BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE MANUAL 11-2EC-130J Volume 2

9 SEPTEMBER 2020
Corrective Action applied 15 OCTOBER 2020
Flying Operations

EC-130J AIRCREW EVALUATION CRITERIA

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-publishing website at **www.e-publishing.af.mil/**.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: AFSOC/A3V

Certified by: AF/A3T
(Maj Gen James A. Jacobson)

Supersedes: AFI11-2EC-130JV2, 16 June 2015

Pages: 69

This manual implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations*, AFPD 11-4, *Aviation Service*, Air Force Instruction (AFI) 11-200, *Aircrew Training, Standardization/ Evaluation, and General Operations Structure*, and AFI 11-202, Vol 2, *Aircrew Standardization and Evaluation Program*. This manual establishes requirements and grading criteria for ground and flight phases of initial, requalification, and periodic flight evaluations. This is a specialized publication intended for use by Airmen who have graduated from technical training related to this publication. Unless noted otherwise, instructions contained herein apply to EC-130J aircraft. This guidance applies to all individuals performing crew duties on any C-130J variant. Evaluations for all crew positions can be given on any appropriate C-130J or Weapons System Trainers (WSTs) variant unless stated otherwise. This manual applies to the Regular Air Force as well as the Air National Guard. This manual does not apply to the Air Force Reserve. 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 as amended, and Executive Order 9397, *Numbering System for Federal Accounts Relating to Individual Persons*, as amended. The applicable System of Records Notice (SORN) F011 AF XO A, *Aviation Resource Management System (ARMS)* is available at: **https://dpcld.defense.gov/privacy/SORNS.aspx**. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Instruction 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with the Air Force Records Disposition Schedule located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the Office of Primary Responsibility using the Air Force (AF) Form 847, *Recommendation for Change of Publication*;

route AF Forms 847 from the field through the appropriate functional chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See Department of the Air Force (DAFI) 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. In accordance with AFI 11-202, Vol 2, the Major Command (MAJCOM)/A3 is the waiver authority for individual aircrew requirements on a case-by-case basis, but the MAJCOM/A3 may not approve blanket or group (two or more aircrew) waivers. Waiver requests should be submitted through MAJCOM Standardization and Evaluation channels to the MAJCOM/A3. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the requestor's commander for non-tiered compliance items. As applicable, MAJCOM/A3 will forward requests to AF/A3T, with an info copy to AF/A3TS. Post all waivers to this manual in the individual's flight evaluation folder behind Tab 2. Units are encouraged to supplement this guidance with standard evaluation profiles that best fit the unit's mission, equipment, and location. MAJCOMs will forward a copy of MAJCOM supplements to AF/A3TS. Units below MAJCOM level will forward one copy of each supplement to Air Force Special Operations Command (AFSOC)/A3V for pre-publication review. AF/A3T is approval authority for changes to this manual. AFSOC/A3V will issue approved changes to this manual through MAJCOM/A3 channels.

SUMMARY OF CHANGES

This document has been substantially revised. Changes include waiver approval authorities have been reviewed and updated throughout; Electronic Warfare (EW) & Tactical (TAC) Mission Qualifications are defined as independent mission qualifications; added Night Vision Goggles (NVGs) usage/limitations to common grading area; seat positions are clarified for pilot instrument/qualification evaluations (**paragraph 5.4.3**); pilot periodic mission evaluation profile is updated (**paragraph 5.5.2**); relieved the requirement to accomplish a Visual Flight Rules (VFR) pattern and no-flap landing if conditions do not permit on pilot periodic instrument/qualification evaluations (**table 5.1**); requirement for NVGs low level is changed to 30 minutes for Combat Systems Operator (CSO) initial/requal evaluations (**paragraph 6.3.1**); CSO periodic mission evaluation profile is updated (**paragraph 6.3.2**); CSO special mission qualification defined for Mission Crew Commanders (MCCs) (**paragraph 6.4.1**); Loadmaster (LM) periodic mission evaluation profile is updated (**paragraph 7.4.2**); Airborne Mission Systems Operator (AMSO) evaluation criteria updated; special mission qualification defined for Mission Crew Supervisor (MCS) (**paragraph 9.4.1**);References and Abbreviations and Acronyms are updated. **CORRECTIVE ACTION SUMMARY OF CHANGES:** Corrected formatting errors in **Table 4.1**, **Table 5.1**, **Table 6.2**, and **Table 7.**1.

Chapter 1

GENERAL INFORMATION

1.1. General. This guidance establishes requirements and grading criteria for ground and flight phases of initial, requalification, and periodic flight evaluations. Aircrew evaluations will be conducted in accordance with this guidance and AFI 11-202, Vol 2, as supplemented. **(T-2)**. Specific areas for evaluation are prescribed to ensure an accurate assessment of the proficiency and capabilities of aircrews. Flight examiners will use this AFMAN when conducting aircrew evaluations. **(T-2)**. Instructors use this guidance when preparing aircrews for qualification. It provides the most acceptable guidance for most circumstances, but does not replace sound judgment.

1.2. Keywords and Definitions.

1.2.1. "Will" and "Must" indicate a mandatory requirement.

1.2.2. "Should" is normally 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 operations procedures, techniques, etc., considered essential to emphasize.

1.3. Evaluation Procedures. Before the aircraft commander briefing, the evaluator will inform the aircraft commander of any special requirements. **(T-3)**. Flight examiners will brief the examinee on the conduct, purpose, and requirements of the evaluation, as well as all applicable evaluation criteria, prior to flight. **(T-3)**. Any unique evaluator inputs to the planned profile should be communicated to the examinee no later than 24 hours prior to scheduled mission brief. The examinee will accomplish all required mission planning. **(T-3)**. If an operations planning team or deployment planning team accomplishes mission planning, the examinee is ultimately responsible for the accuracy and completeness of all mission-planning paperwork. The aircraft commander will ensure flight examiners are furnished a copy of necessary charts, flight logs, mission folders, and any additional items they deem necessary. **(T-3)**.

1.3.1. Flight examiners will ensure all required training and documentation is complete prior to initial/requalification evaluations. **(T-3)**.

1.3.2. Unless requested by examinee and approved by squadron supervision, the examinee will be current for all events evaluated during a periodic evaluation. **(T-3)**.

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

1.3.4. Under no circumstances will a pilot flight examiner allow the aircraft to slow to below one engine inoperative air minimum control speed (Vmca), regardless of airspeed tolerances listed for specific areas. **(T-3)**.

1.3.5. Flight examiners will thoroughly debrief/critique all aspects of the flight. During the critique, the flight examiner will review the examinee's overall rating, specific deviations, area/subarea grades assigned, and any additional training required. **(T-3)**.

1.4. Roles and Responsibilities. Flight examiner and examinee responsibilities.

1.4.1. Flight examiners will ensure all required training and documentation are complete prior to initial/requalification evaluations. **(T-3)**.

1.4.2. Flight examiners will debrief/critique all aspects of the flight. (**T-3)**. 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)**.

1.4.3. The pilot flight examiner should occupy a primary crew position during evaluations. Flight Engineer examiners will not occupy a primary crew position while administering evaluations. **(T-3)**.

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

1.4.5. During pilot initial or requalification evaluations in the aircraft either a qualified instructor pilot or flight examiner will be at a set of controls. **(T-2)**.

1.4.6. A pilot flight examiner will not allow the aircraft to slow to below one engine inoperative air minimum control speed (Vmca), regardless of airspeed tolerances listed for specific areas. **(T-3)**.

1.4.7. Examinee will be current for all events evaluated during a periodic evaluation. **(T-3)**. Unless requested by examinee and approved by squadron operations officer or designated representative.

1.5. Grading Instructions. All evaluations will follow the guidelines set in AFI 11-202, Vol 2, as supplemented and this volume. **(T-2)**. Examiners will use the criteria contained in this volume to accomplish all flight, simulator, and emergency procedures evaluations. **(T-2)**. To ensure standard and objective evaluations, flight examiners should be thoroughly familiar with the prescribed evaluation criteria.

1.5.1. Area/Subarea Grades. Areas/subareas will have a two-level (Q/U) or three-level (Q/Q-/U) grading system. **(T-2)**. Discrepancies will be documented by the examiner against the listed subareas. **(T-2)**.

1.5.1.1. "Q" is the desired level of performance. The examinee demonstrated a satisfactory knowledge of all required information, performed aircrew duties within the prescribed tolerances, and accomplished the assigned mission.

1.5.1.2. "Q-" indicates the examinee is qualified to perform the assigned area/subarea tasks, but requires debriefing or additional training as determined by the flight examiner. Deviations from established standards must not exceed the prescribed Q- tolerances or jeopardize flight safety.

1.5.1.3. "U" indicates a breach of flight discipline, performance outside allowable parameters or deviations from prescribed procedures/tolerances that adversely affected mission accomplishment or compromised flight safety. An examinee receiving an area/subarea grade of U normally requires additional training. When, in the judgment of the flight examiner, additional training will not constructively improve examinee's performance, it is not required. **(T-3)**. In this case, the flight examiner must thoroughly debrief the examinee. **(T-3)**.

1.5.2. Critical Areas. Critical areas require adequate accomplishment by the aircrew member in order to successfully achieve the mission objectives. If an aircrew member receives an unqualified grade in any critical area, the overall grade for the evaluation will also be unqualified. **(T-3)**. Critical areas are identified by "(**Critical**)" in the area title and by shading of the Q- block on the appropriate AF Form 3862, *Flight Evaluation Worksheet*.

1.6. Evaluation Requirements. Evaluation profiles will reflect a sampling of the unit's missions. **(T-3)**. Evaluation tables are provided to summarize evaluation areas. Areas common to all crew members are contained in **Table 2.1** and **Table 4.1** Instructor evaluation areas are in **Table 3.1** Evaluation areas unique to each crew position are located in their respective chapter. Each crew specific chapter defines required events. Evaluation methods are identified by notes in the crew specific tables and include: in-flight only; in-flight and/or in simulator. For areas without a note, flight examiners may evaluate at their discretion if observed. If required events are not observed, then the evaluation is incomplete and will be accomplished on another flight. **(T-3)**.

1.6.1. Simulator. WSTs with a C or greater certification (or Training Value Code of 3 or greater) for all areas evaluated as determined by simulator certification may be used to accomplish evaluations. Simulator certifications are located on the AFSOC/A3T website.

1.6.1.1. Do not conduct two consecutive evaluations in the simulator. **(T-3)**. (**Exception:** Instrument (INSTM) evaluations to include INSTM and qualification (QUAL) evaluations in the simulator over consecutive years). Initial mission and special qualification evaluations must be accomplished in the aircraft. **(T-3)**.

1.6.1.2. If an area/subarea was not able to be evaluated in-flight, and the event is certified for evaluation purposes in the simulator, it can be evaluated in the simulator to complete the evaluation. Document in the comments section of AF Form 8, *Certificate of Aircrew Qualification* or AF Form 8a, *Certificate of Universal Aircrew Qualification,* which portion(s) of evaluation were conducted in the simulator.

1.6.2. Alternate Method. When it is impossible to evaluate an area in-flight due to equipment malfunctions, operational requirements, scheduling restrictions, or weather, the area may be evaluated by an alternate method (e.g., procedural trainer or verbal examination). If, in the flight examiner's judgment, an item cannot be adequately evaluated by an alternate method, complete the evaluation on an additional flight.

1.6.3. Grading Criteria. To the maximum extent possible, flight examiners should use the grading criteria in this volume to determine individual area grades. Exercise judgment when the wording of areas is subjective and when specific areas are not covered. Flight examiner judgment will be the determining factor in arriving at the overall grade. **(T-3)**. Consider cumulative deviations when determining the overall grade. Base tolerances for in-flight parameters on conditions of smooth air and a stable aircraft. In some cases, momentary deviations are allowable provided the examinee applies prompt corrective action and such deviations do not jeopardize safety.

1.7. Unsatisfactory Performance. If the flight examiner observes an aircrew counterpart jeopardizing safety, the examiner will assume the duties of that aircrew member (provided the examiner's flight duty period (FDP) does not exceed AFMAN 11-202, Vol 3, *Flight Operations,*

maximum FDP for an un-augmented crew). **(T-3)**. This does not mean the examiner must assume the examinee's position any time unsatisfactory performance is observed.

