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SECRETARY OF THE AIR FORCE**

**AIR FORCE MANUAL 11-2WC-130J,  
VOLUME 2**



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***Flying Operations***

**WC-130J AIRCREW EVALUATION  
CRITERIA**

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This publication implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations*, is consistent with Air Force Instruction (AFI) 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, and supports AFI 11-202V2, *Aircrew Standardization and Evaluation Program*. It establishes specific guidance for the standardization and evaluation of aircrew members of the WC-130J aircraft. This manual applies to uniformed members and civilian employees of the Air Force Reserve. This manual does not apply to the United States Space Force. This manual requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by Title 5 United States Code Section 552a and Executive Order 9397, *Numbering System for Federal Accounts Relating to Individual Persons*. The applicable System of Records Notices (SORNs), F011 AF XO A, Aviation Resource Management System (ARMS); F036 AF PC C, Military Personnel records System; and F036 AF PC Q, Personnel Data System (MILPDS), are available at: <https://dpcl.d.defense.gov/privacy/SORNS.aspx>. Ensure all records generated as a result of processes prescribed in this publication adhere to AFI 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. This manual may be supplemented at any level, but all supplements that directly implement this publication must be routed to the OPR for coordination prior to certification and approval. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2,

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## Chapter 1

### GENERAL INFORMATION

**1.1. General.** This manual provides flight examiners, instructors, and aircrews with procedures and evaluation criteria and tolerances to be used during the administration of flight evaluations according to AFI 11-202V2. Specific areas for evaluation are prescribed to ensure an accurate assessment of the proficiency and capabilities of aircrews. Flight examiners will use this Air Force manual (AFMAN) when conducting aircrew evaluations. Instructors use this AFMAN when preparing aircrews for qualification.

**1.2. Key Words and Definitions.**

1.2.1. “Will” and “Shall” indicate a mandatory requirement.

1.2.2. “Should” is used to indicate a preferred, but not mandatory, method of accomplishment.

1.2.3. “May” indicates an acceptable or suggested means of accomplishment.

1.2.4. “**Note**” indicates operating procedures, techniques, etc., that are considered essential to emphasize.

**1.3. Deviations and Waivers.** Report deviations or exceptions, without waivers, through normal command channels to the parent Major Command (MAJCOM) standards and evaluations (Stan/Eval) office. MAJCOM Stan/Eval will notify lead command for follow-on action, if necessary. MAJCOM Operations Directorates (MAJCOM/A3s) shall forward a copy of approved long-term waivers to this AFMAN to lead command for follow-on action, if required.

**1.4. Roles and Responsibilities.**

1.4.1. MAJCOM/A3. AFRC/A3 is responsible for issuing guidance to establish and standardize aircrew evaluations across the MAJCOM functional areas in coordination with all other MAJCOM/A3s.

1.4.2. Wing/Installation Commander or equivalent. Wing Commanders will review, approve, disapprove all **T-3** waivers to this AFMAN. (**T-2**). Wing Commanders may delegate waiver review, approval, or disapproval no lower than Squadron Commander (SQ/CC).

1.4.3. Group Commander (OG/CC) or equivalent. OG/CCs will establish and maintain the Group Standardization and Evaluation program and ensure evaluators comply with AFI 11-202V2 and this AFMAN. (**T-3**).

1.4.4. SQ/CC or designated representative. SQ/CCs will establish and maintain the Squadron Standardization and Evaluation program and ensure evaluators comply with AFI 11-202V2 and this AFMAN. (**T-3**).

1.4.5. Flight Examiners. Further flight examiner guidance outside of this AFMAN is provided in AFI 11-202V2.

**1.5. Evaluations.** This manual establishes standardized instrument, qualification, mission, and instructor evaluation criteria. It also establishes the areas and sub-areas necessary for the successful completion of evaluations and identifies critical and non-critical areas/sub-areas.

**1.6. Evaluation Requirements.** Whenever practical, evaluations should be accomplished concurrently. Aircrews complete the following evaluations on a 17-month frequency in accordance with AFI 11-202V2 and the appropriate MAJCOM supplement.

1.6.1. Instrument Evaluation (INSTM). All WC-130J pilots will successfully complete a periodic instrument evaluation. **(T-2).** The flight phase will evaluate pilot performance and application of instrument procedures and maneuvers in a weapon system trainer (WST) or actual aircraft. **(T-3).** The ground phase includes a requisite open-book written instrument examination in accordance with AFMAN 11-210, *Instrument Refresher Program*.

1.6.2. Qualification Evaluation (QUAL). All WC-130J aircrew will complete a periodic qualification evaluation. **(T-2).** The flight phase evaluates performance and application of flight manual procedures and maneuvers. Evaluation may be accomplished in a WST for pilots, and in an Aircrew Training Device (ATD) for loadmasters. The ground phase includes the following requisites: open-book and closed-book examinations, boldface examination, and an Emergency Procedures Evaluation (EPE). **(T-3).**

1.6.3. Mission Evaluations (MSN). All mission qualified WC-130J aircrew will complete a periodic mission evaluation. **(T-2).**

1.6.3.1. MSN evaluations may be accomplished in conjunction with the QUAL evaluation (e.g., QUAL/MSN).

1.6.3.2. Mission evaluation profiles are to be as realistic as possible with a minimum number of simulated events. The flight phase evaluates performance and application of operational procedures and includes a sampling of maneuvers for which the individual is qualified. Evaluation may be in WST for pilots and in an ATD for loadmasters.

1.6.3.3. The ground phase includes the following requisites: open-book examination, boldface examination, and an EPE.

1.6.3.4. Unit baseline qualifications. Unit supplements list baseline qualifications aircrew hold to be considered Mission Ready in the unit's mission. Group Standardization and Evaluation office (OG/OGV) develops mission evaluation profiles to sample these qualifications. Any aircrew member that maintains a qualification level below this baseline will have restrictions listed on the "MSN" portion of their AF Form 8, *Certificate of Aircrew Qualification*. **(T-3).**

1.6.4. Instructor Evaluations (INSTR). See AFI 11-202V2 for instructor evaluation requirements. Aircrew members designated as instructors are evaluated on their ability to instruct during all periodic evaluations. Aircrew may use their initial INSTR evaluation to satisfy the requirements of a periodic evaluation provided all evaluation requirements for the periodic evaluation are met. Evaluation may be in WST for pilots and in an ATD for loadmasters.

1.6.5. Emergency Procedures Evaluations (EPEs). Use AFI 11-202V2 and the following: Evaluate an aircrew member's knowledge of emergency procedures and aircraft systems knowledge for all QUAL and MSN evaluations. The EPE covers areas commensurate with the examinee's graduated training (e.g., initial, line, instructor, or evaluator). See specific aircrew position chapters of this AFMAN for EPE requirements.

1.6.5.1. OG/OGVs develop and maintain a list of EPE program requirements (topics, special interests, etc.). An EPE guide for each aircrew position should be developed detailing the evaluation areas and conduct of the EPE. Examiners may use one continuous scenario throughout the EPE, or may use different scenarios as required to ensure appropriate areas are evaluated.

1.6.5.2. EPEs should not be conducted immediately before or during a flight evaluation. When possible, EPEs should be conducted in an ATD. If an ATD is not available, the EPE may be verbally evaluated. Examinees may use publications normally available in flight. The examinee must recite, perform, or write all boldface items. **(T-3).**

1.6.5.3. Examinees receiving an overall EPE grade of unqualified are placed in supervised status until recommended additional training and re-evaluation are completed. **(T-3).** Examinees receiving an overall EPE grade of unqualified because of unsatisfactory boldface procedures will not fly until a successful re-evaluation is accomplished. **(T-3).** Accomplish additional training in accordance with AFI 11-202V2.

## 1.7. Grading Guidelines.

1.7.1. When in-flight evaluation of a required area is not possible, the area may be verbally evaluated. Flight examiners should make every effort to evaluate all required areas in-flight or in an ATD before resorting to this provision. If an alternate method is used to complete the evaluation, document in the Additional Comments portion of the AF Form 8. The commander's signature on the AF Form 8 acknowledges approval of this provision.

1.7.2. Flight examiners will not verbally evaluate takeoffs, instrument approaches, landings or cargo loading that fulfill minimum evaluation requirements listed in [Chapter 2](#) and [Chapter 3](#). **(T-3).**

1.7.3. Critical Areas. Critical areas require adequate accomplishment by the aircrew member in order to achieve the mission objectives successfully. If an aircrew member receives an unqualified grade in any critical area, the overall grade for the evaluation is unqualified. Critical areas are identified by "(Critical)" following the applicable area title, and the shading of the Q- block on the AF Form 3862, *Flight Evaluation Worksheet*.

1.7.4. Crew Resource Management (CRM). If CRM is downgraded during the evaluation, ensure an AF Form 4031, *CRM Skills Criteria Training/Evaluation* is completed. The completed form is then forwarded to OG/OGV, for inclusion in quarterly trends, and wing training so that the data can be passed to the MAJCOM CRM program manager.

## 1.8. Conduct of Evaluations.

1.8.1. Pre-brief the examinee on the purpose, conduct, requirements and general criteria of the evaluation. **(T-3).** Evaluate the examinee in each area/sub-area. **(T-3).**

1.8.2. Flight examiners should not evaluate personnel they have primarily trained or recommended for upgrade. Flight examiners should normally not evaluate personnel who serve as rating officers on their performance reports.

1.8.3. Aircrew Training System contractors will not be in the seat during evaluations in an ATD. **(T-2).**

1.8.4. Unless otherwise specified, flight examiners may conduct the evaluation in any aircrew position or seat which best enables the flight examiner to observe the examinee's performance.

1.8.5. Evaluators note discrepancies and deviations from prescribed tolerances and performance criteria during the evaluation. Compare the examinee's performance with the tolerances provided in the grading criteria and assign an appropriate grade for each area. **(T-3)**.

1.8.5.1. An evaluation will not be changed to a training mission to avoid documenting substandard performance, nor will a training mission be changed to an evaluation, with the exception of a No-Notice evaluation. **(T-2)**.

1.8.5.2. The judgment of the flight examiner, guidance provided in AFI 11-202V2 and this AFMAN, will be the determining factors in assigning an overall qualification level on the AF Form 8. **(T-3)**. The flight examiner should thoroughly critique all aspects of the flight. During the critique, the flight examiner will review the examinee's overall rating, specific deviations, area/sub-area grades assigned, and any additional training required. **(T-3)**.

1.8.6. In the event of unsatisfactory performance, the flight examiner determines recommended additional training requirements. Examinees will not accomplish required additional training on the same flight as the evaluation. **(T-3)**. **Exception:** Additional training on the same flight is allowed when unique situations presenting valuable training opportunities exist (i.e., thunderstorm avoidance, crosswind landings). This option requires flight examiner discretion and judicious application. The flight examiner will inform the examinee when any additional training begins and ends. **(T-3)**.

1.8.6.1. An ATD may be used to accomplish additional training and rechecks. Areas for additional training and rechecks should be limited to those areas/sub-areas that can be realistically accomplished in an ATD.

1.8.6.2. The flight examiner who administered the original evaluation should not administer the recheck.

**1.9. Use of AF Form 3862.** Units (normally the OG/OGV) complete the AF Form 3862. **(T-3)**. Units may add special interest items and/or local evaluation requirements. The worksheet should be used in flight to ensure all required areas are evaluated. The completed worksheet serves as a temporary record of the evaluation and is filed in the aircrew member's Flight Evaluation Folder until the AF Form 8 is completed and filed.

#### **1.10. Aircrew Testing.**

1.10.1. Open-Book Exam. An open-book examination is a requisite for QUAL and MSN evaluations. **(T-3)**. The open-book QUAL exam consists of a minimum of 60 questions. The open- book MSN exam consists of a minimum of 40 questions, at least 25% of which come from documents related to WC-130J reconnaissance operations. If a combined examination is created for combination evaluations (QUAL/MSN), include the appropriate number of questions for each portion. For periodic INSTR evaluations, a portion of the open-book exam will include instructor questions. **(T-3)**. A separate (unique) INSTR open- book exam is not required.

1.10.2. Closed-Book Exam. A closed-book examination is a requisite for QUAL evaluations. **(T-3)**. The exam consists of a minimum of 20 questions from the Master Question File.



1.10.3. Boldface exam. A boldface exam is a requisite for any periodic evaluation. **(T-3).**

**1.11. Typical WC-130J Evaluation Profile(s).** Unit OG/CCs or OG/OGVs determine the evaluation profiles suitable for aircrew evaluations. These profiles include all required items and a sampling of other items.

**1.12. Multiple C-130J Model Certifications.** Accomplish difference training in accordance with AFMAN 11-2WC-130JV1, *Aircrew Training*. A periodic evaluation may be accomplished in any aircraft model in which the individual is certified.

**1.13. Senior Officer Requirements.** Senior Officers meeting the criteria outlined in DAFMAN 11-401 *Aviation Management*, AFMAN 11-202V1, *Aircrew Training* and AFMAN 11-2WC-130JV1 may complete a WC-130J Senior Officer QUAL evaluation. Requisites include open and closed book examinations, instrument examination, boldface, and EPE. If a Senior Officer does not complete the flight evaluation, the program is incomplete. **(T-3).**

## Chapter 2

### PILOT EVALUATIONS

**2.1. General.** This chapter standardizes initial (INIT), periodic, and requalification (RQ) evaluations, including requirements for instrument, mission, and instructor qualification evaluations.

2.1.1. Flight examiners will not intentionally fail any equipment during flight evaluations. **(T-3)**. Flight examiners may deny the use of systems not affecting safety of flight.

2.1.2. Under no circumstances will a flight examiner allow the aircraft to slow below one engine-out minimum air control velocity (Vmca) or exceed aircraft limitations specified in the flight manual, regardless of tolerances listed for specific areas.

2.1.3. If the flight manual recommends a specific airspeed range for performance of a maneuver, the flight examiner will apply the grading criteria to the upper and lower limits of that range. **(T-3)**.

2.1.4. Evaluator pilots may conduct evaluations when scheduled as primary aircrew members.

2.1.5. Pilots may be evaluated in either the left or right seat. The term "Pilot" also includes Mobility Pilot Development pilots. Pilots who are not aircraft commanders have an aircrew position of "FP" on their AF Form 8. The "MP" aircrew position is used for eligible aircraft commanders and when the evaluation concludes training leading to certification as an aircraft commander (such as an Operational Mission Evaluation (OME) or defined in an Air Education and Training Command syllabus).

**2.2. Instrument/Qualification Evaluations (Initial, Periodic and Requalification).** Aircrews will conduct WC-130J INSTM and QUAL evaluations concurrently. **(T-3)**. The profile includes the following:

2.2.1. A minimum of one precision, one non-precision, and one Category II (if qualified) approach will be flown. **(T-3)**. One of the approaches will be flown without the use of the autopilot and autothrottle. **(T-3)**. Initial CAT II qualification evaluations require an approach to a missed approach and an approach to a landing. CAT II procedures may be evaluated on a CAT I approach. If possible, approaches should be flown to airfields other than home station or deployed locations.

2.2.2. Holding or a Procedure Turn will be accomplished. **(T-3)**.

2.2.3. Circling and a visual flight rules (VFR) pattern are preferred if weather and traffic permit.

2.2.4. Simulated emergency procedures will include: 3-engine instrument approach, 3-engine go-around, and a 3-engine landing. **(T-3)**.

