (ACS) EVALUATIONS

6.1. Instructions:

6.1.1. The grading criteria contained in this chapter are applicable to evaluations for Communications Control Officer and Airborne Communication Specialist and were established by experience, policies and procedures set forth in flight manuals and other directives. SEFEs must realize that grading criteria contained herein cannot cover every situation. Requisite tests must cover all positions in which qualification is maintained. Flight evaluations should be scheduled on one sortie as a composite evaluation covering all applicable systems. CCO/ACS evaluations may be given on the primary alert aircraft with written approval from the SQ/CC. Written parameters must be tempered with mission objectives and, more importantly, mission/task accomplishment in the determination of overall aircrew performance. Specific requirements for each evaluation are as follows:

6.1.2. Qualification Evaluations.

6.1.2.1. Ground Requisites. Qualification Examination (open book), Emergency Procedures Examination (closed book and Boldface/CAPs), and Emergency Procedures Evaluation (EPE/ATD). Closed book and boldface exams will be logged separately on AF Form 8.

6.1.2.2. Flight Phase. All areas required in **Table 6.1.** under "QUAL" will be evaluated.

6.1.3. Mission Evaluations. Mission evaluations may be combined with qualification evaluations. Only one mission evaluation is required.

6.1.3.1. Ground Requisites. Boldface/CAPs exam, and Emergency Procedures Evaluation (EPE/ATD). Flight Phase: All areas required in **Table 6.1.** under "MSN" (Mission) will be evaluated.

6.1.4. Instructor Evaluations. The examinee will occupy the position normally occupied for instruction and will perform all tasks as demonstration items. The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on air refueling, emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), mission knowledge, or any other operating procedures and techniques. Demonstrations will be prebriefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee's crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All "INSTR" areas must be evaluated.

6.1.4.1. Instructor Requalification Evaluations. Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to requalify as instructors will receive an instructor flight evaluation consisting of a student prebriefing, inflight instruction based on student (real or simulated) needs, and a postflight critique/TAPR. Inflight instruction will include demos of those items listed in **Table 6.1.** under "INSTR", but no other specific inflight events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume, or if the instructor requalification is concurrent with the aircraft requalification, comply with paragraph **6.1.2.**

6.2. Evaluation Requirements:

6.2.1. The table below lists areas for CCOs and ACS qualification, mission, and instructor evaluations. An "R" indicates a requirement for that evaluation. An "X" in the notes column refers to a general note found in the specific grading criteria table.

Table 6.1. CCO/ACS Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	MSN	INSTR
1. Personal/Professional Equipment		R		
2. Mission Planning		R		
3. Checklist Procedures		R		
4. Emergency Procedures (General)		R		
5. Emergency Procedures (Boldface) (Critical)		R		
6. Safety (Critical)		R		
7. Airmanship (Critical)		R		
8. Aircrew Discipline/Crew Coordination/CRM (Critical)		R		
9. Pre-Takeoff	X	R		
10. Mission Employment			R	
11. Mission Communications, Logs and Reports			R	
12. Mission Operations			R	
13. Alert Procedures			R	
14. Equipment / Systems Knowledge		R		
15. Equipment / Systems Operation	X	R		
16. Troubleshooting Procedures		R		
17. Communications Security (Critical)		R	R	
18. Postflight / Debrief		R		
19. Instructional Ability				R
20. Briefings / Critique				R
21. Demonstration and Performance				R

6.3. Grading Criteria:

6.3.1. For the following general areas, see **Chapter 1** for grading criteria:

6.3.1.1. Qualification:

6.3.1.1.1. Personal/Professional Equipment.

6.3.1.1.2. Mission Planning.

6.3.1.1.3. Checklist Procedures.

6.3.1.1.4. Emergency Procedures. (General)

6.3.1.1.5. Emergency Procedures. (Boldface) (Critical)

6.3.1.1.6. Safety. (Critical)

6.3.1.1.7. Airmanship. (Critical)

6.3.1.1.8. Aircrew Discipline/Crew Coordination/CRM. (Critical)

6.3.1.1.9. Postflight/Debrief. (Critical)

6.3.1.2. Mission:

6.3.1.2.1. Mission Employment.

6.3.1.2.2. Mission Communications, Logs and Report.

6.3.1.3. Instructor:

6.3.1.3.1. Instructional Ability.

6.3.1.3.2. Briefings/Critique.

6.3.1.3.3. Demonstration and Performance.

6.3.2. Specific Grading Criteria:

Table 6.2. CCO/ACS-Specific Grading Criteria.