1.7.1. If the examiner feels the examinee can continue safely with supervision, the examiner is not required to assume the examinee's duties. However, if the flight examiner assumes the examinee's duties, assign a Qualification Level 3 "(Q-3)" as the overall grade. **(T-3)**.

1.7.2. Evaluators must report deviations/discrepancies from established procedures/directives in any area, regardless of the individual's crew specialty, to the squadron or group commander, along with the evaluator's recommendation for corrective action. **(T-3)**.

1.8. Additional Training. Flight examiners are responsible for assigning additional training, at their discretion. Document additional training and completion in accordance with AFI 11-202, Vol 2, and MAJCOM supplement.

1.8.1. Any approved training device or medium may be used to accomplish evaluator-directed additional training.

1.8.2. Additional training may be accomplished on the same flight as the evaluation, provided the unique situation presents a valuable training opportunity (e.g., crosswind landings), and the discrepancy requiring the additional training will not result in overall Q-3 evaluation. This option requires flight examiner discretion. The examinee must be informed when the additional training begins and ends. **(T-3)**.

1.9. Rechecks. Rechecks should normally be administered by a flight examiner other than the one who administered the original evaluation.

1.10. Special Qualifications. Special qualification evaluations are administered for events that are not universal to all members in that crew position. Special qualification evaluations may be conducted separately or in conjunction with the qualification/mission evaluations. After qualification, areas can be graded as part of periodic Mission Evaluations.

1.10.1. There are no requisites for special qualification evaluations unless specified. Refer to the appropriate crew position for any special qualification evaluation requirements.

1.10.2. Special qualifications result in an AF Form 8 or AF Form 8a. Document in accordance with AFI 11-202, Vol 2, as SPOT Evaluations (an aircrew evaluation, EPE, examination or the evaluation of a specific event that does not intend to satisfy the requirements of an initial, periodic or requalification evaluation and may be no-notice), unless conducted in conjuction with a qualification/mission evaluation. **Note:** Although a unit may maintain 100 percent of its crew members qualified, this documentation is still required due to interfly and permanent change of station issues.

1.11. Multiple Qualification. EC-130J basic/mission multi-qualified aircrew can accomplish EC-130J Qualification and Mission (QUAL/MSN) events in accordance with AFMAN 11-2EC-130JV1 or equivalent, minus any restrictions on their AF Form 8 or AF Form 8a on any EC-130J, HC-130J or C-130J aircraft; a separate mission evaluation is not required. See AFMAN 11-2EC-130J, Vol 1, *EC-130J Aircrew Training,* (or equivalent), for difference training and currency requirements for multi-qualified aircrew.

Chapter 2

ALL EVALUATIONS

2.1. General. The general grading criteria contained in this chapter applies to all crew positions and all evaluations. The examinee must satisfactorily demonstrate the ability to perform required duties safely and effectively. **(T-2)**. This includes appropriate aircraft systems operation in crew position evaluation tables in accordance with applicable EC-130J technical orders, Air Force Instructions, and flight directives.

2.2. Requirements. Evaluate all crew members on areas listed in **Table 2.1,** applicable areas in **Table 4.1,** and tables defined for individual crew positions in subsequent chapters. **(T-2)**.

2.2.1. Examinations. All crew members will complete open and closed book examinations as a requisite to periodic evaluations in accordance with AFI 11-202, Vol 2, and applicable supplements. **(T-3)**.

2.2.2. Emergency Procedures Evaluation (EPE). An EPE is a requisite for all Qualification (QUAL) and Mission (MSN) evaluations except special mission evaluations. EPEs may be conducted verbally, in-flight, in a simulator, or by another method determined by the examiner or unit standardization and evaluation office (OGV). OGVs may develop EPE guides for each crew position for flight examiner use. EPEs should be scenario driven, and tailored to the specific crew position. The EPE will include areas commensurate with the examinee's qualification and experience level. **(T-3)**. Examiners should include other general knowledge areas as well. For mission evaluations, evaluate mission-specific equipment and situations. EPEs will include sufficient in-flight and ground emergencies to evaluate the examinee's knowledge of systems and procedures to the flight examiner's satisfaction. **(T-3)**.

2.2.2.1. Examinees may use publications that are normally available in-flight. The examinee must recite all boldface items from memory and should provide the initial steps of emergency procedures that, in the opinion of the examiner, would not allow time for reference. **(T-3)**.

2.2.2.2. Grading criteria for EPE are outlined in area 5 of **Table 2.1,** General Grading Areas.

2.2.3. Publications Check. The publications check is required for all QUAL or combined QUAL/MSN evaluations as outlined in area 12 of **Table 2.1,** General Grading Areas. **(T-2)**.

2.2.4. Cockpit/Crew Resource Management (CRM). Refer to AFI 11-290, *Cockpit/Crew Resource Management Program*. Crew resource management skills will be evaluated during initial and periodic evaluations. **(T-3)**. CRM skills are integral to all phases of flight; therefore, no specific area titled CRM exists. CRM skills are imbedded within specific grading criteria (mission planning, airmanship/situational awareness, crew coordination, communication, risk management/decision making, task management, and briefing/debriefing) and include all of the skills listed on the AF Form 4031, *CRM Skills Criteria Training/Evaluation Form*. Therefore, use of the AF Form 4031 is unnecessary for evaluations.

2.2.5. Formal Course Evaluations. All required areas must be evaluated for the type of evaluation flown, in accordance with guidance in this volume. Grade training objectives and related areas using the performance criteria in this volume. **(T-2)**.

Table 2.1. General Grading Areas (all crew positions and all evaluations).

Area	Notes	Grading Areas
1	1	Safety – CRITICAL
2	1	Aircrew Discipline – CRITICAL
3	1	Airmanship/Situational Awareness - CRITICAL
4	2	Boldface – CRITICAL
5		Emergency Procedures Evaluation
6	1	Crew Coordination
7		Mission Planning
8		Knowledge of Directives
9	1	Preflight
10	1	Use of Checklist
11		Forms/Reports/Logs
12		Personal/Professional Equipment/Flight Publications
13		Emergency and Aircrew Flight Equipment/Procedures
14		Briefings/Debriefings
15		Classified Material/Operations Security
16	2	Antihijacking/Aircraft Security
17	1	Communication
18		Risk Management/Decision Making
19	1	Task Management

Notes:

1. Required in-flight or simulator certified for this event.
2. Only required for QUAL evaluation.

2.3. General Grading Criteria.

2.3.1. Area 1. Safety - (CRITICAL).

2.3.1.1. Q. Was aware of and complied with all safety factors required for safe aircraft/ equipment operation and mission accomplishment. Identified and assessed risk appropriately. Properly considered consequences of decisions.

2.3.1.2. U. Not aware of or did not comply with all safety factors required for safe aircraft/ equipment operation or mission accomplishment. Failed to properly identify and assess risk. Failed to consider consequences of decisions. Operated the aircraft/equipment in a dangerous manner.

2.3.2. Area 2. Aircrew Discipline - (CRITICAL).

2.3.2.1. Q. Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

2.3.2.2. U. Failed to exhibit strict flight and crew discipline. Violated or ignored rules or instructions.

2.3.3. Area 3. Airmanship/Situational Awareness - (CRITICAL).

2.3.3.1. Q. Executed the assigned mission in a timely, efficient manner. Anticipated situations that would have adversely affected the mission, and corrected them. Made appropriate decisions based on available information. Recognized the need for action. Aware of performance of self and other flight members. Aware of on-going mission status. Recognized, verbalized, and acted on unexpected events.

2.3.3.2. U. Decisions or lack thereof caused failure to accomplish assigned mission. Did not recognize the need for action. Not aware of performance of self and other flight members. Not aware of on-going mission status. Failed to recognize, verbalize, and act on unexpected events.

2.3.4. Area 4. Boldface – (CRITICAL).

2.3.4.1. Q. Able to recite/write the proper emergency boldface actions in the correct sequence with no discrepancies (not necessarily a verbatim response).

2.3.4.2. U. Failed to recite/write emergency boldface items in the correct sequence. Discrepancies in the procedure.

2.3.5. Area 5. Emergency Procedures Evaluation (EPE).

2.3.5.1. Q. Satisfactory systems/procedural knowledge. Operated within prescribed limits and correctly diagnosed problems. Performed and/or explained proper corrective action, in the proper sequence, for each type of malfunction. Accomplished all required checklists and/or effectively used available aids. Thoroughly described the location, use, and limitations of emergency equipment.

2.3.5.2. Q-. Marginal systems/procedural knowledge. Slow to analyze problems or apply proper corrective actions. Did not effectively use checklist and/or available aids. Minor omissions or deviations in describing the location, use, and limitations of emergency equipment.

2.3.5.3. U. Unsatisfactory systems/procedural knowledge. Failed to analyze problem or take corrective action. Failed to accomplish required checklists and/or unable to locate information in available aids. Major omissions or deviations in describing the location, use and limitations of emergency equipment.

2.3.6. Area 6. Crew Coordination.

2.3.6.1. Q. Provided direction/information when needed. Adapted to meet new situational demands and focused attention on the task. Knew assigned task of other crew members. Asked for inputs, and made positive statements to motivate crew members.

2.3.6.2. Q-. Crew coordination was limited though adequate to accomplish the mission. Provided limited direction/information when needed. Slow to adapt to meet new situational demands due to limited focus on task. Did not consistently seek inputs from other crew members. Limited effort to motivate crew members through positive statements.

2.3.6.3. U. Did not provide direction/information when needed. Did not adapt to meet new situational demands and focus attention on the task. Did not seek inputs or made no effort to make positive statements to motivate crew members. Lack of crew coordination resulted in significant degradation of mission accomplishment.

2.3.7. Area 7. Mission Planning.

2.3.7.1. Q. Clearly defined the mission overview and mission goals. Provided specific information on required tasks. Solicited feedback from other crew members to ensure understanding of mission requirements. Thoroughly analyzed plans to identify potential problem areas and ensured all had understanding of possible contingencies. Checked all factors applicable to flight such as flight information publication, weather, Notice to Airman system, alternate airfields, flight logs, performance data, fuel requirements, and charts. When required, extracted necessary information from air tasking order (ATO). Aware of the available alternatives if unable to complete the flight/mission as planned. Read and initialed all items in the flight crew information file (FCIF) Part B.

2.3.7.2. Q-. Did not adequately define the mission overview and mission goals. Potential problem areas partially addressed or not at all. Did not adequately solicit feedback or analyze the plans to ensure understanding of possible contingencies. Minor errors or omissions detracted from mission effectiveness, but did not affect mission accomplishment. Limited knowledge of performance capabilities or approved operating procedures/rules.

2.3.7.3. U. Did not define the mission overview and goals. Lack of specific information on required tasks. Did not solicit feedback from other crew members to ensure understanding. Did not analyze plans to identify potential problem areas. Major errors or omissions would have prevented a safe or effective mission. Unsatisfactory knowledge of operating data or procedures. Failed to read and sign off all items in the FCIF required for flight.

2.3.8. Area 8. Knowledge of Directives.

2.3.8.1. Q. Prepared and completed mission in compliance with existing instructions and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.

2.3.8.2. Q-. Minor deviations to procedures. Unsure of directives and/or had difficulty locating information in appropriate publications. Any instances of noncompliance did not jeopardize safety.

2.3.8.3. U. Unaware of procedures and/or could not locate them in the appropriate publication in a timely manner. Failed to comply with a procedure that could have jeopardized safety or mission success.

2.3.9. Area 9. Preflight.

2.3.9.1. Q. Completed systems preflight/inspections in accordance with tech orders, checklists, and instructions. Individual technique complied with established procedures.

2.3.9.2. Q-. Minor deviations from established systems preflight/inspection. Individual technique was safe, but detracted from established procedures. Used individual technique instead of established procedure and was unaware of differences.

2.3.9.3. U. Failed to preflight critical component or could not conduct a satisfactory preflight/inspection. Individual techniques unsafe and/or in violation of established procedures.

2.3.10. Area 10. Use of Checklist.

2.3.10.1. Q. Consistently used correct checklist, gave correct responses, and accomplished appropriate actions at the appropriate time throughout the mission.

2.3.10.2. Q-. Checklist responses were untimely and/or crew member required continual prompting for correct responses/action.