2.2.5. A full landing (100%), a partial flap landing (50% or 0%), and touch and go procedures are required. **(T-3)**.

2.2.6. Pilot Senior Officer (SOP) Instrument/Qualification Evaluations. From the left seat, evaluate appropriate areas in the GENERAL, INST, and QUAL grading criteria. This evaluation will consist of a variety of instrument approaches and VFR patterns. **(T-3)**. A

minimum of one precision and one non-precision approach, and one 50% and one 100% landing will be accomplished. **(T-3)**. No-flap landing, simulated engine-out approach/go-around/landing, and CAT II approach and landings are not required. This evaluation should be completed in the aircraft. Annotate AF Form 8 as an INSTM/QUAL evaluation with expiration date, aircrew position is “FP” and include a restriction on the AF Form 8, “Fly under direct supervision of a qualified WC-130J instructor pilot.” A qualified WC-130J instructor pilot or higher will be in the other seat. **(T-3)**.

**2.3. Mission Evaluations (Initial, Periodic, and Requalification).** WC-130J MSN evaluations may be accomplished in conjunction with the INSTM/QUAL evaluation or any other flight profile except functional check flight or operational check flight missions. Depending on the unit’s mission, or aircrew member’s qualification, the MSN evaluation will consist of a maximum effort profile, knowledge of weather reconnaissance procedures based upon applicable publications, and any locally published weather procedures **(T-3)**.

2.3.1. Aircrews will accomplish initial MSN evaluations in-flight on an over water weather reconnaissance training mission, or actual tasked weather reconnaissance mission. **(T-3)**. The evaluation should be conducted as soon as possible after theater indoctrination.

2.3.2. Knowledge of Weather Reconnaissance Procedures. Weather reconnaissance procedures may be verbally evaluated during recurring MSN evaluations. Pilots who were mission qualified may be verbally evaluated on mission procedures during their initial aircraft commander evaluation.

**2.4. Instructor Evaluations (Initial, Periodic, and Requalification).** Flight examiners will place particular emphasis on the examinee’s ability to recognize student difficulties and provide timely and effective corrective action. **(T-3)**. Instructor pilots should be able to brief, observe, assess, and debrief the student’s overall performance. State that instructional ability was evaluated in the comments section of the AF Form 8. List a minimum of two areas instructed by the examinee. **(T-3)**. Aircrews will conduct INIT or RQ INSTR evaluations with a qualified pilot occupying the other seat. **(T-3)**. For initial evaluation, the examinee will occupy the right seat; for recurring or RQs they may occupy either seat. **(T-3)**.

2.4.1. During periodic QUAL evaluations, instructors will initiate a simulated aircraft malfunction requiring a simulated engine shutdown, simulated engine-out approach and go-around. **(T-3)**. The instructor will be evaluated on his ability to ensure safe simulated engine-out operations. **(T-3)**.

2.4.2. All instructor areas/sub-areas must be evaluated. **(T-3)**.

**2.5. Operational Mission Evaluation.** Prior to Aircraft Commander certification, all pilots, except those previously certified as Aircraft Commanders in Mobility Air Forces (MAF) C-130 aircraft, will complete an OME. **(T-3)**. Flight examiners will evaluate the examinee’s ability to operate in command while performing the unit’s mission. **(T-3)**. The flight should be an off-station operational or training mission. OG/CC may substitute a local mission to preclude lengthy certification delays. The evaluation will be documented as a “SPOT” and the remarks section will include the following: “This evaluation was conducted in conjunction with Aircraft Commander certification.” **(T-3)**.

## 2.6. Emergency Procedures Evaluation (EPE).

2.6.1. The INSTM/QUAL EPE will cover a cross section of aircraft systems knowledge and emergencies. **(T-3)**. All boldface procedures will be evaluated. **(T-3)**. Examinees should demonstrate an understanding of aircraft systems beyond the actual steps required for an EP. Category I navigation procedures and Takeoff and Landing Data (TOLD) knowledge will be evaluated. **(T-3)**.

2.6.2. MSN EPEs will include knowledge of WC-130J mission employment guidance, tactics and the effect of degraded systems. **(T-3)**.

## 2.7. Pilot Grading Criteria.

**Table 2.1. GENERAL GRADING CRITERIA.**

Area 1. Directives/Publications/Personal and Professional Equipment.	
Q	Possessed a high level of knowledge of all applicable aircraft directives and publications and understood how to apply both to enhance mission accomplishment. Required publications (paper or electronic) were current and properly posted. Had all required personal and professional equipment. Displayed satisfactory knowledge of the care and use of personal/professional equipment. Required equipment inspections were current.
Q-	Unsure of some directives but could locate information in appropriate publications. Required publications (paper or electronic) were current but improperly posted.
U	Unaware of established directives and/or could not locate them in the appropriate publication in a timely manner. Required publications (paper or electronic) were not current. Did not have required personal/professional equipment. Required equipment inspections were overdue or equipment was unserviceable.
Area 2. Mission Preparation/Planning/Performance.	
Q	Checked all factors applicable to flight such as weather, notices to airmen (NOTAMs), alternate air- fields, airfield suitability, fuel requirements, charts, etc. Correctly computed performance data using applicable Communications Navigation IFF/Management Unit (CNI-MU) pages, and crosschecked with Portable Flight Planning System/Joint Mission Planning System as required.
Q-	Made minor errors or omissions in checking all factors that could have detracted from mission effectiveness. Limited knowledge of performance capabilities. Made minor errors in computing performance data.
U	Made major errors or omissions that would have prevented an effective mission. Inadequate knowledge of aircraft performance. Committed major errors in utilizing the CNI-MU TOLD pages. Major errors in crosschecking/manually computing performance data.
Area 3. Briefings.	
Q	Contributed to the briefing content to ensure it included all applicable information. Briefings effectively organized and presented in a logical sequence. Covered all pertinent items. Effectively used available briefing aids.

Q-	Allowed omission of items pertinent but not critical to the mission. Briefings lacked continuity or contained unnecessary repetition. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Dwelled on non-essential items.
U	Failed to conduct/attend required briefings. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of knowledge of subject. Briefing poorly organized and not presented in a logical sequence, resulting in confusion. Presented erroneous information that would affect safe/effective mission accomplishment.
Area 4. Use of Checklist.	
Q	Consistently used and called for the correct checklist and gave the correct response at the appropriate time throughout the mission.
Q-	Checklist responses were untimely and/or aircrew required continual prompting for correct response.
U	Used or called for incorrect checklist or consistently omitted checklist items. Unable to identify the correct checklist to use for a given situation. Did not complete checklist prior to the event.
Area 5. Safety Consciousness (Critical).	
Q	Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
U	Not aware of, or did not comply with, all safety factors required for safe aircraft operation or mission accomplishment. Operated the aircraft in a dangerous manner.
Area 6. Flight Discipline (Critical).	
Q	Exhibited strict flight and aircrew discipline. Prepared and completed mission in compliance with existing instructions and directives.
U	Failed to exhibit strict flight and aircrew discipline. Failed to comply with existing instructions and directives that did, or could have, jeopardized safety of mission success.
Area 7. Airmanship/Situational Awareness (Critical).	
Q	Maintained situational awareness and exercised sound judgment throughout the mission. Conducted the flight with a sense of understanding and comprehension. Prioritized tasks properly.
U	Lacked situational awareness. Faulty judgment resulted in decisions that had negative mission impact. Lacks the skills to prioritize tasks. Unaware of significant events that impacted the mission.
Area 8. Aircrew Coordination/Crew Resource Management (CRM) / Threat and Error Management (TEM). See AFI 11-290, <i>Cockpit/Aircrew Resource Management Program</i> , and use AF Form 4031 (or MAJCOM equivalent) as a reference. Observe or discuss Verbalize, Verify, Monitor practices and procedures and pilot monitoring duties.	

Q	Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other aircrew member's duties and responsibilities. Effectively applied CRM/TEM skills throughout the mission. Followed procedures for the monitoring/crosschecking of other aircrew members, the automation status and making required callouts.
Q-	Aircrew coordination skills detracted from mission accomplishment. Demonstrated limited knowledge of other aircrew member's duties and responsibilities. Slow to follow procedures for the monitoring/crosschecking of other aircrew members, the automation status or making required callouts.
U	Poor aircrew coordination or unsatisfactory knowledge of other aircrew member's duties and responsibilities negatively affected mission accomplishment or safety of flight. Did not follow procedures for the monitoring/crosschecking of other aircrew members, the automation status or making required callouts.
Area 9. Communication Procedures.	
Q	Had a complete knowledge of and complied with the correct communications procedures. Transmissions were concise with proper terminology. Complied with and acknowledged all required instructions. Asked for/provided clarification when necessary.
Q-	Made minor deviations from procedures that required re-transmissions. Slow in initiating, or missed, required radio calls. Transmissions contained extraneous matter, were not in proper sequence, or used non-standard terminology. Slow to ask for/provide clarification when necessary.
U	Used incorrect procedures; poor performance caused confusion and jeopardized mission accomplishment. Omitted numerous radio calls. Failed to use precise, stated terminology. Did not ask for/provide clarification when necessary.
Area 10. Life Support Systems/Egress.	
Q	Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated and emphasized the proper operating procedures used to operate aircraft egress devices such as doors, windows, hatches, life rafts, and escape ropes.
Q-	Showed limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
U	Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.
Area 11. Knowledge/Completion of Forms.	
Q	Completed all required forms and/or flight plans accurately, on time and in accordance with applicable directives. Related an accurate debrief of significant events to applicable agencies (intel, maintenance, etc.)
Q-	Made minor errors on forms and/or flight plans that did not affect the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.

U	Did not accomplish required forms and/or flight plans. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.
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**Table 2.2. QUALIFICATION.**

Area 12. Aircraft Preflight Inspection.	
Q	Accomplished required inspections in a thorough and proficient manner as outlined in applicable checklists and/or directives without deviations or omissions. Properly checked aircraft systems and components in accordance with flight manual. Coordinated with ground support personnel. Correctly determined aircraft status.
Q-	Displayed Minor deviations or omissions in the accomplishment of required inspections as outlined in applicable checklists and/or directives. Limited knowledge of proper procedures for checking aircraft systems/componential flight manual.
U	Failed to accomplish required inspections in a thorough and proficient manner. Major deviations or omissions. Omitted or improperly checked aircraft systems/components in accordance with flight manual. Did not coordinate with ground support personnel. Unable to determine correct aircraft status. Required assistance to complete inspections or exceeded time allotted causing a mission delay.
Area 13. Ground Operations/Taxi.	
Q	Established and adhered to station, start engine, taxi, and take-off time to assure thorough preflight, check of personal equipment, aircrew/passenger briefings, etc. Accurately determined readiness of aircraft for flight. Completed all systems preflight/postflight inspections in accordance with flight manual. Conducted taxi operations according to flight manual, AFMAN 11-218, <i>Aircraft Operations and Movement on the Ground</i> , and local procedures.
Q-	Made minor procedural errors that did not detract from mission effectiveness with respect to start engine, taxi, and take-off time, preflight, check of personal equipment, aircrew/passenger briefings, etc. Completed all systems preflight/postflight inspections in accordance with flight manual with minor discrepancies.
U	Made errors that directly contributed to a late takeoff that degraded the mission. Failed to accurately determine readiness for flight. Failed to preflight/postflight a critical component or could not conduct a satisfactory preflight/postflight inspection.
Area 14. Takeoff.	
Q	Maintained smooth, positive aircraft control throughout the takeoff. Performed the takeoff in accordance with flight manual and as published/directed.
Q-	Made minor deviations from published procedures without affecting safety of flight. Aircraft control was safe but not consistently smooth and positive. Hesitant in application of procedures/corrections.

U	Made a potentially dangerous takeoff. Exceeded aircraft/systems limitations. Failed to establish proper climb attitude. Excessive deviation from intended flight path. Violated flight manual procedures.
Area 15. Basic Aircraft Control.	
Q	Maintained positive aircraft control. Experienced minor deviations but corrected in timely manner.  Airspeed: +10/-5 knots of indicated airspeed (KIAS) Altitude: +/-100 feet Heading/Course: +/-5 degrees
Q-	Frequent deviations in airspeed altitude or heading, but does not compromise flight safety. Slow to correct deviations. Exceeds Q criteria but does not exceed:  Airspeed: +15/-5 KIAS Altitude: +/-200 feet Heading/Course: +/-10 degrees
U	Exceeds Q- criteria.
Area 16. Automation Management.	
Q	Established/followed guidelines for the operation of automated systems; aware of when systems should be disabled, and when programming actions are to be verbalized and acknowledged. Established/followed Pilot Flying (PF) and Pilot Monitoring (PM) responsibilities with regard to automated systems. Periodically reviewed and verified the status of aircraft automated systems. Verbalized and acknowledged entries and changes to automated systems parameters. Allowed sufficient time for programming the mission computer. Used automated systems at appropriate levels to reduce workload, but reduced or disengaged level of automation when programming demands could have reduced situational awareness or created work overloads.
Q-	Had limited knowledge of guidelines for the operation of automated systems; unclear as to when systems should be disabled, or when programming actions are to be verbalized and acknowledged. Slow to establish/follow Pilot Flying (PF) and Pilot Monitoring (PM) responsibilities with regard to automated systems. Slow to review and verify the status of aircraft automated systems. Inconsistently verbalized and acknowledged entries and changes to automated systems parameters. Did not always allow sufficient time for programming the Mission Computer. Inconsistently used automated systems at appropriate levels.



U	Did not establish/follow guidelines for the operation of automated systems; unaware of when systems should be disabled, or programming actions that are to be verbalized and acknowledged. Did not establish/follow Pilot Flying (PF) and Pilot Monitoring (PM) responsibilities with regard to automated systems. Did not periodically review and verify the status of aircraft automated systems. Did not verbalize and acknowledge entries and changes to automated systems parameters. Failed to allow sufficient time for programming the Mission Computer. Did not use automated systems at appropriate levels, to decrease workload. Did not reduce or disengage level of automation when programming demands reduced situational awareness or created work overloads.
Area 17. VFR Pattern.	
Q	Performed traffic pattern and turn to final/final approach in accordance with published procedures. Aircraft control was smooth and positive. Did not over/under-shoot final approach. Constantly cleared area of intended flight. Effectively divided lookout workload among the aircrew.
Q-	Performed traffic pattern and turn to final/final approach with minor deviations to published procedures. Controlled aircraft safely, but was not consistently smooth and positive. Over/under-shot final approach slightly but was able to intercept a normal glide path. Adequately cleared area of intended flight. Slow to divide lookout workload among the aircrew.
U	Did not perform traffic pattern and/or turn to final/final approach in accordance with published procedures. Displayed erratic aircraft control. Over/under-shot final approach by a wide margin requiring a go-around or potentially unsafe maneuvering on final. Did not clear area of intended flight. Failed to divide lookout workload among the aircrew effectively.
Area 18. Landings. Include sub-areas for Full Flap, Partial Flap (50% or 0%), Engine-out, Touch/Stop-and-Go landings.	
<b>Note:</b> Specific items to evaluate include threshold airspeed, runway alignment, flare, touchdown speed and landing in a crab. Airspeed tolerances apply to computed touchdown airspeed.	
Sub-area 18A. Full Flap Landing.	
Sub-area 18B. Partial Flap (50%/0%) Landing.	
Sub-area 18C. Engine-out Landing.	
Q	Performed landings as published/directed in accordance with flight manual and met the following criteria:  Airspeed: +/-5 KIAS  Touchdown Zone: Within 1000 feet of intended touchdown point Centerline: +/-15 feet left or right
Q-	Performed landings with minor deviations to procedures as published/directed. Landed in a slight crab. Exceeded Q criteria but not the following:  Airspeed: +10/-5 KIAS  Touchdown Zone: Threshold-3000 feet Centerline: +/-25 feet left or right

U	Did not perform landing as published/directed. Exceeded Q- criteria.
Sub-area 18D. Touch/Stop and Go Landing.	
Q	Maintained positive aircraft control while the aircraft was on the runway from landing to takeoff. Properly applied flight manual procedures.
Q-	Controlled aircraft safely, but was not consistently smooth and positive. Slow to correctly apply flight manual procedures.
U	Allowed aircraft to deviate in an unsafe or potentially unsafe manner. Failed to properly apply flight manual procedures.
Area 19. Landing Roll/Braking/Propeller Reversing.	
Q	Performed landing roll procedures as published/directed in accordance with flight manual. Braking action and propeller reversing commensurate with landing conditions.
Q-	Performed landing roll procedures with minor deviation to procedures as published/directed. Braking action and propeller reversing not accomplished commensurate with landing conditions, but did not jeopardize safety. Braking or propeller reversing action not applied smoothly.
U	Did not perform landing roll procedures as published/directed. Braking or propeller reversing accomplished in an unsafe manner.
Area 20. All Engine Go-Around.	
Q	Initiated and performed go-around promptly and in accordance with flight manual and directives. Applied smooth control inputs. Acquired and maintained a positive climb.
Q-	Slow or hesitant to initiate go-around. Slightly over-controlled the aircraft. Made minor deviations which did not affect mission accomplishment or compromise safety.
U	Did not initiate go-around when appropriate or directed. Made major deviations or misapplication of procedures that could have led to an unsafe condition.
Area 21. Engine-out Operations	
Q	Used appropriate control inputs for asymmetric condition. Gave proper consideration to maneuvering the aircraft with regard to the inoperative engine.
Q-	Made minor deviations in aircraft control, which occasionally allowed the aircraft to fly uncoordinated.
U	Consistently controlled the aircraft erratically resulting in uncoordinated flight. Did not maneuver the aircraft with regard to the inoperative engine with due regard to aircraft safety.
Area 22. Engine-out Go-Around	
Q	Performed all required procedures in accordance with the flight manual and directives. Applied the correct control inputs in a smooth, positive, and coordinated manner.
Q-	Made procedural errors which did not affect safety. Aircraft control was not smooth and positive. Applied rudder and aileron inputs in the correct direction with some tendency to over/under control.

