

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

**AIR FORCE INSTRUCTION 11-2RC-135,
VOLUME 2**

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Flying Operations

**RC/OC/WC/TC-135--AIRCREW EVALUATION
CRITERIA**



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This volume, in conjunction with applicable sections of AFI 11-202V2, *Aircrew Evaluation Criteria*, implements AFD 11-2, *Aircraft Rules and Procedures*, 7 and AFD 11-4, *Aviation Service*. It contains detailed procedures and criteria for evaluation of all aircrew members flying RC/OC/WC/TC-135 aircraft. This publication does not apply to Air National Guard (ANG) or Air Force Reserve Command (AFRC) 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/DISI, for approval prior to publication IAW AFD 11-2, paragraph 4.2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the using MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DISI, 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 by complying with AFI 33-360V1, *Publications Management Program*. See paragraph 1.2. for procedures to be followed when submitting comments and suggested improvements to this publication.

SUMMARY OF REVISIONS

This change incorporates interim change IC 2003-01. This instruction now applies to the Air National Guard (ANG). This IC updates evaluation criteria IAW new guidance from updated versions of AFI 11-2RC-135V1, *RC/OC/WC/TC-135 Aircrew Training*. It also adds evaluation criteria for former AIA positions in chapters 8 and 9. Office symbols were changed to reflect current information. **Chapter 3** is replaced in its entirety. See the last attachment of the publication for the complete IC. A (|) indicates revisions from the previous edition. Add or replace all paragraphs and tables for immediate implementation.

This volume, in conjunction with applicable sections of AFI 11-202V2, *Aircrew Evaluation Criteria*, implements AFD 11-2, *Aircraft Rules and Procedures*, and AFD 11-4, *Aviation Service*. It contains

detailed procedures and criteria for evaluation of all aircrew members flying RC/OC/WC/TC-135 aircraft. This publication does not apply to Air Force Reserve Command (AFRC) 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/DOTV, 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 using MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DOTV, and the user MAJCOM/DRU/FOA and NGB 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 by complying with AFI 33-360V1, *Publications Management Program*. See paragraph 1.2. for procedures to be followed when submitting comments and suggested improvements to this publication.

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Chapter 1

GENERAL INFORMATION

1.1. General. This AFI provides flight examiners and aircrew members with procedures and evaluation criteria used during flight evaluations on RC/OC/WC/TC-135 aircraft. 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. (ANG: 255 OSF/CC will be notified when situations require an OG/CC or SQ/CC approval/waiver)

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/DOTV. Approved recommendations will be collated into interim or formal change notices, and forwarded to HQ USAF/XOOT for HQ USAF/XO approval.

1.3. Waivers. IAW AFI 11-202V2 and the ACC Sup procedures, waiver requests must be routed through the Numbered Air Force (NAF) for comment. Waiver approval authority for RC/OC/WC/TC-135-specific aircrew requirements is HQ ACC/DOT, unless otherwise specified in this volume. 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. Stan/Eval Flight Examiners (SEFEs) will use the grading policies contained in AFI 11-202V2 and the evaluation criteria in this instruction for conducting all ACC RC/OC/WC/TC-135 Flight, Aircrew Training Device (ATD), and Emergency Procedures (EPE) evaluations. All evaluations assume smooth air, a stable platform, and normal operating conditions. "Trick" questions and compound emergency procedures will not be used.

1.4.2. All evaluations fall under the Qualification (QUAL), Instrument (INSTM), Instructor (INSTR), or SPOT categories listed in AFI 11-202V2. For dual/multiple qualification difference evaluations that 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." Each squadron will design and maintain an evaluation profile for each MDS that includes information on each crew position. These profiles will be approved by OGV and they will incorporate requirements set in the applicable grading criteria and reflect the primary unit tasking. Schedule all evaluation activity on one sortie and an operational aircraft to the greatest extent possible. Conduct evaluations in an operational aircraft (RC/OC/WC-135 versus TC-135). A training aircraft may be used with the evaluator simulating crew inputs if approved by the Squadron/CC. Use this alternative only as a last resort for cases of limited aircraft availability. Do not begin an evaluation until all training items required for

that evaluation are complete. Unit flight examiners may give evaluations outside of their organization to include administering evaluations between ACC and ANG.

1.4.2.1. During all evaluations, any grading areas observed by the evaluator 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.

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. Evaluators 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 simulation or a verbal evaluation at OG/CC discretion. OGV will define, in their local supplement to AFI 11-202V2 the areas that **MUST** be evaluated in flight (example: Receiver Air Refueling).

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

1.4.4. During an evaluation, the evaluator will assess the examinee's performance for each required grading area and note discrepancies when deviations occur. Evaluators 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 examinee's performance with the tolerances provided in the grading criteria and assign an appropriate grade for each area. Momentary deviations from tolerances will not be considered in the grading, provided the examinee applies prompt action and such deviations do not jeopardize flying safety. Cumulative deviations will be considered when determining the overall grade. Deviations incurred while employing the "See and Avoid" concept will be considered momentary deviations. The SEFE will state the examinee's overall rating, thoroughly critique specific deviations, area grades assigned, and assign any required additional training.

1.5. General Evaluation Requirements:

1.5.1. Publications Check. The publications check is a requisite to all qualification evaluations, and will be annotated in the Comments block of the AF Form 8 only if unsatisfactory. Unit OGV will list the required flight publications each aircrew member is responsible for in the local supplement to AFI 11-202V2.

1.5.2. Written Examinations:

1.5.2.1. Qualification Examination (open book). This exam consists of 50-100 questions derived from applicable flight manuals and governing directives. OG/OGV will determine the necessary number of questions to be included for each MDS and crew position.

1.5.2.2. Qualification Examination (closed book). A Closed Book examination is required for all qualification evaluations. Major emphasis of closed book requisite exams will be on aircraft systems and mission knowledge that the aircrews must immediately recall while airborne and key

information from publications not available in-flight. OG/OGV will determine the necessary number of questions (25-50) for each MDS and crew position.

1.5.2.3. Boldface Examination (if applicable).

1.5.2.4. Instrument Examination. Required for flight-deck navigators and for pilots taking instrument evaluations (Not required for EWOs (Electronic Warfare Officers)).

1.5.3. Emergency Procedures Evaluations (EPE). Every Qualification evaluation which updates an expiration date will include an EPE. For pilots, the SEFE will administer the EPE in the OFT/ATD (Operational Flight Trainer/ Aircrew Training Device) when available. SEFE's will document method of EPE accomplishment in Comments block of the AF Form 8. The EPE scenario must accurately evaluate the required areas. For all other crewmembers, an EPE will be accomplished orally and Emergency Procedures grading criteria will be used to evaluate this event. Units will determine scenarios for EPEs. The SEFE will assign an overall EPE grade (1, 2, or 3) in the qualification ground phase block of the AF Form 8.

1.5.4. Qualification Evaluations. These evaluations will be combined with 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 activities unsupervised. Evaluations for multiple-MDS (mission design series) qualification will be addressed in crew-specific chapters.

1.5.5. Mission Evaluation. IAW AFI 11-202, Vol 2, the requirement for a separate mission evaluation on RC/OC/WC/TC-135 is waived.

1.5.5.1. Successful completion of an evaluation utilizing a mission profile/collection maneuver peculiar to a particular -135 variant (e.g., data run for RC-135S) qualifies individuals to fly operational sorties in that aircraft, subject to any other requirements or limitations directed by the applicable SQ/CC and AFI 11-2RC-135 V1. Exception: Forward Operating Location (FOL) staff may fly any mission profile/collection maneuver with SQ/CC approval.

1.5.5.2. Such evaluations qualify individuals to fly only training or test sorties on other models, defined as the same MDS, by AFI 11-2RC-135 V1, para 1.6.2.

1.5.6. Instructor Evaluations. Initial Instructor flight evaluations will be conducted with a student occupying the applicable aircrew position whenever possible. The instructor examinee will monitor all phases of flight from an advantageous position and be prepared to demonstrate or explain any area or procedure. The 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/TAPR (Training Accomplishment Report) completion for all instructor checks. The student will perform those duties prescribed by the instructor for the sortie being accomplished. If an actual student is not available, the SEFE will identify to the examinee (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 briefing must be instructed. Periodic instructor evaluations will be administered in conjunction with required qualification, instrument and mission flight evaluations. The examinee must occupy the primary duty position for an adequate period of time to demonstrate proficiency in the crew position with required qualification and instrument flight evaluations. All instructor evaluations will include a student pre-flight and post-flight briefing.

1.5.7. Instrument Evaluations. Instrument evaluations apply to pilots and copilots only. See **Chapter 2** of this volume for specific requirements. It is highly recommended that general instrument procedures be evaluated in the OFT in conjunction with the EPE.

1.5.8. No-Notice Evaluations. OG/CC will determine no-notice evaluation procedures/goals.

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 examinee in order to successfully achieve the sortie objectives and complete the evaluation. If an examinee 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 examinee receives a "U" grade in a non-critical area then the overall grade awarded will be no higher than Q-2. An examinee receiving a "Q-" grade in a non-critical area or areas may still receive a Q-1 overall grade at evaluator discretion.

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

Table 1.1. General Qualification Grading Criteria.

EQUIPMENT/PUBLICATIONS	AREA 1
Q	Possessed all required personal/professional equipment and publications. Maintained equipment in serviceable condition. Publications are current and properly posted according to directives.
Q-	Possessed all required personal/professional equipment and publications. Maintained equipment in serviceable condition. Publications are current but posted with omissions, deviations, or errors which detracted from sortie execution. Did not jeopardize sortie success.
U	Failed to possess personal/professional equipment or to maintain equipment in serviceable condition. Publications are not current, or posted with major omissions, deviations, or errors. Jeopardized sortie success.
MISSION PLANNING	AREA 2
Q	Developed a plan considering mission objectives, specific action points, and aircraft/crew capabilities. Complied with procedures prescribed by the flight manual and other applicable directives. Checked FCIF, Vol 1, Part B and annotated FCIF card. Complied with local directives and participated in all required briefings. Mission planning was adequate with no more than minor omissions, deviations or errors which did not impact planned sortie success.
Q-	As above, but did not fully comply with directives. Omissions, deviations or errors detracted from planned sortie execution. Did not jeopardize sortie success.
U	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.

CHECKLIST PROCEDURES		AREA 3
Q	Checklist items and procedures required by the flight manual and applicable directives were accomplished in a thorough and proficient manner with no more than minor omissions, deviations or errors which did not impact sortie success.	
Q-	Checklist items and procedures required by the flight manual and applicable directives were accomplished with omission, deviations, or errors which detracted from sortie execution. Did not jeopardize sortie success.	
U	Checklist items and procedures required by the flight manual and applicable directives were accomplished with major omissions, deviations, or errors. Jeopardized sortie success.	
EMERGENCY PROCEDURES		AREA 4
Q	Recognized actual/simulated malfunctions. Applied proper corrective actions. Effectively used checklist/flight manual. Thoroughly familiar with additional emergency duties. Effectively coordinated emergency actions with other crewmembers without delay or confusion. (This area may be evaluated orally.)	
Q-	Recognized actual/simulated malfunctions. Slow response to non-Bold Face situations or follow-on steps. Procedures were correct, but examinee was slow to locate required checklist/flight manual data. Slow or hesitant to coordinate emergency actions with other crewmembers.	
U	Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood or unaware of additional emergency actions. Improperly or ineffectively coordinated emergency actions with other crewmembers causing delay or confusion.	
SAFETY(CRITICAL)		AREA 5
Q	Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.	
U	Was not aware of or did not comply with all safety factors required for safe aircraft operation and mission accomplishment.	
AIRMANSHIP/AIRCREW DISCIPLINE (CRITICAL)		AREA 6
Q	Demonstrated professional discipline, effective situational awareness and sound judgment. Recognized and corrected task saturation or channelized attention. Decisions were timely and logical and did not jeopardize sortie success. Complied with directives.	
U	Demonstrated less than professional discipline, poor judgment or 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. Violated or ignored directives.	
CRM/CREW COORDINATION		AREA 7

Q	Effectively coordinated with other aircrew members. Demonstrated basic knowledge of other crewmembers duties and responsibilities. Provided timely direction or information, as required, which clarified/rectified a situation. Efficiently used available resources to manage workload and maximize mission success.
Q-	Adequate coordination with other aircrew members, but demonstrated limited knowledge of other crewmembers duties/responsibilities. Showed some hesitation to provide timely direction/information which would have clarified confusion or rectified a situation. Use of available resources to manage workload limited mission success.
U	Coordination with other aircrew members and lack of knowledge of their duties/responsibilities was detrimental to flight safety or mission effectiveness. Did not provide timely direction/information which would have clarified/rectified a situation. Did not use available resources to manage workload.
POSTFLIGHT/DEBRIEF	
Q	Satisfactory knowledge and performance of required procedures. Attended and fully participated in required debrief(s). Ensured AFTO Form 781 was completed and satisfactorily debriefed required personnel.
Q-	Incomplete knowledge of required procedures. Attended /participated in required debrief(s), but hesitant to make appropriate inputs. AFTO Form 781 entries and required debriefing(s) were not complete or thorough.
U	Unsatisfactory knowledge of required procedures. Major deviations in procedures. Failed to attend or participate in required debrief(s). Failed to complete or ensure completion of AFTO Form 781 and required debrief(s).
COMMUNICATIONS, LOGS, AND REPORTS	
Q	Communicated required 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 were completed in accordance with applicable directives, tasking and policy. Information was provided in sufficient detail to allow accurate and timely analysis of associated 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 contained errors or omissions precluding analysis of mission data. Failed to comply with security procedures.

Table 1.2. Instructor Grading 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.
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. Appropriate grades awarded.
Q-	As above but with minor errors or omissions in briefings, critique, 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 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 in-flight. Demonstrated thorough knowledge of aircraft systems, procedures, and all applicable publications and regulations.
Q-	Minor discrepancies in the above 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.
Note: Awarding a "U" in any of the above 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/INSTM.	

1.7. Explanation of Terms:

1.7.1. 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.

- 1.7.2. Omission. To leave out a required action or annotation.
- 1.7.3. Error. Departure from standard procedure. Performing incorrect actions or recording inaccurate information.
- 1.7.4. 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.
- 1.7.5. MDS. Mission Design Series; Mission refers to RC/OC/WC/etc; Design refers to -135/-130/etc; Series refers to S/U/V/W/etc.
- 1.7.6. Airmanship. An aircrew member's continuous perception of self and aircraft in relation to the dynamic environment of flight, threats, and tasking, and the ability to forecast, then execute, tasks based on that perception.

Chapter 2

PILOT EVALUATIONS

2.1. Instructions:

2.1.1. General. 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. Evaluators 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), Emergency Procedures Evaluation (EPE), and Publications Check.

2.1.2.2. Flight Phase: All areas required in **Table 2.1.** under "PQ" (pilot qualification) or "CQ" (copilot qualification) will be evaluated, unless not applicable to the specific aircraft as noted. All pilots of reverser equipped aircraft must be evaluated in reverse thrust landing. This specific evaluation must be in the aircraft for initial aircraft commander qualification (may be accomplished in OFT per OG/CC discretion.) Subsequently, all instructor and recurring aircraft commander reverse thrust landing evaluations may be in an OFT. Copilot reverse thrust procedures (and associated malfunctions) may be evaluated in the OFT (if available). During recurring evaluations for dual seat-qualified aircraft commanders, a right seat approach and landing is required.

2.1.2.3. Multiple Qualification Evaluations. When authorized IAW AFIs 11-202V1 and 11-2RC-135V1, to establish or maintain qualification in more than one -135 MDS, use the following guidance. To add an additional -135 MDS (RC/OC/WC) to an existing qualification, use the Difference Evaluation requirements. To initially qualify in more than one -135 MDS, or for recurring evaluations of pilots qualified in more than one -135 MDS, complete flight evaluation IAW AFI 11-202V2. RC/OC/WC/TC-135 (all models with TF-33 engines) are considered equivalent for a qualification flight evaluation. Ensure Qualification Examination(s) and Emergency Procedures Examination(s) cover all applicable MDSs. Exception. For aircraft commanders, reverse thrust landing must be evaluated in an aircraft for initial Qualification evaluations in reverse thrust equipped aircraft.

2.1.2.3.1. SQ/CC approval is required for non-instructor pilots to maintain simultaneous qualification in TCTO-509 aircraft and non-TCTO-509 aircraft.

2.1.2.3.2. Qualification in TCTO-509/non TCTO-509 aircraft will be initiated by initial qualification in one engine type, followed by a difference qualification in the other. Subsequent annual qualification evaluation in one engine type will satisfy requirements for both types of aircraft, provided ground testing encompasses both aircraft types and the individual is current in both engine types.

2.1.2.4. Copilots initially upgrading to aircraft commander will have a qualified IP (desired) or SEFE (secondary) in the copilot's position during critical phases of flight.

2.1.3. Instrument Evaluations:

2.1.3.1. Ground Requisites. Instrument Refresher Course and written Instrument Examination.

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. Guidance for pilots flying with a revoked/expired instrument rating is in AFI 11-202V2.

2.1.4. Difference Evaluations:

2.1.4.1. An evaluation is required when a qualified -135 pilot (any model) is to obtain qualification for any other -135 model for which the pilot is not qualified.

2.1.4.1.1. Ground Requisites: Closed Book exam with Boldface.

2.1.4.1.1.1. Pilots transitioning from other -135 aircraft models to an RC/OC/WC/TC-135, an Open Book, Closed Book, Boldface, and EPE are required. Exams and EPE should emphasize the difference between airframes.

2.1.4.1.2. Flight Phase: The following transitions also require a flight evaluation. Evaluate applicable items in **Table 2.1.1**.

2.1.4.1.2.1. Transition from other -135 aircraft models to an RC/OC/WC/TC-135.

2.1.4.1.2.2. Transition between RC/OC/WC/TC-135 without TCTO 509 and RC/OC/WC/TC-135 aircraft with TCTO 509.

2.1.4.1.2.3. Transition from non-reverser equipped aircraft to an aircraft model with thrust reversers. (may be accomplished in the OFT per OG/CC waiver)

2.1.4.1.2.4. Pilots not qualified in receiver air refueling who seek qualification for receiver air refueling.

2.1.4.1.2.5. Pilots not qualified in tanker air refueling who seek qualification for tanker air refueling

2.1.4.1.3. Flight Phase for Air Refueling transitions. AR/Receiver.

2.1.4.1.4. Flight Phase for Thrust Reverser Engines. Landing (reverse thrust) (copilots may be evaluated in an OFT), Simulated Engine Out Pattern/Landing (reverse thrust) (N/A copilots). At SEFE discretion, the simulated engine out landing may count toward the landing requirement as well.

2.1.4.2. Pilots seeking qualification in a similar MDS (same engine type, reverser configuration, and air refueling capability) require a Closed Book and Boldface exam only (flight evaluation not required). Complete training required by 11-2RC-135V1 prior to administering examination.

2.1.5. Instructor Evaluations. Pilots receiving initial instructor checks must occupy the right seat for evaluation of takeoff, air refueling, initial buffet (OFT only), and all traffic pattern activity. An IP or SEFE must occupy the left seat. On recurring checks, instructors may occupy either seat to accomplish required items. A student, pilot, copilot, IP, or SEFE may occupy the opposite pilot position. The evaluator may, during any phase of the check, require the instructor examinee to demonstrate and/or present verbal explanations to the evaluator on air refueling, emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), or any other operating

procedures and techniques. These 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. In all cases, the examinee will occupy the position normally required to instruct, and will perform all tasks as demonstration items. All instructor examinees will accomplish the following additional demonstrations.

2.1.5.1. Air refueling envelope demonstration (accomplish in-flight for receiver-qualified instructors).

2.1.5.2. Approach to initial buffet (Initial C-135 Instructor Check; accomplish only in the OFT).

2.1.5.3. 30 Flap landing.

2.1.5.4. Simulated three-engine rudder power off low approach (first instructor evaluation in TF33 equipped C-135 aircraft only).

2.1.5.5. Touch and Go landing.

2.1.5.6. Grade demos using the criteria for Area 37, Demonstration and Performance. To receive a Q grade for the 30 Flap landing/Touch and Go landing, the examinee must satisfy the criteria for both Area 25, Landing, and Area 26, Touch and Go landings. Unsatisfactory performance may result in U grades for both areas depending on the nature of the discrepancy.

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

2.1.5.7. 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 paragraph 2.1.5. 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 Evaluations, additional guidance:

2.1.6.1. Qualification EPEs will evaluate the pilot's performance of all Boldface Procedures, a cross section of noncritical emergency procedures, and knowledge and performance of general systems operation. If accomplished in the ATD, a cross-section of instrument procedures, holding, and unusual attitude recoveries should be included. Use the Emergency Procedures - Bold Face criteria for Bold Face 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. Recurring reverse thrust landing may be evaluated in the OFT using landing criteria. If the ATD is not certified for landings, disregard any deviations in touchdown and only evaluate reverser procedures.

2.2. Pilot Evaluation Requirements:

2.2.1. **Table 2.1.** below lists areas for pilot or copilot qualification, instrument, 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 not found in the specific grading criteria table. A number refers to a note underneath this table. (PQ=Pilot Qual, CQ=Copilot Qual)

2.2.2. Table 2.1.1. below lists areas for pilot or copilot difference flight evaluations. These evaluations are SPOT evaluations for CFM-56 engine or TF-33 engine equipped aircraft. Tanker difference evaluations are SPOT evaluations for tanker duties in the WC-135C.

2.2.3. DELETED.

Table 2.1. Pilot Evaluation Requirements.

AREA/TITLE	NOTES	PQ	CQ	INSTM	INSTR
1. Equipment/Publications		R	R		
2. Mission Planning		R	R		
3. Checklist Procedures		R	R		
4. Emergency Procedures		R	R		
5. Safety (Critical)		R	R		
6. Airmanship/Aircrew Discipline (Critical)		R	R		
7. CRM/Crew Coordination		R	R		
8. Briefings		R			
9. Pre-Takeoff		R	R		
10. Takeoff		R	R		
11. Departure/Climb (IFR/VFR)		R	R		
12. Cruise/Navigation		R	R		
13. In-Flight Checks		R	R		
14. ATC Communications/IFF/SIF		R	R		
15. Unusual Attitudes	3			R	
16. Holding	3,X			R	
17. Communications, Logs, and Reports		R	R		
18. Air Refueling/Receiver	1,X	R	R		
19. Descent (Enroute or Published)		R	R		
20. IFR Pattern (prior to FAF)				R	

AREA/TITLE	NOTES	PQ	CQ	INSTM	INSTR
21. Precision Approach (GP-DH)	2			R	
22. Non-Precision Approach (FAF-MAP)				R	
23. Missed Approach	X			R	
24. VFR Traffic Pattern	X	R	R		
25. Landing	4	R	R		
26. Touch and Go landings	X	R	R		R
27. Go Around	X	R	R		
28. Simulated Engine Out Pattern/landing		R			
29. Engine Failure/Takeoff Continued		R			
30. Simulated Engine Out Go-Around		R			
31. Emergency Procedures--Boldface (Critical)		R	R		
32. Systems Knowledge/Operation		R	R		
33. After Landing		R	R		
34. Postflight/Debrief		R	R		
35. Instructional Ability					R
36. Instructional Briefing/Critique					R
37. Demonstration and Performance					R
38. Air Refueling/Tanker	1	R	R		
<p>Notes: 1. Includes practice emergency separations. Non-instructor aircraft commander qualification evaluations can be completed without air refueling (AR) qualification at OG/CC discretion. Complete an inflight refueling evaluation prior to certifying a pilot to conduct air refueling unsupervised. Instructor pilots must be qualified in AR, but need not be qualified as AR instructors at OG/CC discretion. To qualify as an AR instructor, complete an inflight evaluation consisting of AR instruction and AR limits demo, using both this area and Instructor Grading criteria. Initial ARIP check will be flown from the right seat.</p>					
<p>2. Both a PAR and ILS are required if equipment and facilities are available and traffic flow permits. If either a PAR or ILS approach is not available, the flight evaluation may be completed with one precision approach flown. Do not verbally evaluate the approach that wasn't flown.</p>					
<p>3. Unusual Attitudes will, and Holding may, be accomplished in the OFT.</p>					

AREA/TITLE	NOTES	PQ	CQ	INSTM	INSTR
4. Include reverse thrust evaluation. Initial aircraft commander evaluations and aircraft commander difference evaluations must be accomplished inflight. All other reverse thrust evaluations may be evaluated in the OFT.					

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 examinee initiates timely corrective action. When VMC, see and avoid responsibilities are paramount.

2.3.1. The following general criteria will be applied during all phases of flight except as noted for specific events:

Table 2.1.1. Difference Evaluation Requirements.

AREA/TITLE	NOTES	CFM	TF-33	TANKER
1. Equipment/Publications		R	R	R
3. Checklist Procedures		R	R	R
4. Emergency Procedures		R	R	R
5. Safety (Critical)		R	R	R
6. Airmanship/Aircrew Discipline (Critical)		R	R	R
7. CRM/Crew Coordination		R	R	R
10. Takeoff		R	R	
14. ATC Communications/IFF/SIF		R	R	R
17. Communications, Logs, Reports		R	R	R
25. Landing		R	R	
26. Touch and Go Landing		R	R	
31. Emergency Procedures—Boldface (Critical)		R	R	R
32. Systems Knowledge/Operation		R	R	R
33. After Landing		R	R	
34. Postflight/Debrief		R	R	
38. Air Refueling Tanker	1			R
Notes: 1. Includes practice emergency separations.				

Table 2.2. General Pilot Grading Criteria.

Q	Altitude	+/- 200 feet
	Airspeed	+/- 20 Kts
	MACH	+/- .03
	Course	+/- 10 degrees/3 NM
	TACAN Arc	+/- 2 NM
Q-	Altitude	+/- 300 feet
	Airspeed	+/- 25 Kts
	MACH	+/- .04
	Course	+/- 15 degrees/5 NM
	TACAN Arc	+/- 3 NM
U	All	Exceeded Q- Limits

2.3.2. For the following common areas, see [Chapter 1](#) for grading criteria:

QUALIFICATION

- 2.3.2.1. Equipment/Publications
- 2.3.2.2. Mission Planning
- 2.3.2.3. Checklist Procedures
- 2.3.2.4. Emergency Procedures
- 2.3.2.5. Safety
- 2.3.2.6. Airmanship/Aircrew Discipline
- 2.3.2.7. CRM/Crew Coordination
- 2.3.2.8. Postflight/Debrief
- 2.3.2.9. Communications, Logs and Reports

INSTRUCTOR

- 2.3.2.10. Instructional Ability
- 2.3.2.11. Briefings/Critique
- 2.3.2.12. Demonstration and Performance

2.3.3. Specific Grading Criteria:

| Table 2.3. Pilot-Specific Grading Criteria.