2.3.10.3. U. Used incorrect checklist or consistently omitted checklist items. Was unable to identify the correct checklist to use for a given situation. Omitted or did not complete checklist(s) at the appropriate time.

2.3.11. Area 11. Forms/Reports/Logs.

2.3.11.1. Q. All required forms and/or flight plans were complete, accurate, readable, and accomplished on time in accordance with applicable directives. Relayed an accurate debrief of significant events to applicable agencies (intel, weather, maintenance, etc.)

2.3.11.2. Q-. Minor errors on forms and/or flight plans did not affect conduct of the flight/mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.

2.3.11.3. U. Did not accomplish required forms and/or flight plans. Omitted or incorrectly reported significant information due to major errors or omissions.

2.3.12. Area 12. Personal/Professional Equipment/Flight Publications. **Note:** Required flight publications are specified in AFMAN 11-2EC-130J, Vol 3, *EC-130J – Operations Procedures* (or equivalent guidance).

2.3.12.1. Q. Had all required personal and professional equipment. Displayed satisfactory knowledge of the care and use of such equipment and the contents of required publications. Required equipment inspections were current. Publications were current, contained all supplements/changes, and were properly posted.

2.3.12.2. Q-. Did not have all required personal/professional equipment or had limited knowledge of the use or the content of required publications. Publications contained deficiencies that would not impact flight safety or mission accomplishment.

2.3.12.3. U. Did not have required personal/professional equipment essential for the mission. Unsatisfactory knowledge of the care and use of equipment or the content of required publications. Equipment inspections were overdue or equipment was unserviceable. Publications were outdated and/or contained deficiencies that would impact flight safety or mission accomplishment.

2.3.13. Area 13. Emergency and Aircrew Flight Equipment/Procedures.

2.3.13.1. Q. Satisfactory systems/procedural knowledge. Displayed satisfactory knowledge of location and use of emergency and aircrew flight equipment. Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper wear, use, and corrective action for each type of equipment/malfunction. Effectively used available aids.

2.3.13.2. Q-. Marginal systems/procedural knowledge. Limited knowledge of location and use of emergency and aircrew flight equipment. Operated within prescribed limits

but was slow to analyze problems or apply proper corrective actions. Did not effectively use, omitted, or deviated in use of checklist and/or available aids.

2.3.13.3. U. Unsatisfactory systems/procedural knowledge. Displayed unsatisfactory knowledge of emergency and aircrew flight equipment. Exceeded flight manual limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

2.3.14. Area 14. Briefings/Debriefings.

2.3.14.1. Q. Ensured briefing contained all applicable information. Prepared at briefing time. Briefings effectively organized and professionally presented in a logical sequence. Presented all objectives, training events, and special interest items. Effectively used available briefing aids. Debriefed mission using specific feedback, both positive and negative, in a non-theatening professional manner, of team and individual performance. Provided specific ways to correct errors. Asked for inputs from others. Recapped key points and compared mission results with mission objectives.

2.3.14.2. Q-. Omitted items pertinent but not critical to the mission. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Limited discussion of training events or special interest items. Dwelled on non-essential items. Not fully prepared for briefing. Debriefed mission without specific feedback in a non-theatening professional manner. Did not consistently seek input from others. Incomplete or inadequate recap of key points and comparison of mission results to mission objectives.

2.3.14.3. U. Failed to conduct/attend required briefings. Failed to use appropriate briefing aids. 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. Presented erroneous information that would affect safe/effective mission accomplishment. Presentation created doubts or confusion. Failed to discuss training events or special interest items. Late crew transport due to excessively long briefing. Did not provide positive and negative feedback in a non-theatening professional manner. Did not seek input from others. Did not recap key mission points nor compare mission results to mission objectives.

2.3.15. Area 15. Classified Material/Operations Security.

2.3.15.1. Q. Demonstrated thorough knowledge of communications/operations security procedures and courier procedures (if applicable). Had positive control of classified documents and information used throughout the mission. Properly stored, handled, and/or destroyed all classified/communication security (COMSEC) material or information generated during the mission. Practiced sound COMSEC/operations security (OPSEC) during all phases of the mission. Identified, requested, and obtained all cryptological material required for the mission.

2.3.15.2. Q-. Limited knowledge of COMSEC/OPSEC procedures and/or courier procedures (if applicable). Limited knowledge of proper storage, handling, and destruction procedures would not have resulted in compromise of classified material/COMSEC, and did not impact mission accomplishment. Identified cryptological

material required for mission, but was slow in requesting/obtaining material or did so only after being prompted.

2.3.15.3. U. Unsatisfactory knowledge of COMSEC/OPSEC. Classified documents, COMSEC or information would have been compromised as a result of improper control by examinee. Unfamiliarity with OPSEC procedures had or could have had a negative impact on mission accomplishment. Failed to identify, request, or obtain all cryptological materials required for the mission.

2.3.16. Area 16. Antihijacking/Aircraft Security.

2.3.16.1. Q. Explained proper antihijacking/aircraft security procedures.

2.3.16.2. Q-. Difficulty explaining proper antihijacking/aircraft security procedures.

2.3.16.3. U. Could not explain proper antihijacking/aircraft security procedures.

2.3.17. Area 17. Communication.

2.3.17.1. Q. Communicated using precise, standard terminology. Acknowledged all communications. Asked for/provided clarification when necessary. Stated opinions/ideas. Asked questions when uncertain. Advocated specific courses of action. Did not let rank affect mission safety.

2.3.17.2. Q-. Unclear or incomplete communication led to repetition or misunderstanding. Slow to ask for or give constructive feedback/clarifications. Inconsistent use of precise, standard terminology. Did not always state opinions/ideas, ask questions when uncertain, or make positive statements to flight members.

2.3.17.3. U. Failed to communicate effectively. Continuously interrupted others, mumbled, and/or conduct/attitude was detrimental to communication among crew members. Withheld information and failed to ask for/respond to constructive criticism. Failed to use precise, standard terminology. Repeatedly failed to acknowledge communications. Did not state opinions, ask questions when unsure, or attempt to motivate flight members using positive statements.

2.3.18. Area 18. Risk Management/Decision Making.

2.3.18.1. Q. Identified contingencies and alternatives. Gathered and cross-checked relevant data before deciding. Clearly stated problems and proposed solutions. Investigated doubts and concerns of crew members. Used facts to come up with solution. Involved and informed necessary crew members when appropriate. Coordinated mission crew activities to establish proper balance between command authority and crew member participation, and acted decisively when the situation required. Clearly stated decisions, received acknowledgement, and provided rationale for decisions.

2.3.18.2. Q-. Partially identified contingencies and alternatives. Made little effort to gather and cross-check relevant data before deciding. Did not clearly state problems and propose solutions. Did not consistently use facts to come up with solutions. Did not effectively inform crew members when appropriate. Did not effectively coordinate mission crew activities to establish a proper balance between command authority and crew member participation, and acted indecisively at times.

2.3.18.3. U. Failed to identify contingencies and alternatives. Made no effort to gather and cross-check relevant data before deciding. Did not inform necessary crew members when appropriate. Did not use facts to come up with solution. Avoided or delayed necessary decisions which jeopardized mission effectiveness. Did not coordinate mission crew activities to establish proper balance between command authority and crew member participation; acted indecisively.

2.3.19. Area 19. Task Management.

2.3.19.1. Q. Correctly prioritized tasks. Used available resources to manage workload. Asked for assistance when overloaded. Clearly stated problems and proposed solutions. Accepted better ideas when offered. Used facts to come up with solution. Clearly communicated and acknowledged workload and task distribution. Demonstrated high level of vigilance in both high and low workload conditions. Prepared for expected or contingency situations. Avoided the creation of self-imposed workload/stress. Recognized and reported work overloads in self and others.

2.3.19.2. Q-. Did not consistently and correctly prioritize tasks. Did not effectively use available resources to manage workload. Did not clearly communicate and acknowledge workload and task distribution. Did not consistently demonstrate high level of vigilance in both high and low workload conditions. Slow to prepare for expected or contingency situations. Created some self-imposed workload/stress due to lack of planning. Slow to recognize and report work overloads in self and others.

2.3.19.3. U. Failed to correctly prioritize tasks. Did not use available resources to manage workload. Did not communicate and acknowledge workload and task distribution. Did not demonstrate high level of vigilance in both high and low workload conditions. Extremely slow to prepare for expected or contingency situations. Created self-imposed workload/stress due to lack of planning. Failed to recognize and report work overloads in self and others.

Chapter 3

INSTRUCTOR EVALUATIONS

3.1. General. The instructor grading criteria apply to initial, requalification, and all periodic instructor evaluations. The examinee must demonstrate the ability to instruct in a safe and effective manner. **(T-3).**

3.2. Requirements. Evaluate instructors on areas listed in **Table 3.1** **(T-2)**. Instructor candidates must be qualified in all areas they will instruct. **(T-2)**. Initial instructor evaluations may be a stand-alone evaluation or accomplished in conjunction with a periodic qualification/mission evaluation. Accomplish periodic instructor evaluations in conjunction with periodic qualification/mission evaluations. Refer to AFI 11-202, Vol 2, MAJCOM supplement. **(T-2)**. If able, evaluate instructor candidates instructing actual students. Otherwise, the flight examiner may act as the student. A requalification instructor evaluation is required anytime an instructor is unqualified for any reason to include commander-directed downgrades. **(T-3)**.

3.3. Instrument. Instrument instructor evaluations may be accomplished on any C-130J variant.

3.3.1. Initial/Requalification. Evaluate instructor candidates on instructor performance during a representative sample of the unit's basic maneuvers including emergency and instrument procedures. The examiner will act as the student during maneuvers that are considered high risk (such as simulated engine out landings, go-arounds and no-flap landings). **(T-3)**. Initial INSTM instructor evaluations may be accomplished in a properly certified WST in accordance with **paragraph 1.6** of this manual.

3.3.2. Periodic. Qualified instructors will be evaluated in accordance with **Table 3.1** to instructor standards during all periodic evaluations. **(T-3)**.

3.4. Qualification. Qualification instructor evaluations may be accomplished on any C-130J variant.

3.4.1. Initial/Requalification. Evaluate instructor candidates on instructor performance during a representative sample of the unit's basic maneuvers including emergency and instrument procedures. Instructor pilot candidates must demonstrate each type of landing applicable to the aircraft from the instructor position. **(T-3)**. The examiner will act as the student during maneuvers that are considered high risk (such as simulated engine out landings, go-arounds and no-flap landings). **(T-3)**. Initial QUAL Instructor evaluations may be accomplished in a properly certified WST in accordance with **paragraph 1.6** of this manual.

3.4.2. Periodic. Qualified instructors will be evaluated to instructor standards during all periodic evaluations. **(T-3)**.

3.5. Mission. Mission instructor evaluations will be accomplished by a qualified examiner in the crew member's primary aircraft. **(T-2)**. Evaluate instructional ability during a representative sample of the unit's mission events. Pilots must be aircraft commander qualified in a special mission prior to receiving instructor qualification/certification in that mission. **(T-3)**.

3.5.1. Initial/Requalification. Accomplish the initial mission instructor evaluation on a mission that permits accomplishment of all required instructor areas. **(T-3)**. Initial pilot/CSO MSN Instructor evaluations may be accomplished in a properly certified WST in accordance with **paragraph 1.9.1** of this manual.

3.5.2. Periodic. Qualified instructors will be evaluated to instructor standards during all periodic evaluations. **(T-3)**.

Table 3.1. Instructor Evaluation Grading Areas (All Crew Positions).

Area	Notes	Grading Areas
20		Mission Preparation
21	1	Instructional Ability
22		Instructor Knowledge
23		Briefings/Debriefings/Critique
24	1	Demonstration of Maneuvers/Procedures
25-29		Reserved for future use

Notes:

1. Required in-flight or simulator certified for this event.

3.6. Instructor Grading Criteria.

3.6.1. Area 20. Mission Preparation.

3.6.1.1. Q. Thoroughly reviewed student's training documentation. Ascertained student's present level of training. Assisted student in pre-mission planning and allowed student time for questions. Correctly prioritized training events. Gave student a clear idea of mission training objectives.

3.6.1.2. Q-. Did not thoroughly review student's training folder or correctly ascertain student's present level of training. Caused student to hurry pre-mission planning. Poorly prioritized training events. Training plan/scenario made poor use of time.