U	Made procedural errors which did affect safety. Aircraft control was not safely maintained. Made incorrect rudder and/or aileron inputs.
Area 23. Systems Operations/Knowledge/Limitations.	
Q	Demonstrated/explained complete knowledge of aircraft systems, operating limitations and procedures.
Q-	Possessed a limited knowledge of aircraft systems operations and limitations in some areas. Used individual technique instead of established procedure and was unaware of differences.
U	Demonstrated unsatisfactory systems knowledge. Unable to demonstrate or explain procedures, or aircraft systems operations.

**Table 2.3. INSTRUMENT.**

Area 24. Instrument Departure/Standard Instrument Departure (SID).	
Q	Complied with all restrictions or controlling agency instructions. Made all required reports. Applied course/heading corrections promptly. Demonstrated smooth, positive control.
Q-	Made minor deviations in navigation during departure. Was slow to comply with controlling agency instructions or unsure of reporting requirements. Slow to apply course/heading corrections. Did not always control the aircraft smoothly and/or positively.
U	Failed to comply with published/directed departure, or controlling agency instructions. Accepted an inaccurate clearance. Controlled the aircraft erratically.
Area 25. En Route Navigation.	
Q	Navigated satisfactory using all available means. Used appropriate navigation procedures. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.
Q-	Made minor errors in procedures/use of navigation equipment. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Slow to adjust for deviations in time and course.
U	Made major errors in procedures/use of navigation equipment. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace.
Area 26. Holding/Procedure Turn.	
Q	Performed entry and holding in accordance with flight manual, published procedures and directives.
Q-	Performed entry and holding procedures with minor deviations.
U	Did not perform holding procedures in accordance with flight manual, directives, or published procedures.
Area 27. Use of Navigational Aids (NAVAIDs).	
Q	Ensured NAVAIDs were properly tuned, identified, and monitored.
Q-	Made some errors when tuning, identifying, and monitoring NAVAIDs.
U	Did not ensure NAVAIDs were tuned, identified, and monitored.
Area 28. Descent/Arrival.	

Q	Performed descent as directed. Complied with all flight manual, controller issued, or standard terminal area routing (STAR) restrictions in a proficient manner. Accomplished all required checks. Briefed STAR procedures and aircrew workload.
Q-	Performed descent as directed with minor deviations that did not compromise mission safety. Slow to accomplish required checks. Partially briefed STAR procedures and aircrew workload.
U	Performed descent with major deviations. Did not accomplish required checks. Erratic corrections. Exceeded flight manual limitations. Failed to brief STAR procedures and aircrew workload adequately.
Area 29. Precision Approaches (Precision Approach Radar (PAR), Instrument Landing System (ILS) and Integrated Precision Radar Approach (IPRA)).	
<b>Note:</b> Use the following criteria as general tolerances for airspeed, altitude, heading, glide-slop, and course. Airspeed tolerances are based on computed approach speed.	
Q	Airspeed: +10/-5 KIAS Altitude: Initiated missed approach at decision height +50/-0feet Heading: +/-5 degrees of controller's instructions(PAR) Glide Slope: Within one dot (ILS) Course: Within one dot (ILS)
Q-	Exceeds Q criteria but does not exceed: Airspeed: +15/-5 KIAS Altitude: Initiated missed approach at decision height +100/-0feet Heading: +/-10 degrees of controller's instructions(PAR) Glide Slope: Within one dot low, two dots high (ILS) Course: Within two dots (ILS)
U	Exceeds Q- criteria.
Sub-area 29A. PAR.	
Q	Flew approach in accordance with flight manual, directives, or published procedures. Responded to controller's instructions in a smooth and timely manner. Established initial glide path and maintained with only minor deviations. Complied with decision height. Was in a good position to execute a safe landing.
Q-	Flew the approach with minor deviations. Was slow to respond to controller's instructions and make corrections. Complied with decision height. Was in a good position to permit a safe landing. Elevation did not exceed well above or well below glide path.

U	Did not fly the approach in accordance with flight manual, directives, or published procedures. Made erratic corrections and did not respond to controller's instructions resulting in erratic glide path control. Did not comply with decision height and/or position would not have permitted a safe landing. Exceeded Q- criteria.
Sub-area 29B. ILS.	
Q	Flew approach in accordance with flight manual, directives, published procedures. Made smooth and timely corrections to azimuth and glide slope. Established initial glide path and maintained with only minor deviations. Complied with decision height criteria and was in a good position to execute a safe landing.
Q-	Flew the approach with minor deviations. Was slow to make corrections resulting in poor glide path control. Complied with decision height criteria and was in a satisfactory position to make a safe landing.
U	Did not fly approach in accordance with flight manual, directives, or published procedures. Erratic corrections. Did not comply with decision height and/or position at decision height would not have permitted a safe landing. Exceeded Q- criteria.
Sub-area 29C. CAT II ILS. Use the same criteria as sub-area 31B.	
Sub-area 29D. IPRA. Use the same criteria as sub-area 31B.	
Area 30. Non Precision Approaches: Non-directional radio beacon (NDB), Localizer, Airport surveillance radar (ASR), Very high frequency omnidirectional radio beacon tactical air navigation system (VOR/TACAN).	
<b>Note:</b> Use the following description and criteria as general tolerances for airspeed, altitude at minimum descent altitude (MDA), heading, course, timing, and distance with all engines operating. Airspeed tolerances are based on computed approach speed.	
Sub-area 30A. NDB.	
Sub-area 30B. Localizer.	
Sub-area 30C. ASR.	
Sub-area 30D. VOR/TACAN.	
Q	<p>Flew the approach in accordance with published procedures. Made smooth and timely responses to the controller's instructions (ASR). Used appropriate descent rate to arrive at MDA at or before VDP (if depicted). Was in position at MDA to execute a safe landing.</p> <p>Airspeed: +10/-5 KIAS</p> <p>MDA: +100/-0 feet</p> <p>Course: +/-5 degrees at missed approach point (MAP) (NDB, VOR, TACAN), within one dot (LOC)</p> <p>Timing: Compute/adjusted timing to determine MAP within 10 seconds (when required).</p> <p>Distance: Determined MAP within +0.0/-0.5 Miles (nothing past the MAP)</p>

Q-	<p>Performed approach with minor deviations. Was slow to respond to controller's instructions and make corrections (ASR). Arrived at MDA at or before the MAP, but past the VDP (if depicted); however, was in position to make a safe landing. Exceeded Q criteria but does not exceed:</p> <p>Airspeed: +15/-5 KIAS</p> <p>MDA: +150/-0 feet</p> <p>Course: +/-10 degrees at MAP (NDB, VOR, TACAN), within two dots (LOC)</p> <p>Timing: Compute/adjusted timing to determine MAP within 20 seconds (when required)</p> <p>Distance: Determined MAP within +0/-1.0 Miles (nothing past the MAP)</p>
U	<p>Did not fly approach in accordance with published procedures. Maintained steady-state flight below the MDA. Failed to compute or adjust timing to determine MAP (when required) and was not in position to make a safe landing. Exceeded Q- criteria.</p>
Area 31. Circling Approach.	
Q	<p>Properly identified aircraft category for the approach and remained within the lateral limits for that category. Complied with controller's instructions. Attained runway alignment. Did not descend from the MDA until in a position to place the aircraft on a normal glide path or execute a normal landing.</p> <p>Airspeed: +10/-5 KIAS</p> <p>Altitude: +100/-0 feet</p>
Q-	<p>Properly identified aircraft category for the approach and remained within the lateral limits for that category. Was slow to comply with controller's instructions. Slow to attain runway alignment.</p> <p>Airspeed: +15/-5 KIAS</p> <p>Altitude: +150/-0 feet</p>
U	<p>Did not properly identify aircraft category or exceeded the lateral limits of circling airspace. Did not comply with controller's instructions. Did not attain runway alignment, was potentially unsafe. Descended from the MDA before the aircraft was in a position for a normal glide path or landing. Exceeded Q- criteria.</p>
Area 32. Missed Approach.	
Q	<p>Executed missed approach in accordance with flight manual, directives, published procedures. Complied with controller's instructions. Applied smooth control inputs.</p>
Q-	<p>Executed missed approach with minor deviations to published procedures but was slow to comply with controller's instructions. Slightly over controlled the aircraft.</p>

U	Did not execute missed approach in accordance with flight manual, directives, or published procedures. Did not comply with controller's instructions. Deviated from procedures, that could have led to an unsafe condition.
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**Table 2.4. MISSION.**

Area 33. Pre-Takeoff.	
Q	Established and adhered to station, start engine, taxi, and take-off times to assure thorough preflight, check of personal equipment, aircrew/passenger briefings, etc. Accurately determined readiness of aircraft for flight. Performed all preflight checks prior to takeoff.
Q-	Minor procedural errors, that did not detract from mission effectiveness, with station, start engine, taxi, and take-off times, check of personal equipment, aircrew/passenger briefings, etc. Minor discrepancies with preflight checks prior to takeoff.
U	Omitted checklist items. Failed to determine the readiness of aircraft for flight. Made errors that directly contributed to a late takeoff, degrading the mission or making it non-effective. Did not taxi as briefed (pilot error) and contributed to late takeoff or confusion in the formation. Major discrepancies with preflight checks prior to takeoff.
Area 34. En route Navigation.	
Q	Remained within 3 NMs of course centerline and was certain of aircraft position (Exceptions to course centerline tolerance: Threat avoidance, weather deviation, air traffic control assigned heading, time control, etc.). Thorough knowledge of en route time status in relation to objective area. Complied with all altitude restrictions. Adhered to all airspace restrictions.
Q-	Uncertain of exact aircraft position due to marginal navigational procedures. Flew 3 to 5 NMs from course without the above exceptions. Better awareness of required timing events or en route time status could have avoided unplanned maneuvering.
U	Exceeded 5 NMs during en route navigation without the above exceptions. Unable to maintain position awareness throughout most of the route. Unable to accurately assess required timing or unaware of mission time status, jeopardizing mission accomplishment. Violated airspace restrictions. Poor airspeed control resulted in numerous or extreme airspeed adjustment. Descended below minimum altitude restrictions.
Area 35. Weather Reconnaissance Procedures	
Q	Possessed an adequate level of knowledge of all applicable directives and procedures and understood how to apply them to enhance mission accomplishment.
Q-	Possessed a limited knowledge of applicable directives and procedures, could locate information in appropriate publications, but required assistance to accomplish mission.

U	Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner, could not accomplish unit's mission. Winter storm on-time criteria, standard tracks, fuel freezing limits, weather instrument calibration procedures, block altitudes and standard weather training tracks, alpha pattern trainers and storm briefing guide, weather mission sortie requirements, and dropsonde release procedures.
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**Table 2.5. INSTRUCTOR GRADING CRITERIA.**

Area 36. Instructor Ability. (Critical)	
Q	Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe maneuvers/situations.
U	Unable to effectively communicate or provide timely feedback to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe maneuvers/situations in a timely manner. Made no attempt to instruct.
Area 37. Instructor Demonstration. (Critical)	
Q	Effectively demonstrated correct procedures, systems operation or flight maneuvers. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
U	Ineffective or incorrect demonstration of procedures, systems operation, or flight maneuvers. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.
Area 38. Student Briefing/Critique. (Critical)	
Q	Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Demonstrated the ability during the critique to reconstruct the flight, offer mission analysis, and provide guidance where appropriate. Training grade reflected the actual performance of the student relative to the standard. Assessed both technical and CRM performance. Allowed the student to self-assess own performance. Pre-briefed the student's next mission, if required
U	Briefings were unsatisfactory or non-existent. Did not review student's past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Failed to assess both technical and CRM performance. Did not allow the student to self-assess own performance. Incomplete pre-briefing of student's next mission, if required.
Area 39. Knowledge of Training Forms.	
Q	All required forms were accomplished on time and in accordance with applicable directives. Demonstrated satisfactory knowledge of forms/publications required for mission accomplishment. Training documentation was concise and readable.
Q-	Displayed limited knowledge of forms/publications. Required forms were completed with some delay and in accordance with applicable directives. Minor errors or omissions in training documentation.



U	Knowledge of mission required forms/publications was inadequate. Did not accomplish required forms. Omitted or incorrectly documented significant training information.
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**Table 2.6. OME GRADING CRITERIA(Note- Table 2.6 is for use on OME's only).**

Area 40. Aircraft Commander Responsibilities.	
Q	Effectively determined equipment required for mission and coordinated for waiver to operate with degraded capability, if required. Consistently decided to start, continue or delay mission based on input from appropriate sources. Kept command and control (C2) agencies apprised of mission status changes. Effectively coordinated support activities to ensure timely mission activity flow.
Q-	Occasionally misinterpreted maintenance status regarding mission requirements, but did not significantly impact mission accomplishment. Unsure of procedures to obtain waiver to operate with degraded capability. Slow to make decisions regarding mission continuation. Did not consistently communicate status and intentions to C2 functions. Poor coordination with support agencies disrupted mission flow.
U	Unable to determine equipment or waiver required for mission performance. Failed to make proper decision to start, continue or delay mission and/or did not communicate mission-essential information to C2 agencies. Ineffective support function coordination precluded mission accomplishment.
Area 41. Aircrew Management.	
Q	Continually coordinated aircrew activities during flight (e.g., work/rest plans) to maximize mission effectiveness.
Q-	Slow to coordinate aircrew activities before and during flight or ineffective use of aircrew resources negatively impacting mission effectiveness. Slow to plan or coordinate arrival and departure activities, deviations occurred, but did not preclude successful arrival(s) or departure(s).
U	Failed to coordinate aircrew activities during flight such that mission accomplishment was not possible.
Area 42. Mission Management.	
Q	Monitored mission progress and aware of possible impacts at all times. Properly coordinated requirements and intentions to C2 agencies. Effective planning and coordination provided for smooth arrival(s) and departure(s).
Q-	Had difficulty recognizing or planning for unexpected occurrences that may affect mission. Late communication with C2 agencies. Slow to plan or coordinate arrival and departure activities, deviations occurred, but did not preclude successful arrival(s) or departure(s).
U	Did not communicate with destination C2 agencies, significantly affecting mission performance. Failed to recognize impact of changing circumstances on mission performance or did not adequately adapt to complete the mission.
Area 43. Post Flight/Remain Over Night (RON) Procedures.	