BRIEFINGS		AREA 8
Q	Briefings were well organized and presented effectively in a logical sequence. Covered all pertinent items according to applicable AFIs, Flight Manuals, FLIP, FCG, and/or other directives. Effectively used available briefing aids.	
Q-	Briefings lacked continuity or contained unnecessary repetition. Some difficulty communicating thoughts clearly. Did not make effective use of available briefing aids. Dwelled on non-essential items.	
U	Failed to use briefing aids. Omitted essential items. Demonstrated lack of knowledge of subject. Briefing was poorly organized and not presented in logical sequence, resulting in confusion. Presented erroneous information which would affect safe/effective mission accomplishment.	
PRE-TAKEOFF		AREA 9
Q	Performed all required procedures, calculations, and coordination prior to takeoff according to flight manuals and applicable directives. Accurately determined aircraft's readiness for flight. Computed required airspeeds within +/-3 knots, critical field length, takeoff and/or landing distances within +/- 500 feet, EPR/N1 within +/- .02/1 %, stabilizer trim setting within +/- .5, and % MAC for T/O within +/- 1% . Taxi speeds appropriate for conditions. Visually cleared area.	
Q-	Same as above except for minor procedural deviations which would not detract from mission effectiveness. Accurately determined aircraft's readiness for flight. Computed airspeeds within +/- 5 knots, critical field length, takeoff and/or landing distances within +/- 800 feet, EPR/N1 within .03/1.5%, stabilizer setting within +/- 1.0, and % MAC for T/O within +/- 1.5%. Limited knowledge of performance data and aircraft weight and balance. Taxi speeds appropriate for conditions. Visually cleared area.	
U	Omitted major item(s). Major deviation in procedures. Failed to accurately determine aircraft's readiness for flight. TOLD computations exceeded Q- criteria. Inadequate knowledge of performance data and aircraft weight and balance. Taxi speeds inappropriate 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/systems limitations. Failed to establish proper climb attitude. Marginal control of the aircraft. Violated flight manual procedures.
DEPARTURE/CLIMB (IFR/VFR) AREA 11	
Q	Performed departure as published/directed and complied with all restrictions. Applied heading/course correction promptly 1. Altitude +/- 200 ft (intermediate level off) 2. Airspeed +/- 10 Kts 3. Heading/Course +/- 10 degrees (when assigned or specified) 4. TACAN Arc +/- 2 miles
Q-	Performed departure as published/directed and complied with all restrictions. Slow to apply heading/course corrections. 1. Altitude +/- 300 ft (intermediate level off) 2. Airspeed +/- 15 Kts 3. Heading/Course +/- 15 degrees (when assigned or specified) 4. TACAN Arc +/- 3 miles
U	Failed to comply with published/directed departure instructions or exceeded Q- criteria. Failed to maintain positive rate of climb.
NOTE	Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.
CRUISE/NAVIGATION AREA 12	
Q	Leveled off smoothly at specified altitude within +/- 200 ft. Established proper cruise airspeed promptly. Properly used appropriate navigation equipment/procedures. Ensured nav aids were properly tuned, identified, and monitored. Aware of exact position at all times. Visually cleared the area. Maintained/adjusted speeds as required to meet mission timing.
Q-	Level off erratic, maintained altitude within +/- 300 ft. Slow in establishing proper cruise airspeed. Minor errors in procedure/use of navigation equipment. Some deviations in tuning, identifying, and monitoring nav aids. 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.
IN-FLIGHT CHECKS AREA 13	
Q	Adhered to briefed/directed minimum fuel requirements/performed in-flight checks as required. Satisfactorily managed/monitored fuel and other systems.

Q-	Deviations or omissions during checks did not detract from mission accomplishment.
U	Did not adhere to minimum fuel requirements, perform in-flight checks, or monitor systems to the degree that an emergency condition could develop if allowed to continue uncorrected.
ATC Communications/IFF/SIF AREA 14	
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. Correctly operated equipment.
Q-	Occasional deviations from correct procedures that required re-transmissions. 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 15	
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
HOLDING AREA 16	
Q	Entry and holding procedures according to applicable directives. 1. Altitude +/- 200 ft 2. Airspeed +/- 15 Kts
Q-	Non-standard entry and holding procedures but remained within air space limits. 1. Altitudes +/- 300 ft 2. Airspeed +/- 20 Kts
U	Exceeded holding airspace limits or Q- criteria.
NOTE	May be accomplished in an ATD when available.
A/R--RECEIVER AREA 18	

Q	<p>Instructors and Aircraft Commanders. 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 (may be reduced to 5 minutes for instructor evaluations, not to include time to demonstrate envelope limits.) Used correct procedures during emergency separation. 1. Airspeed +/- 10 Kts (1/2 mile) 2. Altitude +/- 200 ft (1 mile) - 300 ft to +100 ft (1 mile to 1/2 mile) Copilots. Preplanned target fuel distribution and on-load to remain within aircraft weight/CG limits. Correctly configured the aircraft for refueling. Operated fuel panel during refueling to achieve desired on-load IAW planned or recalculated distribution. Provided appropriate back up to aircraft commander. Used correct procedures during emergency separation.</p>
Q-	<p>Instructors and Aircraft Commanders. 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 (may be reduced to 5 minutes for instructor evaluations, not to include time to demonstrate envelope limits.) Slow to recognize and apply needed corrections to establish and maintain proper refueling position. Aircraft control not always positive and smooth, but adequate. Accomplished procedures required by the flight manual and local directives with minor errors, deviations, and/or omissions. Minor errors, deviations, and/or omissions in emergency separation procedures. 1. Airspeed +/- 15 Kts (1/2 mile) 2. Altitude +/- 300 ft (1 mile) -300 ft to +200 ft (1 mile to 1/2 mile) Copilots. Preplanned target fuel distribution and on-load to remain within aircraft weight/CG limits. Correctly configured the aircraft for refueling. Operated fuel panel during refueling to achieve desired on-load IAW planned or recalculated distribution. Provided minimal back up to aircraft commander. Minor errors, deviations or omissions in emergency separation procedures.</p>
U	<p>Instructors and Aircraft Commanders. 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. Major errors, deviations, or omissions in emergency separation procedures. Copilots. Major errors, deviations, and/or omissions in configuring the aircraft for refueling. Did not calculate target fuel distribution and CG or exceeded Q- criteria. Exceeded or attempted to exceed operating/CG limits while operating fuel panel during refueling. Did not back up or distract the aircraft commander. Major errors, deviations, and/or omissions in procedures during emergency separation.</p>

NOTE 1	Copilots will be checked on performance of duties during rendezvous and refueling operations, including fuel panel, checklist, center of gravity, and breakaway procedures. Copilot air refueling checks may be completed in the OFT or an aircraft on the ground if unable to complete during flight evaluation.
NOTE 2	Air Refueling track time should be scheduled to allow a minimum of 30 minutes contact time. Unit Stan/Eval may establish a maximum amount of time from initial pre-contact to achieve required contact time.
NOTE 3	For instructor pilots performing an Air Refueling limits demonstration, inadvertent disconnects are permissible during demonstration and therefore will not be counted against the examinee.
DESCENT	AREA 19
Q	Performed descent as directed. Complied with all restrictions. Visually cleared the area. Complied with Flight Manual procedures and local directives. Computed required airspeeds within +/-3 knots, landing distances within +/- 500 feet, EPR/N1 within +/- .02/1 %. 1. Altitude +/- 200 ft (level off) 2. Airspeed +/- 10 Kts (if applicable) 3. Heading/Course + 10 degrees when assigned or as specified 4. TACAN Arc +/- 2 miles
Q-	Performed descent as directed with minor deviations. Visually cleared the area adequately. Slow to accomplish Flight Manual procedures and complied with local directives. Computed required air speeds within +/-5 knots, landing distances within +/- 800 feet, EPR/ N1 within +/- .03/1.5 %. Limited knowledge of performance data. 1. Altitude +/- 300 ft (level off) 2. Airspeed +/- 15 Kts (if applicable) 3. Heading/Course +/- 15 degrees when assigned or as specified 4. TACAN Arc +/- 3 miles
U	Performed descent with major deviations. Did not accomplish required checks. Failed to visually clear the area adequately. Major errors, deviations or omissions in landing data. Exceeded Q- criteria. Inadequate knowledge of performance data.
IFR PATTERN (PRIOR TO FAF)	AREA 20
Q	Procedures required by the flight manual and applicable directives were accomplished. Followed controller's instructions and complied with all restrictions. Made smooth and timely corrections. 1. Altitude +/- 200 ft 2. Airspeed - 5 Kts/+20 (Did not exceed Flap Placard) 3. Heading/Course +/- 15 degrees 4. TACAN Arc +/- - 2 miles

Q-	Procedures 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. 1. Altitude +/- - 300 ft 2. Airspeed -5 Kts/+30 (Did not exceed Flap Placard) 3. Heading/Course +/- 20 degrees 4. TACAN Arc +/- 3 miles
U	Made major deviations or omissions in procedures required by the flight manual or directives. Failed to comply with controller instructions. Exceeded Q- criteria.
PRECISION APPROACH (GP-DH) AREA 21	
Q	Performed procedures correctly/as published. Smooth and timely corrections. Position would have permitted a safe landing. 1. Glideslope Did not exceed slightly above/slightly below or one dot 2. Airspeed -5/+10 Kts 3. Heading/Course +/- 10 degrees of controller's instructions/ within 1 dot 4. DH - 25/+50 ft (ILS)/prompt response to DH (PAR)
Q-	Performed procedures with minor deviations. Slow to respond/make corrections. Complied with decision height. Position would have permitted a safe landing. 1. Glideslope Within PAR safety limits, 2 dots above/1 dot below 2. Airspeed -5/+15 Kts 3. Heading/Course +/- 15 degrees of controller's instructions/within 2 dots 4. DH -50/+75 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.
NON-PRECISION APPROACH AREA 22 (FAF-MAP)	
Q	Performed procedures as published/directed. Made smooth and timely corrections. Arrived at MDA prior to or at VDP. Position would have permitted safe landing. 1. Airspeed -5/+10 Kts 2. Altitude -50/+100 ft (after reaching MDA and prior to MAP) 3. Heading/Course +/- 10 degrees or within one dot 4. Timing computed to 10% of actual timing (when applicable).
Q-	Performed procedures with minor deviations. Slow to make corrections. Arrived at MDA prior to/at missed approach point. Position would have allowed safe landing. 1. Airspeed -5/+15 Kts 2. Altitude -50/+100 ft (after reaching MDA and prior to MAP) 3. Heading/Course +/- 15 degrees or within two dots 4. Timing computed to 20% of actual timing (when applicable)

U	Performed procedures with major deviations. Erratic corrections. Exceeded Q- criteria. Did not comply with MDA and/or position would not have permitted a safe landing.
MISSED APPROACH AREA 23	
Q	Executed missed approach as published or directed. Completed all procedures according to applicable flight manual and directives. 1. Level off altitude +/- 200 ft 2. Airspeed +/- 5 Kts (See note 2) 3. Heading/Course +/- 5 degrees 4. TACAN Arc +/- 2 miles
Q-	Executed missed approach with minor deviations. Slow to comply with published procedures, controller's instructions, flight manual procedures, or directives. 1. Level off altitude +/- 300 ft 2. Airspeed +/- 10 Kts (See note 2) 3. Heading/Course +/- 10 degrees 4. TACAN 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
NOTE 2	Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.
VFR TRAFFIC PATTERN AREA 24	
Q	Performed traffic patterns according to the flight manual, operational procedures, and directives. Aircraft control was positive and smooth. Effectively cleared ahead of flight-path. 1. Altitude +/- 200 ft 2. Airspeed -5(Did not exceed Flap Placard)
Q-	Performed traffic patterns with minor deviations to procedures outlined in the flight manual, operational procedures, and directives. Aircraft control was not consistently positive and smooth, but safe. Adequately cleared area of intended flight. 1. Altitude +/- 300 ft 2. Airspeed -5(Did not exceed Flap Placard)
U	Traffic patterns not performed according to procedures outlined in the flight manual, operational procedures, and directives. Erratic aircraft control. Did not clear area of intended flight. Exceeded Q- criteria.
NOTE	May be graded using a rectangular pattern or a circling maneuver.
LANDING AREA 25	
Q	Performed landings according to procedures outlined in the flight manual, operational procedures, and directives. Correctly used thrust reversers, as applicable. 1. Threshold Speed: -5/+10 Kts 2. Touchdown Point: +/- 1000 feet as compared to computed flare distance and within stopping distance for runway available.

Q-	Landings performed according to procedures outlined in the flight manual, but outside the tolerances listed in Q criteria. Touchdown within stopping distance for runway available.
U	Landings not performed according to procedures outlined in the flight manual, operational procedures, and directives. Exceeded Q- criteria.
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 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 flight manual procedures, operational restrictions, or local directives. Failed to ensure adequate runway length. Did not correct to centerline. Liftoff potentially dangerous. Overcontrolled aircraft.
NOTE	Instructors must perform a touch and go as both the pilot flying and pilot not flying to complete this area.
GO AROUND	AREA 27
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.
SIMULATED ENGINE-OUT PATTERN/LANDING	AREA 28

Q	Performed pre-landing checks, traffic pattern, approach and landing in accordance with procedures outlined in the flight manual and other directives. Aircraft control was positive and smooth. 1. Pattern Altitude +/- 200 ft 2. Airspeed on Final -5/+ 15 Kts 3. Airspeed Pattern -5/(Did not exceed flap placard)
Q-	Minor procedural errors during pre-landing checks, traffic pattern, approach/landing which did not affect safety. Landed in slight crab. 1. Pattern Altitude +/- 300 ft 2. Airspeed on Final -5/+ 20 Kts 3. Airspeed Pattern -10/(Did not exceed flap placard)
U	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.
EFTOC AREA 29	
Q	Used positive application of proper control inputs. 10 Kts or less of air speed lost. Called for and accomplished checklist IAW Tech Order.
Q-	Slow to apply proper inputs. Lost more than 10 but not greater than 15 Kts of airspeed. Slow to call for and accomplish required checklist.
U	Failed to properly control aircraft. Lost more than 15 Kts of airspeed. Failed to call for or accomplish required checklist.
SIMULATED ENGINE-OUT/GO AROUND AREA 30	
Q	Initiated and performed go-around promptly in accordance with flight manual and applicable directives. Acquired/maintained a positive climb with airspeed no less than -5 Kts.
Q-	Slow or hesitant to initiate go-around. Minor procedural deviations which did not affect safety. Acquired/maintained a positive climb. Airspeed not less than -10 Kts.
U	Did not initiate go-around when appropriate or directed. Techniques unsafe or applied incorrect procedures. Exceeded Q- criteria.
EMERGENCY PROCEDURES - AREA 31 BOLDFACE (CRITICAL)	
Q	Correct responses. Maintained aircraft control. Coordinated proper actions.
U	Incorrect sequence, unsat response, or unsat performance of corrective action.
SYSTEMS KNOWLEDGE AREA 32 OPERATION	
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 publications and/or available aids.

Q-	Incomplete knowledge of system operating limits. Slow to analyze problems or take proper corrective action. Did not effectively use publications and/or available aids.
U	Unsatisfactory knowledge of systems. Unable to analyze problems or take corrective action. Did not use publications and/or available aids.
AFTER LANDING AREA 33	
Q	Aircraft taxi procedures accomplished in accordance with the flight manual and applicable directives. Taxi speeds appropriate for conditions. Visually cleared area. Safely followed marshaler's instructions
Q-	Same as Q except minor errors, deviations or omissions were noted in aircraft taxi procedures. Taxi speeds appropriate for conditions. Visually cleared area. Some confusion over marshaler's instructions.
U	Major errors, deviations or omissions were made in aircraft taxi procedures. Taxi speeds inappropriate for conditions. Failed to clear. Disregarded marshaler's instructions, or allowed marshaler to direct an unsafe situation.
A/RTANKER AREA 38	
Q	Pilot: Aircraft control was positive and smooth. Satisfactorily complied with procedures outlined in the flight manual and local directives. Cleared the area sufficiently. Used correct procedures during emergency separation. Airspeed -10/+15 Kts Altitude +/- 200 ft Heading +/- 5 degrees Preplanned target fuel distribution and offload to remain within aircraft weight/CG limits. Correctly configured the aircraft for refueling. Operated fuel panel during refueling to achieve desired offload IAW planned/recalculated distribution. Provided appropriate back up to aircraft commander. Used correct procedures during emergency separation.
Q-	Pilot: Aircraft control was not always positive and smooth, but adequate. Accomplished procedures required by the flight manual and local directives with errors, deviations and omissions which did not affect safety of flight. Cleared the area sufficiently. Minor errors in procedures during emergency separation. Airspeed - 15/ + 20 Kts Altitude +/- 300 ft Heading +/- 10 degrees Preplanned target fuel distribution and offload to remain within aircraft weight/CG limits. Minor errors, deviations, and/or omissions in configuring the aircraft for refueling. Operated fuel panel during refueling to achieve desired offload within weight/CG limits. Provided minimal back up to aircraft commander. Minor errors, deviations, and/or omissions in procedures during emergency separation.

U	Pilot: Errors/deviations/omissions that affected flight safety and/or the successful completion of air refueling. Exceeded the Q- criteria. Did not clear the area sufficiently. Major errors/deviations/omissions in emergency separation procedures. Major errors, deviations, and/or omissions in configuring the aircraft for refueling. Did not calculate target fuel distribution and CG or exceeded Q- criteria. Exceeded or attempted to exceed operating/CG limits while operating fuel panel during refueling. Did not back up, or caused distraction of, the air craft commander. Major errors, deviations, and/or omissions in procedures during emergency separation.
NOTE 1	This area includes orbit, rendezvous, refueling platform, post refueling and breakaway. Limitations are established for orbit, rendezvous, post-refueling and breakaway. Momentary deviations are acceptable during refueling.
NOTE 2	Copilots will be evaluated only on performance of copilot duties during rendezvous and refueling operations.
NOTE 3	When refueling autopilot off, add 100 ft, 5 Kts, and 5 degrees to all tolerances.

Chapter 3

NAVIGATOR EVALUATIONS

3.1. Instructions.

3.1.1. General. Grading criteria contained herein cannot cover every situation. Written parameters must be tempered with sortie objectives, evaluator judgment, and 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. Requisites: Qualification examinations (Open and Closed book), emergency procedures evaluation (EPE), Instrument Examination, and flight publications check.

3.1.2.2. Flight phase: All areas marked as **R** (Required) in **Table 3.1.** under "QUAL" (Qualification) will be evaluated, unless not applicable to the specific aircraft as noted.

3.1.2.3. Multiple Qualification Evaluations: Refer to AFI 11-2RC-135 Volume 1 for multiple qualification guidance and requirements. For examinees qualified in multiple MDS's (e.g., 338th CTS instructors) the collection maneuver will be the one flown by his/her primary aircraft (the one they are operations certified in).

3.1.2.4. Qualified navigators completing difference evaluations on the WC-135C will be required to complete grading Areas 1 through 7 and Area 26 in **Table 3.1.**

3.1.3. Complete difference training and certification/qualification IAW AFI 11-2RC-135 Volume 1.

3.1.3.1. Requisites: Closed book examination.

3.1.3.2. Flight phase: A flight evaluation may be conducted as determined by the squadron commander.

3.1.4. Instructor Evaluations:

3.1.4.1. Initial Instructor. The initial instructor evaluation should be a separate evaluation. If combined with a recurring qualification evaluation, it will also include all areas required in **Table 3.1.** under "INSTR" (instructor). Landing gear emergency extension will be demonstrated by the examinee while verbally explaining the procedure. Electric flap extension will not be evaluated. The examinee must demonstrate proficiency by instructing a student navigator (ideal) or a qualified navigator, in all areas required for a qualification evaluation. The evaluator may require the examinee to demonstrate and/or present verbal instruction of air refueling/emergency equipment/aircraft systems, navigation procedures, and techniques. These demonstrations will be prebriefed to the examinee and will be accomplished inflight at an appropriate time so as to not interfere with the examinee's crew duties or pacing.

3.1.4.2. Recurring Instructor. For recurring instructor evaluations, all applicable areas required in **Table 3.1.** will be evaluated to include those listed under "INSTR" (instructor). The evaluator may require the examinee to demonstrate and/or present verbal instruction of air refueling/emergency equipment/aircraft systems, navigation procedures, and techniques. These demonstrations will be prebriefed to the examinee and will be accomplished inflight at an appropriate time so as to not interfere with the examinee's crew duties or pacing.

3.1.4.3. Instructor Requalification Evaluations. Comply with any restrictions in AFI 11-2RC-135 Volume 1 and follow guidance in paragraph 3.1.4.2. above.

3.1.5. Emergency Procedures Evaluations (EPE). Use a verbal Emergency Procedures Evaluations (EPE) to satisfy the requirements for grading Area 4, "Emergency Procedures."

3.2. Navigator Evaluation Requirements:

3.2.1. The table below lists areas for navigator qualification 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, or a number which refers to a note shown below the table.

Table 3.1. Navigator Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Equipment/Publications		R	
2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures		R	
5. Safety (Critical)		R	
6. Airmanship/Aircrew Discipline (Critical)		R	
7. CRM/Crew Coordination		R	
8. Flight Plan/Charts		R	
9. Dead Reckoning Procedures			
10. General Navigation/Fixing		R	
11. Pacing		R	
12. Communication Device Loading Procedures	1	R	
13. Equipment Operation		R	
14. Air Refueling		R	
15. Landing Gear Alternate Extension (Critical)	2	R	
16. Descent/Approach/Landing		R	
17. Postflight/Debrief		R	
18. Communication, Logs and Reports		R	
19. Instructional Ability			R
20. Briefings/Critique			R
21. Demonstration and Performance			R
RC-135S/U ONLY			
22. Data Track	3	R	

AREA/TITLE	NOTES	QUAL	INSTR
RC-135V/W ONLY			
23. Reconnaissance Orbit Area	3	R	
OC-135 ONLY			
24. OPEN SKIES Navigation In-Flight Information, Fixing, Positions	3	R	
25. OPEN SKIES Navigation Leg Communications	3	R	
WC-135C ONLY			
26. Tanker Air Refueling	4	R	
<p>NOTES:</p> <ol style="list-style-type: none"> 1. N/A OC/WC-135W. 2. Required for INIT QUAL and INIT INSTR evaluations only. 3. The collection maneuver flown on Qualification evaluations will be the one flown on the individual's primary aircraft. 4. N/A CONSTANT PHOENIX operations. 			

3.2.2. Navigators seeking a qualification evaluation (includes initial and difference) on the WC-135C are required to complete all items in [Table 3.1](#), except RC-135 or OC-135 "ONLY" events. Crewmembers qualified to conduct air refueling (AREA 15) in either the RC/TC-135 or the WC-135W are not required to repeat this event for the WC-135C evaluation.

3.3. Grading Criteria:

3.3.1. For the following common areas, see [Chapter 1](#) for grading criteria:

QUALIFICATION:

- 3.3.1.1. Equipment/Publications
- 3.3.1.2. Mission Planning
- 3.3.1.3. Checklist Procedures
- 3.3.1.4. Emergency Procedures
- 3.3.1.5. Safety
- 3.3.1.6. Airmanship/Aircrew Discipline
- 3.3.1.7. CRM/Crew Coordination
- 3.3.1.8. Postflight/Debrief
- 3.3.1.9. Communications, Logs, and Reports

INSTRUCTOR:

3.3.1.10. Instructional Ability

3.3.1.11. Briefings/Critique

3.3.1.12. Demonstration and Performance

3.3.2. Specific Grading Criteria:

3.3.2.1. Emergency extension of landing gear will be accomplished by navigators on initial qualification and initial instructor evaluations only. Need not be reaccomplished when qualifying in other series aircraft equipped with identical emergency extension systems.

3.3.3. Celestial navigation is not required to complete a checkride on the RC/OC/WC/TC-135. SEFEs will continue to grade this area if the examinee elects to instruct or perform celestial navigation on their checkride using the grading criteria in AFI 11-2RC-135 Vol 1, *RC/OC/WC/TC-135—Aircrew Training* and Area 12 of this instruction. Use **Table 3.2.** through **Table 3.10.** for grading the respective areas.

Table 3.2. Flight Plan/Charts.

AREA 8	
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/omissions; no error exceeded 5 degrees of heading and/or 2 minutes of time.
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 10 degrees of heading and/or 4 minutes of time.
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	Computer-generated products are authorized for all mission planning. When used, the navigator is responsible for the data's accuracy, excluding fuel computations.
NOTE 2	Errors that occur as a result of a previous error will not be considered when applying the grading criteria.

| **Table 3.3. Dead Reckoning Procedures.**

	AREA 9
Q	Correctly computed and plotted a DR position in order to evaluate fixes/MPPs. Adequate information (information necessary to compute a wind) was recorded to permit complete and accurate reconstruction of the mission. An ETA was recorded for the majority of positions. Fixes and MPPs were logically interpreted. When a position indicates the aircraft is outside corridor, a heading alteration was immediately made to correct back to course.
Q-	Correctly computed and plotted a DR position to evaluate the majority of positions. Information recorded was not always complete and accurate, but was sufficient to allow reconstruction of the mission. An ETA was not recorded for the majority of positions. Interpretation of fixes and MPPs was not always logical. When a position indicates the aircraft is outside corridor, a heading alteration was made within 5 minutes to correct back to course.
U	Poor performance caused inaccurate or missing DR positions or DR information such that actual aircraft flight path/ground track (correct or not) was not subject to monitoring/control by the navigator.
NOTE 1	Navigators must demonstrate procedures and techniques of manual dead reckoning by using all available aids to update and verify DR positions.
NOTE 2	Information necessary to compute a wind need not be recorded during departure, holding, air refueling orbit, anchor patterns, rendezvous, weather avoidance, airway/jet route navigation, receiver air refueling, and upon initiation of penetration and approach. The navigator is always responsible for position awareness.
NOTE 3	When overwater (when radar targets are not available) manual dead reckoning is the primary means of navigation and will be computed, plotted, and weighed in conjunction with all available aids to determine a most probable position.

| **Table 3.4. General Navigation and Inflight Information.**

AREA 10	
Q	Did not allow the airplane to deviate outside ATC assigned/allowable airspace and in no case more than 10 NM (4 NM or as specified for operations below FL 180) from the course. Complete crosscheck (to include fix/position, track, true heading, drift, groundspeed, and ETA) was accomplished at intervals not exceeding 30 minutes and at each planned turnpoint. Significant errors were resolved prior to the next crosscheck.
Q-	Did not allow the airplane to deviate outside ATC assigned/allowable airspace and in no case more than 15 NM (10 NM or as specified for operations below FL 180) from the course. Complete crosscheck (to include fix/position, track, true heading, drift, groundspeed, and ETA) was accomplished at intervals not exceeding 40 minutes and at each planned turnpoint. Errors were resolved but not before the next crosscheck.
U	Exceeded Q- tolerances and/or allowed the aircraft to deviate outside ATC assigned/protected airspace.
NOTE 1	The navigator is always responsible for position awareness. Recording of inflight information commences at leveloff and ceases when the pilot or air traffic controller assumes responsibility for navigation to the terminal facility.
NOTE 2	(RC/TC-135 only) An ASN-121 navigation system position may be plotted as a fix if a radar fix/position crosscheck has been accomplished within the last five minutes. In areas where radar is not available (e.g., overwater), an ASN-121 navigation system position may be plotted as a fix if a system stellar update has occurred within the last five minutes, or GPS FOM is 7 or better, or compared against an independent hand-held GPS.
NOTE 3	The primary method of fixing is radar and this method will be used for the majority of positions (when available) to demonstrate proficiency. Radar fixing, although likely to be less precise than a GPS position, is almost entirely independent of automated systems and therefore makes an ideal crosscheck. If radar scope reference (e.g., true heading) is suspect, set scope reference manually or use multi-range fixing techniques.
NOTE 4	Navigators may elect to plot an INS or DR position prior to a turn of 20 degrees or more as long as a fix is taken promptly upon rollout.

| **Table 3.5. Pacing.**

	AREA 11
Q	Held an even workflow 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.
Q-	Pacing was adequate but occasionally worked behind aircraft. Position reports not over 5 minutes late and turning points not overflowed by more than two minutes. Nav 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 turnpoints were overflowed by more than two minutes.

| **Table 3.6. Communication Device Loading Procedures.**

	AREA 12
Q	All codes required for the sortie were properly set/loaded and equipment was operated IAW prescribed procedures and within limitations.
Q-	Codes required for the sortie were improperly set/loaded due to minor deviations and equipment was not operated completely IAW prescribed procedures but equipment limitations were not exceeded and sortie success was not jeopardized.
U	Examinee was unable to set/load required codes, equipment was not operated IAW prescribed procedures, equipment limitations would have been exceeded without evaluator intervention and sortie success was affected.
NOTE 1	Examinee will not be held responsible for equipment malfunctions as long as procedures were correct.
NOTE 2	N/A OC-135.

| **Table 3.7. Equipment Operation.**

AREA 13	
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. The coordinates in the navigation system were never more than 10 NM in error provided there were no equipment malfunctions.
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. The coordinates in the navigation system were never more than 15 NM in error provided there were no equipment malfunctions.
U	Exceeded Q- criteria.
NOTE	The extent of in-flight corrective action required of the navigator to alleviate a search radar malfunction will be determined by the mission requirements.

| **Table 3.8. Air Refueling.**

AREA 14	
Q	Rendezvous and air refueling procedures were IAW prescribed procedures and all checklists were accomplished with no more than minor discrepancies. Met or attempted to meet planned air refueling timing (RZIP +/- 1 minute or ARCT +/- 2 minutes) using all reasonable effort. If unable to make the scheduled air refueling rendezvous time after using speed control and route adjustment techniques, coordinated a revised ARCT. No training was lost by the tanker or receiver which could be attributed to the navigator's error. Receiver navigator directed closure to within 1 NM of tanker.
Q-	Displayed lack of knowledge and familiarity with the checklists and/or rendezvous and air refueling procedures, however, knowledge was sufficient to accomplish rendezvous and air refueling with minimal loss of training time/activity. Ineffective timing control resulted in unnecessarily delaying the rendezvous. Poor planning or inattention on the navigator's part caused the examinee to overlook timing control until it was too late to make the rendezvous using speed control and route adjustment techniques (RZIP greater than 1 minute but less than 2 minutes or ARCT greater than 2 minutes but less than 4 minutes), but a revised ARCT was then coordinated. Receiver navigator directed closure to within 1 NM of tanker. No significant amount of training was lost by the tanker or receiver.