AIRCREW DISCIPLINE AREA 8 **CREW COORDINATION/CRM (CRITICAL)**	
Q	Demonstrated strict professional flight and crew discipline throughout all phases of flight. Complied with directives. Coordinated effectively with other crewmembers without confusion or undue delay. Exercised sound CRM skills. See AFI 11-290, Atch 2.
U	Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations. Crew coordination/CRM was ineffective.
PRE-TAKEOFF AREA 9	
Q	Accomplished required inspections in a proficient manner as outlined in applicable manuals, checklists, or directives. No omissions or deviations noted. Checked AFTO Form 781 and correctly determined communications equipment status. Accomplished before and after starting engines, before taxi, and before takeoff procedures as prescribed in applicable manuals and directives
Q-	Committed minor deviations or omissions from applicable manuals, checklists, or directives. Slow to determine communications equipment status from the information provided in the AFTO Form 781. Performance or knowledge was the minimum acceptable.
U	Did not accomplish required inspections as prescribed in applicable manuals, checklists, or directives. Committed major deviations from checklist sequence. Failed to check AFTO Form 781. Could not determine communications equipment status.
NOTE	The team CCO/NCOIC or designated individual may check the AFTO Form 781 for the crew
MISSION OPERATIONS AREA 12	

Q	Established communications with all appropriate stations in accordance with operating procedures and directives. Maintained and monitored required communications for support of the mission. Performed required transmissions and message processing. Properly terminated comm links.
Q-	Committed deviations/omissions from established procedures and directives which did not adversely affect mission success. Slow to provide communications support for the mission.
U	Major deviations/omissions from established procedures which did or could detract from successful mission completion. Failed to adequately establish reliable communications with designated stations. Failed to provide adequate communications support for the mission.
ALERT PROCEDURES	**AREA 13**
Q	Procedures and checklist items required by the flight manual and applicable directives were accomplished with no omissions or errors which did not detract from the overall efficient conduct of the mission.
Q-	Procedures and checklist items required by the flight manual and applicable directives were accomplished with minor omissions, deviations, or errors which detracted from the overall efficient conduct of the task
U	Procedures and checklist items required by the flight manual and applicable directives were accomplished with major omissions, deviations, or errors which did/or could have adversely affected the successful completion of the mission/task.
EQUIPMENT/SYSTEMS KNOWLEDGE	**AREA 14**
Q	Demonstrated satisfactory knowledge of communication components, functions, and limitations; demonstrated proper management and operation of communication systems; adequately determined status of all related systems.
Q-	Demonstrated incomplete knowledge of communications components. functions and limitations. Performed minor deviations in management or operation of communications systems; adequately determined status of related systems.
U	Demonstrated unsatisfactory knowledge of aircraft systems and related communications systems, equipment limitations, and functions. Demonstrated inadequate knowledge of procedures for applicable related systems.
EQUIPMENT/SYSTEMS OPERATIONS	**AREA 15**
Q	Demonstrated ability to properly configure/operate system for receipt and transmission of messages in accordance with applicable directives. Applied appropriate alternate operating procedure when applicable. EAM Dissemination procedures applied as required by governing directives.
Q-	Configured or operated system with minor errors or omissions which detracted from mission success. Incorrect operation caused slight delay in receipt or transmission of messages
U	Did not properly configure/operate systems. Made major discrepancies or incorrect operations which caused significant delay in receipt or transmission of messages. Demonstrated inadequate knowledge of procedures for applicable related systems. Unacceptable EAM Dissemination procedures as required by governing directives.

NOTE 1	Equipment/system discussion may be accomplished before, during, or after flight prior to the critique
NOTE 2	The only item graded under this area for CCOs is EAM Dissemination procedures.
TROUBLESHOOTING PROCEDURES	**AREA 16**
Q	Demonstrated satisfactory working knowledge of trouble shooting procedures. Analyzed simulated or actual communication equipment malfunction(s). Applied corrective action(s) in accordance with flight manuals, directives and established procedures.
Q-	Demonstrated limited knowledge of trouble shooting procedures. Performed incomplete analysis of simulated or actual equipment malfunctions. Hesitant or slow applying corrective action(s) IAW manuals, directives, procedures.
U	Demonstrated unsatisfactory knowledge of trouble shooting procedures. Unable to analyze simulated/actual communication equipment malfunction(s). Applied improper corrective action(s) IAW manuals, directives, procedures.
COMMUNICATIONS SECURITY (CRITICAL):	**AREA 17**
Q	Demonstrated thorough knowledge of communications security requirements and procedures as outlined in applicable directives. Demonstrated responsible handling of classified information and/or equipment.
U	Demonstrated unsatisfactory knowledge of communications security requirements and procedures as outlined in applicable directives. Demonstrated improper handling of classified information and/or equipment.