Q	Accomplished all post-flight activities in a timely manner. Coordinated with C2 agencies for subsequent mission taskings. Managed aircrew activities during crew rest to provide necessary rest and aircrew availability.
Q-	Slow to perform post-flight duties. Marginal coordination with C2 agencies.
U	Could not accomplish post-flight duties without impacting subsequent mission. Failed to coordinate mission requirements and/or taskings with C2 agencies. Poor management of aircrew during crew rest phase, which impacted (delayed) the aircrew's availability.
Area 44. Authentication/Aircraft Security.	
Q	Demonstrated thorough knowledge of authentication documents and procedures. Ensured proper aircraft security to include any specific mission tasking requirements.
Q-	Displayed satisfactory knowledge of authentication documents and procedures. Limited understanding of aircraft security requirements, but complied with basic security directives.
U	Unable to demonstrate proper use of authentication materials. Unaware of requirements for aircraft security. Did not ensure basic security measures taken.

**Table 2.7. EPE GRADING CRITERIA.**

Area 45. Boldface Emergency Procedures (Critical).	
<b>Note:</b> Use the following criteria for Sub-Areas 45A-45D.	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency. Effectively used available resources. Correct, immediate responses in the proper sequence.
U	Failed to analyze, state, or did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency. Did not use checklist and/or available resources. Incorrect sequence, unsatisfactory response or unsatisfactory performance of corrective actions.
Sub-Area 45A	Engine Fire Shutdown
Sub-Area 45B	Auxiliary Power Unit (APU) Fire
Sub-Area 45C	Fire/Smoke/Fume Elimination
Sub-Area 45D	Rapid Decompression
Area 46. Non-boldface Emergency Procedures.	
<b>Note:</b> Use the following criteria for Sub-Areas 46A-46K.	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency. Effectively used available resources.

Q-	Correctly analyzed and understood aircraft emergencies, but had difficulty performing/stating required procedures to correct the emergency/malfunction. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklists and/or available resources.
U	Failed to analyze, state, or did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency. Did not use checklist and/or available resources.
Sub-Area 46A	Emergency Signals
Sub-Area 46B	Ground Evacuation
Sub-Area 46C	Bailout
Sub-Area 46D	Crash Landing/Ditching
Sub-Area 46E	Engine/Propulsion System Malfunction
Sub-Area 46F	Hydraulic System Malfunction
Sub-Area 46G	Landing Gear System Malfunction
Sub-Area 46H	Fuel System Malfunction
Sub-Area 46I	Flight Control System Malfunction
Sub-Area 46J	Electrical Systems Malfunction
Sub-Area 46K	Airland Emergency Procedures
Area 47. General Knowledge	
<b>Note:</b> Use the following criteria for Sub-Areas 47A through 47D	
Q	Possessed an adequate level of knowledge of all applicable directives and procedures and understood how to apply them to enhance mission accomplishment.
Q-	Possessed a limited knowledge of applicable directives and procedures, but could locate information in appropriate publications.
U	Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner.
Sub-Area 47A	TOLD
Sub-Area 47B	FCIF/SII
Sub-Area 47C	AFMAN 11-2WC-130JV1, AFMAN 11-2WC-130JV2, and AFMAN 11-2WC-130JV3, <i>WC-130J Operations Procedures</i>
Sub-Area 47D	Instrument Procedures

## Chapter 3

### LOADMASTER EVALUATIONS

**3.1. General.** This chapter standardizes initial, periodic, and requalification evaluations, including requirements for qualification, mission, and instructor evaluations.

**3.2. Qualification Evaluations (Initial, Periodic and Requalification).** Qualification evaluations consist of aircraft preflight, loading of palletized cargo or rolling stock, in-flight procedures, cargo offload, and aircraft postflight. Examinees will static load palletized, airdrop platform, or vehicular cargo upon completion of the flight portion if a load is not available for a periodic evaluation prior to flight. **(T-3).** Examinees will be evaluated on all General and Qualification area/sub-area required evaluation items. **(T-3).** When in-flight evaluation of Area 19, 20, 22, 23, 24, 27, 28, 30, 31 and 32 are not possible, examiners will verbally evaluate these areas. **(T-3).**

**3.3. Mission Evaluations (Initial, Periodic and Requalification).** Evaluations consist of performing required preflight, in-flight and post-flight checklists pertaining to the meteorological equipment, demonstrate the ability to release, process, and transmit a vertical weather observation relating to the weather mission portion of the loadmaster duties. Two loadmasters may receive an evaluation on a single flight if each performs a pre-flight of the dropsonde console, releases a dropsonde and transmits a dropsonde observation.

**3.4. Instructor Evaluations (Initial, Periodic and Requalification).** Flight examiners will emphasize examinee ability to recognize student difficulties, provide timely and effective corrective action, and debrief the student's CRM. **(T-3).** All instructor areas/sub-areas are required instructor evaluation items. **(T-3).** The comments section of the AF Form 8 should include a statement that instructional abilities were evaluated with the topic instructed.

**3.5. Emergency Procedures Evaluation (EPE).**

3.5.1. EPEs shall cover the following areas during a QUAL evaluation:

3.5.1.1. Emergency signals. **(T-3).**

3.5.1.2. Ground emergencies. **(T-3).**

3.5.1.3. In-flight emergencies (fuselage fire/smoke and fume elimination, in-flight door warning, rapid decompression, cargo door and ramp failure, cargo jettison, bailout procedures). **(T-3).**

3.5.1.4. Flap emergencies. **(T-3).**

3.5.1.5. Landing emergencies (landing gear retracted, ditching). **(T-3).**

3.5.1.6. Systems knowledge. **(T-3).**

3.5.2. The EPE shall cover the following areas during a MSN evaluation: vertical profile system knowledge, buoy deployment malfunctions/emergencies, and systems knowledge. **(T-3).**

### 3.6. Loadmaster Grading Criteria.

Table 3.1. GENERAL GRADING CRITERIA.

Area 1. Directives/Publications/Professional Equipment.	
Q	Possessed a high level of knowledge of all applicable aircraft directives and publications and understood how to apply both to enhance mission accomplishment. Required publications (paper or electronic) were current and properly posted. Had all required personal and professional <u>equipment</u> . Displayed satisfactory knowledge of the care and use of personal/professional equipment. Required equipment inspections were current.
Q-	Unsure of some directives but could locate information in appropriate publications. Required publications (paper or electronic) were current but improperly posted.
U	Unaware of established directives and/or could not locate them in the appropriate publication in a timely manner. Required publications (paper or electronic) were not current. Did not have required personal/professional equipment. Required equipment inspections were overdue or equipment was unserviceable.
Area 2. Mission Preparation/Planning/Performance.	
Q	Checked all factors applicable to flight such as itinerary, aircraft <u>configuration</u> , <u>fuel requirements</u> , <u>airdrop load sequence</u> , etc.
Q-	Made minor errors or omissions in checking all factors that could have detracted from mission effectiveness. Did not fully comply with directives.

U	Made major errors or omissions that would have prevented an effective mission.
Area 3. Briefings.	
Q	Contributed to the briefing content to ensure it included all applicable information. Briefings effectively organized and presented in a logical sequence. Covered all pertinent items. Effectively used available briefing aids.
Q-	Allowed omission of items pertinent but not critical to the mission. Briefings lacked continuity or contained unnecessary repetition. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Dwelled on non-essential items.
U	Failed to conduct/attend required briefings. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of knowledge of subject. Briefing poorly organized and not presented in a logical sequence, resulting in confusion. Presented erroneous information that would affect safe/effective mission accomplishment.
Area 4. Use of Checklist.	
Q	Consistently used the correct checklist and gave the correct response at the appropriate time throughout the mission.
Q-	Checklist responses were untimely and/or required continual prompting for correct response.
U	Used incorrect checklist or consistently omitted checklist items. Unable to identify the correct checklist to use for a given situation. Did not complete checklist prior to the event.
Area 5. Safety Consciousness (Critical).	
Q	Aware of and complied with all safety factors required for safe aircraft equipment operation and mission accomplishment.
U	Not aware of, or did not comply with, all safety factors required for safe aircraft equipment operation or mission accomplishment. Operated the aircraft equipment/systems in a dangerous manner.
Area 6. Flight Discipline (Critical).	
Q	Exhibited strict flight and aircrew discipline. Prepared and completed mission in compliance with existing instructions and directives.
U	Failed to exhibit strict flight and aircrew discipline. Failed to comply with existing instructions and directives that did, or could have, jeopardized safety of mission success.
Area 7. Airmanship/Situational Awareness (Critical).	
Q	Maintained situational awareness and exercised sound judgment throughout the mission. Conducted the flight with a sense of understanding and comprehension. Prioritized tasks properly.
U	Lacked situational awareness. Faulty judgment resulted in decisions that had negative mission impact. Lacks the skills to prioritize tasks. Unaware of significant events that impacted the mission.

Area 8. Aircrew Coordination/Crew Resource Management (CRM) / Threat and Error Management (TEM). See AFI 11-290 and AF Form 4031 (or MAJCOM equivalent) as a reference.	
Q	Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other aircrew member's duties and responsibilities. Effectively applied CRM skills throughout the mission.
Q-	Aircrew coordination skills detracted from mission accomplishment. Demonstrated limited knowledge of other aircrew member's duties and responsibilities.
U	Poor aircrew coordination or unsatisfactory knowledge of other aircrew member's duties and responsibilities negatively affected mission accomplishment or safety of flight.
Area 9. Communication Procedures.	
Q	Complete knowledge of, and compliance with, correct communications procedures. Makes concise radio and interphone transmissions with proper terminology.
Q-	Occasional deviations from procedures required re-transmissions or resetting codes. Slow in initiating or missed several required radio/interphone calls. Transmissions contained extraneous matter, were not in proper sequence, or used non-standard terminology.
U	Incorrect procedures or poor performance caused confusion and jeopardized mission accomplishment. Omitted numerous radio/interphone calls.
Area 10. Life Support Systems/Egress.	
Q	Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated and emphasized the proper operating procedures used to operate aircraft egress devices such as doors, windows, hatches, life rafts, and escape ropes.
Q-	Showed limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
U	Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.
Area 11. Knowledge/Completion of Forms.	
Q	All required forms were complete, accurate, readable, accomplished on time and in accordance with directives. Provided an accurate debrief of significant events to applicable agencies (Intel, Maintenance, etc.).
Q-	Minor errors on forms did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
U	Did not accomplish required forms. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.

**Table 3.2. QUALIFICATION.**

Area 12. Aircraft Preflight Inspection.	
Sub-area 12A. Prior To Entering	
Sub-area 12B. Interior Inspection	
Sub-area 12C. Exterior Inspection/Top Of Airplane	
Sub-area 12D. Power-Up	
Sub-area 12E. Initial Preflight	
Q	Accomplished required inspections in a thorough and proficient manner as outlined in applicable checklists and/or directives without deviations or omissions. Properly checked aircraft systems and components in accordance with flight manual. Coordinated with ground support personnel. Correctly determined aircraft status.
Q-	Displayed Minor deviations or omissions in the accomplishment of required inspections as outlined in applicable checklists and/or directives. Limited knowledge of proper procedures for checking aircraft systems/components in accordance with flight manual.
U	Failed to accomplish required inspections in a thorough and proficient manner. Major deviations or omissions. Omitted or improperly checked aircraft systems/components in accordance with flight manual. Did not coordinate with ground support personnel. Unable to determine correct aircraft status. Required assistance to complete inspections or exceeded time allotted causing a mission delay.
Area 13. Emergency Equipment.	
Q	Demonstrated sound knowledge of emergency equipment. Located, inspected, distributed and/or demonstrated the proper use of life support and emergency equipment.
Q-	Demonstrated limited knowledge of emergency equipment. Had difficulty locating, inspecting, and/or demonstrating the proper use of life support and emergency equipment.
U	Has an unsatisfactory knowledge of emergency equipment. Failed to inspect, distribute and/or demonstrate the proper use of life support and emergency equipment.
Area 14. Aircraft Configuration.	
Q	Ensured the aircraft was properly configured to accommodate oncoming load. Was familiar with various configurations as outlined in applicable instructions/directives and properly stowed configuration items that were not used.
Q-	Had difficulty configuring the aircraft, but did not impede aircraft loading. Has limited knowledge of various configurations as outlined in applicable instructions/directives.
U	Failed to ensure proper aircraft configuration or caused loading delays. Possesses unsatisfactory knowledge of seat and litter configurations. Failed to properly stow configuration items.
Area 15. Load Planning/Inspection.	



Q	Accurately planned cargo and/or passenger loads and met aircraft center of gravity (CG) limits. Inspected cargo for proper preparation and documentation.
Q-	Had some difficulty planning a load of cargo and/or passengers to meet CG limits. Did not accurately inspect cargo for proper preparation and documentation.
U	Unable to plan a load of cargo and/or passengers and meet CG limits. Failed to inspect cargo for proper preparation and documentation.
Area 16. Onload/Offload Procedures.	
Q	Correctly unloaded/offloaded cargo/passengers in a safe and timely manner. Cargo entered into Multifunction Control Display (MFCD)/CNI-MU with less than 10 inches variance from actual load placement.
Q-	Had difficulty correctly unloading/offloading cargo/passengers in the aircraft. Cargo loaded in MFCD/CNI-MU 10-20 inches from actual load placement.
U	Failed to correctly or safely onload/offload cargo/passengers in the aircraft. Loading procedures caused undue delay. Cargo loaded in MFCD/CNI-MU more than 20 inches from actual load placement. Heavy Equipment and Combat offload platforms not programmed in the MFCD exactly as they are in loaded in the aircraft.
Area 17. Supervisory Abilities.	
Q	Established and maintained control of all personnel during loading operations.
Q-	Established and maintained control of all personnel, but made minor supervisory errors; however, they did not compromise safety.
U	Did not establish or maintain control of all personnel and/or compromised safety.
Area 18. Tie Down/Restraint.	
Q	Correctly calculated and applied the correct amount of restraint to a given item. Understood and could state the principles of restraint.
Q-	Had difficulty calculating and applying the correct amount of restraint. Did not fully understand the principles of restraint.
U	Failed to correctly calculate and apply the correct amount of restraint. Did not understand and could not state the principles of restraint.
Area 19. Winching Procedures.	
Q	Correctly demonstrated and/or explained winching procedures.
Q-	Had difficulty demonstrating and/or did not completely explain correct winching procedures, but did not compromise safety.
U	Failed to demonstrate and/or did not explain correct winching procedures. Compromised safety.
Area 20. Hazardous Material.	
Q	Understood hazardous cargo procedures. Complied with the provisions of AFMAN 24-604, <i>Preparing Hazardous Materials for Military Air Shipments</i> , and followed the procedures for air movement of hazardous cargo under tactical, contingency or emergency conditions.