AREA 14	
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. Poor planning or inattention on the navigator's part caused the examinee to overlook timing control until it was too late to make the rendezvous using speed control and route adjustment techniques, and no revision was made to the ARCT. Timing exceeded Q- tolerances. Significant training was lost by tanker or receiver. Receiver navigator was unable to direct closure to within 1 NM of tanker. Rendezvous radio calls were incorrect, extremely non-standard or late to a degree that caused confusion and compromised safety of flight.
NOTE 1	Navigators must demonstrate proficiency in T.O. 1-1C-1-14 procedures.
NOTE 2	Air refueling includes rendezvous (point parallel or enroute), orbit, interplane communications, breakaway, and post air refueling.
NOTE 3	Examinee will not be penalized for radio malfunctions or limitations (e.g., unable to contact a command post) that prevent revising the rendezvous time or accomplishing required radio calls on time.

Table 3.9. Landing Gear Alternate Extension.

AREA 15 (Critical)	
Q	Landing gear alternate extension procedures were performed with no deviations or with minor deviations or omissions that did not affect the safe outcome of the procedure and crew coordination interphone calls were satisfactory.
U	Landing gear alternate extension procedures were performed with major deviations or omissions that affected the safe outcome of the procedure. Crew coordination was unsatisfactory and/or safety was compromised.
NOTE 1	Landing gear alternate extension procedures are only required to be demonstrated on evaluations for initial qualification in the airplane and initial instructor qualification.

| **Table 3.10. Descent/Approach/Landing.**

AREA 16	
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/procedures. Monitored appropriate FLIP terminal approach plate. Made all altitude and other required calls, and ensured terrain clearance. Monitored initial approach using ARDA procedures.
Q-	Monitored aircraft position but did not monitor or understand approach and/or missed approach instructions/procedures. Omitted some altitude calls. Slow in providing headings, ETAs, and other information when required. Demonstrated marginal knowledge of ARDA procedures.
U	Failed to monitor aircraft position. Did not ensure terrain clearance during approach. Omitted numerous altitude calls. Failed to monitor approach with radar.

3.3.4. RC-135 Corridor Navigation Criteria: This section applies to RC-135 navigators only and is in addition to the grading criteria outlined in the preceding sections. Use [Table 3.11.](#) through [Table 3.14.](#) for grading the respective areas.

| **Table 3.11. Data Track (RC-135S).**

AREA 22	
Q	Present position counters were no more than 6 NM in error throughout data run provided there were no significant equipment malfunctions. Roll out at top of track (TOT) was made good within 1 minute of planned/announced timing and collection was not degraded by the aircraft position. The navigator forwarded the maximum time-on-track and current true heading to the TC within 2 minutes after initial rollout and all subsequent rollouts during the data run. The aircraft heading was corrected to within 2 degrees of desired data run heading not later than 3 minutes after rollout on the data track.
Q-	Present position counters were no more than 8 NM in error throughout data run provided there were no significant equipment malfunctions. Roll out at TOT was made good within 90 seconds of planned/announced timing and collection was degraded but still accomplished. The navigator forwarded the maximum time-on-track and current true heading to the TC within 3 minutes after initial rollout and all subsequent rollouts during the data run. The aircraft heading was corrected to within 3 degrees of desired data run heading not later than 5 minutes after rollout on the data track.
U	Exceeded Q- criteria.

AREA 22	
NOTE 1	RC-135S navigators must demonstrate data track procedures by planning and flying a data track leg. Data track is that portion of navigation that starts at rollout on data run until return to orbit or roll out on heading when departing the data track. Any enroute navigation exercises or procedures will terminate at roll in point (RIP) at TOT and may resume within 5 minutes of the end of data track or receipt of the RTB message.
NOTE 2	During orbit and data track, aircraft position will be monitored at all times. Recording of aircraft positions on data run paperwork fulfills the requirements of aircraft position/crosscheck. At no time will the navigator allow a recorded crosscheck to exceed 30 minutes unless doing so would directly interfere with the recording of data run information. At least half of positions will be crosschecked with the radar, if available.
NOTE 3	In-flight information will be recorded IAW mission directives/AFI 11-2RC-135 Volume 3, RC/OC/WC/TC-135 Operations Procedures.

Table 3.12. Reconnaissance Orbit Area Procedures (RC-135V/W).

AREA 23	
Q	Orbit area procedures were in accordance with prescribed directives and were accomplished with no more than minor discrepancies. Every reasonable effort was made to make exit timing within +/- 1.5 minutes of briefed control time.
Q-	Displayed a lack of knowledge and familiarity with orbit area procedures. However, knowledge was sufficient to ensure orbit area procedures were accomplished with minimal loss of training. Exit timing was greater than 1.5 minutes but less than 2.5 minutes of briefed time.
U	Displayed a lack of knowledge and familiarity with orbit area procedures to the extent that the orbit area procedures were jeopardized or training time/activity was lost. Failed to position the aircraft over the exit point within 2.5 minutes of the briefed control time.
NOTE	If the reconnaissance orbit area procedures must be terminated or abbreviated for weather, equipment malfunction, emergency, or mission profile change, the evaluator may give credit for this event provided all "Q" requirements are met. Grade orbit area procedures IAW AFI 11-2RC-135 Vol 1, <i>RC/OC/WC/TC-135 Aircrew Training</i> .

Table 3.13. OPEN SKIES Navigation In-Flight Information, Fixing, Positions.

AREA 24	
Q	Adequate information (information necessary to compute a wind) was recorded to permit complete and accurate reconstruction of the mission. A fix/position, time, and information necessary to compute a wind was recorded at intervals not exceeding 30 minutes and at the start and end sensor navigation leg points. A time and position were recorded on the chart for the majority of the planned turn points and turns of 20 degrees or more.
Q-	Information recorded was not always accurate or complete, but was sufficient to allow reconstruction of the mission. A fix/position, time, and information necessary to compute a wind was recorded at intervals exceeding 30 minutes. A fix/position was not recorded at the start or end sensor navigation leg points. A majority of turn points were not recorded.
U	Exceeded Q- criteria.

Table 3.14. OPEN SKIES Navigation Leg Communications.

AREA 25	
Q	Made 90 percent or more of the required sensor call actions. Timely and effective communication with the pilots and mission crew did not prevent successful data collection.
Q-	Made 80 percent or more of the required sensor call actions. Deviations or omissions in communications resulted in significant degradation of data collection.
U	Exceeded Q- criteria.
NOTE 1	The required sensor action calls are: one minute to sensor on, 30 seconds to sensor on, countdown to sensor on, 30 seconds to sensor off, and countdown to sensor off.
NOTE 2	Sensor calls will not be considered missed if they conflict with other call/actions that are critical to flight safety and/or data collection.

3.3.4.1. RC-135U/V/W navigators must demonstrate corridor and general navigation procedures by planning and flying a Reconnaissance Orbit Area (N050) event as part of the evaluation profile.

3.3.4.2. Dead reckoning is the primary means of navigation. The ASN-121 GSIDS will be used for aircraft steering if the system is operative and accurate within 5 nautical miles of actual aircraft position. A system fix may be plotted if cross-checked by radar within the last 5 minutes. Additionally, a system fix may be plotted over water or in areas where suitable radar fixing is not available provided a stellar or GPS update (FOM 7 or better) has occurred within the last 5 minutes.

3.3.5. OC-135 Navigation Leg Criteria: This section applies to OC-135 navigators only and is in addition to the grading criteria outlined in the preceding applicable sections. Use [Table 3.15.](#) and [Table 3.16.](#) for grading the respective areas.

Table 3.15. Tanker Air Refueling (WC-135C).

AREA 26	
Q	Rendezvous – Point Parallel - Computed and used turn range and offset to within 2 NM. Rendezvous – Enroute - Arrived over RZPT or ARCP within 1 minute of scheduled/adjusted rendezvous Control Time. Advised the receiver of any required adjustments NLT 10 minutes prior to the control time.
Q-	Rendezvous – Point Parallel - Computed and used turn range and offset greater than 2 NM but less than 4 NM. Rendezvous – Enroute - Arrived over RZPT or ARCP greater than 1 minute but less than 2 minutes of scheduled/adjusted rendezvous Control Time or failed to advise receiver of control time adjustment.
U	Rendezvous - Exceeded Q- tolerances. Altitude control - Failed to crosscheck, if applicable, A/R altitude (or hot armament check, if required). Directed final turn to receiver (point parallel) with unknown altitude separation.

Table 3.16. OC-135 Navigation In-Flight Information, Fixing, Positions.

Area 27	
Q	Adequate information (information necessary to compute a wind) was recorded to permit complete and accurate reconstruction of the mission. A fix/position, time, and information necessary to compute a wind was recorded at intervals not exceeding 30 minutes and at the start and end sensor navigation leg points. A time and position were recorded on the chart for a majority of the planned turn points and turns of 20 degrees or more.
Q-	Information recorded was not always accurate or complete, but was sufficient to allow reconstruction of the mission. A fix/position, time, and information necessary to compute a wind were recorded at intervals exceeding 30 minutes. A fix/position was not recorded at the start or end sensor navigation leg points. A majority of turn points were not recorded.
U	Exceeded Q- criteria.

3.3.6. WC-135C Tanker Air Refueling Grading Criteria: This section applies to WC-135C navigators performing tanker air refueling procedures on the WC-135C aircraft. Use the grading criteria in [Table 3.17](#) to evaluate Area 28.

Table 3.17. OC-135 Navigation Leg Communications.

Area 28	
Q	Made 90 percent or more of the required sensor call actions. Timely and effective communication with the pilots and mission crew did not prevent successful data collection.
Q-	Made 80 percent or more of the required sensor action calls. Deviations or omissions in communications resulted in significant degradation of data collection.
U	Exceeded Q- criteria.
NOTE 1	The required sensor action calls are: one minute to sensor on, 30 seconds to sensor on, countdown to sensor on, 30 seconds to sensor off, and countdown to sensor off.
NOTE 2	Sensor calls will not be considered missed if they conflict with other call/actions that are critical to flight safety and/or data collection.

Table 3.18. WC-135C Tanker Air Refueling Grading Criteria.

Area 29	
Q	Rendezvous – Point Parallel - Computed and used turn range and offset to within 2NM. Rendezvous - En route - Arrived over RZPT or ARCP within 1 minute of scheduled/adjusted Rendezvous Control Time. Advised the receiver of any required adjustments NLT 10 minutes prior to the control time.
Q-	Rendezvous – Point Parallel - Computed and used turn range and offset greater than 2NM but less than 4NM. Rendezvous - En route - Arrived over RZ PT or ARCP greater than 1 minute but less than 2 minutes of scheduled/adjusted Rendezvous Control Time or failed to advise receiver of control time adjustment.
U	Rendezvous - Exceeded Q- tolerances. ALTITUDE Control - Failed to crosscheck, if applicable, A/R altitude (hot armament check, if required). Directed final turn toward receiver with unknown altitude separation.
NOTE 1	WC-135C Only
NOTE 2	Commences 10 minutes prior to ARCT/RZ PT and terminates at end A/R point.

Chapter 4

ELECTRONIC WARFARE OFFICER (EWO) EVALUATIONS

4.1. Instructions:

4.1.1. General. The criteria contained in this chapter are established by experience, policies, and procedures set forth in flight manuals and other directives. Evaluators must realize that grading criteria contained herein cannot cover every situation. Written parameters must be tempered with sortie objectives and more importantly, task accomplishment in the determination of overall aircrew performance. The criteria contained in this chapter are applicable to all qualification, and instructor flight evaluations for RC-135 Electronic Warfare Officers (EWOs).

4.1.2. Qualification Evaluations:

4.1.2.1. Ground Requisites: Qualification Examination (open book), Qualification Examination (closed book), Emergency Procedures Evaluation (EPE), and Publications Check.

4.1.2.2. Flight Phase: All areas required in [Table 4.1](#) under "QUAL" will be evaluated. Units will make every effort to complete initial qualification checks during flight. However, qualification checks may be administered in a full-task ground simulator as approved by the OG/CC.

4.1.2.3. Multiple Qualification Evaluations. When authorized IAW AFIs 11-202V1 and 11-2RC-135, Vol 1, to establish or maintain qualification in the same crew position in more than one MDS, use the following guidance. Multiple qualification requires all requisites and flight phase requirements be met for all MDSs. Ground requisites may be combined to include testing for all applicable MDSs. Consider RC-135V/W as equivalent for qualification flight evaluations. An initial qualification flight evaluation in the new MDS will be accomplished to add it to the individual's qualifications.

4.1.2.4. Dual Qualification Evaluations. When authorized IAW AFIs 11-202V1 and 11-2RC-135 Vol 1, to establish or maintain qualification in two different EWO positions on the same MDS, use the following guidance. Dual Qualification requires a separate evaluation for each position. Both evaluations may be combined on one sortie provided all required grading areas are evaluated for both positions. Requisites are normally combined.

4.1.3. Difference Evaluations. Difference Evaluations allow an individual to qualify in the same crew position in another MDS or in a different tactic/system within the same MDS. Complete difference training and certification IAW AFI 11-2RC-135V1. Training in a different system does not qualify a crewmember in a different crew position. Difference evaluations do not update expiration dates.

4.1.3.1. Ground Requisites. Qualification Examination (closed book).

4.1.3.2. Flight Phase. A flight evaluation may be conducted as determined by the squadron commander.

4.1.4. Instructor Evaluations. All areas required in [Table 4.1](#) under "INSTR" will be evaluated. General grading criteria is located in [Chapter 1](#). Units will complete initial instructor checks during flight. Recurring instructor checks may be administered in a full-task ground simulator, with OG/CC approval.

4.1.5. Emergency Procedures Evaluations (EPE). Use the Emergency Procedures criteria to evaluate Emergency Procedures Evaluations. The EPE satisfies the in-flight requirements for Area 4, Emergency Procedures, if no actual emergency procedure is experienced in-flight

4.2. EWO Evaluation Requirements:

4.2.1. The table below lists areas for Electronic Warfare Officer qualification and instructor evaluations. An "R" indicates a requirement for that evaluation. The NOTES column may include an "X". The "X" refers to a general note found in the specific grading criteria table.

Table 4.1. EWO Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Equipment/Publications		R	
2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures		R	
5. Safety (Critical)		R	
6. Airmanship/Aircrew Discipline (Critical)		R	
7. CRM/Crew Coordination		R	
8. Equipment/Systems Knowledge	X	R	
9. Equipment/Systems Operation	X	R	
10. Postflight/Debrief		R	
11. Tactical Planning	X	R	
12. Employment		R	
13. Data Collection Recording		R	
14. Communications, Logs and Reports		R	
15. Collection Debrief		R	
16. Instructional Ability			R
17. Briefings/Critique			R
18. Demonstration and Performance			R

4.3. Grading Criteria:

4.3.1. For the following common areas, see [Chapter 1](#) for grading criteria.

QUALIFICATION

- 4.3.1.1. Equipment/Publications
- 4.3.1.2. Mission Planning
- 4.3.1.3. Checklist Procedures

- 4.3.1.4. Emergency Procedures
- 4.3.1.5. Safety
- 4.3.1.6. Airmanship/Aircrew Discipline
- 4.3.1.7. CRM/Crew Coordination
- 4.3.1.8. Postflight/Debrief
- 4.3.1.9. Communications, Logs and Reports

INSTRUCTOR

- 4.3.1.10. Instructional Ability
 - 4.3.1.11. Briefings/Critique
 - 4.3.1.12. Demonstration and Performance
- 4.3.2. Specific Grading Criteria:

4.3.2.1. Only the areas applicable to the position(s) being evaluated are to be graded. All equipment settings, operating procedures, and tolerances will be in accordance with current tasking, operating directives and checklists. Loss of collection or configuration capability due to equipment malfunction or sortie timing, not attributed to examinee error/deviation, will not constitute significant data loss or be interpreted as jeopardizing sortie success. Type of sortie being flown/simulated will dictate requirements for this area.

Table 4.2. EWO-Specific Grading Criteria.

EQUIPMENT/SYSTEMS KNOWLEDGE		AREA 8
Q	Satisfactory knowledge of applicable reconnaissance equipment and related systems.	
Q-	Incomplete knowledge of applicable reconnaissance equipment and related systems. Aware of and understands system limitations and cautions.	
U	Unsatisfactory knowledge of applicable reconnaissance equipment and related systems. Unaware of or does not understand system limitations or cautions.	
NOTE	Equipment/system discussions may be accomplished at any time prior to the critique. Evaluators must ensure discussions do not interfere with the examinee's crew duties.	
EQUIPMENT/SYSTEMS OPERATION		AREA 9
Q	Operated equipment effectively. Equipment was operated/configured according to prescribed procedures and directives. Used acceptable commands, search modes and procedures when interfacing with computer-aided systems.	
Q-	Operated equipment hesitantly or slowly, indicating a need for study and/or corrective training. Examinee made minor omissions, deviations, or errors in prescribed procedures and directives. Actions would not have damaged equipment or jeopardized sortie success.	

U	Did not operate/configure equipment in accordance with prescribed procedures and directives. Failed to use acceptable commands, search modes, and procedures when interfacing with computer-aided systems. Examinee made significant omissions, deviations, or errors. Equipment damage could have occurred as a result of operator error/deviation.
NOTE	This area includes equipment operation, malfunctions, and corrective action procedures.
TACTICAL PLANNING AREA 11	
Q	Developed a plan considering sortie objectives, specific action points, likely threats and aircraft/crew capabilities. Determined equipment and materials required for planned mission and ensured their availability.
Q-	As above but with minor errors, deviations or omissions that did not significantly impact the planned mission.
U	Planning was insufficient to achieve sortie objectives. Major errors, deviations or omissions that significantly impacted the planned mission.
EMPLOYMENT AREA 12	
Q	Accomplished planned goals. Applied tactics or operational procedures consistent with mission objectives. Ensured aircraft was properly positioned and/or equipment was adequately configured for data collection IAW mission priorities and timing. Adapted to meet changing mission goals.
Q-	As above but with minor deviations, omissions or errors which did not prevent accomplishment of planned goals. Slow to adapt to changing goals.
U	Major deviations, omissions or errors which significantly impacted the accomplishment of planned goals. Applied tactics or operational procedures inconsistent with mission objectives. Failed to ensure aircraft was properly positioned and equipment was adequately configured for data collection. Failed to adapt to changing goals.
DATA COLLECTION /RECORDING AREA 13	
Q	Tasked data was intercepted, recorded, and/or annotated. Utilized adequate equipment settings and procedures. No significant data lost. Mission success was not jeopardized.
Q-	As above with minor omissions, deviations, or errors that did not significantly jeopardize mission success.
U	Failed to intercept, record, and/or adequately annotate tasked data. Significant deviations, or errors. Lost significant data or jeopardized mission success.
NOTE 1	An area grade of U for this area will result in a qualification level 3 for the evaluation.
NOTE 2	With uncorrectable equipment malfunctions, the operator must attempt to optimize data collection.
COLLECTION DEBRIEF AREA 15	

Q	Satisfactory knowledge and performance of required procedures. Ensured materials were properly accounted for, correctly transferred and accurately debriefed mission to required personnel.
Q-	As above but with minor errors, deviations or omissions.
U	Unsatisfactory knowledge of required procedures. Major deviations in procedures. Failed to properly account for and/or transfer materials. Mission debrief to required personnel was omitted or contained major errors/omissions.

Chapter 5

AIRBORNE SYSTEMS ENGINEER (ASE) EVALUATIONS

5.1. Instructions:

5.1.1. General. The criteria contained in this chapter are applicable to flight evaluations for the Airborne Systems Engineer positions on all OC/RC-135 aircraft. Evaluators must realize that grading criteria contained herein cannot cover every situation. Written parameters must be tempered with sortie objectives and task accomplishment in determination of overall aircrew performance. During evaluations, evaluators must exercise sound judgment to ensure questions are not only comprehensive, but pertinent to the crew members duties, and responsibilities. Requirements for each evaluation are as follows:

5.1.2. Qualification Evaluations:

5.1.2.1. Ground Requisites. Qualification Examination (open book), Qualification Examination (closed book), Emergency Procedures Evaluation (EPE), and Publications Check.

5.1.2.1.1. Additional guidance for closed book. Closed book test for qualification examinations will consist of a minimum of 25 MDS-specific Emergency Procedures/System knowledge questions.

5.1.2.2. Flight Phase. All areas required in [Table 5.1](#) under "QUAL" will be evaluated unless not applicable to the specific aircraft as noted. Make all possible attempts to complete evaluations in-flight. If unable, with 55 OG/CC waiver or 67 IOW equivalent, the evaluation may be completed using a static aircraft, Part Task Trainer (PTT) or ATD IAW paragraph [1.4.2.2](#). All appropriate aircrew members should be present when using a static aircraft or the PTT to evaluate areas normally performed with crew interaction.

5.1.2.3. Multiple Qualification Evaluations. When authorized IAW AFIs 11-202V1 and 11-2RC-135V1, to establish or maintain qualification in the same crew position in more than one MDS, use the following guidance. Multiple qualification requires all requisites and flight phase requirements be met for all MDSs. Ground requisites may be combined to include testing for all applicable MDSs. Consider RC-135V/W as equivalent for qualification flight evaluations. An initial flight evaluation in the new MDS will be accomplished to add it to the individual's qualifications.

5.1.2.4. Dual Qualification Evaluations. When authorized IAW AFIs 11-202V1 and 11-2RC-135V1, to establish or maintain qualification in two different ASE positions on the same MDS, use the following guidance. Dual qualification requires a separate evaluation for each position. Evaluations may be combined on one sortie provided all required grading areas are covered for both positions. Requisites are normally combined.

5.1.3. Difference Evaluations. Difference evaluations allow an individual to qualify in the same crew position in another MDS (as determined by the 55 OG/CC or 67 IOW equivalent) or in a different tactic/system on the same MDS. Complete difference training and certification IAW AFI 11-2RC-135V1. Training in a different system does not qualify a aircrew member in a different crew position. Difference evaluations do not update expiration dates.

5.1.3.1. Ground Requisites: Qualification Examination (closed book) and a Qualification Examination (open book, as determined by SQ/CC).

5.1.3.2. Flight Phase: A flight evaluation may be conducted as determined by the squadron commander.

5.1.4. Instructor Evaluations. Specific criteria are included in paragraph 1.5.6. and Table 5.1.

5.1.5. Emergency Procedures Evaluations (EPE). Use the Emergency Procedures criteria to evaluate Emergency Procedures Evaluations. The EPE satisfies the in-flight requirements for Area 4, Emergency Procedures, if no actual emergency procedure is experienced in-flight.

5.2. ASE Evaluation Requirements:

5.2.1. The table below lists areas for Airborne Systems Engineer qualification and instructor evaluations. An "R" indicates a requirement for that evaluation.

Table 5.1. ASE Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Equipment/Publications		R	
2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures		R	
5. Safety (Critical)		R	
6. Airmanship/Aircrew Discipline (Critical)		R	
7. CRM/Crew Coordination		R	
8. Postflight/Debrief		R	
9. Equipment/Systems Knowledge Block/ Schematic Diagrams	1	R	
10. Maintenance and Troubleshooting		R	
11. Communications, Logs, and Reports		R	
12. Instructional Ability			R
13. Briefings/Critique			R
14. Demonstration and Performance			R
NOTE: 1. Reference paragraph 5.2.2.			

5.2.2. Because of changing equipment configurations on the RC/OC-135 aircraft, required knowledge and performance levels for the Equipment/Systems Knowledge Area will be identified in the unit profile letters. The tables in the supplement will be updated as equipment is added or removed from the applicable aircraft.

5.2.2.1. The following definitions will be used as standard levels in the local supplement tables. For qualification evaluations, assign one of these four definitions to each system, subsystem or

operation required in Equipment/Systems Knowledge Area. Only systems applicable to the aircraft, system, or position are considered in the evaluation.

5.2.2.1.1. Knowledge level A (System Level): Has knowledge of the overall system. Is required to troubleshoot malfunctions to the degraded system only. After identifying which system is causing the problem, can write an effective entry in the Aircraft Maintenance Forms. Can properly load all magnetic media, crypto, and/or film necessary for system operation.

5.2.2.1.2. Knowledge level B (Subsystem Level): Has knowledge of the subsystems comprising the overall system. Is required to troubleshoot to the malfunctioning subsystem(s). Can identify which subsystem(s) or cable group (or bundle) is causing the problem and can write an effective entry in the Aircraft Maintenance Forms. Can properly load all magnetic media, crypto, and/or film necessary for system operation, and diagnose problems in loading applicable media.