3.6.1.3. U. Did not review student's training folder. Did not ascertain student's present level of training. Did not assist student with pre-mission planning or did not allow time for questions. Did not prioritize training events. Failed to give student a clear idea of mission training objectives, methods, and sequence of events.

3.6.2. Area 21. Instructional Ability.

3.6.2.1. Q. Demonstrated proper instructor ability and communicated effectively. Provided appropriate guidance when necessary. Planned ahead, and provided accurate, effective, and timely instruction. Identified and corrected potentially unsafe maneuvers/situations.

3.6.2.2. Q-. Problems in communication or analysis degraded effectiveness of instruction. Accomplished the above tasks with minor discrepancies that did not affect safety or adversely affect student progress.

3.6.2.3. U. Failed to effectively communicate, provide timely feedback. Performed or taught improper procedures/techniques/tactics 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.

3.6.3. Area 22. Instructor Knowledge.

3.6.3.1. Q. Demonstrated a high level of knowledge of all applicable aircraft systems, techniques, procedures, missions, publications, and tactics to be performed. Completed appropriate training records accurately. Comments were clear and pertinent.

3.6.3.2. Q-. Minor errors/deficiencies in knowledge of above areas did not affect safety or adversely affect student progress. Minor errors or omissions in training records. Comments were incomplete or slightly unclear.

3.6.3.3. U. Lack of knowledge of publications or procedures seriously detracted from instructor effectiveness. Could not apply knowledge of above areas. Did not complete required forms or records. Comments were invalid, unclear, or did not accurately document performance.

3.6.4. Area 23. Briefings/Debriefings/Critique.

3.6.4.1. Q. Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Showed an excellent 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. Pre-briefed the student's next mission, if required.

3.6.4.2. Q-. Minor errors or omissions in briefings and/or critique did not affect safety or adversely affect student progress.

3.6.4.3. U. Briefings/debriefings were marginal or non-existent; major errors or omissions in briefings/debriefings. Did not review student past performance. Analysis of events or maneuvers was incomplete, inaccurate, or confusing. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

3.6.5. Area 24. Demonstration of Maneuvers/Procedures.

3.6.5.1. Q. Effectively demonstrated procedures and techniques. Provided concise, meaningful, and timely in-flight commentary. Had thorough knowledge of applicable aircraft systems, procedures, publications, and instructions.

3.6.5.2. Q-. Performed required maneuvers/procedures with minor deviations from prescribed parameters. In-flight commentary was sometimes unclear or poorly timed, interfering with student performance. Discrepancies in the above areas did not adversely affect safety or student progress.

3.6.5.3. U. Failed to properly perform required maneuvers/procedures. Made major procedural errors. Did not provide in-flight commentary and/or in-flight commentary was incorrect or unsafe. Insufficient knowledge of aircraft systems, procedures, and/or proper source material.

3.6.6. Areas 25 - 29. Reserved for future use.

Chapter 4

COMMON GRADING AREAS

4.1. General. The common grading criteria contained in this chapter applies to multiple crew positions on QUAL/MSN evaluations (or as delineated for pilot QUAL or MSN evaluations). The examinee must satisfactorily demonstrate the ability to perform required duties safely and effectively. This includes appropriate aircraft systems operation in accordance with applicable technical orders, instructions, and directives.

4.2. Requirements. Evaluate all crew members on areas listed in **Table 4.1 (T-2)**. Unless otherwise noted, these events may be accomplished via alternate method.

Table 4.1. Common Grading Areas (applicable crew positions and evaluations).

Area	Notes	Grading Area	Pilot		CSO		LM		AMSO
			EW	TAC	EW	TAC	EW	TAC	EW
30	3	Flight Plan/Charts	X	X	X	X			
31		Airdrop Data/Charts		X		X			
32		Self-Contained Approach (SCA) Data/Charts	X	X	X	X			
33	3	Fuel Planning	X	X	X	X			
34	3	Weight and Balance	X	X	X	X	X	X	
35	3	Departure	X	X	X	X			
36	3	Radio Navigation	X	X	X	X			
37	3	Radar Navigation/Weather	X	X	X	X			
38	3	Navigation Systems	X	X	X	X			
39	3	High Altitude Course and Estimated Time of Arrival (ETA) Tolerance	X	X	X	X			
40	2	Low-level Navigation Procedures		X		X			
41	2	Low-level Night Vision Goggle (NVG) Procedures		X		X			
42	2	Low- Level Radar Navigation		X		X			
43	2	Slowdown	X	X	X	X			
44	2	Drop Zone (DZ) Acquisition		X		X			
45	2	DZ Alignment		X		X			
46	2	Airdrop Procedures		X		X		X	
47	2	Escape		X		X			
48	2	Time-of-Arrival (TOA)/Time-on-Target (TOT) Control		X		X			
49		Tactical Planning	X	X	X	X			
50		Defensive Systems Knowledge/Employment	X	X	X	X	X	X	X
51		In-flight Threat Analysis/Tactics	X	X	X	X	X	X	X
52	3	Fuel Management Procedures	X	X	X	X	X	X	
53	2, 4, 6	Air-to-Air Refueling (AAR) Systems/Procedures	X	X	X	X	X	X	

Area	Notes	Grading Area	Pilot		CSO		LM		AMSO
			EW	TAC	EW	TAC	EW	TAC	EW
54		Reserved for future use							
55	5	Forward Area Refueling Point (FARP) Procedures		X		X		X	
56	7	Objective Area Formation		X		X			
56a		Reserved for future use							
56b	1, 7	Formation Airdrop		X					
56c	1, 4, 7	Minimum Interval Landing		X		X			
57	3	Systems Operations/Knowledge/Limitations	X	X	X	X	X	X	X
58	2	Degraded Operations	X	X	X	X			X
59		Cryptological System Operations	X	X	X		X	X	X
60		Authentication/Encode-Decode Procedures	X	X	X				
61		Airborn Mission Network (AbMN) Equipment Knowledge/Employment	X	X	X	X	X	X	
62		Special Mission Equipment (SME)/Orbit Procedures	X		X		X		
63		NVG Usage/Limitations			X		X	X	X
64-99		Reserved for future use							

Notes:

1. Required in-flight.
2. Required in-flight or simulator certified for this event.
3. Only required for QUAL evaluation.
4. Copilots perform copilot duties only.
5. Required only if crew member is certified in this event.
6. Pilot EW and TAC required in flight
7. Pilot TAC required on initial/requalification

4.3. Common Grading Criteria.

4.3.1. Area 30. Flight Plan/Charts.

4.3.1.1. Q. Completed a flight plan in accordance with applicable directives. Selected current navigation charts of a proper scale and type of the sortie profile. Charts were

constructed in accordance with current directives. Demonstrated proper manual flight planning procedures, if required.

4.3.1.2. Q-. Flight plan/charts contained minor errors or omissions that would not have adversely affected mission accomplishment.

4.3.1.3. U. Flight plan not accomplished, incomplete, or contained major errors that adversely affected mission accomplishment. Could not demonstrate manual procedures, or failed to review computer generated flight plan.

4.3.2. Area 31. Airdrop Data/Charts.

4.3.2.1. Q. Completed Computed Air Release Point (CARP) in accordance with applicable directives. Correctly computed and plotted CARP based on the most accurate data available. Demonstrated proper manual CARP computation, if required.

4.3.2.2. Q-. Minor errors or omissions that would not have adversely affected mission accomplishment.

4.3.2.3. U. CARP not accomplished, incomplete, or contained major errors. Could not demonstrate manual procedures, or failed to review computer generated CARP.

4.3.3. Area 32. Self-Contained Approach (SCA) Data/Charts.

4.3.3.1. Q. Completed SCA in accordance with applicable directives. Correctly computed and plotted SCA based on the most accurate data available.

4.3.3.2. Q-. SCA contained minor errors or omissions that would not have adversely affected mission accomplishment.

4.3.3.3. U. SCA not accomplished, incomplete, or contained major errors.

4.3.4. Area 33. Fuel Planning.

4.3.4.1. Q. Completed a fuel plan in accordance with applicable directives. Used correct entering arguments (temperture deviation, altitudes, drag index, gross weight, cargo weight, etc.) for manual or computer generated fuel plans. Correctly computed an equal time point (ETP), when required.

4.3.4.2. Q-. Fuel plan contained minor errors or omissions that would not have adversely affected mission accomplishment.

4.3.4.3. U. Fuel plan not accomplished, incomplete, or contained major errors. ETP not completed or contained major errors or omissions.

4.3.5. Area 34. Weight and Balance.

4.3.5.1. Q. Correctly entered weight and balance data into the communication, navigation, identification management unit (CNI-MU). Manually completed DD Form 365-4, *Weight and Balance Clearance Form F-Transport,* with only minor errors (Loadmaster only).

4.3.5.1.1. Takeoff or landing gross weights were within +/- 500 lbs.

4.3.5.1.2. Percent of Mean Aerodynamic Chord (MAC) was within +/- 0.5 percent.

4.3.5.1.3. Aircraft gross takeoff limits: Not exceeded.

4.3.5.1.4. Center of gravity limitations: Not exceeded.

4.3.5.2. Q-. Entered weight and balance data into the CNI-MU with minor errors. Manually completed DD Form 365-4 with errors (LM only).

4.3.5.2.1. Takeoff or landing gross weights were within +/- 501 to 1,000 lbs.

4.3.5.2.2. Percent of MAC was within +/- 0.6 to 1.0 percent

4.3.5.2.3. Aircraft gross takeoff limits: Not exceeded.

4.3.5.2.4. Center of gravity limitations: Not exceeded.

4.3.5.3. U. Incorrectly entered weight and balance data into the CNI-MU. Manually completed DD Form 365-4 with errors (LM only).

4.3.5.3.1. Takeoff or landing gross weights exceeded +/- 1,000 lbs.

4.3.5.3.2. Percent of MAC exceeded +/- 1.0 percent.

4.3.5.3.3. Aircraft gross weight takeoff limits and center of gravity limits exceeded.

4.3.6. Area 35. Departure.

4.3.6.1. Q. Maintained headings, airspeeds, altitudes, and aircraft position throughout departure. Used an instrument departure procedure and/or appropriate scale departure area chart. Provided headings, estimated time of arrival, and other required information in a timely manner. Monitored appropriate radios and clearances to ensure crew compliance. Provided updated information when the clearance caused a change in the planned departure. Ensured terrain clearance during departure by use of all available aids and the area chart.

4.3.6.2. Q-. Maintained aircraft position, but slow to provide headings, ETA, or other required information. Performance did not degrade mission accomplishment or compromise flight safety.

4.3.6.3. U. Did not maintain departure headings, airspeeds, or altitudes. Unaware of aircraft position and unable to provide updated information when required. Did not use an instrument departure procedure and/or an appropriate scale departure area chart. Allowed major deviations that degraded mission accomplishment or compromised safety. Did not ensure terrain clearance during the departure. No area chart available.

4.3.7. Area 36. Radio Navigation.

4.3.7.1. Q. Accurately tuned (if capable), identified, and interpreted readings of en route/terminal area tactical air navigation (TACAN), for very high frequency omnidirectional range (VOR) or nondirectional beacon (NDB).

4.3.7.2. Q-. Better use of radio aids could have enhanced navigation. Displayed weakness in fixing or plotting procedures.

4.3.7.3. U. Failed to accurately tune (if capable) and identify en route radio aids.

4.3.8. Area 37. Radar Navigation/Weather Avoidance.

4.3.8.1. Q. Demonstrated thorough knowledge and understanding of radar equipment. Used correct procedures for radar operation and weather avoidance. Maintained proper distance from adverse weather.

4.3.8.2. Q-. Demonstrated adequate knowledge of equipment, but occasionally used improper operating procedures. Did not update radar/weather analysis while avoiding known weather. Had difficulty identifying radar returns. Weather avoidance was safe with minor deviation from prescribed procedures.

4.3.8.3. U. Displayed unsatisfactory knowledge of radar equipment. Used improper operating procedures that were potentially harmful to system components. Failed to correctly interpret scope returns. Displayed unsatisfactory knowledge of weather avoidance procedures.

4.3.9. Area 38. Navigation Systems.

4.3.9.1. Q. Demonstrated thorough knowledge of onboard navigation system operating procedures. Effectively used navigation systems to direct the aircraft and update system as required.