Q-	Understood hazardous cargo procedures, but made minor deviations stating them. Partially complied with the provisions of AFMAN 24-604, and/or followed the procedures for air movement of hazardous cargo under tactical, contingency or emergency conditions.
U	Did not understand hazardous cargo procedures provided in AFMAN 24-604. Compromised safety.
Area 21. Aircraft Limitations.	
<b>Note:</b> Limitations may include, but are not limited to: cargo floor; roller; station; compartment; pallet weight, height and nets; and loading aids (ground loading ramps, truck loading ramps, bridge plates, pry bars, ramp support and shoring).	
Sub-area 21A. -9 Loading Limits	
Sub-area 21B. Pallet/Cargo Limits	
Sub-area 21C. Loading Aids	
Q	Correctly stated, understood, and could apply the correct limitations associated with the aircraft, onloading/offloading, and associated equipment.
Q-	Had difficulty stating various limitations. Located correct limitations in the loading manual. Safety was not compromised.
U	Failed to display required knowledge of aircraft limitations, could not locate correct limitations in the loading manual, and/or compromised safety.  Sub-area 21A. -9 Loading Limits Sub-area 21B. Pallet/Cargo Limits Sub-area 21C. Loading Aids
Area 22. Passenger Handling.	
Q	Correctly briefed and performed passenger handling procedures.
Q-	Had difficulty briefing and/or performing passenger-handling procedures.
U	Failed to brief and/or did not perform proper passenger handling procedures.
Area 23. Anti-Hijacking/Aircraft Security.	
Q	Explained proper anti-hijacking/aircraft security procedures.
Q-	Had difficulty explaining proper anti-hijacking/aircraft security procedures.
U	Could not explain proper anti-hijacking/aircraft security procedures.
Area 24. Border Clearance.	
Q	Properly completed/explained border clearance requirements. Correctly followed MAJCOM guidelines.
Q-	Had difficulty explaining border-clearance requirements. Minor mistakes degraded effectiveness.
U	Could not accurately complete forms. Was unaware of command guidance or could not explain requirements.
Area 25. Weight and Balance.	
Q	Correctly entered weight and balance data into the CNI-MU. Errors in takeoff or landing gross weights did not exceed +/- 500 pounds. Percent of mean aerodynamic chord (MAC) was within +/- 0.5 percent. Did not exceed aircraft gross weight takeoff limits. Did not exceed CG limitations for takeoff or landing.

Q-	Entered weight and balance data into the CNI-MU with minor errors. Errors in takeoff or landing gross weights by +/-501 to 1,000 pounds or percent of MAC limitations by +/-0.6 to 1.0 percent. Did not exceed aircraft gross weight takeoff limits. Did not exceed CG limitations for takeoff or landing.
U	Incorrectly entered weight and balance data into the CNI-MU. Errors in takeoff or landing gross weights by +/-1,000 pounds or percent of MAC limitations by +/-1.0 percent. Exceeded aircraft gross takeoff weight/CG limits.
Area 26. Scanner Duties.	
Q	Periodically performed scanner duties by monitoring aircraft interior and exterior for abnormal conditions.
Q-	Did not scan in a timely manner to recognize abnormal conditions.
U	Failed to perform scanner duties by monitoring or making periodic checks of the aircraft interior and exterior for abnormal conditions.
Area 27. Engine Running On load/Offload.	
Q	Followed and explained proper procedures for engine running onload/offload operations.
Q-	Had difficulty following/explaining proper procedures for engine running onload/offload operations.
U	Did not follow/explain proper procedures for engine running onload/offload operations.
Area 28. Systems Knowledge.	
<b>Note:</b> Systems knowledge may include, but are not limited to: oxygen, APU, Ramp and Door, fuel, hydraulics, electrical, landing gear, Advisory Caution and Warning System (ACAWS), and Enhanced Cargo Handling System (ECHS).	
Sub-area 28A. Oxygen	
Sub-area 28B. ECHS	
Sub-area 28C. Ramp and Door	
Sub-area 28D. APU	
Sub-area 28E. Fuel System/Refueling	
Sub-area 28F. ACAWS	
Sub-area 28G. Landing Gear	
Sub-area 28H. Hydraulic Systems	
Sub-area 28I. Electrical	
Q	Demonstrated sufficient knowledge of aircraft systems and operation limitations both with and without reference to the flight manual and/or available resources.
Q-	Displayed limited knowledge of aircraft systems operations and limitations in some areas. Used individual technique instead of established procedure and was unaware of differences.
U	Displayed unsatisfactory systems knowledge. Unable to demonstrate or explain the procedures for aircraft systems operations with or without reference to the flight manual and/or available resources.
Area 29. Boldface Emergency Procedures. (Critical)	

Q	Correct, immediate responses in the proper sequence. Coordinated proper actions.
U	Incorrect sequence, unsatisfactory response, or unsatisfactory performance of corrective actions.
Area 30. Other Emergency Procedures.	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency/malfunction. Effectively used available resources.
Q-	Correctly analyzed and understood aircraft emergencies but had difficulty performing/stating required procedures to correct the emergency/malfunction. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklists and/or available resources.
U	Failed to analyze, state, and did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency/malfunction. Did not use checklist and/or available resources.

**Table 3.3. MISSION.**

Area 31. Meteorological Equipment.	
Q	Correctly completed vertical preflight inspection. Demonstrated thorough knowledge of the status, operation and use of aircraft meteorological systems and dropsonde instrument. Demonstrated thorough knowledge of operator and system commands. Recognized evidence of system malfunctions and took proper corrective action.
Q-	Accomplished preflight inspection with minor errors, omissions or deviations. Demonstrated limited knowledge of system/instrument status, operation or use. Demonstrated limited knowledge of operator and system commands. Demonstrated uncertainty involving system malfunctions and/or proper corrective action. Performance did not jeopardize mission accomplishment.
U	Failed to accomplish or made major errors, omissions or deviations in vertical preflight inspection. Demonstrated inadequate knowledge of system/instrument status, operation or use. Demonstrated inadequate knowledge of operator or system commands. Failed to recognize system malfunctions or take corrective action. Performance jeopardized mission accomplishment.
Area 32. Dropsonde Release Procedures.	
Q	Accomplished dropsonde release/multiple release in accordance with approved checklist. Coordinated and executed release in a timely manner. Demonstrated accurate collection of platform data. Demonstrated thorough knowledge of manual release procedures. Recognized release malfunctions and took proper corrective action.

Q-	Accomplished dropsonde release/multiple release with minor errors, omissions or deviations from approved checklist. Coordinated and executed release with minor delays. Demonstrated minor difficulty in collection of platform data. Demonstrated limited knowledge of manual release procedures. Demonstrated uncertainty involving release malfunctions or proper corrective action. Performance did not jeopardize mission
U	Failed to accomplish dropsonde release/multiple release or made major errors, omissions or deviations from approved checklist. Failed to coordinate or execute release or caused major delays in coordination or execution of release. Failed to collect platform data. Displayed unsatisfactory knowledge of manual release procedures. Failed to recognize release malfunctions or take proper corrective action. Performance jeopardized mission accomplishment.
Area 33. Meteorological Data Evaluation.	
Q	Evaluated data with only minor errors. Able to identify all code groups without difficulty. Demonstrated thorough knowledge of mandatory/significant group selection criteria. Shows ability to recognize fast-fall, what the estimated SLP should be for the location within the storm, and how to re-compute an early termination. Recognizes common weather features such as inversions, clouds, rain, and high winds on the X-Y Graph. Shows knowledge of when to use remarks, e.g., Eye, Eyewall, Maxwindband and Azimuth. Transmitted code with no errors.
Q-	Made minor errors in data evaluation. Minor errors or omissions identifying code groups. Demonstrated limited knowledge of mandatory/significant group selection criteria. Minor errors in transmitted code. Performance did not jeopardize mission accomplishment.
U	Unable to evaluate data or made major errors in data evaluation that significantly reduced the reliability of the data. Unable to identify all code groups. Displayed unsatisfactory knowledge of mandatory/significant group selection criteria. Made major errors in transmitted code. Performance jeopardized mission accomplishment.
Area 34. Coordinated Tasks Briefing.	
Q	Correctly briefed any coordinated tasks.
Q-	Had difficulty briefing the coordinated tasks.
U	Failed to accomplish the coordinated tasks briefing.

**Table 3.4. INSTRUCTOR GRADING CRITERIA.**

Area 35. Instructor Ability. (Critical)	
Q	Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially improper actions/situations.

U	Unable to effectively communicate or provide timely feedback to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe actions/situations in a timely manner. Made no attempt to instruct.
Area 36. Instructor Demonstration. (Critical)	
Q	Effectively demonstrated correct procedures or systems operation. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
U	Ineffective or incorrect demonstration of procedures or systems operation. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.
Area 37. Student Briefing/Critique. (Critical)	
Q	Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Demonstrated the ability during the critique to reconstruct the flight, offer mission analysis, and provide guidance where appropriate. Training grade reflected the actual performance of the student relative to the standard. Assessed both technical and CRM performance. Allowed the student to self-assess own performance. Pre-briefed the student's next mission, if required.
U	Briefings were unsatisfactory or non-existent. Did not review student's past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Failed to assess both technical and CRM performance. Did not allow the student to self-assess own performance. Incomplete pre-briefing of student's next mission, if required.
Area 38. Knowledge of Training Forms.	
Q	All required forms accomplished on time and in accordance with applicable directives. Demonstrated satisfactory knowledge of forms/publications required for mission accomplishment. Training documentation was concise and readable.
Q-	Displayed limited knowledge of forms/publications. Required forms completed with some delay and in accordance with applicable directives. Minor errors or omissions in training documentation.
U	Knowledge of required mission forms/publications was inadequate. Did not accomplish required forms. Omitted or incorrectly documented significant training information.

**Table 3.5. EPE GRADING CRITERIA.**

Area 39. Boldface Emergency Procedures (Critical).	
<b>Note:</b> Use the following criteria for Sub-Areas 39A through 39C.	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency. Effectively used available resources. Correct, immediate responses in the proper sequence.

U	Failed to analyze, state, or did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency. Did not use checklist and/or available resources. Incorrect sequence, unsatisfactory response or unsatisfactory performance of corrective actions.
Sub-area 39A. APU Fire.	
Sub-area 39B. Fire/Smoke/Fume Elimination.	
Sub-area 39C. Rapid Decompression.	
Area 40. Non-boldface Emergency Procedures.	
<b>Note:</b> Use the following criteria for Sub-Areas 40A through 40L.	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency. Effectively used available resources.
Q-	Correctly analyzed and understood aircraft emergencies, but had difficulty performing/stating required procedures to correct the emergency/malfunction. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklists and/or available resources.
U	Failed to analyze, state, or did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency. Did not use checklist and/or available resources.
Sub-area 40A. Emergency Signals.	
Sub-area 40B. Ground Evacuation.	
Sub-area 40C. Bailout.	
Sub-area 40D. Crash Landing/Ditching.	
Sub-area 40E. Inflight Door Warning.	
Sub-area 40F. Cargo Jettison.	
Sub-area 40G. Hydraulic System Malfunction.	
Sub-area 40H. Landing Gear System Malfunction.	
Sub-area 40I. Flap System Malfunction.	
Sub-area 40J. Ramp and Door System Malfunction.	
Sub-area 40K. ACAWS.	
Sub-area 40L. Buoy Deployment Malfunction	
<b>Area 41. General Knowledge/SIIs.</b>	
Q	Possessed an adequate level of knowledge of all applicable directives and procedures and understood how to apply them to enhance mission accomplishment.
Q-	Possessed a limited knowledge of applicable directives and procedures, but could locate information in appropriate publications.
U	Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner.

## Chapter 4

### NAVIGATOR EVALUATIONS

**4.1. General.** This chapter standardizes initial, periodic, and requalification evaluations, including requirements for qualification, mission, and instructor evaluations.

**4.2. Qualification and Mission Evaluations (Initial, Periodic, and Requalification).** Qualification and mission evaluations should be accomplished concurrently.

4.2.1. Flight examiners will administer evaluations on a route of adequate scope and duration to perform all procedures and mission tasks normally encountered on a long range overwater mission. **(T-3).** The tropical cyclone reconnaissance mission for navigators is a certification accomplished after the initial mission qualification and does not require a separate checkride.

4.2.2. Mission evaluations require a profile simulating a winter or tropical storm to include in-flight fuel management and weather radar. Flight examiners will evaluate National Hurricane Operations Plan (NHOP) certified navigators on weather reconnaissance patterns and on-time criteria. **(T-3).** If this is not possible in flight, it may be accomplished verbally. Mission qualification may be accomplished on an over water weather reconnaissance training mission or actual tasked mission.

**4.3. Instructor Evaluations (Initial, Periodic, and Requalification).** Flight examiners will place particular emphasis on the examinee's ability to recognize student difficulties and provide timely and effective corrective action. **(T-3).** Instructor navigators should be able to brief, observe, assess, and debrief the student's overall performance. State that instructional ability was evaluated in the comments section of the AF Form 8. Flight examiners will list a minimum of two areas instructed by the examinee. **(T-3).** Flight examiners will evaluate all instructor areas/sub-areas. **(T-3).**

**4.4. Emergency Procedures Evaluation (EPE).** An EPE is required for all qualification and mission evaluations. Flight examiners will not conduct EPEs during or immediately before a flight evaluation. **(T-3).** EPEs should be scenario driven with an emphasis on emergency procedures and systems knowledge relative to the evaluation type. Units may supplement this evaluation with any additional areas/sub-areas determined by the OG/OGV developed EPE scenario selected by the evaluator. Examinees may use publications that are normally available in-flight. EPEs will include:

4.4.1. Boldface procedures. The examinee must recite, perform, or write all applicable boldface items from memory. **(T-3).**

4.4.2. ACAWS. Examinees must have a working knowledge of ACAWS and be able to look up the ramifications and aircrew responses to messages in a timely manner. **(T-3).** Examinee should be familiar with and understand the ramifications of common malfunctions.

4.4.3. Emergency Signals. The EPE should cover a cross section of the following areas: emergency signals, ground emergencies, crash landing, ditching, bailout, fire/smoke/fumes elimination, and rapid decompression.

**4.5. Navigator Grading Criteria.** Asterisks identify grading areas that may be verbally evaluated.



**Table 4.1. GENERAL GRADING CRITERIA.**

Area 1. Directives/Publications/Personal and Professional Equipment.	
Q	Possessed an adequate knowledge of all applicable directives and procedures, and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted. Had all the required personal/professional equipment. Displayed satisfactory knowledge of the care and use of personal/professional equipment. Required equipment inspections were current.
Q-	Possessed a limited knowledge of directives but could locate information in appropriate publications. Publications were current but improperly posted.
U	Unaware of established directives and procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current. Did not have the required personal/professional equipment. Required inspections were overdue or equipment was unserviceable.
Area 2. Mission Preparation/Planning/Performance.	
Q	Checked all factors applicable to flight such as weather, NOTAMs, alternate airfields, airfield suitability, fuel requirements, charts, etc. Adequate knowledge of performance capabilities and operating data. Understood mission goals and requirements.
Q-	Made minor errors or omissions in checking all factors that could have detracted from mission effectiveness. Limited knowledge of performance capabilities or approved operating procedures/rules. Partially understood mission goals or requirements.
U	Made major errors or omissions that would have prevented an effective mission. Inadequate knowledge of performance capabilities and/or operating data. Did not understand mission goals or requirements and did not seek clarification.
Area 3. Briefings.	
Q	Attended required briefings. Contributed to the briefing content to ensure it included all applicable information. Briefings effectively organized and presented information in a logical sequence. Covered all pertinent items. Effectively used available briefing aids.
Q-	Late for required briefings. Allowed omission of items pertinent but not critical to the mission. Briefings lacked continuity or contained unnecessary repetition. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Dwelled on non-essential items.
U	Failed to conduct/attend required briefings. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated a lack of knowledge of subject. Briefings poorly organized and not presented in a logical sequence, resulting in confusion. Presented erroneous information that would affect safe/effective mission accomplishment.
Area 4. Use of Checklist.	