5.2.2.1.3. Knowledge level C (Line Replaceable Unit/Cable Level): Has knowledge of each Line Replaceable Unit (LRU) in a system or subsystem. Is required to troubleshoot to the LRU, cable, or connector. Can accurately identify the malfunctioning LRU, cable, or connector and either remove/replace the LRU, re-seat the connector, or affect temporary repairs (if the required components are readily available). After performing any maintenance action can place an effective entry in the Aircraft Maintenance Forms.

5.2.2.1.4. Knowledge level D (circuit card (schematic) level): Has knowledge of components within and the cables connecting an LRU. Can troubleshoot to the circuit card or connector pin causing the malfunction. Is able to remove/replace a circuit card/module in an LRU or repair the connector (if required components are readily available). After performing any maintenance action can place an effective entry in the Aircraft Maintenance Forms.

5.3. Grading Criteria:

5.3.1. For the following common areas, see [Chapter 1](#) for grading criteria:

QUALIFICATION

- 5.3.1.1. Equipment/Publications
- 5.3.1.2. Mission Planning
- 5.3.1.3. Checklist Procedures
- 5.3.1.4. Emergency Procedures
- 5.3.1.5. Safety
- 5.3.1.6. Airmanship/Aircrew Discipline
- 5.3.1.7. CRM/Crew Coordination
- 5.3.1.8. Postflight/Debrief
- 5.3.1.9. Communications, Logs, and Reports

INSTRUCTOR

- 5.3.1.10. Instructional Ability

5.3.1.11. Briefings/Critique

5.3.1.12. Demonstration and Performance

5.3.2. Specific Grading Criteria:

Table 5.2. ASE Specific Grading Criteria.

EQUIPMENT/SYSTEMS KNOWLEDGE		AREA 9
Q	Demonstrated efficient use of applicable publication diagrams in determining system operation or troubleshooting systems, and demonstrated a complete and thorough understanding of systems or subsystems general theory of operation without significant confusion or delays. Can accurately locate and identify equipment on systems or subsystems with no more than minor errors not affecting sortie or troubleshooting success.	
Q-	Demonstrated use of applicable publications showing limited understanding of the use of diagrams in determining system operation or troubleshooting, or demonstrated incomplete/inaccurate understanding of systems or subsystems general theory of operation with some confusion or delays which did not adversely affect the mission or troubleshooting effectiveness. Can locate and identify equipment on systems or subsystems with some errors not seriously affecting sortie or trouble shooting effectiveness.	
U	Failed to demonstrate an ability to utilize applicable publication diagrams for determining system operation or troubleshooting with significant confusion or delays which adversely affected mission or troubleshooting effectiveness. Demonstrated an unacceptable level of understanding of systems or subsystems general theory of operation, or caused significant confusion or delays which adversely affected mission or troubleshooting effectiveness. Unable to locate and identify equipment for evaluated systems or subsystems. Major errors affected sortie or troubleshooting success.	
NOTE	Equipment/Systems Knowledge discussion may be accomplished before, during, or after flight, but must be completed prior to the evaluation critique. The equipment selected to evaluate this area will be selected from the local supplement table(s). A representative sample, as determined by the local table for the platform being evaluated, of each system or subsystem will be evaluated.	
MAINTENANCE AND TROUBLESHOOTING		AREA 10
Q	Performed proper maintenance practices utilizing test and maintenance equipment with minor omissions and deviations not affecting malfunction analysis. Properly attempted to optimize equipment effectiveness.	
Q-	Performed proper maintenance practices utilizing test and maintenance equipment with omissions and deviations that showed a need for additional training. Attempted to optimize equipment effectiveness with some errors which did not affect sortie 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 equipment effectiveness which adversely affected sortie success
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Chapter 6

CRYPTOLOGIC OPERATOR (CO) EVALUATIONS

6.1. Instructions:

6.1.1. General: The criteria contained in this chapter are applicable to initial and qualification-flight evaluations for the CO positions on all RC-135 aircraft. Minimum requirements for each evaluation are as follows:

6.1.2. Qualification Evaluations:

6.1.2.1. Ground Requisites: Qualification Examinations (open book and closed book), Emergency Procedures Evaluation (EPE) and Publications Check.

6.1.2.1.1. Additional guidance for closed book. Closed book test for qualification examinations will consist of 25 Emergency Procedures questions and of 25 position equipment knowledge questions.

6.1.2.2. Flight Phase: All areas required in [Table 6.1](#) under CO, DLO (Data Link Operator), AA (Airborne Analyst), or AMS (Airborne Mission Supervisor) will be evaluated, unless not applicable to the specific qualification as noted. Make all possible attempts to complete evaluations in-flight. If unable, with OG/CC waiver, the evaluation may be completed using a static aircraft or ATD IAW paragraph [1.4.2.2](#). All appropriate aircrew members should be present when using a static aircraft or the ATD to evaluate areas normally performed with crew interaction.

6.1.2.3. Multiple Qualification Evaluations: When authorized IAW AFI 11-202V1 and 11-2RC-135V1, to establish or maintain qualification in the same crew position in more than one MDS, use the following guidance. Multiple qualification requires all requisites and flight phase requirements be met for each MDS. Closed book portions may be combined into a single test covering all applicable MDSs.

6.1.2.4. Dual Qualification Evaluations: When authorized IAW AFI 11-202V1 and 11-2RC-135V1, to establish or maintain qualification in two different positions on the same MDS, use the following guidance. Dual qualification requires a separate evaluation for each position. Both evaluations may be combined on one sortie provided all required grading areas are covered for each position.

6.1.3. Instructor Evaluations. All areas required in [Table 6.1](#) under "INSTR" will be evaluated. General grading criteria is located in [Chapter 1](#). Units will complete initial instructor checks during flight. Recurring instructor checks may be administered in an ATD.

6.1.4. Emergency Procedures Evaluations (EPE): The EPE satisfies the in-flight requirements for Area 4, Emergency Procedures.

6.2. CO Evaluation Requirements:

6.2.1. [Table 6.1](#) lists areas for CO, DLO, AA, AMS qualification and instructor evaluations. An "R" indicates a requirement for that evaluation.

Table 6.1. CO/DLO/AA/AMS Evaluation Requirements:

AREA/TITLE	CO	DLO	AA	AMS	INSTR
1. Equipment/Publications	R	R	R	R	
2. Mission Planning	R	R	R	R	
3. Checklist Procedures	R	R	R	R	
4. Emergency Procedures	R	R	R	R	
5. Safety (Critical)	R	R	R	R	
6. Airmanship/Aircrew Discipline (Critical)	R	R	R	R	
7. CRM/Crew Coordination	R	R	R	R	
8. Postflight/Debrief	R	R	R	R	
9. Communications, Logs, Reports, and Files	R	R	R	R	
10. Operator Workstation Utilization	R	R	R	R	
11. Graphics Functions	R	R	R	R	
12. Search and Acquisition	R	R	R	R	
13. Collection Techniques	R	R	R	R	
14. Geo-Location Data	R	R	R	R	
15. Track Management	R	R	R	R	
16. Special Processing	R	R	R	R	
17. Recall Operations	R	R	R	R	
18. System Applications	R	R	R	R	
19. System Capabilities		R	R	R	
20. Crew Management				R	
21. Mission Coordination		R	R	R	
22. Data-Link Procedures		R	R	R	
23. Tasking And Reporting		R	R	R	
24. Communications Systems		R	R	R	
25. CAB/ITW (Critical)		R	R	R	
26. Management Specific System Functions		R	R	R	
27. Instructional Ability					R
28. Briefings/Critique					R

AREA/TITLE	CO	DLO	AA	AMS	INSTR
29. Demonstration and Performance					R

6.3. Grading Criteria:

6.3.1. For the following common areas, see [Chapter 1](#) for grading criteria.

- 6.3.1.1. Equipment/Publications
- 6.3.1.2. Mission Planning
- 6.3.1.3. Checklist Procedures
- 6.3.1.4. Emergency Procedures
- 6.3.1.5. Safety
- 6.3.1.6. Airmanship/Aircrew Discipline
- 6.3.1.7. CRM/Crew Coordination
- 6.3.1.8. Postflight/Debrief
- 6.3.1.9. Communications, Logs and Reports
- 6.3.1.10. Instructional Ability
- 6.3.1.11. Briefings/Critique
- 6.3.1.12. Demonstration and Performance

6.3.2. Specific Grading Criteria:

| **Table 6.2. Specific Grading Criteria.**

OPERATOR WORKSTATION UTILIZATION		AREA 10
Q	Operator initialized, signed-on, and shutdown the operator workstation without assistance. Was able to set up and manipulate position in an efficient manner. Displayed working knowledge of soft keys, abbreviation keys, OWS diagnostics and workspace manipulation. Only minor deviations were performed not jeopardizing mission success.	
Q-	Operator had difficulties initializing or shutting down position. Had difficulties using OWS diagnostics, setting up position and/or manipulating workspaces. Errors detracted from planned mission accomplishment but had no major effect on mission success.	
U	Operator failed to initialize, shutdown, or manipulate the operator workstation. Major errors and/or deviations degraded mission accomplishment.	
GRAPHICS FUNCTIONS		AREA 11
Q	Effectively set-up/manipulated graphics equipment and displays considering mission objectives, specific action points likely threats and system capabilities. Only minor deviations were performed not jeopardizing mission success.	
Q-	Operator had difficulties manipulating graphics equipment and displays. Deviations detracted from mission objectives, but had no major impact on planned mission success.	
U	Failed to properly set-up or manipulate graphics. Major errors or deviations jeopardized mission success.	
SEARCH AND ACQUISITION		AREA 12
Q	Demonstrated the ability to set, modify, and manipulate automatic and manual assignments as required. Able to display and modify search queues, conduct manual and PAN search and upgrade manual search assignments without assistance. Minor errors or deviations did not detract from task accomplishment or the accomplishment of mission tasking.	
Q-	Had difficulty setting, modifying, or manipulating assignments. Required minor assistance or committed minor deviations that did not result in significant data loss or detract from mission success.	
U	Failed to demonstrate the ability to perform the above tasks. Major errors degraded accomplishment of mission tasking and/or jeopardized mission success.	
COLLECTION TECHNIQUES		AREA 13
Q	Demonstrated the ability to adjust receiver settings for optimal collection without assistance. Only minor errors or deviations were performed that did not result in data loss and did not jeopardize accomplishment of mission tasking.	
Q-	Had difficulty adjusting receiver settings. Manipulation problems caused minor loss of collection or loss of situational awareness but did not detract from overall mission success.	

U	Failed to demonstrate the ability to manipulate receivers. Failure resulted in significant data loss which impacted planned mission success. Required extensive assistance or major errors jeopardized accomplishment of mission tasking.
GEOLOCATIONAL DATA	
AREA 14	
Q	Demonstrated the ability to take, verify, and manipulate manual and automatic lines of bearing without error. Was able to geolocate emitters without assistance.
Q-	Had difficulties taking or verifying lines of bearing. Required assistance to manipulate lines of bearing or geo-locate emitters. Did not detract from planned mission accomplishment.
U	Failed to demonstrate the ability take and verify manual and automatic lines of bearing on assigned frequencies or was unable to geo-locate emitters. Required extensive assistance to accomplish tasks. Jeopardized planned mission success.
TRACK MANAGEMENT	
AREA 15	
Q	Demonstrated the ability to read, interpret, manipulate and amplify tracks and track data. Maintained situational awareness through efficient use of data display options and dynamic queue usage. Was able to use available resources to assist in the identification of unknown tracks.
Q-	Required assistance to accomplish the above tasks. Committed minor deviations or omissions that did not detract from planned mission success.
U	Was unable to demonstrate efficient track management procedures. Was unable to complete above tasks or required extensive assistance in completing tasks. Errors or deviations detracted from planned mission success.
SPECIAL PROCESSING	
AREA 16	
Q	Demonstrated the ability to conduct special processing functions as required. Was able to display and interpret special processing data.
Q-	Required assistance to accomplish above tasks. Minor deviations or errors did not detract from planned mission success.
U	Failed to demonstrate the ability to conduct special processing functions. Deviations or errors jeopardized task or mission accomplishment
RECALL OPERATIONS	
AREA 17	
Q	Demonstrated the ability to perform audio recall, PROFORMA replay, and release an assigned Recall/Replay IDNO. Minor errors or omissions did not detract from task accomplishment.
Q-	As above but with omissions, errors, or deviations that detracted from task accomplishment but did not jeopardize mission tasking.
U	Failed to demonstrate proficiency on most of the above items. Errors, deviations, or omissions jeopardized accomplishment of mission tasking
SYSTEM APPLICATIONS	
AREA 18	

Q	Demonstrated the ability to effectively utilize system applications to enhance mission accomplishment. Used system applications, dynamic system files, technical databases and help files as required. Minor errors or omissions did not detract from task accomplishment.
Q-	As above but with omissions, errors, or deviations that detracted from task accomplishment but did not jeopardize mission tasking.
U	Failed to demonstrate proficiency on most of the above items. Errors, deviations, or omissions jeopardized accomplishment of mission tasking
SYSTEM CAPABILITIES	
AREA 19	
Q	Demonstrated satisfactory knowledge of system capabilities, major and minor processors, sub-processors, receiver configuration and usage, and back-up/ redundant systems with minor deviations, omissions, or errors, which did not detract from mission success.
Q-	Demonstrated satisfactory knowledge of system capabilities, major and minor processors, sub-processors, receiver configuration and usage, and back-up/ redundant systems with minor errors, omissions, or deviations which detracted from mission accomplishment but did not jeopardize mission success
U	Failed to demonstrate knowledge of system capabilities, major and minor processors, sub-processors, receiver configuration and usage, and back-up/ redundant systems. Major errors, omissions, or deviations jeopardized mission success.
CREW MANAGEMENT	
AREA 20	
Q	Applied effective crew management concepts. Responded appropriately to unpredictable situations, crew illness, system malfunctions, divert/RON situations, etc. Effectively managed RC-135 aircrew with minor omissions, deviations or errors.
Q-	Same as above but omissions, deviations, or errors detracted from planned mission success.
U	Did not apply crew management concepts. Failed to respond properly to unpredictable situations, crew illness, system malfunctions, divert/RON procedures etc. Mismanaged aircrew jeopardizing mission success.
MISSION COORDINATION	
AREA 21	
Q	Effectively coordinated with off-board agencies, controlling authorities and platforms, and demonstrated adequate knowledge of their functions. Provided timely direction or information, as required which clarified/rectified a situation.
Q-	Adequately coordinated with off-board agencies, controlling authorities and platforms but demonstrated limited knowledge of their functions. Showed some hesitation to provide timely direction/information which would have clarified confusion or rectified a situation.

U	Coordination with off-board agencies, controlling authorities and platforms and lack of knowledge of their functions/responsibilities was detrimental to flying safety or mission effectiveness. Did not provide timely direction/information that would have clarified/rectified a situation.
DATA-LINK PROCEDURES	
	AREA 22
Q	Demonstrated adequate knowledge of data link processors, systems, and net procedures. Performed Data-Link operations as required. Minor deviations or errors did not detract from mission accomplishment.
Q-	Demonstrated limited knowledge of data link processors, systems, and net procedures. Omissions, errors or deviations detracted from mission accomplishment but did not jeopardize mission success.
U	Failed to demonstrate adequate knowledge of data link processors, systems, and net procedures. Deviations, errors, or omissions jeopardized mission success.
TASKING AND REPORTING	
	AREA 23
Q	Based on tasking, flight manuals and applicable directives, effectively accomplished mission tasking and required reporting.
Q-	Did not comply with all applicable tasking, flight manuals and directives. Minor errors, omissions or deviations in applying tasking and reporting guidance detracted from mission accomplishment but did not jeopardize mission success.
U	Failed to comply with applicable tasking, flight manuals and directives. Major errors, omissions, or deviations jeopardized mission success.
COMMUNICATIONS SYSTEMS	
	AREA 24
Q	Effectively operated communications equipment to satisfy mission requirements.
Q-	Operated communications equipment with minor errors, omissions, or deviations, which affected mission accomplishment but did not jeopardize mission success.
U	Failed to effectively operate communications equipment. Major errors, omissions or deviations jeopardized mission success.
CAB/ITW (Critical)	
	AREA 25
Q	Recognized situations requiring CAB/ITW and took appropriate action. Demonstrated knowledge of common terminology, combat terminology, code words, authentication methods, brevity usage, and possessed general radio discipline.
U	Failed to recognize situations requiring CAB/ITW and/or failed to take appropriate action. Did not understand common terminology, combat terminology, code words, authentication methods, brevity usage, or other procedures. Errors, omissions or deviations jeopardized mission success or another platform's mission success.
MANAGEMENT SPECIFIC SYSTEM FUNCTIONS	
	AREA 26

Q	Demonstrated the ability to display, manipulate, and interpret processor and subsystem information, monitored operator activities, system status, and frequency assignment status and other management functions as required. Made conclusions on data received and took appropriate actions with minor omissions, deviations, or errors that did not detract from mission success.
Q-	Same as above but with omissions, deviations, or errors which detracted from mission success.
U	Unable to display, manipulate or interpret processor and subsystem information, or monitor operator activities, system status, or frequency assignment status or other management functions. Omissions, deviations, or errors jeopardized mission success.

RONALD E. KEYS, Lt General, USAF
DCS/Air & Space Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

Abbreviations and Acronyms

AC—Aircraft Commander

ACC—Air Combat Command

AFI—Air Force Instruction

AFM—Air Force Manual

AFORMS—Air Force Operations Resource Management System

AFRC—Air Force Reserve Command

AFSATCOM—Air Force Satellite Communications

ANG—Air National Guard

AR—As Required

A/R—Air Refueling

ARCT—Air Refueling Command Time

ARDA—Airborne Radar Directed Approach

ASE—Airborne Systems Engineer

ATC—Air Traffic Control

ATD—Aircrew Training Device

AWACS—Airborne Warning and Control System

CCTS—Combat Crew Training School

CFIC—Central Flight Instructor Course

CG—Center of Gravity

CMR—Combat Mission Ready

CRM—Crew Resource Management

DH—Decision Height

DNIF—Duty Not Including Flying

DNS—Doppler Navigation System

DOC—Designed Operational Capability

DR—Dead Reckoning

EFTOC—Engine Failure Take Off Continued

EN—Evaluator Navigator

EP—Evaluator Pilot

EPE—Emergency Procedure Evaluation

EPR—Engine Pressure Ratio

ETA—Estimated Time of Arrival

EWO—Electronic Warfare Officer

F—Familiarization

FAF—Final Approach Fix

FCG—Foreign Clearance Guide

FEF—Flight Evaluation Folder

FLIP—Flight Information Publication

GCI—Ground Control Intercept

GP—General Planning

GPS—Global Positioning System

GSIDS—Global Positioning System-Stellar-Inertial-Doppler Navigation System (AN/ASN-121)

HQ—Headquarters

IAW—In Accordance With

IFF—Identification, Friend or Foe

ILS—Instrument Landing System

IMT—DELETED

IN—Instructor Navigator

INS—Inertial Navigation System

INSTM—Instrument

INSTR—Instructor

IP—Instructor Pilot

IRC—Instrument Refresher Course

LOP—Line of Position

LRU—Line Replaceable Unit

MAC—Mean Aerodynamic Chord

MAJCOM—Major Command

MAP—Missed Approach Point

MDS—Mission Design Series (i.e., RC-135S, EC-135C, OC-135, etc.)

MOB—Main Operating Base

MPP—Most Probable Position
NAF—Numbered Air Force
NM—Nautical Mile
N/N—No-notice
OFT—Operational Flight Trainer
OG—Operations Group
OG/CC—Operations Group Commander
OGV—Operations Group Standardization/Evaluation
OPR—Office of Primary Responsibility
PAR—Precision Approach Radar
QUAL—Qualification
RZIP—Rendezvous Initial Point
SEFE—Standardization/Evaluation Flight Examiner
SIF—Selective Identification Feature
SMT—DELETED
STAN/EVAL—Standardization and Evaluation
TAPR—Training Accomplishment Report
TC—Tactical Coordinator
TDY—Temporary Duty
T/O—Take-off
TOLD—Take Off and Landing Data
VFR—Visual Flight Rules
WG—Wing

Terms

Airborne Systems Engineer—The generic term for the OC-135 and RC-135S/U/V/W reconnaissance system maintenance technicians. ASE requirements apply to all ASE positions unless otherwise directed.

Aircraft Commander (AC)—Pilot who has been certified to perform "pilot-in-command" duties.

Copilot (C)—Pilot qualified to perform duties in the right seat only.

Critical Phases of Flight—Take-off, air refueling, approach to landing, landing, a CCTS/CFIC only maneuver, or any flight maneuver specifically requiring immediate access to controls. Approaches to planned missed approaches and air refueling rendezvous are not considered critical phases of flight.

Electronic Warfare Officer (EWO)—An individual qualified to perform EWO duties.

Flight Examiner/Evaluator—A crew member designated to administer evaluations.

Inflight Maintenance Technician (IMT)—The generic term for OC-135 Sensor Maintenance Technician, RC-135S ELINT and Photo Technician, and RC-135U/V/W In-flight Maintenance Technician positions.

Instructor—Crew member trained, qualified, and certified by the squadron commander as an instructor to perform both ground and in-flight training.

Instructor Supervision—A qualified instructor of like specialty supervising a maneuver or training event. For critical phases of flight, the instructor pilot must occupy one of the seats/stations, with immediate access to the controls.

Raven—An EWO crew member qualified to operate specialized electronic warfare equipment onboard the RC-135 aircraft.

Sensor Maintenance Technician—DELETED.

Simulated Engine Failure Take-off Continued (EFTOC)—Practice procedure simulating engine failure after a take-off or touch-and-go. Follow aircraft specific procedures in AFI 11-2RC-135, Vol 3 and aircraft tech orders.

Supervised training status—Crew member will fly under instructor supervision as designated by the squadron commander or evaluator.

Training Devices—All trainers, computer assisted instruction, sound-on-slide programs, videos, and mockups designed to prepare students for flight training or augment prescribed continuation training.

Attachment 2

IC 99-1 TO AFI 11-2RC-135, VOLUME 2, RC/OC/WC/TC-135—AIRCREW EVALUATION CRITERIA

1 August 1999

SUMMARY OF REVISIONS

This change incorporates interim change IC 99-1. IC 99-1 changes OPR to Capt Michael R. Strachan, adds qualification requirements and grading criteria for the WC-135C pilots and navigators in the 55th WG at Offutt AFB, NE. See the last attachment of the publication, IC 99-1, for the complete IC. A bar (l) indicates revision from the previous edition. Add or replace all paragraphs and tables for immediate implementation.

2.2.2. Pilots seeking a difference evaluation on the WC-135C will be required to complete the following AREAs: 1-14, 17, 19, 25, 26, 31, 32-38 in **Table 2.1**. Pilots seeking initial qualification will complete all items in **Table 2.1**.

2.2.3. Navigators seeking a difference evaluation on the WC-135C will be required to complete the following AREAs: 1-21 in **Table 3.1**. Navigators seeking initial qualification will complete all items in **Table 3.1**.

Table 2.1. Pilot Evaluation Requirements.

AREA/TITLE	NOTES	PQ	CQ	INSTM	INSTR
1. Equipment/Publications		R	R		
2. Mission Planning		R	R		
3. Checklist Procedures		R	R		
4. Emergency Procedures		R	R		
5. Safety (Critical)		R	R		
6. Airmanship/Aircrew Discipline (Critical)		R	R		
7. CRM/Crew Coordination		R	R		
8. Briefings		R			
9. Pre-Takeoff		R	R		
10. Takeoff		R	R		
11. Departure/Climb (IFR/VFR)		R	R		
12. Cruise/Navigation		R	R		
13. In-Flight Checks		R	R		
14. ATC Communications/IFF/SIF		R	R		
15. Unusual Attitudes	3			R	
16. Holding	3,X			R	

AREA/TITLE	NOTES	PQ	CQ	INSTM	INSTR
17. Communications, Logs, and Reports		R	R		
18. Air Refueling/Receiver	1,X	R	R		
19. Descent (Enroute or Published)		R	R		
20. IFR Pattern (prior to FAF)				R	
21. Precision Approach (GP-DH)	2			R	
22. Non-Precision Approach (FAF-MAP)				R	
23. Missed Approach	X			R	
24. VFR Traffic Pattern	X	R	R		
25. Landing	4	R	R		
26. Touch and Go landings	X	R	R		R
27. Go Around	X	R	R		
28. Simulated Engine Out Pattern/landing		R			
29. Engine Failure/Takeoff Continued		R			
30. Simulated Engine Out Go-Around		R			
31. Emergency Procedures--Boldface (Critical)		R	R		
32. Systems Knowledge/Operation		R	R		
33. After Landing		R	R		
34. Postflight/Debrief		R	R		
35. Instructional Ability					R
36. Instructional Briefing/Critique					R
37. Demonstration and Performance					R
38. Air Refueling/Tanker	1	R	R		

Notes:

1. Includes practice emergency separations. Non-instructor aircraft commander qualification evaluations can be completed without air refueling (AR) qualification at OG/CC discretion. Complete an inflight refueling evaluation prior to certifying a pilot to conduct air refueling unsupervised. Instructor pilots must be qualified in AR, but need not be qualified as AR instructors at OG/CC discretion. To qualify as an AR instructor, complete an inflight evaluation consisting of AR instruction and AR limits demo, using both this area and Instructor Grading criteria. Initial ARIP check will be flown from the right seat.2. Both a PAR and ILS are required if equipment and facilities are available and traffic flow permits. If either a PAR or ILS approach is not available, the flight evaluation may be completed with one precision approach flown. Do not verbally evaluate the approach that wasn't flown.3. Unusual Attitudes will, and Holding may, be accomplished in the OFT.4. Include reverse thrust evaluation. Initial aircraft commander evaluations and aircraft commander difference evaluations must be accomplished inflight. All other reverse thrust evaluations may be evaluated in the OFT.

Table 2.3. Pilot-Specific Grading Criteria.

BRIEFINGS	AREA 8
Q	Briefings were well organized and presented effectively in a logical sequence. Covered all pertinent items according to applicable AFIs, Flight Manuals, FLIP, FCG, and/or other directives. Effectively used available briefing aids.
Q-	Briefings lacked continuity or contained unnecessary repetition. Some difficulty communicating thoughts clearly. Did not make effective use of available briefing aids. Dwelled on non-essential items.
U	Failed to use briefing aids. Omitted essential items. Demonstrated lack of knowledge of subject. Briefing was poorly organized and not presented in logical sequence, resulting in confusion. Presented erroneous information which would affect safe/effective mission accomplishment.
PRE-TAKEOFF	AREA 9
Q	Performed all required procedures, calculations, and coordination prior to takeoff according to flight manuals and applicable directives. Accurately determined aircraft's readiness for flight. Computed required airspeeds within +/-3 knots, critical field length, takeoff and/or landing distances within +/- 500 feet, EPR/N1 within +/- .02/1 %, stabilizer trim setting within +/- .5, and % MAC for T/O within +/- 1% . Taxi speeds appropriate for conditions. Visually cleared area.
Q-	Same as above except for minor procedural deviations which would not detract from mission effectiveness. Accurately determined aircraft's readiness for flight. Computed airspeeds within +/- 5 knots, critical field length, takeoff and/or landing distances within +/- 800 feet, EPR/N1 within .03/1.5%, stabilizer setting within +/- 1.0, and % MAC for T/O within +/- 1.5%. Limited knowledge of performance data and aircraft weight and balance. Taxi speeds appropriate for conditions. Visually cleared area.
U	Omitted major item(s). Major deviation in procedures. Failed to accurately determine aircraft's readiness for flight. TOLD computations exceeded Q-criteria. Inadequate knowledge of performance data and aircraft weight and balance. Taxi speeds inappropriate 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/systems limitations. Failed to establish proper climb attitude. Marginal control of the aircraft. Violated flight manual procedures.