4.3.9.2. Q-. Demonstrated basic knowledge of onboard navigation systems. Made minor errors in operation/interpretation of navigation system data. More selective updating could have increased system effectiveness.

4.3.9.3. U. Displayed inadequate knowledge of onboard navigation system procedures. Improper operation procedures could have resulted in damage to equipment or affected mission accomplishment. Failed to update or correctly interpret navigation system data.

4.3.10. Area 39. High Altitude Course and ETA Tolerance.

4.3.10.1. Q. Unless required to deviate for weather or required by air traffic control, remained within 5 nautical miles (nm) of course centerline, or within tolerances specified for required navigation performance airspace (if applicable), whichever is less. ETAs/revised ETAs were within 2 minutes of actual times of arrival.

4.3.10.2. Q-. Remained within 10 nm of course centerline. ETAs or revised ETAs were within 3 minutes of actual time of arrivals.

4.3.10.3. U. Exceeded Q- criteria or exceeded required navigation performance (RNP) requirement. Evaluator had to alter aircraft heading to remain within course tolerance or clear special use airspace.

4.3.11. Area 40. Low-level Navigation Procedures.

4.3.11.1. Q. Certain of exact aircraft position. Remained within 1 nm of course centerline or planned deviation. **Exceptions**: Threat avoidance, weather deviation, air traffic control assigned heading, time control deviations, or other unplanned, required deviations. Thorough knowledge of en route time status in relation to objective area. Complied with all altitude and airspace restrictions.

4.3.11.2. Q-. Uncertain of exact aircraft position due to marginal navigational procedures. Deviated more than 1 nm from course (unplanned) and failed to modify vertical/horizontal profile as needed. Better awareness of required timing events or en route time status could have avoided excessive, unplanned maneuvering.

4.3.11.3. U. Exceeded 3 nm during en route navigation without the above exceptions. Failed to maintain position awareness throughout most of the route. Failed 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.

4.3.12. Area 41. Low-level Night Vision Goggle Procedures.

4.3.12.1. Q. Planned and flew a route to minimize risk to aircraft and crew for a given mission using NVG procedures in accordance with governing directives and appropriate tactics, techniques, and procedures (TTP). Consistently updated crew with controlling terrain, reference altitudes, and start climb points. Avoided excessive or numerous low altitude warnings. Appropriately assisted pilot flying/CSO with TOT/TOA control and energy management. Flew appropriate profile for terrain and environmental conditions.

4.3.12.2. Q-. Had numerous unplanned low altitude warnings but no significant compromise to safety. Minor deviations from TTP, altitude, and airspeed profile.

4.3.12.3. U. Had excessive amount and/or excessively low altitude warnings. Major/unsafe deviations from established directives and appropriate TTP.

4.3.13. Area 42. Low-level Radar Navigation.

4.3.13.1. Q. Effectively tuned and employed radar to identify aircraft hazards throughout the flight. Ensured aircraft was terrain masked as necessary. Properly interpreted radar and effectively communicated information with clear/concise terminology to ensure smooth/safe low-level navigation. Demonstrated ability to accurately identify radar targets and analyze aircraft position based on these targets. Effectively used radar to update aircraft position, both during en route low-level and during terminal areas DZ/landing zone operations.

4.3.13.2. Q-. Improper radar tuning/interpretation caused confusion during low-level navigation but did not jeopardize safety. Failed to effectively use terrain to mask aircraft from threats. Did not effectively use radar targets to analyze aircraft position, resulting in mission degradation.

4.3.13.3. U. Failed to tune radar sufficiently for safe low-level flight. Failed to identify hazardous terrain in the aircraft flight path or directed a turn towards high terrain without directing a climb. Jeopardized mission success due to inaccuracies in system caused by failure to analyze or update aircraft position using radar targets.

4.3.14. Area 43. Slowdown.

4.3.14.1. Q. Thorough knowledge of slowdown procedures. Complied with all published/briefed procedures.

4.3.14.2. Q-. Minor deviations which did not affect mission accomplishment or formation integrity.

4.3.14.3. U. Major deviations that adversely affected mission accomplishment or formation integrity.

4.3.15. Area 44. Drop Zone Acquisition.

4.3.15.1. Q. Timely identification of the DZ allowed for a smooth approach to the objective area.

4.3.15.2. Q-. Late identification of the DZ caused an abrupt change in procedures or course into the objective area, but did not affect mission accomplishment.

4.3.15.3. U. Did not identify the DZ or late identification negatively affected mission accomplishment.

4.3.16. Area 45. DZ Alignment.

4.3.16.1. Q. Directed the aircraft to an optimum DZ alignment on run-in through escape. Clearly communicated desired aircraft position to the crew.

4.3.16.2. Q-. Alignment was satisfactory but tended to angle. Slow in directing aircraft to establish/maintain effective DZ alignment, but did not adversely impact mission accomplishment.

4.3.16.3. U. Failed to establish effective DZ alignment that contributed to an unsuccessful airdrop/no-drop condition.

4.3.17. Area 46. Airdrop Procedures.

4.3.17.1. Q. Accurately used all available data to accomplish airdrop within the following circular error: heavy equipment, personnel, tandard airdrop training bundle, door/ramp bundles, or container delivery system (CDS): 300 meters. For all airdrops except CDS above 800’ above ground level (AGL), add 15 meters for each 100’ above 800’ to a maximum total circular error of 600 meters. For CDS airdrops above 600’ AGL, add 20 meters for each 100’ above 600’, to a maximum total circular error of 500 meters. Complied with all applicable directives. Aircraft configuration was correct.

4.3.17.1.1. Airspeed: ± 5 knots indicated airspeed (KIAS).

4.3.17.1.2. Altitude: ± 50 feet.

4.3.17.2. Q-. Failed to use all data available to ensure the most accurate drop. Had minor deviations in published/briefed procedures.

4.3.17.2.1. Airspeed: + 10/- 10 KIAS.

4.3.17.2.2. Altitude: + 100/- 50 feet.

4.3.17.3. U. Incorrect procedures led to a drop score exceeding 300 meters. Had major deviations to published/briefed procedures which adversely affected mission accomplishment. Mission not accomplished due to aircraft configuration or deviation from procedures, caused by error or omission. Did not recognize a no-drop situation.

4.3.18. Area 47. Escape.

4.3.18.1. Q. Escape executed in accordance with published or briefed procedures.

4.3.18.2. Q-. Minor errors in escape procedures that did not affect mission accomplishment.

4.3.18.3. U. Major deviations from procedures that negatively affected mission accomplishment, formation integrity, or flight safety.

4.3.19. Area 48. Time-of-Arrival/Time-on-Target Control.

4.3.19.1. Q. Accurately used all available data to arrive at the objective on time. Recomputed TOT/TOA in-flight as necessary.

4.3.19.2. Q-. Arrived at the objective on time but used excessive timing maneuvers or airspeed changes. Minor deviations in recomputing TOA/TOT in-flight as necessary.

4.3.19.3. U. Exceeded +/- 30 seconds for airdrop/SCA or 60 seconds early for AAR. Could not accurately establish new TOT/TOA while airborne, when required.

4.3.20. Area 49. Tactical Planning.

4.3.20.1. Q. Demonstrated thorough knowledge of necessary defensive systems/tactics applicable to the mission. Able to plot threats and apply appropriate tactics to avoid or minimize exposure.

4.3.20.2. Q-. Was unfamiliar with the appropriate tactic for a given scenario. Made minor errors in plotting and avoiding a given threat.

4.3.20.3. U. Major errors in tactics selection would have resulted in an unsuccessful mission. Was unable to plot and avoid a given threat. Failed to ensure mission effectiveness by not adequately analyzing or degrading threat(s).

4.3.21. Area 50. Defensive Systems Knowledge/Employment.

4.3.21.1. Q. Properly programmed defensive equipment for a given threat. Correctly interpreted threat information, deployed expendables as necessary, and directed accurate aircraft maneuvers in a timely manner.

4.3.21.2. Q-. Minor errors in programming defensive systems. Was slow to interpret threat information, deploy expendables, or direct aircraft maneuvers. Successfully defeated threat but could have used a better tactic for a given scenario.

4.3.21.3. U. Failed to program/arm defensive equipment as necessary. Used wrong tactic for a given threat. Knowledge of defensive systems was unsatisfactory.

4.3.22. Area 51. In-flight Threat Analysis/Tactics.

4.3.22.1. Q. Made timely and appropriate inputs to crew during mission. Able to plot threats in-flight, and formulate a plan of action to avoid/defeat a given threat. Executed the proper evasive maneuver in a timely manner when given an immediate threat. Adequately analyzed and defeated all threats ensuring effective mission accomplishment. Aware of appropriate tactics to avoid threats and exposure. Loadmaster explained proper scanning technique from the troop doors and ramp and door.

4.3.22.2. Q-. Was unfamiliar with the appropriate tactic for a given scenario. Did not make timely inputs to crew during threat engagement. Made minor errors in plotting and avoiding a given threat. Was slow to interpret threat information, deploy expendables, or direct aircraft maneuvers which did not compromise mission accomplishment. Loadmaster had limited knowledge of proper scanning techniques.

4.3.22.3. U. Did not avoid lethal range of given threat system. Did not execute an effective evasive maneuver when given an immediate threat. Failed to ensure mission effectiveness by not adequately analyzing or degrading threat(s). Not aware of

appropriate tactics for specific threats or terrain. Loadmaster had inadequate knowledge of proper scanning technique.

4.3.23. Area 52. Fuel Management Procedures.

4.3.23.1. Q. Maintained fuel management in accordance with directives. Kept pilot advised of fuel status. Demonstrated a complete knowledge of aircraft fuel system and operating limitations both with and without reference to the flight manual and/or available aids.

4.3.23.2. Q-. Adequate fuel management with minor computation errors noted. Did not adequately update the pilot on fuel status. Limited knowledge of aircraft fuel system operations and limitations in some areas. Used individual technique instead of procedures and was unaware of differences.

4.3.23.3. U. Failed to demonstrate an understanding of fuel management procedures. Fuel computations not accomplished or contained significant errors. Failed to inform pilot of fuel status. Unsatisfactory fuel system knowledge. Failed to demonstrate or explain the procedures for aircraft fuel system operations with or without reference to the flight manual and/or available aids.

4.3.24. Area 53. Air-to-Air Refueling Systems/Procedures.

4.3.24.1. Q. Effectively accomplished and was fully knowledgeable of air-to-air refueling operations and procedures. Properly completed refueling portion of fuel planning as applicable to the mission. Demonstrated effective/appropriate use of radio communications for briefed emission condition level. Performed all pre-refueling, refueling, and post-refueling checks in accordance with applicable checklist and directives. Satisfactorily managed/monitored fuel systems and onload/offload distribution in accordance with procedures and techniques outlined in the flight manual, checklist, and other directives. Correctly identified and located system components, explained and related their functions, and specified the limitations. Stated correct system status and its effect on related systems. Recognized malfunctions and applied proper corrective action(s). **Note:** Additional Pilot Criteria - Expeditiously established and maintained aircraft proper position. Positive/smooth aircraft control. Maintained the contact position for 10 minutes (at least 5 minutes continuous) with no more than one pilot-induced disconnect.

4.3.24.2. Q-. Limited knowledge of AAR operations and procedures. Performed pre-refueling, refueling, and post-refueling checks with some minor deviations/omissions that did not affect successful accomplishment of air-to-air refueling. Limited management/monitoring of fuel systems and onload distribution in accordance with procedures and techniques outlined in the flight manual, checklist, and other directives. Limited knowledge of identification, location, functions, and limitations of system components. Stated correct system status, but could not determine its effect on related systems. Delay in recognizing malfunctions and/or applying proper corrective action(s). Minor errors in the refueling portion of fuel planning as applicable to the mission. **Note:** Additional Pilot Criteria - Slow to recognize and apply needed corrections to establish and maintain proper position. Aircraft control was not always positive and smooth, but adequate. Accomplished published/directed procedures with deviations or omissions that

did not affect the successful completion of air-to-air refueling. Maintained the contact position for at least 10 minutes with no more than two pilot-induced disconnects.