Q	Consistently used the correct checklist and gave the correct response at the appropriate time throughout the mission.
Q-	Checklist responses were untimely and/or required continual prompting for correct response.
U	Used incorrect checklist or consistently omitted checklist items. Unable to identify the correct checklist to use for a given situation. Did not complete checklist prior to event.
Area 5. Safety Consciousness (Critical).	
Q	Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
U	Not aware of, or did not comply with, all safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft equipment in a dangerous manner.
Area 6. Flight Discipline (Critical).	
Q	Exhibited strict flight and aircrew discipline. Prepared and completed the mission in compliance with existing regulations and directives.
U	Failed to exhibit strict flight and aircrew discipline. Failed to comply with existing instructions and directives that did, or could have, jeopardized safety of mission success.
Area 7. Airmanship/Situational Awareness (Critical).	
Q	Maintained situational awareness and exercised sound judgment throughout the mission. Conducted the flight with a sense of understanding and comprehension. Prioritized tasks properly.
U	Lacked situational awareness. Faulty judgment resulted in decisions that had negative mission impact. Lacks the skills to prioritize tasks. Unaware of significant events that impacted the mission.
Area 8. Aircrew Coordination/Crew Resource Management (CRM). See AFI 11-290 and AF Form 4031 as a reference.	
Q	Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other aircrew member's duties and responsibilities. Effectively applied CRM skills throughout the mission.
Q-	Aircrew coordination skills detracted from mission accomplishment. Demonstrated limited knowledge of other aircrew member's duties and responsibilities.
U	Poor aircrew coordination or unsatisfactory knowledge of other aircrew member's duties and responsibilities negatively affected mission accomplishment or safety of flight.
Area 9. Communication Procedures.	

Q	Had a complete knowledge of, and complied with correct communication procedures. Transmissions were concise with proper terminology. Complied with and acknowledged all required instructions. Asked for/provided clarification when necessary.
Q-	Made minor deviations from procedures that required re-transmissions. Transmissions contained extraneous matter, were not in proper sequence, or used non-standard terminology. Slow to ask for/provide clarification when necessary.
U	Used incorrect procedures; poor performance caused confusion and jeopardized mission accomplishment. Failed to use precise, stated terminology. Did not ask for/provide clarification when necessary.
Area 10. Life Support Systems/Egress.	
Q	Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated and emphasized the proper operating procedures use to operate aircraft egress devices such as doors, windows, hatches, life rafts and escape ropes.
Q-	Showed limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
U	Displayed unsatisfactory knowledge of the location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.
Area 11. Knowledge/Completion of Forms.	
Q	Completed all required forms accurately, on time and in accordance with applicable directives. Related an accurate debrief of significant events to applicable agencies (Maintenance, MAR, Mission Letter, etc.).
Q-	Made minor errors on forms that did not affect the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
U	Did not accomplish required forms. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.

**Table 4.2. QUALIFICATION.**

Area 12. Ground Operations.	
Q	Demonstrated adequate knowledge of and completed basic ground operations procedures to include coordinating mission requirements, FCIF procedures, attending briefings, obtaining weather and NOTAMs, and filing flight plans.
Q-	Displayed limited knowledge in basic ground operations.
U	Displayed inadequate knowledge in basic ground operations.
Area 13. Flight Planning.	

Q	Demonstrated thorough knowledge of flight planning procedures and directives (FLIP, tech orders and AFIs). Proficient with computer flight planning and able to produce a flight log containing no significant errors. Demonstrated ability to manually calculate flight plans.
Q-	Demonstrated limited knowledge of procedures and directives. Displayed limited knowledge of computer flight planning. Made procedural errors in flight planning which were not detrimental to the mission. Demonstrated the ability to manually calculate flight plans.
U	Demonstrated inadequate knowledge of procedures and directives. Was unable to use computer flight planning. Made significant procedural errors in flight plan, which adversely impacted the mission. Unable to manually calculate a flight plan.
Area 14. Charts.	
Q	Demonstrated thorough knowledge of chart requirements and the ability to create charts with computer flight planning and manually. Mission charts were complete and accurate.
Q-	Demonstrated limited knowledge of chart requirements, but was able to create charts with computer flight planning and manually. Mission charts contained errors, which did not impact mission accomplishment or safety.
U	Displays inadequate knowledge of chart requirements or was unable to use computer flight planning to create charts. Cannot draw charts manually. Mission chart contained errors that could impact mission accomplishment or safety.
Area 15. Fuel Planning.	
Q	Demonstrated thorough knowledge of fuel planning directives, procedures, and the use of computer flight planning to calculate fuel requirements. Neither discrete or total fuel calculation errors exceeded 1,000 lbs.
Q-	Demonstrated limited knowledge of fuel planning directives and procedures. Neither discrete or total fuel calculation errors exceeded 2,000 lbs.
U	Demonstrated inadequate knowledge of fuel requirements. Discrete or total fuel calculation errors exceeded 2,000 lbs or jeopardized flight safety.
Area 16. Departure.	
Q	Ensured departure procedures and clearances were followed, by monitoring headings, altitudes, and aircraft position throughout the departure. Used a SID and/or appropriate scale departure area chart to insure terrain separation. Provided headings, estimated times of arrival (ETAs) and other required information in a timely manner. Updated computer routing as required.
Q-	Monitored aircraft position, but slow to provide headings and ETA's and, or update CNI-MU routing. Did not degrade mission accomplishment or safety.
U	Unaware of aircraft position and unable to provide updated information when required. Did not use a SID and/or an appropriate terrain chart. Allowed significant deviations from clearances or departure procedures.
Area 17. Radar Operations.	

Q	Demonstrated thorough knowledge of the radar and cursor. Demonstrated the ability to use radar weather avoidance, ground mapping, skin painting, and modes, and the TCAS overlay. Used different modes appropriately.
Q-	Demonstrated limited knowledge of the radar or cursor. Displayed limited skill in the use of the radar or used various modes inappropriately.
U	Unable to operate the radar in various modes or use the radar in a manner that degraded mission safety.
Area 18. Weather Avoidance Procedures.	
Q	Knew weather avoidance requirements, and was skilled in radar weather avoidance techniques.
Q-	Limited knowledge of weather avoidance requirements or showed limited skill in radar weather avoidance techniques.
U	Did not know weather avoidance requirements or failed to meet weather avoidance criteria.
Area 19. Navigational Procedures.	
Q	Demonstrated thorough knowledge of navigational procedures. Programmed CNI-MU routing and changes in a timely manner, and used crosschecks to quickly correct any errors. Used appropriate aids to crosscheck system accuracy. Followed applicable directives to accurately complete logs and charts with enough detail to reconstruct the flight and to provide a starting point in the event of EGI failure.
Q-	Demonstrated limited knowledge of navigational procedures. Had difficulty programming routes and changes into the CNI-MU or made undetected entry errors which lead to aircraft deviations. Did not routinely crosscheck system and programming accuracy. Logs and charts contained significant errors, but did not adversely impact mission accomplishment or safety.
U	Limited knowledge of procedures adversely impacted the mission. Made CNI-MU programming errors, which significantly impacted the mission. Failed to detect navigational systems malfunctions. Logs and/or charts errors or omissions significantly degraded the ability to backup aircraft systems or adversely affected the mission.
Area 20. Course and ETA Tolerance.	
Q	Remained within 10 NMs of course centerline. ETAs/RETAs within 3 minutes of actual times of arrival (ATAs).
Q-	Remained within 15 NMs of course centerline. ETAs/RETAs within 5 minutes of ATAs.
U	Exceeded Q- criteria and/or the evaluator had to alter aircraft heading to remain within course tolerance.
Area 21. Radar Navigation.	
Q	Fixed and plotted aircraft position within 5 NM using ground radar targets, and evaluated aircraft navigational systems.

Q-	Fixed and plotted aircraft position within 10 NM using ground radar targets, and evaluated aircraft navigational systems.
U	Failed to fix and plot aircraft position within 10 NM using ground radar targets. Did not evaluate aircraft navigational systems.
Area 22. Radio Navigation.	
Q	Fixed and plotted aircraft position within 4 NM using radio navigational aids, and evaluated aircraft navigational systems.
Q-	Fixed and plotted aircraft position within 8 NM using radio navigational aids, and evaluated aircraft navigational systems.
U	Failed to fix and plot aircraft position within 8 NM using radio navigational aids. Did not evaluate aircraft navigational systems.
Area 23. Pacing.	
Q	Completed tasks in a logical and timely manner.
Q-	Slow to complete some required tasks causing minor impacts on flight.
U	Delays in competing tasks significantly impacted flight.
Area 24. Systems Operations/Knowledge.	
Q	Demonstrated thorough knowledge of navigational systems and a basic working knowledge of other aircraft systems. Demonstrated a working knowledge of the ACAWS, and was able to locate the desired aircrew actions and possible ramifications of individual messages.
Q-	Demonstrated limited knowledge of systems, or was slow to find desired aircrew actions and possible ramifications of individual messages.
U	Demonstrated inadequate knowledge of systems, or unable to find desired aircrew actions and possible ramifications of individual messages.
Area 25. Degraded Systems.	
Q	Demonstrated knowledge of common navigation system malfunctions. Able to quickly locate information concerning the suggested aircrew reactions to malfunctions, the ramifications, and degraded systems procedures.
Q-	Limited knowledge of common navigation system malfunctions. Slow to locate information concerning the suggested aircrew reactions to malfunctions, the ramifications, and degraded system procedures.
U	Unknowledgeable in degraded systems procedures or unable to find required information concerning malfunctions.
Area 26. Fuel Management/Range Control.	
Q	Accurately tracked and charted fuel with respect to ETA using appropriate procedures. Calculated an accurate BINGO when the mission dictated.
Q-	Minor errors in fuel or BINGO computations did not degrade mission accomplishment or safety.
U	Made errors in fuel or BINGO computations that jeopardized mission safety or accomplishment.

Area 27. Descent, Approach, Landing.	
Q	Monitored aircraft position, approach instructions, and primary navigational aids. Thoroughly understood approach and missed approach procedures. Ensured terrain clearance during approach using all available aids and an area chart.
Q-	Monitored aircraft position but did not fully understand approach instructions/procedures. Slow to provide headings, ETA's, or other appropriate information.
U	Failed to monitor aircraft position. Did not ensure terrain clearance during the approach. No area chart available.
Area 28. Boldface Emergency Procedures (Critical) (If Observed).	
Q	Correct, immediate responses in the proper sequence
U	Incorrect sequence, unsatisfactory response or unsatisfactory performance of corrective actions
Area 29. Emergency Procedures (If Observed).	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency. Described the location, use, and limitations of emergency equipment.
Q-	Correctly analyzed and understood aircraft emergencies, but had difficulty stating the EP. Performed required procedures to correct the emergency.
U	Failed to analyze, state, or did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency.

**Table 4.3. MISSION.**

Area 30. Mission Planning/Flight Planning.	
Q	Familiar with purpose of various operational missions and the directives that govern them (National Hurricane Operations Plan and National Winter Storm Operations Plan). Demonstrated thorough knowledge of standard operational mission profiles, timing criteria, flight planning, special use airspace and no fly line procedures, and fuel planning.
Q-	Demonstrated limited knowledge of mission purpose or governing directives. Demonstrated limited knowledge of standard operational mission profiles, timing criteria, flight planning, special use airspace and no fly line procedures and fuel planning. Minor errors in flight plan or fuel plan had minimal impact on mission accomplishment.
U	Examinee was unable to adequately plan weather reconnaissance missions due to unfamiliarity with common weather reconnaissance mission profiles, timing criteria, flight planning procedures or fuel planning procedures. Did not know where to find information on Special Use Airspace or "no fly lines". Major errors in flight plan or fuel plan.
Area 31. Weather Mission In-flight Procedures.	

Q	Familiar with interaction of aircrew during reconnaissance missions and practiced sound aircrew coordination. Provided timing control and prompted aircrew for checklist and clearance coordination at appropriate times. Updated routes, programmed patterns, and calculated storm intercept points as required in a timely manner. Recorded fuel readings and evaluated requirements hourly. Familiar with storm penetration procedures and BINGO fuel computations for NHOP missions (NHOP certified personnel only).
Q-	Limited knowledge of the mission created problems with aircrew coordination. Timing control or delays in updating routing, running checklist, or programming navigation systems impacted mission, but mission requirements were met. Made fuel computation errors that did not significantly affect the mission.
U	Lack of knowledge of the mission significantly impacted the mission. Timing control or delays in updating routing, running checklist, or programming navigation systems significantly impacted mission accomplishment. Made fuel computation errors that significantly affected the mission.

**Table 4.4. INSTRUCTOR GRADING CRITERIA.**

Area 32. Instructor Ability. (Critical)	
Q	Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions.
U	Unable to effectively communicate or provide timely feedback to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Made no attempt to instruct.
Area 33. Instructor Demonstration. (Critical)	
Q	Effectively demonstrated correct procedures or systems operation. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
U	Ineffective or incorrect demonstration of procedures or systems operation. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.
Area 34. Student Briefing/Critique. (Critical)	
Q	Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Demonstrated the ability during the critique to reconstruct the flight, offer mission analysis, and provide guidance where appropriate. Training grade reflected the actual performance of the student relative to the standard. Assessed both technical and CRM performance. Allowed the student to self-assess own performance. Pre-briefed the student's next mission, if required.



U	Briefings were unsatisfactory or non-existent. Did not review student's past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Failed to assess both technical and CRM performance. Did not allow the student to self-assess own performance. Incomplete pre-briefing of student's next mission, if required.
Area 35. Knowledge of Training Forms.	
Q	All required forms were accomplished on time and in accordance with applicable directives. Demonstrated satisfactory knowledge of forms/publications required for mission accomplishment. Training documentation was concise and readable.
Q-	Displayed limited knowledge of forms/publications. Required forms were completed with some delay and in accordance with applicable directives. Minor errors or omissions in training documentation.
U	Knowledge of mission required forms/publications was inadequate. Did not accomplish required forms. Omitted or incorrectly documented significant training information.

**Table 4.5. EMERGENCY PROCEDURES EVALUATION (EPE).**

Area 36. Boldface Emergency Procedures (Critical).	
<b>Note:</b> Use the following criteria for Sub-Areas 36A through 36B.	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency. Effectively used available resources. Correct, immediate responses in the proper sequence.
U	Failed to analyze, state, or did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency. Did not use checklist and/or available resources. Incorrect sequence, unsatisfactory response or unsatisfactory performance of corrective actions.
Sub-Area 36A. Fire/Smoke/Fume Elimination.	
Sub-Area 36B. Rapid Decompression.	
Area 37. Non-boldface Emergency Procedures.	
<b>Note:</b> Use the following criteria for Sub-Areas 37A through 37E.	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency. Effectively used available resources.
Q-	Correctly analyzed and understood aircraft emergencies, but had difficulty performing/stating required procedures to correct the emergency/malfunction. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklists and/or available resources.
U	Failed to analyze, state, or did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency. Did not use checklist and/or available resources.

Sub-Area 37A. Emergency Signals.	
Sub-Area 37B. Ground Evacuation.	
Sub-Area 37C. Bailout.	
Sub-Area 37D. Crash Landing/Ditching.	
Sub-Area 37E. ACAWS.	
Area 38. General Knowledge/SIIs.	
Q	Possessed an adequate level of knowledge of all applicable directives and procedures and understood how to apply them to enhance mission accomplishment.
Q-	Possessed a limited knowledge of applicable directives and procedures, but could locate information in appropriate publications.
U	Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner.

## Chapter 5

### AERIAL RECONNAISSANCE WEATHER OFFICER (ARWO) EVALUATIONS

**5.1. General.** This chapter standardizes initial, periodic, and requalification evaluations, including requirements for qualification, mission, and instructor evaluations.

**5.2. Qualification and Mission Evaluations (Initial, Periodic, and Requalification).** Qualification and mission evaluations should be accomplished concurrently.

5.2.1. At a minimum, the profile will consist of four reconnaissance observations and coordination for a dropsonde release. **(T-3).** The profile will include an overwater leg with enough time for the evaluatee to demonstrate knowledge and use of various aircraft sensors. **(T-3).** While not required, the profile should include a dropsonde release, quality control check of the data, and transmission from the aircraft.