DEPARTURE/CLIMB AREA 11 (IFR/VFR)	
Q	Performed departure as published/directed and complied with all restrictions. Applied heading/course correction promptly1. Altitude +/- 200 ft (intermediate level off)2. Airspeed +/- 10 Kts3. Heading/Course +/- 10 degrees (when assigned or specified)4. TACAN Arc +/- 2 miles
Q-	Performed departure as published/directed and complied with all restrictions. Slow to apply heading/course corrections.1. Altitude +/- 300 ft (intermediate level off)2. Airspeed +/- 15 Kts3. Heading/Course +/- 15 degrees (when assigned or specified)4. TACAN Arc +/- 3 miles
U	Failed to comply with published/directed departure instructions or exceeded Q- criteria. Failed to maintain positive rate of climb.
NOTE	Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.
CRUISE/NAVIGATION AREA 12	
Q	Leveled off smoothly at specified altitude within +/- 200 ft. Established proper cruise airspeed promptly. Properly used appropriate navigation equipment/procedures. Ensured nav aids were properly tuned, identified, and monitored. Aware of exact position at all times. Visually cleared the area. Maintained/adjusted speeds as required to meet mission timing.
Q-	Level off erratic, maintained altitude within +/- 300 ft. Slow in establishing proper cruise airspeed. Minor errors in procedure/use of navigation equipment. Some deviations in tuning, identifying, and monitoring nav aids. 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.
IN-FLIGHT CHECKS AREA 13	
Q	Adhered to briefed/directed minimum fuel requirements/performed in-flight checks as required. Satisfactorily managed/monitored fuel and other systems.
Q-	Deviations or omissions during checks did not detract from mission accomplishment.
U	Did not adhere to minimum fuel requirements, perform in-flight checks, or monitor systems to the degree that an emergency condition could develop if allowed to continue uncorrected.
ATC Communications/ AREA 14 IFF/SIF	

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. Correctly operated equipment.
Q-	Occasional deviations from correct procedures that required re-transmissions. 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 15
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
HOLDING	AREA 16
Q	Entry and holding procedures according to applicable directives.1. Altitude +/- 200 ft2. Airspeed +/- 15 Kts
Q-	Non-standard entry and holding procedures but remained within airspace limits.1. Altitudes +/- 300 ft2. Airspeed +/- 20 Kts
U	Exceeded holding airspace limits or Q- criteria.
NOTE	May be accomplished in an ATD when available.
A/R--RECEIVER	AREA 18

Q	Instructors and Aircraft Commanders. 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 (may be reduced to 5 minutes for instructor evaluations, not to include time to demonstrate envelope limits.) Used correct procedures during emergency separation.1. Airspeed +/- 10 Kts (1/2 mile)2. Altitude +/- 200 ft (1 mile) - 300 ft to +100 ft (1 mile to 1/2 mile)Copilots. Preplanned target fuel distribution and on-load to remain within aircraft weight/CG limits. Correctly configured the aircraft for refueling. Operated fuel panel during refueling to achieve desired on-load IAW planned or recalculated distribution. Provided appropriate back up to aircraft commander. Used correct procedures during emergency separation.
Q-	Instructors and Aircraft Commanders. 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 (may be reduced to 5 minutes for instructor evaluations, not to include time to demonstrate envelope limits.) Slow to recognize and apply needed corrections to establish and maintain proper refueling position. Aircraft control not always positive and smooth, but adequate. Accomplished procedures required by the flight manual and local directives with minor errors, deviations, and/or omissions. Minor errors, deviations, and/or omissions in emergency separation procedures.1. Airspeed +/- 15 Kts (1/2 mile)2. Altitude +/- 300 ft (1 mile) -300 ft to +200 ft (1 mile to 1/2 mile)Copilots. Preplanned target fuel distribution and on-load to remain within aircraft weight/CG limits. Correctly configured the aircraft for refueling. Operated fuel panel during refueling to achieve desired onload IAW planned or recalculated distribution. Provided minimal back up to aircraft commander. Minor errors, deviations or omissions in emergency separation procedures.
U	Instructors and Aircraft Commanders. 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. Major errors, deviations, or omissions in emergency separation procedures.Copilots. Major errors, deviations, and/or omissions in configuring the aircraft for refueling. Did not calculate target fuel distribution and CG or exceeded Q-criteria. Exceeded or attempted to exceed operating/CG limits while operating fuel panel during refueling. Did not back up or distract the aircraft commander. Major errors, deviations, and/or omissions in procedures during emergency separation.
NOTE 1	Copilots will be checked on performance of duties during rendezvous and refueling operations, including fuel panel, checklist, center of gravity, and breakaway procedures. Copilot air refueling checks may be completed in the OFT or an aircraft on the ground if unable to complete during flight evaluation.

NOTE 2	Air Refueling track time should be scheduled to allow a minimum of 30 minutes contact time. Unit Stan/Eval may establish a maximum amount of time from initial pre-contact to achieve required contact time.
NOTE 3	For instructor pilots performing an Air Refueling limits demonstration, inadvertent disconnects are permissible during demonstration and therefore will not be counted against the examinee.
DESCENT	AREA 19
Q	Performed descent as directed. Complied with all restrictions. Visually cleared the area. Complied with Flight Manual procedures and local directives. Computed required airspeeds within +/-3 knots, landing distances within +/- 500 feet, EPR/N1 within +/- .02/1 %.1. Altitude +/- 200 ft (level off)2. Airspeed +/- 10 Kts (if applicable)3. Heading/Course +/- 10 degrees when assigned or as specified4. TACAN Arc +/- 2 miles
Q-	Performed descent as directed with minor deviations. Visually cleared the area adequately. Slow to accomplish Flight Manual procedures and complied with local directives. Computed required airspeeds within +/-5 knots, landing distances within +/- 800 feet, EPR/N1 within +/- .03/1.5 %. Limited knowledge of performance data.1. Altitude +/- 300 ft (level off)2. Airspeed +/- 15 Kts (if applicable)3. Heading/Course +/- 15 degrees when assigned or as specified4. TACAN Arc +/- 3 miles
U	Performed descent with major deviations. Did not accomplish required checks. Failed to visually clear the area adequately. Major errors, deviations or omissions in landing data. Exceeded Q- criteria. Inadequate knowledge of performance data.
IFR PATTERN (PRIOR TO FAF)	AREA 20
Q	Procedures required by the flight manual and applicable directives were accomplished. Followed controller's instructions and complied with all restrictions. Made smooth and timely corrections.1. Altitude +/- 200 ft2. Airspeed - 5 Kts/+20 (Did not exceed Flap Placard)3. Heading/Course +/- 15 degrees4. TACAN Arc +/- 2 miles
Q-	Procedures 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.1. Altitude +/- 300 ft2. Airspeed -5 Kts/+30 (Did not exceed Flap Placard)3. Heading/Course +/- 20 degrees4. TACAN Arc +/- 3 miles
U	Made major deviations or omissions in procedures required by the flight manual or directives. Failed to comply with controller instructions. Exceeded Q- criteria.
PRECISION APPROACH (GP-DH)	AREA 21

Q	Performed procedures correctly/as published. Smooth and timely corrections. Position would have permitted a safe landing. 1. Glideslope Did not exceed slightly above/slightly below or one dot2. Airspeed -5/+10 Kts3. Heading/Course +/- 10 degrees of controller's instructions/within 1 dot4. DH - 25/+50 ft (ILS)/prompt response to DH (PAR)
Q-	Performed procedures with minor deviations. Slow to respond/make corrections. Complied with decision height. Position would have permitted a safe landing.1. Glideslope Within PAR safety limits, 2 dots above/1 dot below2. Airspeed -5/+15 Kts3. Heading/Course +/- 15 degrees of controller's instructions/within 2 dots4. DH -50/+75 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.
NON-PRECISION APPROACH AREA 22 (FAF-MAP)	
Q	Performed procedures as published/directed. Made smooth and timely corrections. Arrived at MDA prior to or at VDP. Position would have permitted safe landing.1. Airspeed -5/+10 Kts2. Altitude -50/+100 ft (after reaching MDA and prior to MAP)3. Heading/Course +/- 10 degrees or within one dot4. Timing computed to 10% of actual timing (when applicable).
Q-	Performed procedures with minor deviations. Slow to make corrections. Arrived MDA prior to/at missed approach point. Position would have allowed safe landing.1. Airspeed -5/+15 Kts2. Altitude -50/+ 100 ft (after reaching MDA and prior to MAP)3. Heading/Course +/- 15 degrees or within two dots4. Timing computed to 20% of actual timing (when applicable)
U	Performed procedures with major deviations. Erratic corrections. Exceeded Q- criteria. Did not comply with MDA and/or position would not have permitted a safe landing.
MISSED APPROACH AREA 23	
Q	Executed missed approach as published or directed. Completed all procedures according to applicable flight manual and directives.1. Level off altitude +/- 200 ft2. Airspeed +/- 5 Kts (See note 2)3. Heading/Course +/- 5 degrees4. TACAN Arc +/- 2 miles
Q-	Executed missed approach with minor deviations. Slow to comply with published procedures, controller's instructions, flight manual procedures, or directives. 1. Level off altitude +/- 300 ft2. Airspeed +/- 10 Kts (See note 2)3. Heading/Course +/- 10 degrees4. TACAN 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
NOTE 2	Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.
VFR TRAFFIC PATTERN	
AREA 24	
Q	Performed traffic patterns according to the flight manual, operational procedures, and directives. Aircraft control was positive and smooth. Effectively cleared ahead of flight-path.1. Altitude +/- 200 ft2. Airspeed -5(Did not exceed Flap Placard)
Q-	Performed traffic patterns with minor deviations to procedures outlined in the flight manual, operational procedures, and directives. Aircraft control was not consistently positive and smooth, but safe. Adequately cleared area of intended flight.1. Altitude +/- 300 ft2. Airspeed -5(Did not exceed Flap Placard)
U	Traffic patterns not performed according to procedures outlined in the flight manual, operational procedures, and directives. Erratic aircraft control. Did not clear area of intended flight. Exceeded Q- criteria.
NOTE	May be graded using a rectangular pattern or a circling maneuver.
LANDING	
AREA 25	
Q	Performed landings according to procedures outlined in the flight manual, operational procedures, and directives. Correctly used thrust reversers, as applicable. 1. Threshold Speed: -5/+10 Kts2. Touchdown Point: +/- 1000 feet as compared to computed flare distance and within stopping distance for runway available.
Q-	Landings performed according to procedures outlined in the flight manual, but outside the tolerances listed in Q criteria. Touchdown within stopping distance for runway available.
U	Landings not performed according to procedures outlined in the flight manual, operational procedures, and directives. Exceeded Q- criteria.
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 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 flight manual procedures, operational restrictions, or local directives. Failed to ensure adequate runway length. Did not correct to centerline. Liftoff potentially dangerous. Overcontrolled aircraft.
NOTE	Instructors must perform a touch and go as both the pilot flying and pilot not flying to complete this area.
GO AROUND	AREA 27
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.
SIMULATED ENGINE-OUT	AREA 28 PATTERN/LANDING
Q	Performed pre-landing checks, traffic pattern, approach and landing in accordance with procedures outlined in the flight manual and other directives. Aircraft control was positive and smooth.1. Pattern Altitude +/- 200 ft2. Airspeed on Final -5/ + 15 Kts3. Airspeed Pattern -5/(Did not exceed flap placard)
Q-	Minor procedural errors during pre-landing checks, traffic pattern, approach/landing which did not affect safety. Landed in slight crab.1. Pattern Altitude +/- 300 ft2. Airspeed on Final -5/ + 20 Kts3. Airspeed Pattern -10/(Did not exceed flap placard)
U	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.
EFTOC	AREA 29
Q	Used positive application of proper control inputs. 5 Kts or less of airspeed lost. Called for and accomplished checklist IAW Tech Order.
Q-	Slow to apply proper inputs. Lost more than 5 but not greater than 10 Kts of airspeed. Slow to call for and accomplish required checklist.
U	Failed to properly control aircraft. Lost more than 10 Kts of airspeed. Failed to call for or accomplish required checklist.

SIMULATED ENGINE-OUT /	AREA 30 GO AROUND
Q	Initiated and performed go-around promptly in accordance with flight manual and applicable directives. Acquired/maintained a positive climb with airspeed no less than -5 Kts.
Q-	Slow or hesitant to initiate go-around. Minor procedural deviations which did not affect safety. Acquired/maintained a positive climb. Airspeed not less than -10 Kts.
U	Did not initiate go-around when appropriate or directed. Techniques unsafe or applied incorrect procedures. Exceeded Q- criteria.
EMERGENCY PROCEDURES -	AREA 31 BOLDFACE (CRITICAL)
Q	Correct responses. Maintained aircraft control. Coordinated proper actions.
U	Incorrect sequence, unsat response, or unsat performance of corrective action.
SYSTEMS KNOWLEDGE/ OPERATION	AREA 32
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 publications and/or available aids.
Q-	Incomplete knowledge of system operating limits. Slow to analyze problems or take proper corrective action. Did not effectively use publications and/or available aids.
U	Unsatisfactory knowledge of systems. Unable to analyze problems or take corrective action. Did not use publications and/or available aids.
AFTER LANDING	AREA 33
Q	Aircraft taxi procedures accomplished in accordance with the flight manual and applicable directives. Taxi speeds appropriate for conditions. Visually cleared area. Safely followed marshaler's instructions
Q-	Same as Q except minor errors, deviations or omissions were noted in aircraft taxi procedures. Taxi speeds appropriate for conditions. Visually cleared area. Some confusion over marshaler's instructions.
U	Major errors, deviations or omissions were made in aircraft taxi procedures. Taxi speeds inappropriate for conditions. Failed to clear. Disregarded marshaler's instructions, or allowed marshaler to direct an unsafe situation.
A/R—TANKER	AREA 38

Q	Pilot: Aircraft control was positive and smooth. Satisfactorily complied with procedures outlined in the flight manual and local directives. Cleared the area sufficiently. Used correct procedures during emergency separation. Airspeed -10/+15 Kts Altitude +/- 200 ft Heading +/- 5 degrees Preplanned target fuel distribution and offload to remain within aircraft weight/CG limits. Correctly configured the aircraft for refueling. Operated fuel panel during refueling to achieve desired offload IAW planned/recalculated distribution. Provided appropriate back up to aircraft commander. Used correct procedures during emergency separation.
Q-	Pilot: Aircraft control was not always positive and smooth, but adequate. Accomplished procedures required by the flight manual and local directives with errors, deviations and omissions which did not affect safety of flight. Cleared the area sufficiently. Minor errors in procedures during emergency separation. Airspeed - 15/ + 20 Kts Altitude +/- 300 ft Heading +/- 10 degrees Preplanned target fuel distribution and offload to remain within aircraft weight/CG limits. Minor errors, deviations, and/or omissions in configuring the aircraft for refueling. Operated fuel panel during refueling to achieve desired offload within weight/CG limits. Provided minimal back up to aircraft commander. Minor errors, deviations, and/or omissions in procedures during emergency separation.
U	Pilot: Errors/deviations/omissions that affected flight safety and/or the successful completion of air refueling. Exceeded the Q- criteria. Did not clear the area sufficiently. Major errors/deviations/omissions in emergency separation procedures. Major errors, deviations, and/or omissions in configuring the aircraft for refueling. Did not calculate target fuel distribution and CG or exceeded Q- criteria. Exceeded or attempted to exceed operating/CG limits while operating fuel panel during refueling. Did not back up, or caused distraction of, the aircraft commander. Major errors, deviations, and/or omissions in procedures during emergency separation.
NOTE 1	This area includes orbit, rendezvous, refueling platform, post refueling and breakaway. Limitations are established for orbit, rendezvous, post-refueling and breakaway. Momentary deviations are acceptable during refueling.
NOTE 2	Copilots will be evaluated only on performance of copilot duties during rendezvous and refueling operations.
NOTE 3	When refueling auto pilot off, add 100 ft, 5 Kts, and 5 degrees to all tolerances.

Attachment 3

IC 2000-1 TO AFI 11-2RC-135, VOLUME 2, RC/OC/WC/TC-135 AIRCREW EVALUATION CRITERIA

1 JUNE 2000

SUMMARY OF REVISIONS

This change incorporates interim change IC 2000-1. This IC updates evaluation criteria IAW new guidance from updated versions of AFI 11-2RC-135V1, *RC/OC/WC/TC-135 Aircrew Training*, and AFI 11-2RC-135V3, *RC/OC/WC/TC-135 Operations Procedures*. IC 2000-1 incorporates additional instructions for evaluation procedures on the WC-135 refueling mission. See the last attachment of the publication, IC 2000-1, for the complete IC. A () indicates revisions from the previous edition.

OPR: HQ ACC/XOFR (Capt Michael R. Strachan)

2.1.5.4. Simulated three-engine rudder power off low approach (first instructor evaluation in TF33 equipped C-135 aircraft only).

3.2.2. Navigators seeking a qualification evaluation (includes initial and difference) on the WC-135C are required to complete all items in [Table 3.1.](#) except RC-135 or OC-135 “ONLY” events. Crewmembers qualified to conduct air refueling (AREA 15) in either the RC/TC-135 or the WC-135W are not required to repeat this event for the WC-135C evaluation.

Table 3.1. Navigator Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Equipment/Publications		R	
2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures		R	
5. Safety (Critical)		R	
6. Airmanship/Aircrew Discipline		R	
7. CRM/Crew Coordination		R	
8. Flight Plan/Charts	X	R	
9. Dead Reckoning	X	R	
10. General Navigation Inflight Information/Fixing	X	R	
11. Pacing		R	
12. Celestial Navigation	X		
13. Comm/IFF/SIFF		R	
14. Equipment Operation	X	R	
15. Air Refueling	X	R	

AREA/TITLE	NOTES	QUAL	INSTR
16. Descent/Approach/Landing		R	
17. Postflight/Debrief		R	
18. Communication, Logs and Reports		R	
19. Instructional Ability			R
20. Briefings/Critique			R
21. Demonstration and Performance			R
RC-135 ONLY			
22. Corridor Nav In-flight Info, Fixing, Positions	X	R	
23. Corridor Navigation (Critical)	X	R	
24. Navigation System Cross-checks		R	
RC-135S ONLY			
25. Data Track	X	R	
OC-135 ONLY			
26. OPEN SKIES Nav In-Flight Info, Fixing, Positions		R	
27. OPEN SKIES Nav Leg Communications		R	
WC-135C ONLY			
28. Tanker Air Refueling	X	R	

3.3.3. Celestial navigation is not required to complete a checkride on the RC/OC/WC/TC-135. SEFEs will continue to grade this area if the examinee elects to instruct or perform celestial navigation on their checkride using the grading criteria in AFI 11-2RC-135 Vol 1, *RC/OC/WC/TC-135—Aircrew Training* and Area 12 of this instruction. Use [Table 3.2.](#) through [Table 3.10.](#) for grading the respective areas.

Table 3.2. Flight Plan/Charts.

AREA 8	
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/omissions; no error exceeded 5 degrees of heading and/or 2 minutes of time
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 10 degrees of heading and/or 4 minutes of time
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.

AREA 8	
NOTE 1	Computer-generated products are authorized for all mission planning. When used, the navigator is responsible for the data's accuracy, excluding fuel computations.
NOTE 2	Errors that occur as a result of a previous error will not be considered when applying the grading criteria.

Table 3.3. Dead Reckoning.

AREA 9	
Q	During general navigation, did not allow the airplane to deviate outside the ATC allowable airspace and in no case 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 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 rendezvous; however, no significant training was lost by either tanker or receiver. Nav 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 dead reckoning by using radar/celestial/pressure to update and verify DR positions.
NOTE 2	The navigator is responsible for position awareness from takeoff through level off. General navigation for the RC-135 navigator commences upon level off, and ceases when the pilot or air traffic controller assumes navigation to the terminal facility.
NOTE 3	In-flight information/fixing requirements are not applicable during a departure, holding, air refueling orbit, anchor patterns, rendezvous, weather avoidance, Airway/Jet Route navigation, receiver air refueling, and upon initiation of penetration and approach. The position of the aircraft, however, must be monitored at all times.
NOTE 4	Dead reckoning is the primary means of navigation and will be used overwater (when radar targets are not available) with GPS and/or Dual INS/LN-20 positions to determine a most probable position. Units will follow applicable directives for celestial nav overwater.

Table 3.4. General Navigation and Inflight Information.

AREA 10	
Q	Adequate information (information necessary to compute a wind) 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. Exception: Turn point fix/MPP/position not required during Repetitive Orbit. 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 nav aids when radar fixing was available.
U	Exceeded Q- criteria.
NOTE 1	(RC-135 only) A reconnaissance navigation system fix may be plotted if a radar fix/position crosscheck has occurred within the last 5 minutes. Additionally, a recon navigation system fix may be plotted over water or in areas where radar fixing is not available, if cross checked within 5NM with manual or inertial celestial (within the last 5 minutes).
NOTE 2	The primary aid to DR must be radar when available. The navigator must demonstrate to the evaluator the ability to use radar as the primary aid to DR. Radio aid fixing may be used when radar fixes are not available. INS, DNS, DR, or any other authorized means of obtaining a position may be used for planned turns.

Table 3.5. Pacing.

AREA 11	
Q	Held an even workflow 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. Nav 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 turning points not overflowed by more than 2 minutes. Nav 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 overflowed by more than 2 minutes.

Table 3.6. Celestial Navigation.

AREA 12	
Q	Plotted a DR position, using the most current information, in order to evaluate fixes/MPPs. Fixes, MPPs and average LOPs were logically interpreted. If information available to the navigator (dead reckoning, automatic/manual DR, Doppler, 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 10 minutes after the fix/MPP to correct the aircraft position to within the corridor.
Q-	Plotted a DR position to evaluate the majority of positions. Interpretation of fixes, MPPs and average LOPs was not always logical. If information available to the navigator (dead reckoning, automatic/manual DR, Doppler, 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 the corridor.
U	Used an unauthorized aid during any portion of the nav leg. Failed to accomplish minimum requirements for the specific type navigation leg or terminated the navigation leg for other than reasons stated in NOTE 2. Navigator error caused the navigation leg to exceed established terminal CE limits IAW AFI 11-2RC-135 Vol 1, <i>RC/OC/WC/TC-135 Aircrew Training</i> . Failed to record sufficient information to permit reconstruction of the celestial navigation leg. Exceeded Other Q- criteria.
NOTE 1	The type of navigation leg flown will be IAW unit evaluation profiles.
NOTE 2	If the navigation leg must be terminated or abbreviated for weather, equipment malfunction, or emergency/mission profile change, the evaluator may give credit for this event provided all "Q" requirements are 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. Calculator crosscheck is authorized.
NOTE 4	Grade navigation leg IAW AFI 11-2RC-135 Vol 1, <i>RC/OC/WC/TC-135 Aircrew Training</i> .

Table 3.7. Comm/IFF/SIFF.

AREA 13	
Q	Satisfactory knowledge of and compliance with correct procedures and required instructions, including Safe Passage. Voice communications were prompt and clear. Communications equipment operated IAW prescribed procedures with no more than minor deviations or omissions that would not damage equipment or degrade system performance.
Q-	Deviations or incorrect procedures resulted in excessive transmissions. Slow in initiating required actions. Limited knowledge of procedures and equipment. Communications equipment not operated IAW prescribed procedures. Equipment malfunctions were incorrectly analyzed or corrective actions were incomplete or incorrect. Variations or omissions in procedures, erroneous data insertion, 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 without evaluator intervention would have damaged equipment or reduced sortie effectiveness.

Table 3.8. Equipment Operation.

AREA 14	
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. The coordinates in the navigation system were never more than 10 NM in error provided there were no equipment malfunctions.
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. The coordinates in the navigation system coordinates were never more than 15 NM in error provided there were no equipment malfunctions.
U	Exceeded Q- criteria.
NOTE	The extent of in-flight corrective action required of the navigator to alleviate a search radar malfunction will be determined by the mission requirements.

Table 3.9. Air Refueling.

AREA 15	
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/receiver beacon made.
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. 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. Did not attempt to make the make the timing within 2 minutes of the control time. Failure to accomplish positive aircraft identification resulted in an actual or attempted rendezvous with the wrong aircraft. Timing exceeded Q- criteria.
NOTE 1	Navigators must demonstrate proficiency in receiver air refueling tactics IAW T.O. 1-1C-1-14.
NOTE 2	Air refueling includes rendezvous (point parallel or en route), orbit, interplane communications, breakaway, and post refueling. GCI/AWACS directed rendezvous is not creditable toward qualification requirement.

Table 3.10. Descent/Approach/Landing.

AREA 16	
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/procedures. Monitored appropriate FLIP terminal approach plate. Made required altitude calls, and ensured terrain clearance. Monitored initial approach using ARDA procedures.
Q-	Monitored aircraft position but did not monitor or understand approach and/or missed approach instructions/procedures. Omitted some altitude calls. Slow in providing headings, ETAs, and other information when required. Demonstrated marginal knowledge of ARDA procedures.
U	Failed to monitor aircraft position. Did not ensure terrain clearance during approach. Omitted numerous altitude calls. Failed to monitor approach with radar.

3.3.4. RC-135 Corridor Navigation Criteria: This section applies to RC-135 navigators only and is in addition to the grading criteria outlined in the preceding sections. Use [Table 3.11.](#) through [Table 3.14.](#) for grading the respective areas.

Table 3.11. Corridor Navigation/Inflight Information/Fixes and Positions.

AREA 22	
Q	A fix/MPP, time, ETA, and information necessary to compute a wind were recorded at intervals not exceeding 30 minutes and at each planned turn point. EXCEPTION: Turn point fix/MPP/position not required during Repetitive Orbit. An undocumented crosscheck was accomplished after all turns. ETA's were accurate within 3 minutes as computed from last position. Maximum DR error points did not exceed 8.
Q-	A fix/MPP, time ETA, and information necessary to compute a wind were recorded at intervals not exceeding 40 minutes. An undocumented crosscheck was accomplished after most turns. ETA's were accurate within 4 minutes as computed from last position. Maximum DR error points did not exceed 11.
U	Exceeded Q- criteria.

Table 3.12. Corridor Navigation (Critical).

AREA 23	
Q	Allowed the aircraft to deviate no more than ten nautical miles from planned/re-planned course
U	Exceeded Q standards.

Table 3.13. Navigation Systems Cross-checks.

AREA 24	
Q	Complete crosscheck (to include fix/position, track, true heading, drift, groundspeed(s), and ETAs) was accomplished at intervals not exceeding 30 minutes. Significant errors were resolved prior to the next crosscheck.
Q-	Complete crosscheck (to include fix/position, track, true heading, drift, groundspeed(s), and ETAs) was accomplished at intervals not exceeding 35 minutes. The reliability of the stellar inertial navigation system cross-check was degraded due to failure to resolve significant differences between fixes/positions, track, heading, steering aids, or inertial and Doppler information
U	Exceeded Q- criteria.