Chapter 7

INFLIGHT MAINTENANCE TECHNICIAN EVALUATIONS

7.1. Instructions:

7.1.1. The grading criteria contained in this chapter are applicable to evaluations for Inflight Maintenance Technician (IMT) positions on the E-4B aircraft. There are six IMT positions on the E-4B; TC-1, TC-2, RM-1, RM-2, DTWA and SHF. These criteria were established by experience, policies and procedures set forth in flight manuals and other directives. SEFEs must realize that grading criteria contained herein cannot cover every situation. Requisite tests must cover all positions in which qualification is maintained. Flight evaluations should be scheduled on one sortie as a composite evaluation covering all applicable systems. IMT evaluations may be given on the primary alert aircraft with written approval from the SQ/CC. Written parameters must be tempered with mission objectives and, more importantly, mission/task accomplishment in the determination of overall aircrew performance. Specific requirements for each evaluation are as follows:

7.1.2. Qualification Evaluations. For qualification/mission evaluations, all required grading areas will be evaluated inflight, if unable to complete all of the grading areas on the scheduled sortie, it may be completed using an alert aircraft. All appropriate crewmembers should be present when using a alert aircraft to evaluate areas normally performed with crew interaction. When Troubleshooting must be evaluated on the ground, no mission scenario is required.

7.1.2.1. Ground Requisites. Qualification Examination (open book), Emergency Procedures Examination (closed book and Boldface/CAPs), and Emergency Procedures Evaluation (EPE/ATD). Closed book and boldface exams will be logged separately on AF From 8.

7.1.2.2. Flight Phase. All areas required in **Table 7.1.** under “QUAL” will be evaluated.

7.1.3. Mission Evaluations. Mission evaluations will be combined with qualification evaluations.

7.1.3.1. Ground Requisites. Boldface/CAPs exam, and Emergency Procedures Evaluation (EPE/ATD). The mission EPE may be combined with the qualification EPE.

7.1.3.2. Flight Phase. All areas required in **Table 7.1.** under “MSN” (Mission) will be evaluated When the mission areas must be evaluated on the ground, the SEFE will use a mission scenario.

7.1.4. Instructor Evaluations. The examinee will occupy the position normally occupied for instruction and will perform all tasks as demonstration items. The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), mission knowledge, or any other operating procedures and techniques. Demonstrations will be prebriefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee's crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All “INSTR” areas must be evaluated.

7.1.4.1. Instructor Requalification Evaluations. Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to requalify as instructors will receive an instructor flight evaluation consisting of a student prebriefing, inflight

instruction based on student (real or simulated) needs, and a postflight critique/TAPR. Inflight instruction will include demonstrations of those items prebriefed to the examinee, and will be accomplished at an appropriate time so as not to interfere with the examinee's crew duties and pacing. No other specific inflight events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume, or if the instructor requalification is concurrent with the aircraft requalification, comply with paragraph **7.1.2.**

7.2. Evaluation Requirements:

7.2.1. The table below lists areas for IMT qualification, mission, and instructor evaluations. An "R" indicates a requirement for that evaluation. An "X" in the notes column refers to a general note found in the specific grading criteria table.

Table 7.1. IMT Evaluation Requirements.