4.3.24.3. U. Displayed lack of knowledge or familiarity with procedures to the extent that AAR was or could have been jeopardized. Failed rendezvous as a result of improper procedures. Inadequate knowledge of fuel system management or exceeded wing fuel balance limitations. Could not identify, locate, or relate systems functions and limitations. Could not determine status of system or its effect on related system. Failed to recognize malfunctions and/or apply corrective action(s). **Note:** Additional Pilot Criteria - Spent excessive time in trail. Aircraft control in the pre-contact/refueling position was erratic or unsafe. Made deviations or omissions that affected flight safety and/or the successful completion of the air-to-air refueling. Performance caused more than two pilot-induced disconnects and/or delayed mission accomplishment.

4.3.25. Area 54. Reserved for future use.

4.3.26. Area 55. Forward Area Refueling Point (FARP) Procedures.

4.3.26.1. Q. Satisfactorily demonstrated knowledge of FARP duties, equipment, and emergency procedures. Exercised sound crew coordination principles, and situational awareness. Loadmasters satisfactorily performed all items associated with hot refueling supervisor or panel operator duties.

4.3.26.2. Q-. Minor deviations in knowledge associated with FARP duties and equipment. LM demonstrated minor omissions in procedures during performance of hot refueling supervisor or Panel Operator duties.

4.3.26.3. U. Lacks adequate knowledge to safely perform FARP duties, operate FARP equipment, and/or emergency procedures. Could not exercise sound crew coordination and/or situational awareness. LM could not perform hot refueling supervisor or panel operator duties to the extent of creating unnecessary delays and/or jeopardizing FARP completion.

4.3.27. Area 56. Objective Area Formation.

4.3.27.1. Q. Demonstrated knowledge of proper formation procedures in accordance with applicable instructions. Provided timely and accurate communication to the crew and wingman regarding formation positioning and wingman consideration. Lead: Established and maintained appropriate formations utilizing published and briefed procedures. Smooth controls/power inputs and considered wingman. Planned ahead and made timely decisions. Wing: Maintained position in accordance with published and briefed procedures. At the discretion of the flight examiner, or if required by in-flight conditions, safely directed appropriate inadvertent weather penetration procedures. **Note:** Additional Pilot Criteria - Performed receiver lost contact procedures in accordance with flight manual, directives, or published procedures. Demonstrated smooth and immediate position corrections and maintained safe separation. Rejoins were smooth and timely.

4.3.27.2. Q-. Minor errors in formation procedures and crew coordination. Flight safety was not compromised. Lead: Made minor deviations from briefed or published procedures. Poor wingman considerations (aggressive turns or airspeed changes or extreme airspeeds). Did not plan ahead or hesitant to make decisions. Wing: Minor

deviations to published procedures. Slow to rejoin. Varied position considerably. Accomplished inadvertent weather or lost contact procedures slowly or with minor errors.

4.3.27.3. U. Major errors in published or briefed formation procedures. Ineffective crew coordination. Lead: Little wingman consideration. Continually rough on controls and/or maneuvered erratically causing wingman to overrun formation. Indecisive. Wing: Failed to maintain formation position. Did not maintain safe separation. Incorrect or unsafe rejoin, inadvertent weather, or lost contact procedures.

4.3.27.4. Subarea 56a. Reserved for future use.

4.3.27.5. Subarea 56b. Formation Airdrop. Use same grading criteria as areas 43, 44, 45, 46, 47 and 56.

4.3.27.6. Subarea 56c. Minimum Interval Landing. Use same grading criteria as areas 56 and 113.

4.3.28. Area 57. Systems Operations/Knowledge/Limitations.

4.3.28.1. Q. Demonstrated/explained a complete knowledge of aircraft systems operations/limitations and proper procedural use of systems.

4.3.28.2. Q-. Marginal knowledge of aircraft systems operations and limitations in some areas. Used individual technique instead of established procedures and was unaware of differences.

4.3.28.3. U. Unsatisfactory systems knowledge. Failed to demonstrate/explain the procedures for aircraft system operations.

4.3.29. Area 58. Degraded Operations.

4.3.29.1. Q. Demonstrated ability to react to loss of specific equipment and systems before and during flight. Knew operations restrictions associated with degraded systems. Accurately recommended correct course of action, based on particular loss.

4.3.29.2. Q-. Able to react to some equipment or systems failures which did not significantly contribute to mission degradation or failure.

4.3.29.3. U. Failed to recognize and react to system or equipment failure which affected ability for safe aircraft operation or significant mission degradation or failure.

4.3.30. Area 59. Cryptological System Operations.

4.3.30.1. Q. Familiar with applicable cryptological systems. Full knowledge of keying devices and materials. With use of a guide, keyed all systems without error.

4.3.30.2. Q-. Limited knowledge of applicable cryptological systems, keying devices, and materials. With use of a guide, keyed most systems with minor error.

4.3.30.3. U. Lacked knowledge of applicable cryptological systems, keying devices, or keying materials. Failed to key systems.

4.3.31. Area 60. Authentication/Encode-Decode Procedures.

4.3.31.1. Q. Thorough knowledge of authentication/encode-decode materials and procedures. Correct/timely authentication procedures. Correct/timely encode-decode

procedures when required. Correct authentication/encode-decode materials were always readily at hand.

4.3.31.2. Q-. Limited knowledge of authentication/encode-decode materials and procedures which did not affect mission accomplishment. Correct but slow authentication which did not affect mission accomplishment. Correct but slow encode-decode procedures which did not affect mission accomplishment.

4.3.31.3. U. Unsatisfactory knowledge of authentication/encode-decode materials and procedures. Incorrect or excessively slow authentication. Failed to encode-decode when required. Authentication/encode-decode materials were not readily available or were incorrect.

4.3.32. Area 61. Airborne Mission Network (AbMN) Equipment Knowledge/Employment.

4.3.32.1. Q. Correlated intelligence and operations inputs via any number of situational awareness (SA) devices (e.g., specialized airborne mission system-enhanced situatiional awareness (SAMS-ESA), ku spread sprectrum (KuSS), air force tactical radio suite (AFTRS), moving map, messenger internet relay chat (MiRC)) to stay abreast of the tactical situation. Able to effective key and operate equipment. Analyzed incoming information and disseminated appropriate data in a timely manner.

4.3.32.2. Q-. Did not completely correlate operations and intelligence inputs to remain abreast of the tactical situation. Disseminated critical information but caused some delays.

4.3.32.3. U. Failed to remain sufficiently abreast of the tactical situation that impaired effective mission accomplishment or unable to key or operate equipment. Failed to pass critical data to operators in need of the information.

4.3.33. Area 62. Special Mission Equipment (SME)/Orbit Procedures.

4.3.33.1. Q. Understands and uses proper procedures for SME operation. Abides by proper technical order limitation for the SME equipment and orbital procedures.

4.3.33.2. Q-. Slow to use proper procedures for SME operation. Fair knowledge of technical order limitation for the SME equipment and orbital procedures.

4.3.33.3. U. Failed to use proper procedures for SME operation. Unable to recite technical order limitations for the SME equipment and orbital procedures.

4.3.34. Area 63. NVG Usage/Limitations.

4.3.34.1. Q. Correctly described the use/limitations of NVGs.

4.3.34.2. Q-. Minor omissions or deviations in describing the use/limitations of NVGs. Did not properly preflight, handle, or use NVGs during the flight, but caused no damage to equipment. Mission success was not negatively affected.

4.3.34.3. U. Procedures for using NVGs were incorrect. Caused damage to equipment. Mission unsuccessful as a result of improper NVG usage.

4.3.35. Areas 64-99. Reserved for future use.

Chapter 5

PILOT/COPILOT EVALUATIONS

5.1. General. All pilots and copilots require an INSTM and QUAL evaluation. **(T-2)**. MSN qualified pilots/copilots require a separate MSN evaluation. **(T-2)**. The MSN evaluation may occur on the same sortie as the INSTM/QUAL evaluation. Copilots will be evaluated to the same area standards as pilots unless specified otherwise. **(T-2)**. Copilot crew coordination will not include duties and responsibilities expected of an aircraft commander. **(T-2)**. Instructors will demonstrate instructor duties on all periodic evaluations. **(T-2)**.

5.2. Requirements. Refer to **Table 2.1** for general, **Table 3.1** for instructor, and **Table 4.1** for common grading areas and criteria. Pilot/copilot required areas and criteria follow in this chapter.

5.3. Instrument. See **Table 5.1** for required INSTM evaluation areas. Requisites (prerequisites for initial/requalification evaluations) include the United State Air Force Instrument Examination. The INSTM evaluation will be conducted in-flight or in a WST by an evaluator. **(T-2).**

5.3.1. The evaluation profile will include: one precision approach; one non-precision approach; one Category (CAT) II approach (if qualified); holding or procedure turn; circling pattern (traffic and weather permitting); missed approach; and simulated engine-out instrument approach. **(T-2)**. Do not combine the precision and CAT II approaches. **(T-2)**. One of the approaches will be flown by the examinee without use of the autopilot and autothrottles. **(T-2)**. Initial CAT II qualification evaluations require an approach to a missed approach and an approach to a landing. **(T-2)**. CAT II procedures may be evaluated on a CAT I approach in visual meterological conditions (VMC) only.

5.3.2. Initial/Requalification. Individuals with an instrument qualification on any C-130J variant are considered instrument qualified on any other C-130J variant after completion of MAJCOM approved differences training.

5.3.3. Periodic. Evaluations may be conducted on any C-130J variant, if the examinee is qualified/difference trained in the aircraft.

5.4. Qualification. See **Table 4.1** and **Table 5.1** for required QUAL evaluation areas. Requisites (prerequisites for initial/requalification evaluations) include qualification open and closed book examinations (or formal school end-of-course examinations), EPE, and boldface examination **(T-2)**. This evaluation is normally accomplished in combination with an instrument evaluation. The QUAL evaluation will be conducted in-flight or in a WST. **(T-2)**.

5.4.1. The evaluation profile will include: VFR pattern; 100%, 50%, and 0% flap landing (conditions permitting, aircraft commanders/A-code certified first pilots/instructors should accomplish 0% flap landings); touch-and-go procedures; simulated engine-out go-around, and simulated engine-out landing. **(T-2)**. First Pilots (FPs) should accomplish a maximum effort take-off and landing in order to maintain this qualification. Document this portion of the evaluation in the remarks section of AF Form 8 or AF Form 8a.

5.4.2. Initial/Requalification. Individuals with an instrument qualification on a C-130J variant may perform tasks associated with that instrument qualification on any other C-130J variant after completion of differences training.

5.4.3. Periodic. Evaluations may be conducted on any C-130J variant, if the examinee is qualified/difference trained in the aircraft.

5.4.3.1. First Pilots (FPs). FPs may be evaluated from either the left or right seat for INSTM/QUAL events in accordance with AFI 11-2EC-130J, Vol 3.

5.4.3.2. Mission Pilot (MP)/Aircraft Commanders. MPs will be evaluated in the left seat for INSTM/QUAL events by the evaluator. **(T-3)**.

5.4.3.3. Instructor Pilots (IPs). IPs may be evaluated from either the left or right seat for INSTM/QUAL events.

5.5. Mission. See **Table 4.1** and **Table 5.2** for MSN evaluation areas and subparagraph below for requirements. Requisites (prerequisites for initial/requalification evaluations) include mission open and closed book examinations and EPE. **(T-2)**.

5.5.1. Initial/Requalification.

5.5.1.1. TAC MSN**.** The TAC evaluation profile will include NVG low-level (at least 30 minutes), formation, airdrop and AAR (see **paragraph 5.5.4**). **(T-2)**. The following areas will also be evaluated:

5.5.1.1.1. Formation will include formation airdrop (actual or simulated). **(T-2)**. Minimum interval landing is preferred, but not required; if not observed in-flight, it will be evaluated through an alternate method (e.g., ground evaluation on procedures). **(T-2).**

5.5.1.1.2. Reserved for future use.

5.5.1.1.3. Tactical recovery/SCA. **(T-2)**.

5.5.1.1.4. Maximum effort takeoff and landing (see **paragraph 5.5.3**). **(T-2)**.

5.5.1.1.5. NVG takeoff and landing. **(T-2)**.

5.5.1.1.6. A threat reaction. **(T-2)**.

5.5.1.1.7. CARP airdrop (actual or standard airdrop training bundle (SATB)). **(T-2)**.

5.5.1.1.8. Copilots will accomplish a NVG takeoff and landing using normal procedures (non-maximum effort). **(T-2)**.

5.5.1.1.9. TOT/TOA will be to one of the events above. **(T-2)**.

5.5.1.2. EW MSN. The EW evaluation profile will include SME/orbit procedures with mission systems operations and AAR. (**See paragraph 5.5.4**). **(T-2)**. The evaluator will also evaluate the following areas:

5.5.1.2.1. Tactical recovery/SCA. **(T-2)**.

5.5.1.2.2. NVG takeoff and landing. **(T-2)**.

5.5.1.2.3. A threat reaction. **(T-2)**.

5.5.1.2.4. TOT/TOA will be to one of the events above. **(T-2)**.

5.5.2. Periodic. Administer this evaluation on any flight representative of the EC-130J mission.

5.5.2.1. Periodic TAC MSN. The periodic TAC MSN evaluation profile will include the following areas:

5.5.2.1.1. An NVG low level of at least 30 minutes. **(T-2)**. As minimum, evaluate mountainous NVG low-level every other evaluation. **(T-2)**. Document in the comments section of the AF Form 8 or AF Form 8a when accomplished.