Table 3.14. RC-135S Data Track.

AREA 25	
Q	Present position counters were no more than 6 NM in error throughout data run provided there were no significant equipment malfunctions. Roll out top of track was made within 1 minute of planned/announced timing and collection was not degraded by the aircraft position. The heading was corrected within 2 degrees of desired data run heading not later than 3 minutes after roll out on the data track. The navigator forwarded the maximum time-on-track and current heading to the TC within 2 minutes after initial rollout and all subsequent rollouts during the data run.
Q-	Present position counters were no more than 8 NM in error throughout data run provided there were no significant equipment malfunctions. Roll out at top of track was made good within 90 seconds of planned/announced timing and collection was degraded but still accomplished. Heading was corrected to within 3 degrees of desired data run heading no later than 5 minutes after roll out on data track. Upon roll out, the navigator passed a maximum time-on-track to the TC within 3 minutes after initial and all subsequent roll outs during the data run.
U	Exceeded Q- criteria.
NOTE 1	RC-135S navigators must demonstrate data track procedures by planning and flying a data track leg. Data track is that portion of navigation that starts at roll out on data run until return to orbit or roll out on heading when departing the data track. En route corridor navigation requirements will terminate at the roll in point to the top of track and will resume within 5 minutes of the end of data track or receipt of the RTB.
NOTE 2	During orbit and data track, corridor maintenance is not required. Aircraft position will be monitored at all times. At no time will the navigator allow a recorded crosscheck to exceed 30 minutes unless doing so would directly interfere with the recording of data run information. At least half of positions will be crosschecked with the radar, if available.
NOTE 3	In-flight information will be recorded in accordance with mission directives.

3.3.5. OC-135 Navigation Leg Criteria: This section applies to OC-135 navigators only and is in addition to the grading criteria outlined in the preceding applicable sections. Use [Table 3.15.](#) and [Table 3.16.](#) for grading the respective areas.

Table 3.15. OC-135 Navigation In-Flight Information, Fixing, Positions.

Area 26	
Q	Adequate information (information necessary to compute a wind) was recorded to permit complete and accurate reconstruction of the mission. A fix/position, time, and information necessary to compute a wind was recorded at intervals not exceeding 30 minutes and at the start and end sensor navigation leg points. A time and position were recorded on the chart for a majority of the planned turn points and turns of 20 degrees or more.
Q-	Information recorded was not always accurate or complete, but was sufficient to allow reconstruction of the mission. A fix/position, time, and information necessary to compute a wind was recorded at intervals exceeding 30 minutes. A fix/position was not recorded at the start or end sensor navigation leg points. A majority of turn points were not recorded.
U	Exceeded Q- criteria.

Table 3.16. OC-135 Navigation Leg Communications.

Area 27	
Q	Made 90 percent or more of the required sensor call actions. Timely and effective communication with the pilots and mission crew did not prevent successful data collection.
Q-	Made 80 percent or more of the required sensor action calls. Deviations or omissions in communications resulted in significant degradation of data collection.
U	Exceeded Q- criteria.
NOTE 1	The required sensor action calls are: one minute to sensor on, 30 seconds to sensor on, countdown to sensor on, 30 seconds to sensor off, and countdown to sensor off.
NOTE 2	Sensor calls will not be considered missed if they conflict with other call/actions that are critical to flight safety and/or data collection.

3.3.6. WC-135C Tanker Air Refueling Grading Criteria: This section applies to WC-135C navigators performing tanker air refueling procedures on the WC-135C aircraft. Use the grading criteria in [Table 3.17](#) to evaluate Area 28.

Table 3.17. WC-135C Tanker Air Refueling Grading Criteria.

Area 28	
Q	Rendezvous – Point Parallel - Computed and used turn range and offset to within 2NM. Rendezvous - En route - Arrived over RZPT or ARCP within 1 minute of scheduled/adjusted Rendezvous Control Time. Advised the receiver of any required adjustments NLT 10 minutes prior to the control time.
Q-	Rendezvous – Point Parallel - Computed and used turn range and offset greater than 2NM but less than 4NM. Rendezvous - En route - Arrived over RZ PT or ARCP greater than 1 minute but less than 2 minutes of scheduled/adjusted Rendezvous Control Time or failed to advise receiver of control time adjustment.
U	Rendezvous - Exceeded Q- tolerances. ALTITUDE Control - Failed to crosscheck, if applicable, A/R altitude (hot armament check, if required). Directed final turn toward receiver with unknown altitude separation.
NOTE 1	WC-135C Only
NOTE 2	Commences 10 minutes prior to ARCT/RZ PT and terminates at end A/R point.

Attachment 4

**IC 2001-01 TO AFI 11-2RC-135, VOLUME 2, RC/OC/WC/TC-135 AIRCREW EVALUATION
CRITERIA**

13 JULY 2001

SUMMARY OF REVISIONS

This change incorporates interim change IC 2001-1. IC 2001-1 changes OPR to Capt Stephen T. Rice, adds a new grading area for navigators and makes other minor deletions/alterations associated with IC 2000-1 and AFI 11-2RC-135V1, *RC/OC/TC/WC-135 Aircrew Training*. See the last attachment of the publication, IC 2001-1, for the complete IC. A “[” indicates revised material since the last edition. Add or replace all paragraphs and tables for immediate implementation

OPR: HQ ACC/DOTV (Capt Stephen T. Rice)

3.1.4.3. Change second sentence to read: “Instructing while demonstrating manual gear lowering is also required.”

Table 3.1. Navigator Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Equipment/Publications		R	
2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures		R	
5. Safety (Critical)		R	
6. Airmanship/Aircrew Discipline		R	
7. CRM/Crew Coordination		R	
8. Flight Plan/Charts	X	R	
9. Dead Reckoning	X	R	
10. General Navigation Inflight Information/Fixing	X	R	
11. Pacing		R	
12. Celestial Navigation	X		
13. Comm/IFF/SIFF		R	
14. Equipment Operation	X	R	
15. Air Refueling	X	R	
16. Descent/Approach/Landing		R	
17. Postflight/Debrief		R	
18. Communication, Logs and Reports		R	
19. Instructional Ability			R

AREA/TITLE	NOTES	QUAL	INSTR
20. Briefings/Critique			R
21. Demonstration and Performance			R
RC-135 ONLY			
22. Corridor Nav In-flight Info, Fixing, Positions	X	R	
23. Corridor Navigation (Critical)	X	R	
24. Navigation System Cross-checks		R	
25. Data Track (RC-135S only)	X	R	
26. Reconnaissance Orbit Area (RC-135U/V/W only)	X	R	
OC-135 ONLY			
27. OPEN SKIES Nav In-Flight Info, Fixing, Positions		R	
28. OPEN SKIES Nav Leg Communications		R	
WC-135C ONLY			
29. Tanker Air Refueling	X	R	

3.3.2.1. Emergency extension of landing gear will be accomplished by navigators on initial qualification and initial instructor evaluations only. Need not be reaccomplished when qualifying in other series aircraft equipped with identical emergency extension systems.

3.3.2.2. DELETE.

3.3.2.3. DELETE.

3.3.2.4. DELETE.

3.3.4.1. RC-135U/V/W navigators must demonstrate corridor and general navigation procedures by planning and flying a Reconnaissance Orbit Area (N050) event as part of the evaluation profile.

Table 3.15. Reconnaissance Orbit Area.

AREA 26	
Q	Orbit area procedures were in accordance with prescribed directives and were accomplished with no more than minor discrepancies. Every reasonable effort was made to make exit timing within +/- 1.5 minutes of briefed control time.
Q-	Displayed a lack of knowledge and familiarity with orbit area procedures. However, knowledge was sufficient to ensure orbit area procedures were accomplished with minimal loss of training. Exit timing was greater than 1.5 minutes but less than 2.5 minutes of briefed time.
U	Displayed a lack of knowledge and familiarity with orbit procedures to the extent that the orbit area procedures were jeopardized or training time/activity was lost. Failed to position the aircraft over the exit point within 2.5 minutes of the briefed control time.

NOTE	If the reconnaissance orbit area procedures must be terminated or abbreviated for weather, equipment malfunction, emergency, or mission profile change, the evaluator may give credit for this event provided all requirements are met. Grade orbit area procedures IAW AFI 11-2RC-135 Vol. 1, <i>RC/OC/WC/TC-135 Aircrew Training</i> .
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Table 3.16. OC-135 Navigation In-Flight Information, Fixing, Positions.

Area 27	
Q	Adequate information (information necessary to compute a wind) was recorded to permit complete and accurate reconstruction of the mission. A fix/position, time, and information necessary to compute a wind was recorded at intervals not exceeding 30 minutes and at the start and end sensor navigation leg points. A time and position were recorded on the chart for a majority of the planned turn points and turns of 20 degrees or more.
Q-	Information recorded was not always accurate or complete, but was sufficient to allow reconstruction of the mission. A fix/position, time, and information necessary to compute a wind were recorded at intervals exceeding 30 minutes. A fix/position was not recorded at the start or end sensor navigation leg points. A majority of turn points were not recorded.
U	Exceeded Q- criteria.

Table 3.17. OC-135 Navigation Leg Communications.

Area 28	
Q	Made 90 percent or more of the required sensor call actions. Timely and effective communication with the pilots and mission crew did not prevent successful data collection.
Q-	Made 80 percent or more of the required sensor action calls. Deviations or omissions in communications resulted in significant degradation of data collection.
U	Exceeded Q- criteria.
NOTE 1	The required sensor action calls are: one minute to sensor on, 30 seconds to sensor on, countdown to sensor on, 30 seconds to sensor off, and countdown to sensor off.
NOTE 2	Sensor calls will not be considered missed if they conflict with other call/actions that are critical to flight safety and/or data collection.

Table 3.18. WC-135C Tanker Air Refueling Grading Criteria.

Area 29	
Q	Rendezvous – Point Parallel - Computed and used turn range and offset to within 2NM. Rendezvous - En route - Arrived over RZPT or ARCP within 1 minute of scheduled/adjusted Rendezvous Control Time. Advised the receiver of any required adjustments NLT 10 minutes prior to the control time.
Q-	Rendezvous – Point Parallel - Computed and used turn range and offset greater than 2NM but less than 4NM. Rendezvous - En route - Arrived over RZ PT or ARCP greater than 1 minute but less than 2 minutes of scheduled/adjusted Rendezvous Control Time or failed to advise receiver of control time adjustment.
U	Rendezvous - Exceeded Q- tolerances. ALTITUDE Control - Failed to crosscheck, if applicable, A/R altitude (hot armament check, if required). Directed final turn toward receiver with unknown altitude separation.
NOTE 1	WC-135C Only
NOTE 2	Commences 10 minutes prior to ARCT/RZ PT and terminates at end A/R point.

Attachment 5**IC 2003-01 TO AFI 11-2RC-135, VOLUME 2, RC/OC/WC/TC-135 AIRCREW EVALUATION CRITERIA****12 FEBRUARY 2003****SUMMARY OF REVISIONS**

This change incorporates interim change IC 2003-01. This instruction now applies to the Air National Guard (ANG). This IC updates evaluation criteria IAW new guidance from updated versions of AFI 11-2RC-135V1, *RC/OC/WC/TC-135 Aircrew Training*. It also adds evaluation criteria for former AIA positions in chapters 8 and 9. Office symbols were changed to reflect current information. **Chapter 3** is replaced in its entirety. See the last attachment of the publication for the complete IC. A (|) indicates revisions from the previous edition. dd or replace all paragraphs and tables for immediate implementation.

This volume, in conjunction with applicable sections of AFI 11-202V2, *Aircrew Evaluation Criteria*, implements AFPD 11-2, *Aircraft Rules and Procedures*, and AFPD 11-4, *Aviation Service*. It contains detailed procedures and criteria for evaluation of all aircrew members flying RC/OC/WC/TC-135 aircraft. This publication does not apply to Air Force Reserve Command (AFRC) 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/DOTV, 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 using MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DOTV, and the user MAJCOM/DRU/FOA and NGB 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 by complying with AFI 33-360V1, *Publications Management Program*. See paragraph 1.2. for procedures to be followed when submitting comments and suggested improvements to this publication.

1.1. General. This AFI provides flight examiners and aircrew members with procedures and evaluation criteria used during flight evaluations on RC/OC/WC/TC-135 aircraft. 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. (ANG: 255 OSF/CC will be notified when situations require an OG/CC or SQ/CC approval/waiver)

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/DOTV. Approved recommendations will be collated into interim or formal change notices, and forwarded to HQ USAF/XOOT for HQ USAF/XO approval.

1.3. Waivers. IAW AFI 11-202V2 and the ACC Sup procedures, waiver requests must be routed through the Numbered Air Force (NAF) for comment. Waiver approval authority for RC/OC/WC/TC-135-specific aircrew requirements is HQ ACC/DOT, unless otherwise specified in this volume. All waiver requests must include the following, as applicable:

1.4.2. All evaluations fall under the Qualification (QUAL), Instrument (INSTM), Instructor (INSTR), or SPOT categories listed in AFI 11-202V2. For dual/multiple qualification difference evaluations that 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." Each squadron will design and maintain an evaluation profile for each MDS that includes information on each crew position. These profiles will be approved by OGV and they will incorporate requirements set in the applicable grading criteria and reflect the primary unit tasking. Schedule all evaluation activity on one sortie and an operational aircraft to the greatest extent possible. Conduct evaluations in an operational aircraft (RC/OC/WC-135 versus TC-135). A training aircraft may be used with the evaluator simulating crew inputs if approved by the Squadron/CC. Use this alternative only as a last resort for cases of limited aircraft availability. Do not begin an evaluation until all training items required for that evaluation are complete. Unit flight examiners may give evaluations outside of their organization to include administering evaluations between ACC and ANG.

1.5.2.1. Qualification Examination (open book). This exam consists of 50-100 questions derived from applicable flight manuals and governing directives. OG/OGV will determine the necessary number of questions to be included for each MDS and crew position.

1.5.2.2. Qualification Examination (closed book). A Closed Book examination is required for all qualification evaluations. Major emphasis of closed book requisite exams will be on aircraft systems and mission knowledge that the aircrews must immediately recall while airborne and key information from publications not available in-flight. OG/OGV will determine the necessary number of questions (25-50) for each MDS and crew position.

1.5.2.3. Boldface Examination (if applicable).

1.5.2.4. Instrument Examination. Required for flight-deck navigators and for pilots taking instrument evaluations (Not required for EWOs (Electronic Warfare Officers)).

1.5.3. Emergency Procedures Evaluations (EPE). Every Qualification evaluation which updates an expiration date will include an EPE. For pilots, the SEFE will administer the EPE in the OFT/ATD (Operational Flight Trainer/ Aircrew Training Device) when available. SEFE's will document method of EPE accomplishment in Comments block of the AF Form 8. The EPE scenario must accurately evaluate the required areas. For all other crewmembers, an EPE will be accomplished orally and Emergency Procedures grading criteria will be used to evaluate this event. Units will determine scenarios for EPEs. The SEFE will assign an overall EPE grade (1, 2, or 3) in the qualification ground phase block of the AF Form 8.

1.5.5. Mission Evaluation. IAW AFI 11-202, Vol 2, the requirement for a separate mission evaluation on RC/OC/WC/TC-135 is waived.

1.5.5.1. Successful completion of an evaluation utilizing a mission profile/collection maneuver peculiar to a particular -135 variant (e.g., data run for RC-135S) qualifies individuals to fly operational sorties in that aircraft, subject to any other requirements or limitations directed by the applicable SQ/CC and AFI 11-2RC-135 V1. Exception: Forward Operating Location (FOL) staff may fly any mission profile/collection maneuver with SQ/CC approval.

1.5.5.2. Such evaluations qualify individuals to fly only training or test sorties on other models, defined as the same MDS, by AFI 11-2RC-135 V1, para 1.6.2.

2.1.2.2. Flight Phase: All areas required in **Table 2.1.** under "PQ" (pilot qualification) or "CQ" (copilot qualification) will be evaluated, unless not applicable to the specific aircraft as noted. All pilots of reverser equipped aircraft must be evaluated in reverse thrust landing. This specific evaluation must be in the aircraft for initial aircraft commander qualification (may be accomplished in OFT per OG/CC discretion.) Subsequently, all instructor and recurring aircraft commander reverse thrust landing evaluations may be in an OFT. Copilot reverse thrust procedures (and associated malfunctions) may be evaluated in the OFT (if available). During recurring evaluations for dual seat-qualified aircraft commanders, a right seat approach and landing is required.

2.1.2.3.1. SQ/CC approval is required for non-instructor pilots to maintain simultaneous qualification in TCTO-509 aircraft and non-TCTO-509 aircraft.

2.1.2.3.2. Qualification in TCTO-509/non TCTO-509 aircraft will be initiated by initial qualification in one engine type, followed by a difference qualification in the other. Subsequent annual qualification evaluation in one engine type will satisfy requirements for both types of aircraft, provided ground testing encompasses both aircraft types and the individual is current in both engine types.

2.1.4.1. An evaluation is required when a qualified -135 pilot (any model) is to obtain qualification for any other -135 model for which the pilot is not qualified.

2.1.4.1.1. Ground Requisites: Closed Book exam with Boldface.

2.1.4.1.1.1. Pilots transitioning from other -135 aircraft models to an RC/OC/WC/TC-135, an Open Book, Closed Book, Boldface, and EPE are required. Exams and EPE should emphasize the difference between airframes.

2.1.4.1.2. Flight Phase: The following transitions also require a flight evaluation. Evaluate applicable items in Table 2.1.1.

2.1.4.1.2.1. Transition from other -135 aircraft models to an RC/OC/WC/TC-135.

2.1.4.1.2.2. Transition between RC/OC/WC/TC-135 without TCTO 509 and RC/OC/WC/TC-135 aircraft with TCTO 509.

2.1.4.1.2.3. Transition from non-reverser equipped aircraft to an aircraft model with thrust reversers. (may be accomplished in the OFT per OG/CC waiver)

2.1.4.1.2.4. Pilots not qualified in receiver air refueling who seek qualification for receiver air refueling.

2.1.4.1.2.5. Pilots not qualified in tanker air refueling who seek qualification for tanker air refueling

2.1.4.2. Pilots seeking qualification in a similar MDS (same engine type, reverser configuration, and air refueling capability) require a Closed Book and Boldface exam only (flight evaluation not required). Complete training required by 11-2RC-135V1 prior to administering examination.

2.2.1. Table 2.1. below lists areas for pilot or copilot qualification, instrument, 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 not found in the specific grading criteria table. A number refers to a note underneath this table. (PQ=Pilot Qual, CQ=Copilot Qual)

2.2.2. Table 2.1.1. below lists areas for pilot or copilot difference flight evaluations. These evaluations are SPOT evaluations for CFM-56 engine or TF-33 engine equipped aircraft. Tanker difference evaluations are SPOT evaluations for tanker duties in the WC-135C.

Table 2.1.1. Difference Evaluation Requirements.

AREA/TITLE	NOTES	CFM	TF-33	TANKER
1. Equipment/Publications		R	R	R
3. Checklist Procedures		R	R	R
4. Emergency Procedures		R	R	R
5. Safety (Critical)		R	R	R
6. Airmanship/Aircrew Discipline (Critical)		R	R	R
7. CRM/Crew Coordination		R	R	R
10. Takeoff		R	R	
14. ATC Communications/IFF/SIF		R	R	R
17. Communications, Logs, Reports		R	R	R
25. Landing		R	R	
26. Touch and Go Landing		R	R	
31. Emergency Procedures—Boldface (Critical)		R	R	R
32. Systems Knowledge/Operation		R	R	R
33. After Landing		R	R	
34. Postflight/Debrief		R	R	
38. Air Refueling Tanker	1			R
Notes: 1. Includes practice emergency separations.				

2.2.3. DELETED.

Table 2.3 Pilot-Specific Grading Criteria.

BRIEFINGS		AREA 8
Q	Briefings were well organized and presented effectively in a logical sequence. Covered all pertinent items according to applicable AFIs, Flight Manuals, FLIP, FCG, and/or other directives. Effectively used available briefing aids.	
Q-	Briefings lacked continuity or contained unnecessary repetition. Some difficulty communicating thoughts clearly. Did not make effective use of available briefing aids. Dwelled on non-essential items.	
U	Failed to use briefing aids. Omitted essential items. Demonstrated lack of knowledge of subject. Briefing was poorly organized and not presented in logical sequence, resulting in confusion. Presented erroneous information which would affect safe/effective mission accomplishment.	
PRE-TAKEOFF		AREA 9
Q	Performed all required procedures, calculations, and coordination prior to takeoff according to flight manuals and applicable directives. Accurately determined aircraft's readiness for flight. Computed required airspeeds within +/-3 knots, critical field length, takeoff and/or landing distances within +/- 500 feet, EPR/N1 within +/- .02/1 %, stabilizer trim setting within +/- .5, and % MAC for T/O within +/- 1% . Taxi speeds appropriate for conditions. Visually cleared area.	
Q-	Same as above except for minor procedural deviations which would not detract from mission effectiveness. Accurately determined aircraft's readiness for flight. Computed airspeeds within +/- 5 knots, critical field length, takeoff and/or landing distances within +/- 800 feet, EPR/N1 within .03/1.5%, stabilizer setting within +/- 1.0, and % MAC for T/O within +/- 1.5%. Limited knowledge of performance data and aircraft weight and balance. Taxi speeds appropriate for conditions. Visually cleared area.	
U	Omitted major item(s). Major deviation in procedures. Failed to accurately determine aircraft's readiness for flight. TOLD computations exceeded Q- criteria. Inadequate knowledge of performance data and aircraft weight and balance. Taxi speeds inappropriate 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/systems limitations. Failed to establish proper climb attitude. Marginal control of the aircraft. Violated flight manual procedures.
DEPARTURE/CLIMB (IFR/VFR) AREA 11	
Q	Performed departure as published/directed and complied with all restrictions. Applied heading/course correction promptly 1. Altitude +/- 200 ft (intermediate level off) 2. Airspeed +/- 10 Kts 3. Heading/Course +/- 10 degrees (when assigned or specified) 4. TACAN Arc +/- 2 miles
Q-	Performed departure as published/directed and complied with all restrictions. Slow to apply heading/course corrections. 1. Altitude +/- 300 ft (intermediate level off) 2. Airspeed +/- 15 Kts 3. Heading/Course +/- 15 degrees (when assigned or specified) 4. TACAN Arc +/- 3 miles
U	Failed to comply with published/directed departure instructions or exceeded Q- criteria. Failed to maintain positive rate of climb.
NOTE	Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.
CRUISE/NAVIGATION AREA 12	
Q	Leveled off smoothly at specified altitude within +/- 200 ft. Established proper cruise airspeed promptly. Properly used appropriate navigation equipment/procedures. Ensured nav aids were properly tuned, identified, and monitored. Aware of exact position at all times. Visually cleared the area. Maintained/adjusted speeds as required to meet mission timing.
Q-	Level off erratic, maintained altitude within +/- 300 ft. Slow in establishing proper cruise airspeed. Minor errors in procedure/use of navigation equipment. Some deviations in tuning, identifying, and monitoring nav aids. 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.
IN-FLIGHT CHECKS AREA 13	

Q	Adhered to briefed/directed minimum fuel requirements/performed in-flight checks as required. Satisfactorily managed/monitored fuel and other systems.
Q-	Deviations or omissions during checks did not detract from mission accomplishment.
U	Did not adhere to minimum fuel requirements, perform in-flight checks, or monitor systems to the degree that an emergency condition could develop if allowed to continue uncorrected.
ATC Communications/IFF/SIF AREA 14	
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. Correctly operated equipment.
Q-	Occasional deviations from correct procedures that required re-transmissions. 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 15	
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
HOLDING AREA 16	
Q	Entry and holding procedures according to applicable directives. 1. Altitude +/- 200 ft 2. Airspeed +/- 15 Kts
Q-	Non-standard entry and holding procedures but remained within air space limits. 1. Altitudes +/- 300 ft 2. Airspeed +/- 20 Kts

U	Exceeded holding airspace limits or Q- criteria.
NOTE	May be accomplished in an ATD when available.
A/R--RECEIVER AREA 18	
Q	<p>Instructors and Aircraft Commanders. 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 (may be reduced to 5 minutes for instructor evaluations, not to include time to demonstrate envelope limits.) Used correct procedures during emergency separation. 1. Airspeed +/- 10 Kts (1/2 mile) 2. Altitude +/- 200 ft (1 mile) - 300 ft to +100 ft (1 mile to 1/2 mile) Copilots. Preplanned target fuel distribution and on-load to remain within aircraft weight/CG limits. Correctly configured the aircraft for refueling. Operated fuel panel during refueling to achieve desired on-load IAW planned or recalculated distribution. Provided appropriate back up to aircraft commander. Used correct procedures during emergency separation.</p>
Q-	<p>Instructors and Aircraft Commanders. 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 (may be reduced to 5 minutes for instructor evaluations, not to include time to demonstrate envelope limits.) Slow to recognize and apply needed corrections to establish and maintain proper refueling position. Aircraft control not always positive and smooth, but adequate. Accomplished procedures required by the flight manual and local directives with minor errors, deviations, and/or omissions. Minor errors, deviations, and/or omissions in emergency separation procedures. 1. Airspeed +/- 15 Kts (1/2 mile) 2. Altitude +/- 300 ft (1 mile) -300 ft to +200 ft (1 mile to 1/2 mile) Copilots. Preplanned target fuel distribution and on-load to remain within aircraft weight/CG limits. Correctly configured the aircraft for refueling. Operated fuel panel during refueling to achieve desired onload IAW planned or recalculated distribution. Provided minimal back up to aircraft commander. Minor errors, deviations or omissions in emergency separation procedures.</p>

U	Instructors and Aircraft Commanders. 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. Major errors, deviations, or omissions in emergency separation procedures. Copilots. Major errors, deviations, and/or omissions in configuring the aircraft for refueling. Did not calculate target fuel distribution and CG or exceeded Q- criteria. Exceeded or attempted to exceed operating/CG limits while operating fuel panel during refueling. Did not back up or distract the aircraft commander. Major errors, deviations, and/or omissions in procedures during emergency separation.
NOTE 1	Copilots will be checked on performance of duties during rendezvous and refueling operations, including fuel panel, checklist, center of gravity, and breakaway procedures. Copilot air refueling checks may be completed in the OFT or an aircraft on the ground if unable to complete during flight evaluation.
NOTE 2	Air Refueling track time should be scheduled to allow a minimum of 30 minutes contact time. Unit Stan/Eval may establish a maximum amount of time from initial pre-contact to achieve required contact time.
NOTE 3	For instructor pilots performing an Air Refueling limits demonstration, inadvertent disconnects are permissible during demonstration and therefore will not be counted against the examinee.
DESCENT	AREA 19
Q	Performed descent as directed. Complied with all restrictions. Visually cleared the area. Complied with Flight Manual procedures and local directives. Computed required airspeeds within +/-3 knots, landing distances within +/- 500 feet, EPR/N1 within +/- .02/1 %. 1. Altitude +/- 200 ft (level off) 2. Airspeed +/- 10 Kts (if applicable) 3. Heading/Course + 10 degrees when assigned or as specified 4. TACAN Arc +/- 2 miles
Q-	Performed descent as directed with minor deviations. Visually cleared the area adequately. Slow to accomplish Flight Manual procedures and complied with local directives. Computed required air speeds within +/-5 knots, landing distances within +/- 800 feet, EPR/ N1 within +/- .03/1.5 %. Limited knowledge of performance data. 1. Altitude +/- 300 ft (level off) 2. Airspeed +/- 15 Kts (if applicable) 3. Heading/Course +/- 15 degrees when assigned or as specified 4. TACAN Arc +/- 3 miles
U	Performed descent with major deviations. Did not accomplish required checks. Failed to visually clear the area adequately. Major errors, deviations or omissions in landing data. Exceeded Q- criteria. Inadequate knowledge of performance data.