5.2.2. Examinees must be evaluated on an operational mission tasked under NHOP authority for their initial MSN evaluation. **(T-3).** Initial MSN evaluations are not required to be conducted on a mission into a “named” storm. Periodic MSN evaluations may evaluate mission procedures verbally.

5.2.3. If not flown on an operational mission, specific weather reconnaissance procedures related to winter and tropical weather systems will be verbally evaluated. **(T-3).**

5.2.4. Portions of the evaluation may be completed during ground evaluations using the replay function of the ARWO mission software.

**5.3. Instructor Evaluations (Initial, Periodic, and Requalification).** Flight examiners will place particular emphasis on the examinee’s ability to recognize student difficulties and provide timely and effective corrective action. **(T-3).** Instructor ARWOs should be able to brief, observe, assess, and debrief the student’s overall performance. State that instructional ability was evaluated in the comments section of the AF Form 8. List a minimum of two areas instructed by the examinee. **(T-3).** All instructor areas/sub-areas are required. **(T-3).**

**5.4. Emergency Procedures Evaluation (EPE).** An EPE is required for all qualification and mission evaluations. Do not conduct EPEs during or immediately before a flight evaluation. EPEs should be scenario driven with an emphasis on emergency procedures and systems knowledge relative to the evaluation type. Units may supplement this evaluation with any additional areas/sub-areas determined by the OG/OGV developed EPE scenario selected by the evaluator. Examinees may use publications that are normally available in-flight. EPEs will include:

5.4.1. Boldface procedures. The examinee must recite, perform, or write all applicable boldface items from memory. **(T-3).**

5.4.2. ACAWS. Examinees must have an understanding of the types of ACAWS messages and be familiar with the ramifications of each type. **(T-3).**

5.4.3. Emergency Signals. The EPE should cover a cross section of the following areas: emergency signals, ground emergencies, crash landing, ditching, bailout, fire/smoke/fumes elimination, and rapid decompression.

**5.5. ARWO Grading Criteria.** Asterisks identify grading areas that may be verbally evaluated.

**Table 5.1. GENERAL GRADING CRITERIA.**

Area 1. Directives/Publications/Personal and Professional Equipment.	
Q	Possessed an adequate knowledge of all applicable directives and procedures, and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted. Had all the required personal/professional equipment. Displayed satisfactory knowledge of the care and use of personal/professional equipment. Required equipment inspections were current.
Q-	Possessed a limited knowledge of directives but could locate information in appropriate publications. Publications were current but improperly posted.
U	Unaware of established directives and procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current. Did not have the required personal/professional equipment. Required equipment inspections were overdue or equipment was unserviceable.
Area 2. Mission Preparation/Planning/Performance.	
Q	Checked all factors applicable to flight such as aircraft calibration status, weather, alternate airfields, charts, etc. Understood mission goals and requirements.
Q-	Made minor errors or omissions in checking all factors that could have detracted from mission effectiveness. Partially understood mission goals or requirements.
U	Made major errors or omissions that would have prevented an effective mission. Did not understand mission goals or requirements and did not seek clarification.
Area 3. Briefings.	
Q	Contributed to the briefing content to ensure it included all applicable information. Briefings effectively organized and presented information in a logical sequence. Covered all pertinent items. Effectively used available briefing aids.
Q-	Late for required briefings. Allowed omission of items pertinent but not critical to the mission. Briefings lacked continuity or contained unnecessary repetition. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Dwelled on non-essential items.
U	Failed to attend required briefings. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated a lack of knowledge of subject. Briefings poorly organized and not presented in a logical sequence, resulting in confusion. Presented erroneous information that would affect safe/effective mission accomplishment.
Area 4. Use of Checklist.	
Q	Consistently used the correct checklist and gave the correct response at the appropriate time throughout the mission.

Q-	Checklist responses were untimely and/or required continual prompting for correct response.
U	Used incorrect checklist or consistently omitted checklist items. Unable to identify the correct checklist to use for a given situation. Did not complete checklist prior to event.
Area 5. Safety Consciousness (Critical).	
Q	Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
U	Not aware of, or did not comply with, all safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft equipment in a dangerous manner.
Area 6. Flight Discipline (Critical).	
Q	Exhibited strict flight and aircrew discipline. Prepared and completed the mission in compliance with existing regulations and directives.
U	Failed to exhibit strict flight and aircrew discipline. Failed to comply with existing instructions and directives that did, or could have, jeopardized safety of mission success.
Area 7. Airmanship/Situational Awareness (Critical).	
Q	Maintained situational awareness and exercised sound judgment throughout the mission. Conducted the flight with a sense of understanding and comprehension. Prioritized tasks properly.
U	Lacked situational awareness. Faulty judgment resulted in decisions that had negative mission impact. Lacks the skills to prioritize tasks. Unaware of significant events that impacted the mission.
Area 8. Aircrew Coordination/Crew Resource Management (CRM). See AFI 11-290 and AF Form 4031 as a reference.	
Q	Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other aircrew member's duties and responsibilities. Effectively applied CRM skills throughout the mission. Limited conversation to essential aircrew coordination and mission accomplishment during takeoff, approach, and landing, per sterile cockpit principle.
Q-	Aircrew coordination skills detracted from mission accomplishment. Demonstrated limited knowledge of other aircrew member's duties and responsibilities.
U	Poor aircrew coordination or unsatisfactory knowledge of other aircrew member's duties and responsibilities negatively affected mission accomplishment or safety of flight. Violated sterile cockpit rule.
Area 9. Communication Procedures.	

Q	Had a complete knowledge of, and complied with correct communication procedures. Transmissions were concise with proper terminology. Complied with and acknowledged all required instructions. Asked for or provided clarification when necessary. Notified PIC prior to departing primary duty station. Relayed operational information between aircrew and SATCOM ground station operator in a timely and clear manner.
Q-	Made minor deviations from procedures that required re-transmissions. Transmissions contained extraneous matter, were not in proper sequence, or used non-standard terminology. Slow to ask for/provide clarification when necessary. Did not notify PIC prior to departing primary duty station for brief period. Operational information between aircrew and SATCOM ground station operator delayed or relayed with errors, but without mission impact.
U	Used incorrect procedures; poor performance caused confusion and jeopardized mission accomplishment. Failed to use precise, stated terminology. Did not ask for/provide clarification when necessary. Did not notify PIC prior to departing primary duty station for extended period. Operational information between aircrew and SATCOM ground station operator withheld, significantly delayed, or miscommunicated, with resulting or potential impact on mission.
Area 10. Life Support Systems/Egress.	
Q	Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated and emphasized the proper operating procedures use to operate aircraft egress devices such as doors, windows, hatches, life rafts and escape ropes.
Q-	Showed limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
U	Displayed unsatisfactory knowledge of the location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.
Area 11. Knowledge/Completion of Forms.	
Q	Completed all required forms accurately, on time and in accordance with applicable directives. Related an accurate debrief of significant events to applicable agencies (Intel, Maintenance, etc.)
Q-	Made minor errors on forms that did not affect the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
U	Did not accomplish required forms. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.

**Table 5.2. QUALIFICATION.**

Area 12. Taxi, Departure and Approach Monitoring.	
Q	Assisted in clearing during taxi operations, and scanned for traffic when in VMC below 10,000 feet, duties permitting. Monitored primary ATC and C2 radios. Advised PF if observed significant deviations (per AFMAN11-2WC-130JV3) and no attempt is being made to correct the deviation, or a potential terrain / obstruction problem.
Q-	Assisted in clearing during taxi and critical phases of flight only sporadically, even when duties permitted. Did not monitor operations or command post frequency.
U	Failed to assist in clearing during taxi operations in a congested/unfamiliar airfield, when PIC requested assistance, or engaged in non-essential activities in lieu of monitoring. Unfamiliar with taxi clearance limits. Did not monitor primary radios. Oblivious to missed radio calls.
Area 13. Operational Restrictions.*	
Q	Knew aircrew scheduling and duty limitations. Understood impacts/restrictions due to scheduling, equipment outages, basic ATC restrictions (warning areas, no-fly lines, diplomatic clearances), minimum altitude for low-level flying day vs. night, climb criteria requirements, etc. Assisted aircrew in adjusting flight plan in response to restrictions. For winter storms and other high-altitude missions, knew and helped monitor the fuel
Q-	Demonstrated minor misunderstanding or did not fully understand the impact of operational restrictions; slow to react to restrictions impacting the weather mission.
U	Did not know aircrew scheduling / duty limitations. Did not know, understand, or react to applicable operational restrictions.
Area 14. Aviation Weather.	
Q	Obtained and relayed weather updates to aircrew in a timely manner, e.g., prior to descent. Correctly interpreted METAR observations and TAFs. Anticipated adverse weather impacts on mission, offered alternatives, and/or assisted with adjusting plan, as required.
Q-	Slow to relay required weather updates in-flight ( <b>Note:</b> If aircrew has obtained updates via other means, e.g., ATIS, then this is not required). Minor difficulty interpreting weather codes.
U	Did not obtain or delayed relay of required weather updates in-flight ( <b>Note:</b> If aircrew has obtained updates via other means, e.g., ATIS, then this is not required). Oblivious to aircrew discussion of adverse weather (strong headwinds, thunderstorms en route, arrival weather), or unable to assist with obtaining relevant weather information, or planning around anticipated
Area 15. Meteorological Sensors.	
Sub-Area 15A. Stepped-Frequency Microwave Radiometer (SFMR).	

Q	Correctly set up the SFMR for mission, with appropriate sea-surface temperature, salinity, and RMS limits. Used software tools to monitor health of the system. Recognized features in the SFMR brightness plots: turns, stronger winds, interference. Understood the impact of sea-surface temperature, sun glint, rain in low-wind regime, etc. Knew how to upload calibration file, and/or download data.
Q-	Minor errors in setting up SFMR, could not identify features in the brightness plot.
U	Unable or failed to properly set up, interpret, download SFMR data, or monitor health of the system. Sent erroneous data that severely degraded mission effectiveness.
Sub-Area 15B. Other Sensors.	
<b>Note:</b> While a grade in this subarea is optional, the evaluation should include a discussion/demonstration of at least one meteorological sensor not previously evaluated.	
Q	Able to identify key data in mission software. Understood most sensors have a redundant sensor and how to switch between them. Recognized and/or able to explain environmental impacts to sensor operations
Q-	Difficulty distinguishing between sensor measured and calculated data. Difficulty explaining which sensors contribute to the computation of calculated parameters and how environmental conditions can impact those calculations.
U	Unable to locate key data in mission software. Cannot explain how the sensor operates and the impact of the environment upon that sensor's operations.
Area 15C. Meteorological Systems Calibrations.	
Q	Demonstrated satisfactory knowledge of the meteorological systems calibration process and proper technique of data collection. Calibrations accomplished satisfactorily and resultant data was of acceptable quality. Understand the different "Met Systems" and how to switch when required.
Q-	Demonstrated minor weakness in knowledge of the calibration process. Inefficient data collection technique resulted in some calibrations to be useless. Aircraft calibration status not adversely affected.
U	Lacked knowledge of the calibration process or unable to effectively collect calibration data. Lack of data collection did or could have adversely affected aircraft calibration status.
Area 16. Data Collection.	
Sub-Area 16A. Mission Manager Operation.	
Q	Able to configure the software and set up the screen display. Demonstrated satisfactory knowledge of program functions. Moved effectively and efficiently through various screen and program options. Generated observations without difficulty or delay. Completed required data export.



Q-	Knowledge of program functions and operation was limited but adequate to accomplish the mission. Able to move through the various screen and program options with only minor difficulty. Observations generated with only minor problems.
U	Unable to configure software or set up screen display. Unsatisfactory knowledge of program functions or unable to move through the various screen and program options. Observations not generated or generated with major difficulty or delay. Unable to export mission data.
Sub-Area 16B. Graph Manager Operation.	
Q	Able to configure the software and set up the screen display. Demonstrated satisfactory knowledge of program functions. Moved effectively and efficiently through various screen and program options.
Q-	Knowledge of program functions and operation was limited but adequate to accomplish the mission. Able to move through the various screen and program options with only minor difficulty.
U	Unable to configure software or set up screen display. Unsatisfactory knowledge of program functions or unable to move through the various screen and program options.
Sub-Area 16C. Data Management/Pacing.*	
Q	Organized data screens to make maximum use of available data. Could smoothly move between data screens to obtain necessary information. Established a workflow pattern achieving maximum use of available time. Stayed ahead of flight progress and quickly dealt with deviations.
Q-	Exhibited minor difficulty moving between data screens. Pacing was adequate, but occasionally fell behind flight progress. Required in-flight items were not significantly impacted.
U	Did not or could not manipulate the various data screens to effectively utilize the data. Overall pacing and task prioritization was unsatisfactory. Worked behind flight progress through most of storm portion of the mission.
Sub-Area 16D. Visual Surface Wind Estimation.*	
Q	Demonstrated accurate visual surface wind estimation based on sea state conditions for all applicable observations, ideally within 10 degrees and 10 knots, for winds at or above 20 kts.
Q-	Visual surface wind estimation was accurate for most observations (A/R); only minor discrepancies noted on a few observations.
U	Could not accurately estimate surface winds visually. Major errors in wind speed and/or direction noted on some observations. Failed to make required surface wind observations or did not know requirements.
Sub-Area 16E. Reconnaissance Code Observation (RECCO) Procedures.	

Q	Demonstrated satisfactory knowledge of observation concepts and procedures. Accurately encoded RECCO observation data without delay, including visually-sensed data. Recognized and corrected errors prior to observation dissemination. Observation remarks were in accordance with the applicable directive.
Q-	Collected and encoded RECCO observation data with only minor errors or delay. Able to correct observation errors reported by the ground station monitor. Minor weakness in knowledge of concepts or procedures did not affect data quality or timeliness. Minor errors in observation remarks.
U	Failed to follow directives for horizontal observation production. Major errors or omissions in data collection or observation encoding. Failed to recognize or could not correct errors in observations. Lack of knowledge of concepts and procedures adversely affected data quality or timeliness. Major errors or omissions of required observation remarks.
Sub-Area 16F. Dropsonde Observation Procedures.*	
Q	Followed applicable directives for executing a dropsonde release. Transmitted accurate data in a timely manner and location to satisfy mission and/or training objectives. Able to immediately decipher key elements of the code (sea level and flight-level pressure, temperature, winds).
Q-	Directed dropsonde release with minor deviations from directives. Made corrections to dropsonde message after prompting by outside agency. Able to decipher key elements of the code (sea level and flight-level pressure, temperature, winds) with some difficulty.
U	Failed to follow directives for executing a dropsonde release. Vertical observation transmitted with significant errors. Unable to decipher the code, even with references. Mission/training objectives not met due to circumstances within the ARWO's control.
Area 17. Data Dissemination.	
Sub-Area 17A. Meteorological Data Quality Control.	
Q	Aware of forecast meteorological synoptic conditions along route of flight. Performed accurate and timely in-flight meteorological data analysis. Effectively utilized software capability to analyze and trend aircraft data.
Q-	Demonstrated limited meteorological synoptic situational awareness. Incomplete analysis of data and trends led to minor errors in transmitted observations. Did not fully utilize software capabilities.
U	Unaware of meteorological synoptic conditions. Did not accurately analyze flight data for adverse trends or utilize software capability. Observations contained major meteorological errors.
Sub-Area 17B. Satellite Communications (SATCOM)/ Communications Security (COMSEC).	
Q	Able to utilize the software to operate the SATCOM equipment. Demonstrated satisfactory knowledge of program functions. Could effectively troubleshoot SATCOM communication problems. Able to load COMSEC.