5.5.2.1.2. A maximum effort takeoff and landing (see **paragraph 5.5.3**). **(T-2)**.

5.5.2.1.3. NVG takeoff and landing. **(T-2)**.

5.5.2.1.4. A threat reaction. **(T-2)**.

5.5.2.1.5. A TOA/TOT is required on all periodic mission evaluations. The TOA/TOT may be timed to either a high speed airdrop, air-to-air refueling, or slow speed event as single ship or formation lead. **(T-2)**.

5.5.2.2. Periodic EW MSN. The periodic EW evaluation profile will include SME/orbit procedures with mission systems operations. (**See paragraph 5.5.4**). **(T-2)**. The following areas will aslo be evaluated:

5.5.2.2.1. Tactical recovery/SCA. **(T-2)**.

5.5.2.2.2. NVG takeoff and landing. **(T-2)**.

5.5.2.2.3. A threat reaction. **(T-2)**.

5.5.2.2.4. TOT/TOA will be to one of the events above. **(T-2)**.

5.5.3. Maximum Effort (ME) Takeoff and Landing. ME landings will not be evaluated in the WST. **(T-2)**. This event is normally accomplished as part of the mission evaluation. ME procedures are not required if they were previously evaluated during the qualification evaluation. For mission evaluations, first pilots/copilots accomplish the maximum effort takeoff and landing evaluation by demonstrating the duties required in the copilot position. As a minimum, first pilots/copilots should be thoroughly debriefed on ME procedures. NVG takeoff/landing may be credited if flown to ME standards. For ME qualified FPs, see **paragraph 5.4.1** **Note:** One go-around is permitted, provided the aircraft does not touchdown short of the zone.

5.5.4. Receiver Air-to-Air Refueling.

5.5.4.1. Initial/Requalification. Initial/requalification AAR evaluations will be accomplished in the aircraft. **(T-2)**. The evaluation profile will include a rendezvous, join-up, contact, and breakaway. **(T-2)**. Squadron commanders may authorize an AAR evaluation in the WST on a case-by-case for copilots only. Include AAR on MSN evaluations to the maximum extent possible.

5.5.4.2. Failure to accomplish initial/requalification AAR. If unable to grade AAR (e.g., due to scheduling, maintenance or weather limitations), evaluators should attempt additional aircraft or WST sorties (consistent with above) for the same evaluation, if

practicable. If unable to evaluate AAR by any means, the evaluator will close out the Form 8 and restrict the examinee from performing AAR without an instructor pilot. **(T-3)**. Aircraft qualification is not affected by this restriction and may be removed later via a SPOT evaluation.

5.5.4.3. Periodic AAR evaluations. AAR is not required for periodic evaluations.

5.5.4.4. Air-to-air refueling qualification is only required in one C-130J mission design series. Once AAR qualified, air-to-air refueling may be conducted in any AAR capable C-130J variant in which the pilot is qualified. **Note:** MAJCOM - approved differences training may be required.

5.5.5. Reserved for future use.

Table 5.1. Pilot/Copilot INSTM/QUAL Grading Areas.

Area	Notes	Grading Areas	QUAL	INSTM
100	1	Ground Operations/Taxi	X	
101	1	Takeoff	X	
102		Instrument Departure		X
103	1	En Route Navigation/use of navigational aids (NAVAIDS)		X
104	1	Descent/Arrival Procedures		X
105	1	Holding/Procedure Turn		X
106	4	Precision Approach (PAR or Instrument Landing System (ILS))		X
106a	1, 3	Precision Approach Radar (PAR)		X
106b	1	Instrument Landing System		X
106c	1	CAT II ILS		X
106d	1	Integrated Precision Radar Appraoch (IPRA)		X
107	4	Non-precision Approach (TACAN, Very High Frequency Omnidirectional Range Station (VOR), Localizer (LOC), Nondirectional Beacon (NDB), Airport Surveillance Radar (ASR))		X
107a	1	TACAN		X
107b	1	VOR		X
107c	1	LOC		X
107d	1	NDB		X
107e	1, 3, 4	ASR		X
108	1	Circling/Side-Step Approach		X
109	1	Engine-Out Approach		X
110	1	Missed Approach/Go-Around		X
111	1	Engine-Out Go-Around	X	
112	1, 5	VFR Pattern	X	
113	1	Final Approach and Landing	X	
113a	1	100 Percent Flap Landing	X	
113b	1	50 Percent Flap Landing	X	

Area	Notes	Grading Areas	QUAL	INSTM
113c	1, 2, 5	No Flap Landing	X	
113d	1	Engine-Out	X	
113e	1	Touch-and-Go Landing	X	
114		Fuel Conservation	X	
115		Systems Operations/Knowledge/Limitations/ National Airspace System (NAS)	X	X
116	1	Automation management	X	X
117-149		Reserved for future use		

Notes:

1. Required in-flight or simulator certified for this event.
2. Aircraft commanders (or A-coded First Pilots) and instructors only.
3. Only one of the two required approaches may be controller directed (PAR/ASR).
4. Do not evaluate a precision approach radar (PAR) as the only precision approach when the non-precision approach evaluated is the airport surveillance radar (ASR). Do not evaluate an ASR as the only non-precision approach when the precision approach evaluated is the PAR.
5. May be omitted if conditions preclude accomplishing this event. If not accomplished in-flight, it must be debriefed following the flight evaluation and annotated in the comments section of the AF Fm 8/8A.

Table 5.2. Pilot/Copilot MSN Qualification Grading Areas.

Area	Notes	Grading Areas	EW	TAC
150		Tactical Recovery (SCA, overhead, downwind, random shallow/steep, etc.)	X	X
151	1, 3	Maximum Effort Takeoff		X
152	1, 3	Maximum Effort Landing		X
153	2	NVG Airland	X	X
154-199		Reserved for future use		

Notes:

1. Required in-flight.
2. Required in-flight or simulator certified for this event.
3. Aircraft commanders/instructors only.

5.6. Grading Criteria. The following subparagraphs contain grading criteria for the areas listed in **Table 5.1** and **Table 5.2** The general criteria in **Table 5.3** apply during all phases of flight except as noted for specific events and instrument final approaches.

Table 5.3. General Criteria.

Q	Altitude	± 200 feet
	Airspeed	+10/- 5 KIAS (but not less than Vmca)
	Course	± 5 degrees/3 nm (whichever is greater)
	Arc	± 2 nm
Q-	Altitude	± 300 feet
	Airspeed	+15/- 10 KIAS (but not less than Vmca)
	Course	± 10 degrees/5 nm (whichever is greater)
	Arc	± 3 nm
U		Exceeded Q- limits

5.6.1. Area 100. Ground Operations/Taxi.

5.6.1.1. Q. Established and adhered to station, start engine, taxi, and take-off time to assure thorough preflight, check of personal equipment, crew/passenger briefings, etc. Accurately determined readiness of aircraft for flight. Completed all systems preflight/postflight inspections, and checklists in accordance with flight manual. Conducted taxi operations according to flight manual, AFMAN 11-218, *Aircraft Operations and Movement on the Ground*, and local procedures.

5.6.1.2. Q-. Same as above except for minor procedural deviations that did not detract from mission effectiveness.

5.6.1.3. U. Failed to accurately determine readiness of aircraft for flight. Major deviations in procedure that would preclude safe mission accomplishment. Crew errors directly contributed to a late takeoff that degraded the mission or made it ineffective. Omitted checklist items.

5.6.2. Area 101. Takeoff.

5.6.2.1. Q. Maintained smooth, positive aircraft control throughout takeoff. Performed takeoff in accordance with flight manual and as published/directed.

5.6.2.2. Q-. 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 or corrections.

5.6.2.3. U. Takeoff was potentially dangerous. Exceeded aircraft/systems limitations. Failed to establish proper climb attitude. Excessive deviation from intended flight path. Violated flight manual procedures. Exceeded Q- criteria.

5.6.3. Area 102. Instrument Departure.

5.6.3.1. Q. Performed departure in accordance with published procedures and directives. Complied with all restrictions or controlling agency instructions. Made all required reports. Applied course/heading corrections promptly. Demonstrated smooth, positive aircraft control.

5.6.3.2. Q-. Minor deviations in navigation occurred during departure. Slow to comply with controlling agency instructions or unsure of reporting requirements. Slow to apply course/heading corrections. Aircraft control was not consistently smooth and positive.

5.6.3.3. U. Instrument departure was not in accordance with technical orders, directives, or published procedures. Failed to comply with published/directed departure, or controlling agency instructions. Accepted an inaccurate clearance. Aircraft control was erratic.

5.6.4. Area 103. En Route Navigation/Use of Navigational Aids (NAVAIDS).

5.6.4.1. Q. Able to navigate using all available means. Used appropriate navigation procedures. Ensured NAVAIDS were properly tuned, identified, and monitored. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.

5.6.4.2. Q-. Minor errors in procedures/use of navigation equipment. Some deviations in tuning, identifying, and monitoring NAVAIDS were observed. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Slow to adjust for deviations in time and course.

5.6.4.3. U. Major errors in procedures/use of navigation equipment. Did not ensure NAVAIDS were tuned, identified, and monitored. 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.

5.6.5. Area 104. Descent/Arrival Procedures.

5.6.5.1. Q. Performed descent as directed. Complied with all flight manual, controller issued, or Standard Terminal Arrival Route (STAR) restrictions in a proficient manner. Accomplished all required checks.

5.6.5.2. Q-. Performed descent as directed with minor deviations that did not compromise mission safety. Slow to comply with controller instructions and accomplish required checks.

5.6.5.3. U. Performed descent with major deviations. Failed to follow controller instructions or made erratic corrections. Exceeded flight manual limitations or did not accomplish required checks.

5.6.6. Area 105. Holding/Procedure Turn.

5.6.6.1. Q. Performed entry and holding in accordance with published procedures and directives. Holding pattern limits exceeded by not more than:

5.6.6.1.1. VOR Leg timing: ± 15 seconds.

5.6.6.1.2. TACAN: ± 2 nm.

5.6.6.2. Q-. Performed entry and holding procedures with minor deviations. Holding pattern limit exceeded by not more than:

5.6.6.2.1. VOR Leg timing: ± 30 seconds.

5.6.6.2.2. TACAN: ± 3 nm.

5.6.6.3. U. Holding was not in accordance with technical orders, directives, or published procedures. Exceeded Q- holding pattern limits.

5.6.7. Area 106. Precision Approach (PAR or ILS). **Note:** Use the following criteria as general tolerances for airspeed, altitude, heading, glide slope, and azimuth. Airspeed tolerances are based on computed approach speed.

5.6.7.1. Q.

5.6.7.1.1. Airspeed: + 10/- 5 KIAS indicated airspreed (KIAS).

5.6.7.1.2. Heading: ± 5 degrees of controller's instructions (PAR).

5.6.7.1.3. Glide slope: Within one dot (ILS).

5.6.7.1.4. Azimuth: Within one dot (ILS).

5.6.7.2. Q-.

5.6.7.2.1. Airspeed: + 15/- 10 KIAS.

5.6.7.2.2. Heading: ± 10 degrees of controller's instructions (PAR).

5.6.7.2.3. Glide slope: Within one dot low, two dots high (ILS), after runway was in sight examinee momentarily deviated below glide path but corrected for a safe landing (duck under).