IFR PATTERN (PRIOR TO FAF)		AREA 20
Q	Procedures required by the flight manual and applicable directives were accomplished. Followed controller's instructions and complied with all restrictions. Made smooth and timely corrections. 1. Altitude +/- 200 ft 2. Airspeed - 5 Kts/+20 (Did not exceed Flap Placard) 3. Heading/Course +/- 15 degrees 4. TACAN Arc +/- 2 miles	
Q-	Procedures 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. 1. Altitude +/- 300 ft 2. Airspeed -5 Kts/+30 (Did not exceed Flap Placard) 3. Heading/Course +/- 20 degrees 4. TACAN Arc +/- 3 miles	
U	Made major deviations or omissions in procedures required by the flight manual or directives. Failed to comply with controller instructions. Exceeded Q- criteria.	
PRECISION APPROACH (GP-DH)		AREA 21
Q	Performed procedures correctly/as published. Smooth and timely corrections. Position would have permitted a safe landing. 1. Glideslope Did not exceed slightly above/slightly below or one dot 2. Airspeed -5/+10 Kts 3. Heading/Course +/- 10 degrees of controller's instructions/ within 1 dot 4. DH - 25/+50 ft (ILS)/prompt response to DH (PAR)	
Q-	Performed procedures with minor deviations. Slow to respond/make corrections. Complied with decision height. Position would have permitted a safe landing. 1. Glideslope Within PAR safety limits, 2 dots above/1 dot below 2. Airspeed -5/+15 Kts 3. Heading/Course +/- 15 degrees of controller's instructions/within 2 dots 4. DH -50/+75 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.	
NON-PRECISION APPROACH		AREA 22 (FAF-MAP)
Q	Performed procedures as published/directed. Made smooth and timely corrections. Arrived at MDA prior to or at VDP. Position would have permitted safe landing. 1. Airspeed -5/+10 Kts 2. Altitude -50/+100 ft (after reaching MDA and prior to MAP) 3. Heading/Course +/- 10 degrees or within one dot 4. Timing computed to 10% of actual timing (when applicable).	

Q-	Performed procedures with minor deviations. Slow to make corrections. Arrived at MDA prior to/at missed approach point. Position would have allowed safe landing. 1. Airspeed -5/+15 Kts 2. Altitude -50/ + 100 ft (after reaching MDA and prior to MAP) 3. Heading/Course +/- 15 degrees or within two dots 4. Timing computed to 20% of actual timing (when applicable)
U	Performed procedures with major deviations. Erratic corrections. Exceeded Q- criteria. Did not comply with MDA and/or position would not have permitted a safe landing.
MISSED APPROACH AREA 23	
Q	Executed missed approach as published or directed. Completed all procedures according to applicable flight manual and directives. 1. Level off altitude +/- 200 ft 2. Airspeed +/- 5 Kts (See note 2) 3. Heading/Course +/- 5 degrees 4. TACAN Arc +/- 2 miles
Q-	Executed missed approach with minor deviations. Slow to comply with published procedures, controller's instructions, flight manual procedures, or directives. 1. Level off altitude +/- 300 ft 2. Airspeed +/- 10 Kts (See note 2) 3. Heading/Course +/- 10 degrees 4. TACAN 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
NOTE 2	Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.
VFR TRAFFIC PATTERN AREA 24	
Q	Performed traffic patterns according to the flight manual, operational procedures, and directives. Aircraft control was positive and smooth. Effectively cleared ahead of flight-path. 1. Altitude +/- 200 ft 2. Airspeed -5(Did not exceed Flap Placard)
Q-	Performed traffic patterns with minor deviations to procedures outlined in the flight manual, operational procedures, and directives. Aircraft control was not consistently positive and smooth, but safe. Adequately cleared area of intended flight. 1. Altitude +/- 300 ft 2. Airspeed -5(Did not exceed Flap Placard)
U	Traffic patterns not performed according to procedures outlined in the flight manual, operational procedures, and directives. Erratic aircraft control. Did not clear area of intended flight. Exceeded Q- criteria.
NOTE	May be graded using a rectangular pattern or a circling maneuver.

LANDING		AREA 25
Q	Performed landings according to procedures outlined in the flight manual, operational procedures, and directives. Correctly used thrust reversers, as applicable. 1. Threshold Speed: -5/+10 Kts 2. Touchdown Point: +/- 1000 feet as compared to computed flare distance and within stopping distance for runway available.	
Q-	Landings performed according to procedures outlined in the flight manual, but outside the tolerances listed in Q criteria. Touchdown within stopping distance for runway available.	
U	Landings not performed according to procedures outlined in the flight manual, operational procedures, and directives. Exceeded Q- criteria.	
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 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 flight manual procedures, operational restrictions, or local directives. Failed to ensure adequate runway length. Did not correct to centerline. Liftoff potentially dangerous. Overcontrolled aircraft.	
NOTE	Instructors must perform a touch and go as both the pilot flying and pilot not flying to complete this area.	
GO AROUND		AREA 27
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.
SIMULATED ENGINE-OUT PATTERN/LANDING	AREA 28
Q	Performed pre-landing checks, traffic pattern, approach and landing in accordance with procedures outlined in the flight manual and other directives. Aircraft control was positive and smooth. 1. Pattern Altitude +/- 200 ft 2. Airspeed on Final -5/+ 15 Kts 3. Airspeed Pattern -5/(Did not exceed flap placard)
Q-	Minor procedural errors during pre-landing checks, traffic pattern, approach/landing which did not affect safety. Landed in slight crab. 1. Pattern Altitude +/- 300 ft 2. Airspeed on Final -5/+ 20 Kts 3. Airspeed Pattern -10/(Did not exceed flap placard)
U	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.
EFTOC	AREA 29
Q	Used positive application of proper control inputs. 10 Kts or less of air speed lost. Called for and accomplished checklist IAW Tech Order.
Q-	Slow to apply proper inputs. Lost more than 10 but not greater than 15 Kts of airspeed. Slow to call for and accomplish required checklist.
U	Failed to properly control aircraft. Lost more than 15 Kts of airspeed. Failed to call for or accomplish required checklist.
SIMULATED ENGINE-OUT/GO AROUND	AREA 30
Q	Initiated and performed go-around promptly in accordance with flight manual and applicable directives. Acquired/maintained a positive climb with airspeed no less than -5 Kts.
Q-	Slow or hesitant to initiate go-around. Minor procedural deviations which did not affect safety. Acquired/maintained a positive climb. Airspeed not less than -10 Kts.
U	Did not initiate go-around when appropriate or directed. Techniques unsafe or applied incorrect procedures. Exceeded Q- criteria.
EMERGENCY PROCEDURES -	AREA 31 BOLDFACE (CRITICAL)
Q	Correct responses. Maintained aircraft control. Coordinated proper actions.
U	Incorrect sequence, unsat response, or unsat performance of corrective action.
SYSTEMS KNOWLEDGE	AREA 32 OPERATION

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 publications and/or available aids.
Q-	Incomplete knowledge of system operating limits. Slow to analyze problems or take proper corrective action. Did not effectively use publications and/or available aids.
U	Unsatisfactory knowledge of systems. Unable to analyze problems or take corrective action. Did not use publications and/or available aids.
AFTER LANDING AREA 33	
Q	Aircraft taxi procedures accomplished in accordance with the flight manual and applicable directives. Taxi speeds appropriate for conditions. Visually cleared area. Safely followed marshaler's instructions
Q-	Same as Q except minor errors, deviations or omissions were noted in aircraft taxi procedures. Taxi speeds appropriate for conditions. Visually cleared area. Some confusion over marshaler's instructions.
U	Major errors, deviations or omissions were made in aircraft taxi procedures. Taxi speeds inappropriate for conditions. Failed to clear. Disregarded marshaler's instructions, or allowed marshaler to direct an unsafe situation.
A/RTANKER AREA 38	
Q	Pilot: Aircraft control was positive and smooth. Satisfactorily complied with procedures outlined in the flight manual and local directives. Cleared the area sufficiently. Used correct procedures during emergency separation. Airspeed -10/+15 Kts Altitude +/- 200 ft Heading +/- 5 degrees Preplanned target fuel distribution and offload to remain within aircraft weight/CG limits. Correctly configured the aircraft for refueling. Operated fuel panel during refueling to achieve desired offload IAW planned/recalculated distribution. Provided appropriate back up to aircraft commander. Used correct procedures during emergency separation.

Q-	Pilot: Aircraft control was not always positive and smooth, but adequate. Accomplished procedures required by the flight manual and local directives with errors, deviations and omissions which did not affect safety of flight. Cleared the area sufficiently. Minor errors in procedures during emergency separation. Airspeed - 15/ + 20 Kts Altitude +/- 300 ft Heading +/- 10 degrees Preplanned target fuel distribution and offload to remain within aircraft weight/CG limits. Minor errors, deviations, and/or omissions in configuring the aircraft for refueling. Operated fuel panel during refueling to achieve desired offload within weight/CG limits. Provided minimal back up to aircraft commander. Minor errors, deviations, and/or omissions in procedures during emergency separation.
U	Pilot: Errors/deviations/omissions that affected flight safety and/or the successful completion of air refueling. Exceeded the Q- criteria. Did not clear the area sufficiently. Major errors/deviations/omissions in emergency separation procedures. Major errors, deviations, and/or omissions in configuring the aircraft for refueling. Did not calculate target fuel distribution and CG or exceeded Q- criteria. Exceeded or attempted to exceed operating/CG limits while operating fuel panel during refueling. Did not back up, or caused distraction of, the aircraft commander. Major errors, deviations, and/or omissions in procedures during emergency separation.
NOTE 1	This area includes orbit, rendezvous, refueling platform, post refueling and breakaway. Limitations are established for orbit, rendezvous, post-refueling and breakaway. Momentary deviations are acceptable during refueling.
NOTE 2	Copilots will be evaluated only on performance of copilot duties during rendezvous and refueling operations.
NOTE 3	When refueling autopilot off, add 100 ft, 5 Kts, and 5 degrees to all tolerances.

3.1.1. General. Grading criteria contained herein cannot cover every situation. Written parameters must be tempered with sortie objectives, evaluator judgment, and 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. Requisites: Qualification examinations (Open and Closed book), emergency procedures evaluation (EPE), Instrument Examination, and flight publications check.

3.1.2.2. Flight phase: All areas marked as **R** (Required) in [Table 3.1](#) under "**QUAL**" (Qualification) will be evaluated, unless not applicable to the specific aircraft as noted.

3.1.2.3. Multiple Qualification Evaluations: Refer to AFI 11-2RC-135 Volume 1 for multiple qualification guidance and requirements. For examinees qualified in multiple MDS's (e.g., 338th CTS instructors) the

collection maneuver will be the one flown by his/her primary aircraft (the one they are operations certified in).

3.1.2.4. Qualified navigators completing difference evaluations on the WC-135C will be required to complete grading Areas 1 through 7 and Area 26 in **Table 3.1**.

3.1.3. Complete difference training and certification/qualification IAW AFI 11-2RC-135 Volume 1.

3.1.3.1. Requisites: Closed book examination.

3.1.3.2. Flight phase: A flight evaluation may be conducted as determined by the squadron commander.

3.1.4. Instructor Evaluations:

3.1.4.1. Initial Instructor. The initial instructor evaluation should be a separate evaluation. If combined with a recurring qualification evaluation, it will also include all areas required in **Table 3.1** under "INSTR" (instructor). Landing gear emergency extension will be demonstrated by the examinee while verbally explaining the procedure. Electric flap extension will not be evaluated. The examinee must demonstrate proficiency by instructing a student navigator (ideal) or a qualified navigator, in all areas required for a qualification evaluation. The evaluator may require the examinee to demonstrate and/or present verbal instruction of air refueling/emergency equipment/aircraft systems, navigation procedures, and techniques. These demonstrations will be prebriefed to the examinee and will be accomplished inflight at an appropriate time so as to not interfere with the examinee's crew duties or pacing.

3.1.4.2. Recurring Instructor. For recurring instructor evaluations, all applicable areas required in **Table 3.1** will be evaluated to include those listed under "INSTR" (instructor). The evaluator may require the examinee to demonstrate and/or present verbal instruction of air refueling/emergency equipment/aircraft systems, navigation procedures, and techniques. These demonstrations will be prebriefed to the examinee and will be accomplished inflight at an appropriate time so as to not interfere with the examinee's crew duties or pacing.

3.1.4.3. Instructor Requalification Evaluations. Comply with any restrictions in AFI 11-2RC-135 Volume 1 and follow guidance in paragraph **3.1.4.2** above.

3.1.5. Emergency Procedures Evaluations (EPE). Use a verbal Emergency Procedures Evaluations (EPE) to satisfy the requirements for grading Area 4, "Emergency Procedures."

3.2. Navigator Evaluation Requirements:

3.2.1. The table below lists areas for navigator qualification 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, or a number which refers to a note shown below the table.

Table 3.1. Navigator Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Equipment/Publications		R	
2. Mission Planning		R	
3. Checklist Procedures		R	

AREA/TITLE	NOTES	QUAL	INSTR
4. Emergency Procedures		R	
5. Safety (Critical)		R	
6. Airmanship/Aircrew Discipline (Critical)		R	
7. CRM/Crew Coordination		R	
8. Flight Plan/Charts		R	
9. Dead Reckoning Procedures			
10. General Navigation/Fixing		R	
11. Pacing		R	
12. Communication Device Loading Procedures	1	R	
13. Equipment Operation		R	
14. Air Refueling		R	
15. Landing Gear Alternate Extension (Critical)	2	R	
16. Descent/Approach/Landing		R	
17. Postflight/Debrief		R	
18. Communication, Logs and Reports		R	
19. Instructional Ability			R
20. Briefings/Critique			R
21. Demonstration and Performance			R
RC-135S/U ONLY			
22. Data Track	3	R	
RC-135V/W ONLY			
23. Reconnaissance Orbit Area	3	R	
OC-135 ONLY			
24. OPEN SKIES Navigation In-Flight Information, Fixing, Positions	3	R	
25. OPEN SKIES Navigation Leg Communications	3	R	
WC-135C ONLY			
26. Tanker Air Refueling	4	R	
Notes: 1. N/A OC/WC-135W. 2. Required for INIT QUAL and INIT INSTR evaluations only. 3. The collection maneuver flown on Qualification evaluations will be the one flown on the individual's primary aircraft. 4. N/A CONSTANT PHOENIX operations.			

3.3. Grading Criteria:

3.3.1. For the following common areas, see [Chapter 1](#) for grading criteria:

QUALIFICATION:

3.3.1.1. Equipment/Publications

3.3.1.2. Mission Planning

3.3.1.3. Checklist Procedures

3.3.1.4. Emergency Procedures

3.3.1.5. Safety

3.3.1.6. Airmanship/Aircrew Discipline

3.3.1.7. CRM/Crew Coordination

3.3.1.8. Postflight/Debrief

3.3.1.9. Communications, Logs, and Reports

INSTRUCTOR:

3.3.1.10. Instructional Ability

3.3.1.11. Briefings/Critique

3.3.1.12. Demonstration and Performance

3.3.2. Specific Grading Criteria:

Table 3.2. Flight Plan/Charts.

	AREA 8
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/omissions; no error exceeded 5 degrees of heading and/or 2 minutes of time.
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 10 degrees of heading and/or 4 minutes of time.
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	Computer-generated products are authorized for all mission planning. When used, the navigator is responsible for the data's accuracy, excluding fuel computations.
NOTE 2	Errors that occur as a result of a previous error will not be considered when applying the grading criteria.

Table 3.3. Dead Reckoning Procedures.

	AREA 9
Q	Correctly computed and plotted a DR position in order to evaluate fixes/MPPs. Adequate information (information necessary to compute a wind) was recorded to permit complete and accurate reconstruction of the mission. An ETA was recorded for the majority of positions. Fixes and MPPs were logically interpreted. When a position indicates the aircraft is outside corridor, a heading alteration was immediately made to correct back to course.
Q-	Correctly computed and plotted a DR position to evaluate the majority of positions. Information recorded was not always complete and accurate, but was sufficient to allow reconstruction of the mission. An ETA was not recorded for the majority of positions. Interpretation of fixes and MPPs was not always logical. When a position indicates the aircraft is outside corridor, a heading alteration was made within 5 minutes to correct back to course.
U	Poor performance caused inaccurate or missing DR positions or DR information such that actual aircraft flight path/ground track (correct or not) was not subject to monitoring/control by the navigator.
NOTE 1	Navigators must demonstrate procedures and techniques of manual dead reckoning by using all available aids to update and verify DR positions.
NOTE 2	Information necessary to compute a wind need not be recorded during departure, holding, air refueling orbit, anchor patterns, rendezvous, weather avoidance, airway/jet route navigation, receiver air refueling, and upon initiation of penetration and approach. The navigator is always responsible for position awareness.
NOTE 3	When overwater (when radar targets are not available) manual dead reckoning is the primary means of navigation and will be computed, plotted, and weighed in conjunction with all available aids to determine a most probable position.

Table 3.4. General Navigation/Fixing.

	AREA 10
Q	Did not allow the airplane to deviate outside ATC assigned/allowable airspace and in no case more than 10 NM (4 NM or as specified for operations below FL 180) from the course. Complete crosscheck (to include fix/position, track, true heading, drift, groundspeed, and ETA) was accomplished at intervals not exceeding 30 minutes and at each planned turnpoint. Significant errors were resolved prior to the next crosscheck.
Q-	Did not allow the airplane to deviate outside ATC assigned/allowable airspace and in no case more than 15 NM (10 NM or as specified for operations below FL 180) from the course. Complete crosscheck (to include fix/position, track, true heading, drift, groundspeed, and ETA) was accomplished at intervals not exceeding 40 minutes and at each planned turnpoint. Errors were resolved but not before the next crosscheck.
U	Exceeded Q- tolerances and/or allowed the aircraft to deviate outside ATC assigned/protected airspace.
NOTE 1	The navigator is always responsible for position awareness. Recording of inflight information commences at leveloff and ceases when the pilot or air traffic controller assumes responsibility for navigation to the terminal facility.
NOTE 2	(RC/TC-135 only) An ASN-121 navigation system position may be plotted as a fix if a radar fix/position crosscheck has been accomplished within the last five minutes. In areas where radar is not available (e.g., overwater), an ASN-121 navigation system position may be plotted as a fix if a system stellar update has occurred within the last five minutes, or GPS FOM is 7 or better, or compared against an independent hand-held GPS.
NOTE 3	The primary method of fixing is radar and this method will be used for the majority of positions (when available) to demonstrate proficiency. Radar fixing, although likely to be less precise than a GPS position, is almost entirely independent of automated systems and therefore makes an ideal crosscheck. If radar scope reference (e.g., true heading) is suspect, set scope reference manually or use multi-range fixing techniques.
NOTE 4	Navigators may elect to plot an INS or DR position prior to a turn of 20 degrees or more as long as a fix is taken promptly upon rollout.

Table 3.5. Pacing.

AREA 11	
Q	Held an even workflow 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.
Q-	Pacing was adequate but occasionally worked behind aircraft. Position reports not over 5 minutes late and turning points not overflowed by more than two minutes. Nav 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 turnpoints were overflowed by more than two minutes.

Table 3.6. Communication Device Loading Procedures.

AREA 12	
Q	All codes required for the sortie were properly set/loaded and equipment was operated IAW prescribed procedures and within limitations.
Q-	Codes required for the sortie were improperly set/loaded due to minor deviations and equipment was not operated completely IAW prescribed procedures but equipment limitations were not exceeded and sortie success was not jeopardized.
U	Examinee was unable to set/load required codes, equipment was not operated IAW prescribed procedures, equipment limitations would have been exceeded without evaluator intervention and sortie success was affected.
NOTE 1	Examinee will not be held responsible for equipment malfunctions as long as procedures were correct.
NOTE 2	N/A OC-135.

Table 3.7. Equipment Operation.

AREA 13	
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. The coordinates in the navigation system were never more than 10 NM in error provided there were no equipment malfunctions.
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. The coordinates in the navigation system were never more than 15 NM in error provided there were no equipment malfunctions.
U	Exceeded Q- criteria.
NOTE	The extent of in-flight corrective action required of the navigator to alleviate a search radar malfunction will be determined by the mission requirements.

Table 3.8. Air Refueling.

AREA 14	
Q	Rendezvous and air refueling procedures were IAW prescribed procedures and all checklists were accomplished with no more than minor discrepancies. Met or attempted to meet planned air refueling timing (RZIP +/- 1 minute or ARCT +/- 2 minutes) using all reasonable effort. If unable to make the scheduled air refueling rendezvous time after using speed control and route adjustment techniques, coordinated a revised ARCT. No training was lost by the tanker or receiver which could be attributed to the navigator's error. Receiver navigator directed closure to within 1 NM of tanker.
Q-	Displayed lack of knowledge and familiarity with the checklists and/or rendezvous and air refueling procedures, however, knowledge was sufficient to accomplish rendezvous and air refueling with minimal loss of training time/activity. Ineffective timing control resulted in unnecessarily delaying the rendezvous. Poor planning or inattention on the navigator's part caused the examinee to overlook timing control until it was too late to make the rendezvous using speed control and route adjustment techniques (RZIP greater than 1 minute but less than 2 minutes or ARCT greater than 2 minutes but less than 4 minutes), but a revised ARCT was then coordinated. Receiver navigator directed closure to within 1 NM of tanker. No significant amount of training was lost by the tanker or receiver.

AREA 14	
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. Poor planning or inattention on the navigator's part caused the examinee to overlook timing control until it was too late to make the rendezvous using speed control and route adjustment techniques, and no revision was made to the ARCT. Timing exceeded Q- tolerances. Significant training was lost by tanker or receiver. Receiver navigator was unable to direct closure to within 1 NM of tanker. Rendezvous radio calls were incorrect, extremely non-standard or late to a degree that caused confusion and compromised safety of flight.
NOTE 1	Navigators must demonstrate proficiency in T.O. 1-1C-1-14 procedures.
NOTE 2	Air refueling includes rendezvous (point parallel or enroute), orbit, interplane communications, breakaway, and post air refueling.
NOTE 3	Examinee will not be penalized for radio malfunctions or limitations (e.g., unable to contact a command post) that prevent revising the rendezvous time or accomplishing required radio calls on time.

Table 3.9. Landing Gear Alternate Extension.

AREA 15 (Critical)	
Q	Landing gear alternate extension procedures were performed with no deviations or with minor deviations or omissions that did not affect the safe outcome of the procedure and crew coordination interphone calls were satisfactory.
U	Landing gear alternate extension procedures were performed with major deviations or omissions that affected the safe outcome of the procedure. Crew coordination was unsatisfactory and/or safety was compromised.
NOTE 1	Landing gear alternate extension procedures are only required to be demonstrated on evaluations for initial qualification in the airplane and initial instructor qualification.

Table 3.10. Descent/Approach/Landing.

AREA 16	
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/procedures. Monitored appropriate FLIP terminal approach plate. Made all altitude and other required calls, and ensured terrain clearance. Monitored initial approach using ARDA procedures.

AREA 16	
Q-	Monitored aircraft position but did not monitor or understand approach and/or missed approach instructions/procedures. Omitted some altitude calls. Slow in providing headings, ETAs, and other information when required. Demonstrated marginal knowledge of ARDA procedures.
U	Failed to monitor aircraft position. Did not ensure terrain clearance during approach. Omitted numerous altitude calls. Failed to monitor approach with radar.

Table 3.11. Data Track (RC-135S).

AREA 22	
Q	Present position counters were no more than 6 NM in error throughout data run provided there were no significant equipment malfunctions. Roll out at top of track (TOT) was made good within 1 minute of planned/announced timing and collection was not degraded by the aircraft position. The navigator forwarded the maximum time-on-track and current true heading to the TC within 2 minutes after initial rollout and all subsequent rollouts during the data run. The aircraft heading was corrected to within 2 degrees of desired data run heading not later than 3 minutes after rollout on the data track.
Q-	Present position counters were no more than 8 NM in error throughout data run provided there were no significant equipment malfunctions. Roll out at TOT was made good within 90 seconds of planned/announced timing and collection was degraded but still accomplished. The navigator forwarded the maximum time-on-track and current true heading to the TC within 3 minutes after initial rollout and all subsequent rollouts during the data run. The aircraft heading was corrected to within 3 degrees of desired data run heading not later than 5 minutes after rollout on the data track.
U	Exceeded Q- criteria.
NOTE 1	RC-135S navigators must demonstrate data track procedures by planning and flying a data track leg. Data track is that portion of navigation that starts at rollout on data run until return to orbit or roll out on heading when departing the data track. Any enroute navigation exercises or procedures will terminate at roll in point (RIP) at TOT and may resume within 5 minutes of the end of data track or receipt of the RTB message.
NOTE 2	During orbit and data track, aircraft position will be monitored at all times. Recording of aircraft positions on data run paperwork fulfills the requirements of aircraft position/crosscheck. At no time will the navigator allow a recorded crosscheck to exceed 30 minutes unless doing so would directly interfere with the recording of data run information. At least half of positions will be crosschecked with the radar, if available.
NOTE 3	In-flight information will be recorded IAW mission directives/AFI 11-2RC-135 Volume 3, RC/OC/WC/TC-135 Operations Procedures.

Table 3.12. Reconnaissance Orbit Area Procedures (RC-135V/W).

AREA 23	
Q	Orbit area procedures were in accordance with prescribed directives and were accomplished with no more than minor discrepancies. Every reasonable effort was made to make exit timing within +/- 1.5 minutes of briefed control time.
Q-	Displayed a lack of knowledge and familiarity with orbit area procedures. However, knowledge was sufficient to ensure orbit area procedures were accomplished with minimal loss of training. Exit timing was greater than 1.5 minutes but less than 2.5 minutes of briefed time.
U	Displayed a lack of knowledge and familiarity with orbit area procedures to the extent that the orbit area procedures were jeopardized or training time/activity was lost. Failed to position the aircraft over the exit point within 2.5 minutes of the briefed control time.
NOTE	If the reconnaissance orbit area procedures must be terminated or abbreviated for weather, equipment malfunction, emergency, or mission profile change, the evaluator may give credit for this event provided all "Q" requirements are met. Grade orbit area procedures IAW AFI 11-2RC-135 Vol 1, <i>RC/OC/WC/TC-135 Aircrew Training</i> .

Table 3.13. OPEN SKIES Navigation In-Flight Information, Fixing, Positions.

AREA 24	
Q	Adequate information (information necessary to compute a wind) was recorded to permit complete and accurate reconstruction of the mission. A fix/position, time, and information necessary to compute a wind was recorded at intervals not exceeding 30 minutes and at the start and end sensor navigation leg points. A time and position were recorded on the chart for the majority of the planned turn points and turns of 20 degrees or more.
Q-	Information recorded was not always accurate or complete, but was sufficient to allow reconstruction of the mission. A fix/position, time, and information necessary to compute a wind was recorded at intervals exceeding 30 minutes. A fix/position was not recorded at the start or end sensor navigation leg points. A majority of turn points were not recorded.
U	Exceeded Q- criteria.