AREA/TITLE	NOTE	QUAL	MSN	INSTR
1. Personnel/Professional Equipment		R		
2. Mission Planning		R		
3. Checklist Procedures		R		
4. Emergency Procedures (General)		R		
5. Emergency Procedures-Boldface (Critical)		R		
6. Safety (Critical)		R		
7. Airmanship (Critical)		R		
8. Aircrew Discipline/Crew Coordination CRM. (Critical)		R		
9. Postflight/Debrief		R		
10. Mission Employment			R	
11. Mission Communications, Logs and Reports			R	
12. Communication Security (Critical)		R	R	
13. Publications Knowledge/Use		R		
14. Systems Knowledge/Operation	X	R		
15. Maintenance and Troubleshooting		R		
16. Instructional Ability				R
17. Instructional Briefings/Critique				R
18. Demonstration and Performance				R

7.3. Grading Criteria:

7.3.1. For the following general areas, see **Chapter 1** for grading criteria:

7.3.1.1. Qualification:

7.3.1.1.1. Personal/Professional Equipment.

7.3.1.1.2. Mission Planning.

7.3.1.1.3. Checklist Procedures.

7.3.1.1.4. Emergency Procedures. (General)

7.3.1.1.5. Emergency Procedures. (Boldface) (Critical)

7.3.1.1.6. Safety. (Critical)

7.3.1.1.7. Airmanship. (Critical)

7.3.1.1.8. Aircrew Discipline/Crew Coordination/CRM. (Critical)

7.3.1.1.9. Postflight/Debrief. (Critical)

7.3.1.2. Mission:

7.3.1.2.1. Mission Employment.

7.3.1.2.2. Mission Communications, Logs and Report.

7.3.1.3. Instructor:

7.3.1.3.1. Instructional Ability.

7.3.1.3.2. Briefings/Critique.

7.3.1.3.3. Demonstration and Performance.

7.3.2. Specific Grading Cri teria:

Table 7.2. IMT-Specific Grading Criteria.

AIRCREW DISCIPLINE AREA 8 **CREW COORDINATION/CRM (CRITICAL)**	
Q	Demonstrated strict professional flight and crew discipline throughout all phases of flight. Complied with directives. Coordinated effectively with other crewmembers without confusion or undue delay. Exercised sound CRM skills. See AFI 11-290, Atch 2.
U	Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations. Crew coordination/CRM was ineffective.
COMMUNICATIONS SECURITY AREA 12 **(CRITICAL)**	
Q	Possessed satisfactory knowledge of communications security requirements and procedures as outlined in applicable directives. Demonstrated responsible handling of classified information and/or equipment.
U	Inadequate knowledge of communications security and procedures as outlined in applicable directives. Improper handling of classified information and/or equipment.
PUBLICATIONS KNOWLEDGE/USE AREA 13	
Q	Demonstrated efficient use of applicable publication diagrams in determining system operation or troubleshooting without significant confusion or delays.

Q-	Demonstrated use of applicable publications showed limited understanding of the use of diagrams in determining system operation or troubleshooting which did not affect mission or troubleshooting effectiveness.
U	Failed to demonstrate an ability to utilize applicable publications for determining system operation or troubleshooting which affected mission or troubleshooting effectiveness.
SYSTEMS KNOWLDEGE/OPERATION	**AREA 14**
Q	Can accurately locate and identify equipment, demonstrates general theory of operation and has a complete and thorough understanding of systems or subsystems with no more than minor errors or misidentifications not affecting mission success.
Q-	Can locate and identify equipment on systems or subsystems with some errors or misidentifications. The demonstrated understanding of system or subsystems general theory of operation was incomplete or inaccurate, or caused confusion or delays not seriously affecting mission success.
U	Unable to locate and identify equipment for systems or subsystems without errors or misidentifications. Demonstrated an unacceptable level of understanding of systems or subsystems, general theory of operation, or caused significant confusion or delays which affected mission success.
NOTE	Equipment/Systems Knowledge discussion may be accomplished before, during, or after flight, but must be complete prior to the evaluation critique. Depending on the IMT position being evaluated, the equipment selected to evaluate this area will be selected from the local supplement table. A representative sample of each applicable system or subsystem will be evaluated.

Table 7.3. IMT-Specific Grading Criteria.

MAINTENANCE AND TROUBLESHOOTING	**AREA 15**
Q	Performed proper maintenance practices utilizing test and maintenance equipment with minor omissions and deviations not affecting malfunction analysis. Properly attempted to optimize mission equipment effectiveness.
Q-	Performed proper maintenance practices utilizing test and maintenance equipment with minor omissions and deviations not adversely affecting malfunction analysis. Attempted to optimize mission equipment effectiveness with some errors which did not affect mission success.
U	Performed improper maintenance practices utilizing test and maintenance equipment which adversely affected malfunction analysis. Either did not attempt or improperly attempted to optimize mission equipment effectiveness which adversely affected mission success.

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