Q-	Minor difficulty using the software or loading COMSEC. Knowledge of program functions is limited. Some difficulty troubleshooting SATCOM communication problems. Avoidable data delays were not significant.
U	Unable to utilize the software to operate the SATCOM equipment. Unable to load COMSEC. Knowledge of program functions is unsatisfactory. Inability to troubleshoot SATCOM communication problems led to an otherwise avoidable loss in communication or significant data delays.
Area 18. Mission Management.	
Sub-Area 18A. Customer Coordination.*	
Q	Promptly obtained all necessary information from the Chief, Aerial Reconnaissance Coordination, All Hurricanes (CARCAH) concerning the mission and fully understood tasking requirements. Clarified any misunderstandings prior to briefing the aircrew. Provided CARCAH a timely post mission debrief and ensured all observations were received and understood.
Q-	Obtained incomplete information from CARCAH to conduct the mission on the first call or did not fully understand tasking requirements. Slow to clarify any misunderstandings prior to briefing the aircrew. The post-mission debrief provided to CARCAH was late or contained minor omissions.
U	Failed to acquire a permission briefing from CARCAH or did not understand tasking requirements. Did not clarify any misunderstandings prior to briefing the aircrew. Did not provide CARCAH with a post-mission debrief or the debrief contained major errors or omissions.
Sub-Area 18B. Observation Requirements.*	
Q	Understood and coordinated horizontal and vertical weather observations for the mission type and/or weather sortie credit. Knew on-time criteria for operational missions.
Q-	Minor discrepancies in knowledge of horizontal and vertical observation location and altitude requirements.
U	Did not know the timing criteria for operational missions. Did not know applicable requirements for horizontal and vertical observations, to include location and altitude requirements.
Sub-Area 18C. Winter System Requirements.*	
Q	Demonstrated ability and knowledge to successfully direct a mission according to National Winter Season Operations Plan (NWSOP) procedures. Fully understands mission objectives and observation requirements. Accomplished all mission requirements.
Q-	Demonstrated ability to successfully direct an NWSOP mission with only minor deviations from directives. Adequate, but limited knowledge of mission objectives and observation requirements. Accomplished mission requirements with only minor errors.

U	Incapable of successfully directing an NWSOP mission. Inadequate knowledge of mission objectives or observation requirements. Due to deficiencies, would not have or did not meet mission requirements or committed major errors.
Sub-Area 18D. Mission Director Skills.*	
<b>Note:</b> This sub-area overlaps with CRM. If an issue noted is primarily in CRM skills, it should be documented in Area 8.	
Q	Exhibited leadership skills necessary to accomplish meteorological aspects of the mission. Used sound meteorological judgment and made accurate and timely decisions required to obtain mission objectives. Fully aware of forecast position, movement, and orbit area geographic location and potential mission impact of land and warning areas on altitude and pattern requirements. Effectively coordinated mission requirements with the aircrew and presented a viable game plan for accomplishing requirements. Reacted promptly and effectively to changing requirements.
Q-	Some difficulty making timely decisions added an unnecessary level of difficulty to the mission. Did not consider the impact of land and warning areas on altitude and pattern requirements of the mission, but was able to formulate a plan when prompted. Mission plan presented to the aircrew required minor adjustments to accomplish mission objectives. Slow to recognize or react to changes in mission requirements. Overall mission requirements accomplished.
U	Exhibited poor leadership skills. Did not understand the impact of land and warning areas on altitude and pattern requirements of the mission. Was unable to formulate a game plan for accomplishing the mission or the plan presented to the aircrew required major adjustments to accomplish mission objectives. Inaccurate or untimely decisions led to CRM breakdowns that adversely affected or prevented satisfactory mission accomplishment.
Sub-Area 18E. Radar.	
Q	Demonstrated the ability to interpret radar weather in different modes. Able to recognize turbulence, attenuation, and different intensities of precipitation. Understood use of iso-echo, and sector sweep. Able to use other information on the radar display, to include distance to the next waypoint, ETAs, cursor information. For tropical storm missions, able to accurately code the center or eye data, or a radar fix.
Q-	Some difficulty interpreting radar weather in certain modes. Able to recognize turbulence, attenuation, and different intensities of precipitation. Did not recognize or understand iso-echo, and/or sector sweep. Unable to use other information on the radar display, to include distance to the next waypoint, ETAs, cursor information, but no mission impact. For tropical storm missions, able to accurately code the center or eye data, or a radar fix with only minor discrepancies.

U	Unable or failed to effectively interpret radar weather in any modes. For tropical storm missions, unable to accurately code the center or eye data, or a make radar fix.
Sub-Area 18F. Degraded Operations/Troubleshooting.	
Q	Able to recognize and then correct or work around malfunctioning meteorological sensors. Effectively used available resources for troubleshooting.
Q-	Made some errors in understanding the source of the malfunction, but took satisfactory corrective action.
U	Failed to correct and/or work around malfunctioning meteorological sensors. Unable to use resources for troubleshooting. Erroneous data did or could have impacted weather mission.

**Table 5.3. MISSION.**

<b>Note:</b> Areas 19 through 22 will be evaluated on all initial mission qualification evaluations. (T-3). Areas not observed on the mission may be verbally evaluated. On evaluations other than initial, a select number of these items should be evaluated.	
Area 19. Tropical Meteorology Knowledge.*	
Q	Demonstrated good understanding of tropical pressure patterns, wind regimes and climatology. Able to explain the life cycle of tropical cyclones and the structure of a hurricane.
Q-	Demonstrated fair understanding of tropical pressure patterns, wind regimes and climatology. Had some difficulty explaining the life cycle of tropical cyclones and the structure of a hurricane. Errors or omissions were minor.
U	Lacked understanding of tropical pressure patterns, wind regimes and climatology. Unable to explain the life cycle of tropical cyclones and the structure of a hurricane or errors in explanation were major.
Area 20. Tropical Cyclone Data Collection.	
Sub-Area 20A. Vortex Message Observation Procedures.*	
Q	Accurately completed all items in the vortex message.
Q-	Completed all items in the vortex message with only minor errors.
U	Could not complete a vortex message. Major errors reported in some items of the vortex message.
Area 21. Tropical Cyclone Data Dissemination.	
Sub-Area 21A. Tropical Cyclone Data Quality Control.	
Q	Aware of meteorological conditions experienced along route of flight. Performed accurate and timely in-flight meteorological data analysis. Effectively utilized software capability, visual observation, and radar interpretation to analyze and trend aircraft data.

Q-	Demonstrated limited meteorological condition situational awareness. Incomplete analysis of data and trends led to minor errors in transmitted observations. Did not fully utilize software, visual observation, and radar interpretation capabilities.
U	Unaware of meteorological conditions. Did not accurately analyze flight data for adverse trends or utilize software, visual observation, and radar interpretation capability. Observations contained major meteorological errors.
Area 22. Tropical Cyclone Mission Management	
Sub-Area 22A. Tropical Cyclone Mission Direction.*	
Q	Demonstrated ability and knowledge to successfully direct a tropical cyclone mission. Fully understands mission types, objectives, and NHOP requirements. If actual mission, accomplished all mission requirements.
Q-	Demonstrated ability or knowledge to successfully direct a tropical cyclone mission with only minor deviations from directives. Adequate, but limited knowledge of mission types, objectives, and NHOP requirements. If actual mission, accomplished mission requirements with only minor errors.
U	Incapable of successfully directing a tropical cyclone mission. Inadequate knowledge of mission objectives or NHOP requirements. Due to deficiencies, would not have or did not meet mission requirements or committed major errors.
Sub-Area 22B. In-flight Storm Brief.*	
Q	Conducted a concise yet thorough brief of expected mission profile and storm environment. Updated aircrew on any changes relayed from Customer or Operations, and latest status of other participating aircraft. Ensured aircrew understood mission requirements.
Q-	Storm brief contained minor errors or omissions that did not threaten mission accomplishment or flight safety. Updates of any changes were relayed to the aircrew incompletely or not in a timely manner.
U	Did not or could not conduct the in-flight storm brief. Storm brief contained major errors or omissions that did or could have threatened mission accomplishment or flight safety. Updates not relayed to the aircrew.
Sub-Area 22C. Invest Mission Type.*	
Q	Established an efficient profile to acquire mission data. Observations taken at appropriate times and altitudes according to mission directives. Effectively modified the flight profile when necessary based on observed data or customer requests.
Q-	Had difficulty establishing an efficient profile or coordinating modifications requested by the customer. Some observations were not taken at the appropriate times or altitudes but did not negatively affect overall mission accomplishment.

U	Did not or could not establish an efficient profile to acquire mission data. Required observations missed, or taken at inappropriate times and altitudes and not according to mission directives. Did not or could not modify the flight profile when dictated by observed data or NHC.
Sub-Area 22D. Fix Mission Type.*	
Q	Effectively used software and the radar to locate the vortex wind center. Provided accurate and timely course change information to guide aircraft toward vortex center. Worked in tandem with navigator to achieve accurate fix position. Accepted and evaluated inputs from other aircrew members. Able to locate surface center visually, when observable. Fix location was accurate.
Q-	Had minor difficulty locating vortex wind center. Course change directions were somewhat inadequate or delayed making vortex location more difficult. Fix location was acceptable but not exact.
U	Exhibited much difficulty locating vortex wind center or could not direct aircraft to vortex center. Did not use available software or radar, or misinterpreted data. Exercised poor meteorological judgment. Did not work well with aircrew to achieve accurate fix position. Fix location was unacceptable.

**Table 5.4. INSTRUCTOR GRADING CRITERIA.**

Area 23. Instructor Ability. (Critical)	
Q	Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions.
U	Unable to effectively communicate or provide timely feedback to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. No attempt made to instruct.
Area 24. Instructor Demonstration. (Critical)	
Q	Effectively demonstrated correct procedures or systems operation. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
U	Ineffective or incorrect demonstration of procedures or systems operation. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.
Area 25. Student Briefing/Critique. (Critical)	
Q	Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Demonstrated the ability during the critique to reconstruct the flight, offer mission analysis, and provide guidance where appropriate. Training grade reflected the actual performance of the student relative to the standard. Assessed both technical and CRM performance. Allowed the student to self-assess own performance. Pre-briefed the student's next mission, if required.

U	Briefings were unsatisfactory or non-existent. Did not review student's past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Failed to assess both technical and CRM performance. Did not allow the student to self-assess own performance. Incomplete pre-briefing of student's next mission, if required.
Area 26. Knowledge of Training Forms.	
Q	All required forms accomplished on time and in accordance with applicable directives. Demonstrated satisfactory knowledge of forms/publications required for mission accomplishment. Training documentation was concise and readable.
Q-	Displayed limited knowledge of forms/publications. Required forms completed with some delay and in accordance with applicable directives. Minor errors or omissions in training documentation.
U	Knowledge of required forms/publications was inadequate. Did not accomplish required forms. Omitted or incorrectly documented significant training information.

**Table 5.5. EMERGENCY PROCEDURES EVALUATION (EPE).**

Area 27. Boldface Emergency Procedures (Critical).	
<b>Note:</b> Use the following criteria for Sub-Areas 27A through 27B.	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency. Effectively used available resources. Correct, immediate responses in the proper sequence.
U	Failed to analyze, state, or did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency. Did not use checklist and/or available resources. Incorrect sequence, unsatisfactory response, or unsatisfactory performance of corrective actions.
Sub-Area 27A. Fire/Smoke/Fume Elimination.	
Sub-Area 27B. Rapid Decompression.	
Area 28. Non-boldface Emergency Procedures.	
<b>Note:</b> Use the following criteria for Sub-Areas 28A through 28E.	
Q	Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency. Effectively used available resources.
Q-	Correctly analyzed and understood aircraft emergencies, but had difficulty performing/stating required procedures to correct the emergency/malfunction. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklists and/or available resources.
U	Failed to analyze, state, or did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency. Did not use checklist and/or available resources.



Sub-Area 28A. Emergency Signals.	
Sub-Area 28B. Ground Evacuation.	
Sub-Area 28C. Bailout.	
Sub-Area 28D. Crash Landing/Ditching.	
Sub-Area 28E. ACAWS.	
Area 29. General Knowledge/SIIs.	
Q	Possessed an adequate level of knowledge of all applicable directives and procedures and understood how to apply them to enhance mission accomplishment.
Q-	Possessed a limited knowledge of applicable directives and procedures, but could locate information in appropriate publications.
U	Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner.

JOSEPH T. GUASTELLA, Jr., Lt Gen, USAF  
Deputy Chief of Staff, Operations

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

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

AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, 21 September 2018

AFI 11-202, Volume 2, *Aircrew Standardization and Evaluation Program*, 6 December 2018

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

DAFI 33-360, *Publications and Forms Management*, 1 December 2015

AFMAN 11-210, *Instrument Refresher Program (IRP)*, 4 October 2019

AFMAN 11-2WC-130J, Volume 1, *WC-130J Aircrew Training*, 14 July 2021

AFMAN 11-2WC-130J Volume 3, *WC-130J Operations Procedures*, 14 July 2021

AFMAN 11-202, Volume 1, *Aircrew Training*, 27 September 2019

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

AFI 11-290, *Cockpit/Crew Resource Management Program*, 27 May 2020

AFMAN 11-218, *Aircraft Operations and Movement on the Ground*, 5 April 2019

AFMAN 24-604, *Preparing Hazardous Materials for Military Air Shipments*, 9 October 2020

***Adopted Forms***

AF Form 8, *Certificate of Aircrew Qualification*

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

AF Form 3862, *Flight Evaluation Worksheet*

AF Form 847, *Recommendation for Change of Publication.*

***Abbreviations and Acronyms***

**ACAWS**—Advisory Cautions and Warning System

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**AFPD**—Air Force Policy Directive

**APU**—Auxiliary Power Unit

**ARWO**—Aerial Reconnaissance Weather Officer

**ASR**—Airport Surveillance Radar

**ATD**—Aircrew Training Device

**C2**—Command and Control

**CARCAH**—Chief, Aerial Reconnaissance Coordination, All Hurricanes

**CG**—Center of Gravity

**CNI-MU**—Communications Navigation IFF/Management Unit

**COMSEC**—Communications security

**CRM**—Crew Resource Management

**DAFI**—Department of the Air Force Instruction

**DAFMAN**—Department of the Air Force Manual

**ECHS**—Enhanced Cargo Handling System

**EPE**—Emergency Procedures Evaluation

**ETA**—Estimated time of arrival

**ILS**—Instrument Landing System

**INIT**—Initial

**INSTM**—Instrument Evaluation

**INSTR**—Instructor Evaluation

**IPRA**—Integrated Precision Radar Approach

**KIAS**—Knots Indicated Air Speed

**LOC**—Localizer

**MAC**—Mean Aerodynamic Chord

**MAJCOM**—Major Command

**MAP**—Missed Approach Point

**MDA**—Minimum Descent Altitude

**MFCD**—Multifunction Control Display

**MSN**—Mission Evaluation

**NAVAIDs**—Navigational Aids

**NDB**—Non-directional Radio Beacon

**NHOP**—National Hurricane Operations Plan

**NOTAM**—Notice to Airman

**NWSOP**—National Winter Season Operations Plan

**OG/CC**—Operations Group Commander

**OME**—Operational Mission Evaluation

**OPR**—Office of Primary Responsibility

**PAR**—Precision Approach Radar

**PF**—Pilot Flying

**PM**—Pilot Monitoring

**QUAL**—Qualification Evaluation

**RECCO**—Reconnaissance Code Observation

**RON**—Remain Overnight

**RQ**—Requalification

**SATCOM**—Satellite communications

**SFMR**—Stepped Frequency Microwave Radiometer

**SID**—Standard Instrument Departure

**SOP**—Pilot Senior Officer

**STAR**—Standard Terminal Area Routing

**TACAN**—Tactical Air Navigation System

**TOLD**—Takeoff and Landing Data

**VDP**—Visual Descent Point

**VFR**—Visual Flight Rules

**VOR**—Very High Frequency Omni-directional Radio Beacon

**WST**—Weapons System Trainer