Table 3.14. OPEN SKIES Navigation Leg Communications.

AREA 25	
Q	Made 90 percent or more of the required sensor call actions. Timely and effective communication with the pilots and mission crew did not prevent successful data collection.
Q-	Made 80 percent or more of the required sensor call actions. Deviations or omissions in communications resulted in significant degradation of data collection.
U	Exceeded Q- criteria.
NOTE 1	The required sensor action calls are: one minute to sensor on, 30 seconds to sensor on, countdown to sensor on, 30 seconds to sensor off, and countdown to sensor off.
NOTE 2	Sensor calls will not be considered missed if they conflict with other call/actions that are critical to flight safety and/or data collection.

Table 3.15. Tanker Air Refueling (WC-135C).

AREA 26	
Q	Rendezvous – Point Parallel - Computed and used turn range and offset to within 2 NM. Rendezvous – Enroute - Arrived over RZPT or ARCP within 1 minute of scheduled/adjusted rendezvous Control Time. Advised the receiver of any required adjustments NLT 10 minutes prior to the control time.
Q-	Rendezvous – Point Parallel - Computed and used turn range and offset greater than 2 NM but less than 4 NM. Rendezvous – Enroute - Arrived over RZPT or ARCP greater than 1 minute but less than 2 minutes of scheduled/adjusted rendezvous Control Time or failed to advise receiver of control time adjustment.
U	Rendezvous - Exceeded Q- tolerances. Altitude control - Failed to crosscheck, if applicable, A/R altitude (or hot armament check, if required). Directed final turn to receiver (point parallel) with unknown altitude separation.

CHAPTER 4

ELECTRONIC WARFARE OFFICER (EWO) EVALUATIONS

4.1.2.1. Ground Requisites: Qualification Examination (open book), Qualification Examination (closed book), Emergency Procedures Evaluation (EPE), and Publications Check.

4.1.2.2. Flight Phase: All areas required in [Table 4.1](#). under "QUAL" will be evaluated. Units will make every effort to complete initial qualification checks during flight. However, qualification checks may be administered in a full-task ground simulator as approved by the OG/CC.

4.1.3.1. Ground Requisites. Qualification Examination (closed book).

4.1.4. Instructor Evaluations. All areas required in [Table 4.1](#). under "INSTR" will be evaluated. General grading criteria is located in [Chapter 1](#). Units will complete initial instructor checks during flight. Recurring instructor checks may be administered in a full-task ground simulator, with OG/CC approval.

4.2.1. The table below lists areas for Electronic Warfare Officer qualification and instructor evaluations. An "R" indicates a requirement for that evaluation. The NOTES column may include an "X". The "X" refers to a general note found in the specific grading criteria table.

Table 4.1. EWO Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Equipment/Publications		R	
2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures		R	
5. Safety (Critical)		R	
6. Airmanship/Aircrew Discipline (Critical)		R	
7. CRM/Crew Coordination		R	
8. Equipment/Systems Knowledge	X	R	
9. Equipment/Systems Operation	X	R	
10. Postflight/Debrief		R	
11. Tactical Planning	X	R	
12. Employment		R	
13. Data Collection Recording		R	
14. Communications, Logs and Reports		R	
15. Collection Debrief		R	
16. Instructional Ability			R
17. Briefings/Critique			R
18. Demonstration and Performance			R

Table 4.2. EWO-Specific Grading Criteria.

EQUIPMENT/SYSTEMS KNOWLEDGE	AREA 8
Q	Satisfactory knowledge of applicable reconnaissance equipment and related systems.
Q-	Incomplete knowledge of applicable reconnaissance equipment and related systems. Aware of and understands system limitations and cautions.
U	Unsatisfactory knowledge of applicable reconnaissance equipment and related systems. Unaware of or does not understand system limitations or cautions.
NOTE	Equipment/system discussions may be accomplished at any time prior to the critique. Evaluators must ensure discussions do not interfere with the examinee's crew duties.

EQUIPMENT/SYSTEMS OPERATION		AREA 9
Q	Operated equipment effectively. Equipment was operated/configured according to prescribed procedures and directives. Used acceptable commands, search modes and procedures when interfacing with computer-aided systems.	
Q-	Operated equipment hesitantly or slowly, indicating a need for study and/or corrective training. Examinee made minor omissions, deviations, or errors in prescribed procedures and directives. Actions would not have damaged equipment or jeopardized sortie success.	
U	Did not operate/configure equipment in accordance with prescribed procedures and directives. Failed to use acceptable commands, search modes, and procedures when interfacing with computer-aided systems. Examinee made significant omissions, deviations, or errors. Equipment damage could have occurred as a result of operator error/deviation.	
NOTE	This area includes equipment operation, malfunctions, and corrective action procedures.	
TACTICAL PLANNING		AREA 11
Q	Developed a plan considering sortie objectives, specific action points, likely threats and aircraft/crew capabilities. Determined equipment and materials required for planned mission and ensured their availability.	
Q-	As above but with minor errors, deviations or omissions that did not significantly impact the planned mission.	
U	Planning was insufficient to achieve sortie objectives. Major errors, deviations or omissions that significantly impacted the planned mission.	
EMPLOYMENT		AREA 12
Q	Accomplished planned goals. Applied tactics or operational procedures consistent with mission objectives. Ensured aircraft was properly positioned and/or equipment was adequately configured for data collection IAW mission priorities and timing. Adapted to meet changing mission goals.	
Q-	As above but with minor deviations, omissions or errors which did not prevent accomplishment of planned goals. Slow to adapt to changing goals.	
U	Major deviations, omissions or errors which significantly impacted the accomplishment of planned goals. Applied tactics or operational procedures inconsistent with mission objectives. Failed to ensure aircraft was properly positioned and equipment was adequately configured for data collection. Failed to adapt to changing goals.	
DATA COLLECTION /RECORDING		AREA 13
Q	Tasked data was intercepted, recorded, and/or annotated. Utilized adequate equipment settings and procedures. No significant data lost. Mission success was not jeopardized.	

5.1.2.3. Multiple Qualification Evaluations. When authorized IAW AFIs 11-202V1 and 11-2RC-135V1, to establish or maintain qualification in the same crew position in more than one MDS, use the following guidance. Multiple qualification requires all requisites and flight phase requirements be met for all MDSs. Ground requisites may be combined to include testing for all applicable MDSs. Consider RC-135V/W as equivalent for qualification flight evaluations. An initial flight evaluation in the new MDS will be accomplished to add it to the individual's qualifications.

5.1.2.4. Dual Qualification Evaluations. When authorized IAW AFIs 11-202V1 and 11-2RC-135V1, to establish or maintain qualification in two different ASE positions on the same MDS, use the following guidance. Dual qualification requires a separate evaluation for each position. Evaluations may be combined on one sortie provided all required grading areas are covered for both positions. Requisites are normally combined.

5.1.3. Difference Evaluations. Difference evaluations allow an individual to qualify in the same crew position in another MDS (as determined by the 55 OG/CC or 67 IOW equivalent) or in a different tactic/system on the same MDS. Complete difference training and certification IAW AFI 11-2RC-135V1. Training in a different system does not qualify a aircrew member in a different crew position. Difference evaluations do not update expiration dates.

5.1.3.1. Ground Requisites: Qualification Examination (closed book) and a Qualification Examination (open book, as determined by SQ/CC).

5.1.3.2. Flight Phase: A flight evaluation may be conducted as determined by the squadron commander.

5.1.4. Instructor Evaluations. Specific criteria are included in paragraph 1.5.6. and Table 5.1.

5.1.5. Emergency Procedures Evaluations (EPE). Use the Emergency Procedures criteria to evaluate Emergency Procedures Evaluations. The EPE satisfies the in-flight requirements for Area 4, Emergency Procedures, if no actual emergency procedure is experienced in-flight.

5.2. ASE Evaluation Requirements:

5.2.1. The table below lists areas for Airborne Systems Engineer qualification and instructor evaluations. An "R" indicates a requirement for that evaluation.

Table 5.1. ASE Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Equipment/Publications		R	
2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures		R	
5. Safety (Critical)		R	
6. Airmanship/Aircrew Discipline (Critical)		R	
7. CRM/Crew Coordination		R	
8. Postflight/Debrief		R	
9. Equipment/Systems Knowledge Block/ Schematic Diagrams	1	R	
10. Maintenance and Troubleshooting		R	
11. Communications, Logs, and Reports		R	
12. Instructional Ability			R
13. Briefings/Critique			R
14. Demonstration and Performance			R
NOTE: 1. Reference paragraph 5.2.2 .			

5.2.2. Because of changing equipment configurations on the RC/OC-135 aircraft, required knowledge and performance levels for the Equipment/Systems Knowledge Area will be identified in the unit profile letters. The tables in the supplement will be updated as equipment is added or removed from the applicable aircraft.

5.2.2.1. The following definitions will be used as standard levels in the local supplement tables. For qualification evaluations, assign one of these four definitions to each system, subsystem or operation required in Equipment/Systems Knowledge Area. Only systems applicable to the aircraft, system, or position are considered in the evaluation.

5.2.2.1.1. Knowledge level A (System Level): Has knowledge of the overall system. Is required to troubleshoot malfunctions to the degraded system only. After identifying which system is causing the problem, can write an effective entry in the Aircraft Maintenance Forms. Can properly load all magnetic media, crypto, and/or film necessary for system operation.

5.2.2.1.2. Knowledge level B (Subsystem Level): Has knowledge of the subsystems comprising the overall system. Is required to troubleshoot to the malfunctioning subsystem(s). Can identify which subsystem(s) or cable group (or bundle) is causing the problem and can write an effective entry in the Aircraft

Maintenance Forms. Can properly load all magnetic media, crypto, and/or film necessary for system operation, and diagnose problems in loading applicable media.

5.2.2.1.3. Knowledge level C (Line Replaceable Unit/Cable Level): Has knowledge of each Line Replaceable Unit (LRU) in a system or subsystem. Is required to troubleshoot to the LRU, cable, or connector. Can accurately identify the malfunctioning LRU, cable, or connector and either remove/replace the LRU, re-seat the connector, or affect temporary repairs (if the required components are readily available). After performing any maintenance action can place an effective entry in the Aircraft Maintenance Forms.

5.2.2.1.4. Knowledge level D (circuit card (schematic) level): Has knowledge of components within and the cables connecting an LRU. Can troubleshoot to the circuit card or connector pin causing the malfunction. Is able to remove/replace a circuit card/module in an LRU or repair the connector (if required components are readily available). After performing any maintenance action can place an effective entry in the Aircraft Maintenance Forms.

5.3. Grading Criteria:

5.3.1. For the following common areas, see [Chapter 1](#) for grading criteria:

QUALIFICATION

5.3.1.1. Equipment/Publications

5.3.1.2. Mission Planning

5.3.1.3. Checklist Procedures

5.3.1.4. Emergency Procedures

5.3.1.5. Safety

5.3.1.6. Airmanship/Aircrew Discipline

5.3.1.7. CRM/Crew Coordination

5.3.1.8. Postflight/Debrief

5.3.1.9. Communications, Logs, and Reports

INSTRUCTOR

5.3.1.10. Instructional Ability

5.3.1.11. Briefings/Critique

5.3.1.12. Demonstration and Performance

5.3.2. Specific Grading Criteria:

Table 5.2. ASE Specific Grading Criteria.

EQUIPMENT/SYSTEMS KNOWLEDGE		AREA 9
Q	Demonstrated efficient use of applicable publication diagrams in determining system operation or troubleshooting systems, and demonstrated a complete and thorough understanding of systems or subsystems general theory of operation without significant confusion or delays. Can accurately locate and identify equipment on systems or subsystems with no more than minor errors not affecting sortie or troubleshooting success.	
Q-	Demonstrated use of applicable publications showing limited understanding of the use of diagrams in determining system operation or troubleshooting, or demonstrated incomplete/inaccurate understanding of systems or subsystems general theory of operation with some confusion or delays which did not adversely affect the mission or troubleshooting effectiveness. Can locate and identify equipment on systems or subsystems with some errors not seriously affecting sortie or trouble shooting effectiveness.	
U	Failed to demonstrate an ability to utilize applicable publication diagrams for determining system operation or troubleshooting with significant confusion or delays which adversely affected mission or troubleshooting effectiveness. Demonstrated an unacceptable level of understanding of systems or subsystems general theory of operation, or caused significant confusion or delays which adversely affected mission or troubleshooting effectiveness. Unable to locate and identify equipment for evaluated systems or subsystems. Major errors affected sortie or troubleshooting success.	
NOTE	Equipment/Systems Knowledge discussion may be accomplished before, during, or after flight, but must be completed prior to the evaluation critique. The equipment selected to evaluate this area will be selected from the local supplement table(s). A representative sample, as determined by the local table for the platform being evaluated, of each system or subsystem will be evaluated.	
MAINTENANCE AND TROUBLESHOOTING		AREA 10
Q	Performed proper maintenance practices utilizing test and maintenance equipment with minor omissions and deviations not affecting malfunction analysis. Properly attempted to optimize equipment effectiveness.	
Q-	Performed proper maintenance practices utilizing test and maintenance equipment with omissions and deviations that showed a need for additional training. Attempted to optimize equipment effectiveness with some errors which did not affect sortie 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 equipment effectiveness which adversely affected sortie success	

CHAPTER 6

CRYPTOLOGIC OPERATOR (CO) EVALUATIONS

6.1. Instructions:

6.1.1. General: The criteria contained in this chapter are applicable to initial and qualification-flight evaluations for the CO positions on all RC-135 aircraft. Minimum requirements for each evaluation are as follows:

6.1.2. Qualification Evaluations:

6.1.2.1. Ground Requisites: Qualification Examinations (open book and closed book), Emergency Procedures Evaluation (EPE) and Publications Check.

6.1.2.1.1. Additional guidance for closed book. Closed book test for qualification examinations will consist of 25 Emergency Procedures questions and of 25 position equipment knowledge questions.

6.1.2.2. Flight Phase: All areas required in [Table 6.1](#) under CO, DLO (Data Link Operator), AA (Airborne Analyst), or AMS (Airborne Mission Supervisor) will be evaluated, unless not applicable to the specific qualification as noted. Make all possible attempts to complete evaluations in-flight. If unable, with OG/CC waiver, the evaluation may be completed using a static aircraft or ATD IAW paragraph [1.4.2.2](#). All appropriate aircrew members should be present when using a static aircraft or the ATD to evaluate areas normally performed with crew interaction.

6.1.2.3. Multiple Qualification Evaluations: When authorized IAW AFI 11-202V1 and 11-2RC-135V1, to establish or maintain qualification in the same crew position in more than one MDS, use the following guidance. Multiple qualification requires all requisites and flight phase requirements be met for each MDS. Closed book portions may be combined into a single test covering all applicable MDSs.

6.1.2.4. Dual Qualification Evaluations: When authorized IAW AFI 11-202V1 and 11-2RC-135V1, to establish or maintain qualification in two different positions on the same MDS, use the following guidance. Dual qualification requires a separate evaluation for each position. Both evaluations may be combined on one sortie provided all required grading areas are covered for each position.

6.1.3. Instructor Evaluations. All areas required in [Table 6.1](#) under "INSTR" will be evaluated. General grading criteria is located in [Chapter 1](#). Units will complete initial instructor checks during flight. Recurring instructor checks may be administered in an ATD.

6.1.4. Emergency Procedures Evaluations (EPE): The EPE satisfies the in-flight requirements for Area 4, Emergency Procedures.

6.2. CO Evaluation Requirements:

6.2.1. [Table 6.1](#) lists areas for CO, DLO, AA, AMS qualification and instructor evaluations. An "R" indicates a requirement for that evaluation.

Table 6.1. CO/DLO/AA/AMS Evaluation Requirements:

AREA/TITLE	CO	DLO	AA	AMS	INSTR
1. Equipment/Publications	R	R	R	R	
2. Mission Planning	R	R	R	R	
3. Checklist Procedures	R	R	R	R	
4. Emergency Procedures	R	R	R	R	
5. Safety (Critical)	R	R	R	R	
6. Airmanship/Aircrew Discipline (Critical)	R	R	R	R	
7. CRM/Crew Coordination	R	R	R	R	
8. Postflight/Debrief	R	R	R	R	
9. Communications, Logs, Reports, and Files	R	R	R	R	
10. Operator Workstation Utilization	R	R	R	R	
11. Graphics Functions	R	R	R	R	
12. Search and Acquisition	R	R	R	R	
13. Collection Techniques	R	R	R	R	
14. Geo-Location Data	R	R	R	R	
15. Track Management	R	R	R	R	
16. Special Processing	R	R	R	R	
17. Recall Operations	R	R	R	R	
18. System Applications	R	R	R	R	
19. System Capabilities		R	R	R	
20. Crew Management				R	
21. Mission Coordination		R	R	R	
22. Data-Link Procedures		R	R	R	
23. Tasking And Reporting		R	R	R	
24. Communications Systems		R	R	R	
25. CAB/ITW (Critical)		R	R	R	
26. Management Specific System Functions		R	R	R	
27. Instructional Ability					R
28. Briefings/Critique					R

AREA/TITLE	CO	DLO	AA	AMS	INSTR
29. Demonstration and Performance					R

6.3. Grading Criteria:

6.3.1. For the following common areas, see [Chapter 1](#) for grading criteria.

6.3.1.1. Equipment/Publications

6.3.1.2. Mission Planning

6.3.1.3. Checklist Procedures

6.3.1.4. Emergency Procedures

6.3.1.5. Safety

6.3.1.6. Airmanship/Aircrew Discipline

6.3.1.7. CRM/Crew Coordination

6.3.1.8. Postflight/Debrief

6.3.1.9. Communications, Logs and Reports

6.3.1.10. Instructional Ability

6.3.1.11. Briefings/Critique

6.3.1.12. Demonstration and Performance

6.3.2. Specific Grading Criteria:

Table 6.2. Specific Grading Criteria.

OPERATOR WORKSTATION UTILIZATION		AREA 10
Q	Operator initialized, signed-on, and shutdown the operator workstation without assistance. Was able to set up and manipulate position in an efficient manner. Displayed working knowledge of soft keys, abbreviation keys, OWS diagnostics and workspace manipulation. Only minor deviations were performed not jeopardizing mission success.	
Q-	Operator had difficulties initializing or shutting down position. Had difficulties using OWS diagnostics, setting up position and/or manipulating workspaces. Errors detracted from planned mission accomplishment but had no major effect on mission success.	
U	Operator failed to initialize, shutdown, or manipulate the operator workstation. Major errors and/or deviations degraded mission accomplishment.	
GRAPHICS FUNCTIONS		AREA 11
Q	Effectively set-up/manipulated graphics equipment and displays considering mission objectives, specific action points likely threats and system capabilities. Only minor deviations were performed not jeopardizing mission success.	

Q-	Operator had difficulties manipulating graphics equipment and displays. Deviations detracted from mission objectives, but had no major impact on planned mission success.
U	Failed to properly set-up or manipulate graphics. Major errors or deviations jeopardized mission success.
SEARCH AND ACQUISITION	
AREA 12	
Q	Demonstrated the ability to set, modify, and manipulate automatic and manual assignments as required. Able to display and modify search queues, conduct manual and PAN search and upgrade manual search assignments without assistance. Minor errors or deviations did not detract from task accomplishment or the accomplishment of mission tasking.
Q-	Had difficulty setting, modifying, or manipulating assignments. Required minor assistance or committed minor deviations that did not result in significant data loss or detract from mission success.
U	Failed to demonstrate the ability to perform the above tasks. Major errors degraded accomplishment of mission tasking and/or jeopardized mission success.
COLLECTION TECHNIQUES	
AREA 13	
Q	Demonstrated the ability to adjust receiver settings for optimal collection without assistance. Only minor errors or deviations were performed that did not result in data loss and did not jeopardize accomplishment of mission tasking.
Q-	Had difficulty adjusting receiver settings. Manipulation problems caused minor loss of collection or loss of situational awareness but did not detract from overall mission success.
U	Failed to demonstrate the ability to manipulate receivers. Failure resulted in significant data loss which impacted planned mission success. Required extensive assistance or major errors jeopardized accomplishment of mission tasking.
GEOLOCATIONAL DATA	
AREA 14	
Q	Demonstrated the ability to take, verify, and manipulate manual and automatic lines of bearing without error. Was able to geolocate emitters without assistance.
Q-	Had difficulties taking or verifying lines of bearing. Required assistance to manipulate lines of bearing or geo-locate emitters. Did not detract from planned mission accomplishment.
U	Failed to demonstrate the ability take and verify manual and automatic lines of bearing on assigned frequencies or was unable to geo-locate emitters. Required extensive assistance to accomplish tasks. Jeopardized planned mission success.
TRACK MANAGEMENT	
AREA 15	
Q	Demonstrated the ability to read, interpret, manipulate and amplify tracks and track data. Maintained situational awareness through efficient use of data display options and dynamic queue usage. Was able to use available resources to assist in the identification of unknown tracks.

Q-	Required assistance to accomplish the above tasks. Committed minor deviations or omissions that did not detract from planned mission success.
U	Was unable to demonstrate efficient track management procedures. Was unable to complete above tasks or required extensive assistance in completing tasks. Errors or deviations detracted from planned mission success.
SPECIAL PROCESSING	
AREA 16	
Q	Demonstrated the ability to conduct special processing functions as required. Was able to display and interpret special processing data.
Q-	Required assistance to accomplish above tasks. Minor deviations or errors did not detract from planned mission success.
U	Failed to demonstrate the ability to conduct special processing functions. Deviations or errors jeopardized task or mission accomplishment
RECALL OPERATIONS	
AREA 17	
Q	Demonstrated the ability to perform audio recall, PROFORMA replay, and release an assigned Recall/Replay IDNO. Minor errors or omissions did not detract from task accomplishment.
Q-	As above but with omissions, errors, or deviations that detracted from task accomplishment but did not jeopardize mission tasking.
U	Failed to demonstrate proficiency on most of the above items. Errors, deviations, or omissions jeopardized accomplishment of mission tasking
SYSTEM APPLICATIONS	
AREA 18	
Q	Demonstrated the ability to effectively utilize system applications to enhance mission accomplishment. Used system applications, dynamic system files, technical databases and help files as required. Minor errors or omissions did not detract from task accomplishment.
Q-	As above but with omissions, errors, or deviations that detracted from task accomplishment but did not jeopardize mission tasking.
U	Failed to demonstrate proficiency on most of the above items. Errors, deviations, or omissions jeopardized accomplishment of mission tasking
SYSTEM CAPABILITIES	
AREA 19	
Q	Demonstrated satisfactory knowledge of system capabilities, major and minor processors, sub-processors, receiver configuration and usage, and back-up/redundant systems with minor deviations, omissions, or errors, which did not detract from mission success.
Q-	Demonstrated satisfactory knowledge of system capabilities, major and minor processors, sub-processors, receiver configuration and usage, and back-up/redundant systems with minor errors, omissions, or deviations which detracted from mission accomplishment but did not jeopardize mission success

U	Failed to demonstrate knowledge of system capabilities, major and minor processors, sub-processors, receiver configuration and usage, and back-up/redundant systems. Major errors, omissions, or deviations jeopardized mission success.
CREW MANAGEMENT	
AREA 20	
Q	Applied effective crew management concepts. Responded appropriately to unpredictable situations, crew illness, system malfunctions, divert/RON situations, etc. Effectively managed RC-135 aircrew with minor omissions, deviations or errors.
Q-	Same as above but omissions, deviations, or errors detracted from planned mission success.
U	Did not apply crew management concepts. Failed to respond properly to unpredictable situations, crew illness, system malfunctions, divert/RON procedures etc. Mismanaged aircrew jeopardizing mission success.
MISSION COORDINATION	
AREA 21	
Q	Effectively coordinated with off-board agencies, controlling authorities and platforms, and demonstrated adequate knowledge of their functions. Provided timely direction or information, as required which clarified/rectified a situation.
Q-	Adequately coordinated with off-board agencies, controlling authorities and platforms but demonstrated limited knowledge of their functions. Showed some hesitation to provide timely direction/information which would have clarified confusion or rectified a situation.
U	Coordination with off-board agencies, controlling authorities and platforms and lack of knowledge of their functions/responsibilities was detrimental to flying safety or mission effectiveness. Did not provide timely direction/information that would have clarified/rectified a situation.
DATA-LINK PROCEDURES	
AREA 22	
Q	Demonstrated adequate knowledge of data link processors, systems, and net procedures. Performed Data-Link operations as required. Minor deviations or errors did not detract from mission accomplishment.
Q-	Demonstrated limited knowledge of data link processors, systems, and net procedures. Omissions, errors or deviations detracted from mission accomplishment but did not jeopardize mission success.
U	Failed to demonstrate adequate knowledge of data link processors, systems, and net procedures. Deviations, errors, or omissions jeopardized mission success.
TASKING AND REPORTING	
AREA 23	
Q	Based on tasking, flight manuals and applicable directives, effectively accomplished mission tasking and required reporting.

Q-	Did not comply with all applicable tasking, flight manuals and directives. Minor errors, omissions or deviations in applying tasking and reporting guidance detracted from mission accomplishment but did not jeopardize mission success.
U	Failed to comply with applicable tasking, flight manuals and directives. Major errors, omissions, or deviations jeopardized mission success.
COMMUNICATIONS SYSTEMS	
AREA 24	
Q	Effectively operated communications equipment to satisfy mission requirements.
Q-	Operated communications equipment with minor errors, omissions, or deviations, which affected mission accomplishment but did not jeopardize mission success.
U	Failed to effectively operate communications equipment. Major errors, omissions or deviations jeopardized mission success.
CAB/ITW (Critical)	
AREA 25	
Q	Recognized situations requiring CAB/ITW and took appropriate action. Demonstrated knowledge of common terminology, combat terminology, code words, authentication methods, brevity usage, and possessed general radio discipline.
U	Failed to recognize situations requiring CAB/ITW and/or failed to take appropriate action. Did not understand common terminology, combat terminology, code words, authentication methods, brevity usage, or other procedures. Errors, omissions or deviations jeopardized mission success or another platform's mission success.
MANAGEMENT SPECIFIC SYSTEM FUNCTIONS	
AREA 26	
Q	Demonstrated the ability to display, manipulate, and interpret processor and subsystem information, monitored operator activities, system status, and frequency assignment status and other management functions as required. Made conclusions on data received and took appropriate actions with minor omissions, deviations, or errors that did not detract from mission success.
Q-	Same as above but with omissions, deviations, or errors which detracted from mission success.
U	Unable to display, manipulate or interpret processor and subsystem information, or monitor operator activities, system status, or frequency assignment status or other management functions. Omissions, deviations, or errors jeopardized mission success.

CHANGE THE FOLLOWING TERMS TO [Attachment 1](#)

Add: ASE - Airborne Systems Engineer

Delete: SMT-Sensor Maintenance Technician

Terms

Airborne Systems Engineer—The generic term for the OC-135 and RC-135S/U/V/W reconnaissance system maintenance technicians. ASE requirements apply to all ASE positions unless otherwise directed.

IMT - DELETED.

Sensor Maintenance Technician – DELETED.