5.6.7.2.4. Azimuth: Within two dots (ILS).

5.6.7.3. U: Exceeded Q- criteria.

5.6.7.4. Subarea 106a. Precision Approach Radar.

5.6.7.4.1. Q. Approach was in accordance with flight manual, directives, and published procedures. Smooth and timely response to controller's instructions. Established initial glide path and maintained glide slope with minor deviations. Complied with decision height. Position would have permitted a safe landing. Elevation did not exceed slightly above or slightly below glide path.

5.6.7.4.2. Q-. Performed approach with minor deviations. Slow to respond to controller's instructions and make corrections. Position would have permitted a safe landing. Elevation did not exceed well above or well below glide path.

5.6.7.4.3. U. Approach not in accordance with flight manual, directives, or published procedures. Erratic course and glide slope corrections. Did not make corrections or react to controller's instructions. Did not comply with decision height and/or position would not have permitted a safe landing. Exceeded Q- limits.

5.6.7.5. Subarea 106b. Instrument Landing System.

5.6.7.5.1. Q. Approach was in accordance with flight manual, directives, and published procedures. Smooth and timely corrections to azimuth and glide slope. Complied with decision height and position permitted a safe landing.

5.6.7.5.2. Q-. Performed procedures with minor deviations. Slow to make corrections or initiate procedures. Slow to comply with decision height. Position would have permitted a safe landing.

5.6.7.5.3. U. Approach not in accordance with flight manual, directives, or published procedures. Erratic course/glide slope corrections. Did not comply with decision height or position would not have permitted a safe landing. Exceeded Q- criteria.

5.6.7.6. Subarea 106c. CAT II Instrument Landing System.

5.6.7.6.1. Q. Approach was in accordance with flight manual, directives, and published procedures. Smooth and timely corrections to azimuth and glide slope. Complied with decision height and position permitted a safe landing.

5.6.7.6.2. Q-. Performed procedures with minor deviations. Slow to make corrections or initiate procedures. Slow to comply with decision height. Position would have permitted a safe landing.

5.6.7.6.3. U. Approach not in accordance with flight manual, directives, or published procedures. Erratic course/glide slope corrections. Did not comply with decision height or position would not have permitted a safe landing. Exceeded Q- criteria.

5.6.7.7. Subarea 106d. Integrated Precision Radar Appraoch (IPRA).

5.6.7.7.1. Q. Approach was in accordance with flight manual, directives, and published procedures. Smooth and timely corrections to azimuth and glide slope. Complied with decision height and position permitted a safe landing.

5.6.7.7.2. Q-. Performed procedures with minor deviations. Slow to make corrections or initiate procedures. Slow to comply with decision height. Position would have permitted a safe landing.

5.6.7.7.3. U. Approach not in accordance with flight manual, directives, or published procedures. Erratic course/glide slope corrections. Did not comply with decision height or position would not have permitted a safe landing. Exceeded Q- criteria.

5.6.8. Area 107. Non-precision Approach (TACAN, VOR, LOC, NDB, ASR). **Note:** Use the following criteria for Areas 107a-107e.

5.6.8.1. Q. Approach was in accordance with flight manual, directives, and published procedures. Used appropriate descent rate to arrive at minimum decision altitude (MDA) at or before visual descent point. Position permitted a safe landing. Smooth and timely response to controller's instructions (ASR).

5.6.8.1.1. Airspeed: + 10/- 5 KIAS.

5.6.8.1.2. Heading: ± 5 degrees (ASR).

5.6.8.1.3. Course: ± 5 degrees at missed approach point (MAP) (TACAN, VOR, NDB), less than one dot deflection (LOC).

5.6.8.1.4. MDA: + 100/- 0 feet.

5.6.8.1.5. MAP: Timing computed/adjusted within 10 seconds or distance within ± .5 nm.

5.6.8.2. Q-. Performed approach with minor deviations. Arrived at MDA at or before the MAP, but past the visual descent point. Position would have permitted a safe landing. Slow to respond to controller's instructions and make corrections (ASR).

5.6.8.2.1. Airspeed: + 15/- 10 KIAS.

5.6.8.2.2. Heading: ± 10 degrees (ASR).

5.6.8.2.3. Course: ± 10 degrees at MAP (TACAN, VOR, NDB).

5.6.8.2.4. Localizer: Within two dots deflection.

5.6.8.2.5. MDA: + 150/- 50 feet.

5.6.8.2.6. MAP: Timing computed/adjusted within 20 seconds or distance within + 1 / - .5 nm.

5.6.8.3. U. Approach not in accordance with flight manual, directives, or published procedures. Maintained steady-state flight below the MDA, even though the -50 foot limit was not exceeded. Could not land safely from approach and did not initiate missed approach/go-around when appropriate or directed. Exceeded Q- criteria.

5.6.8.4. Area 107a. TACAN.

5.6.8.5. Area 107b. VOR.

5.6.8.6. Area 107c. LOC.

5.6.8.7. Area 107d. NDB.

5.6.8.8. Area 107e. ASR.

5.6.9. Area 108. Circling/Side-Step Approach.

5.6.9.1. Q. Properly identified aircraft category for the approach and remained within the lateral limits for that category. Complied with controller's instructions. Attained runway alignment without excessive bank angles. Did not descend from the MDA until in a position to place the aircraft on a normal glide path or execute a normal landing.

5.6.9.1.1. Airspeed: + 10/- 5 KIAS.

5.6.9.1.2. Altitude: + 100/- 0 feet.

5.6.9.2. Q-. Slow to comply with controller's instructions. Attained runway alignment but occasionally required excessive bank angles or maneuvering.

5.6.9.2.1. Airspeed: + 15/- 10 KIAS.

5.6.9.2.2. Altitude: + 150/- 50 feet.

5.6.9.3. U. Did not properly identify aircraft category or exceeded the lateral limits of circling airspace. Did not comply with controller's instructions. Excessive maneuvering to attain runway alignment was potentially unsafe. Descended from the MDA before the aircraft was in position for a normal glide path or landing. Exceeded Q- criteria.

5.6.10. Area 109. Engine-Out Approach. **Note:** Use approach criteria for the type of approach being flown and the following.

5.6.10.1. Q. Performed procedures in accordance with the flight manual and associated directives. Individual technique complied with established procedures. Proper control inputs were used to correct asymmetric condition. Aircraft was properly trimmed. Proper consideration was given to maneuvering with regard to the dead engine.

5.6.10.2. Q-. Minor deviations in procedures/aircraft control allowed the aircraft to occasionally be in uncoordinated flight. Unnecessary maneuvering due to minor errors in planning or judgment.

5.6.10.3. U. Major/unsafe deviations from procedures. Individual technique unsafe or violated established procedures. Aircraft was not properly trimmed. Aircraft control consistently resulted in uncoordinated flight. Potentially unsafe maneuvering with regard to the dead engine.

5.6.11. Area 110. Missed Approach/Go-Around.

5.6.11.1. Q. Executed missed approach in accordance with published procedures and restrictions. Initiated and performed go-around promptly. Complied with controller's instructions. Applied smooth control inputs. Attained and maintained a positive climb.

5.6.11.2. Q-. Executed missed approach with minor deviations to published procedures/directives. Was slow or hesitant to initiate go-around. Slow to respond to controller's instructions. Slightly over-controlled the aircraft.

5.6.11.3. U. Did not execute missed approach in accordance with technical orders, directives, or published procedures. Did not comply with controller's instructions. Deviations or misapplication of procedures could have led to an unsafe condition. Exceeded Q- criteria.

5.6.12. Area 111. Engine-Out Go-Around. **Note:** Use Area 110 criteria and the following.

5.6.12.1. Q. Applied smooth, coordinated control inputs. Rudder and aileron inputs were in the correct direction. Maneuvered appropriately with regard to the dead engine. Individual technique complied with established procedures.

5.6.12.2. Q-. Rudder and aileron inputs were in correct direction but some over/under control. Individual techniques were safe, but detracted from the maneuver.

5.6.12.3. U. Rudder and/or aileron inputs were incorrect. Maneuvering with regard to the dead engine potentially unsafe. Failed to comply with/consider minimum control speeds. Individual technique unsafe or violated established procedures.

5.6.13. Area 112. VFR Pattern.

5.6.13.1. Q. Adhered to published restrictions/local guidance. Performed traffic pattern and turn to final/final approach in accordance with flight manual procedures. Aircraft control was smooth and positive. Did not over/under-shoot final approach. Constantly cleared area of intended flight.

5.6.13.2. Q-. Minor deviations from published restrictions/local guidance. Performed traffic pattern and turn to final/final approach with minor deviations to procedures. Aircraft control was safe but 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.

5.6.13.3. U. Major/unsafe deviations from published restrictions/local guidance. Did not perform traffic pattern and turn to final/final approach in accordance with technical orders, directives, or 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. Exceeded Q- criteria.

5.6.14. Area 113. Final Approach and Landing. Use the following criteria for Areas 113a through 113e. **Note:** The following criteria are written to broadly apply to all landings. Flight examiners must apply these criteria judiciously to allow for the unique characteristics of each type of landing. Where runway configuration, arresting cable placement, or flight manual limitations require an adjustment to the desired touchdown point, a simulated runway threshold will be identified and the grading criteria applied accordingly. For instrument approaches, the examinee should utilize a normal glideslope from either the decision height or from a point where visual acquisition of the runway environment is made. Specific items to evaluate include threshold altitude/airspeed, runway alignment, flare, touchdown speed, and landing crab.

5.6.14.1. Q. Performed landing as published/directed in accordance with flight manual. Crossed threshold at threshold speed ± 5 KIAS at proper attitude. Smooth and positive aircraft control throughout the round-out and flare. Touched down with no crab, and not more than 15 feet left or right of centerline. Complied with flight manual procedures for the use of brakes and reverse thrust. Met the following criteria:

5.6.14.1.1. Touchdown Speed: ± 5 KIAS.

5.6.14.1.2. Touchdown Point: Within 1,000 feet of intended touchdown point for single-ship landings and within pre-briefed zone for minimum interval landing.

5.6.14.2. Q-. Performed landing with minor deviations to procedures as published/directed. Crossed threshold at threshold speed + 10/- 5 KIAS slightly high or low but no compromise of safety. Touched down not more than 25 feet left or right of centerline. Exceeded Q criteria but not the following:

5.6.14.2.1. Touchdown Speed: + 10/- 5 KIAS.

5.6.14.2.2. Touchdown Point: Threshold—3,000 feet for single-ship landings. For minimum interval landing, landed outside of pre-briefed zone, but did not compromise safety or formation integrity.

5.6.14.3. U. Landing not performed as published/directed. Exceeded Q- criteria. Failed to comply with flight manual procedures for the use of brakes and reverse thrust. For minimum interval landing, landed outside of pre-briefed zone and compromised safety.

5.6.14.4. Area 113a. 100 Percent Flap Landing.

5.6.14.5. Area 113b. 50 Percent Flap Landing.

5.6.14.6. Area 113c. No Flap Landing.

5.6.14.7. Area 113d. Engine-Out Landing.

5.6.14.8. Area 13e. Touch-and-Go Landing.

5.6.15. Area 114. Fuel Conservation.

5.6.15.1. Q. Possessed a high level of knowledge of all applicable aircraft publications and other governing directives and understood how to apply both to enhance fuel conservation. Successfully applied fuel conservation procedures during the mission.

5.6.15.2. Q-. Possessed some knowledge of applicable aircraft publications and other governing directives and understood how to apply both to enhance fuel conservation. Successfully applied some fuel conservation procedures, but missed several opportunities to apply fuel conservation procedures during the mission.

5.6.15.3. U. Unaware of fuel conservation procedures. Failed to apply any fuel conservation procedures during the mission.

5.6.16. Area 115. Systems Operations/Knowledge/Limitations/NAS.

5.6.16.1. Q. Demonstrated/explained a complete knowledge of aircraft systems operations/ limitations and proper procedural use of systems. Demonstrated complete knowledge of and complied with NAS rules and procedures in all areas of mission planning and flight operations.

5.6.16.2. Q-. Marginal knowledge of aircraft systems operations and limitations in some areas. Used individual technique instead of established procedures and was unaware of differences. Marginal knowledge of NAS rules and procedures.

5.6.16.3. U. Unsatisfactory systems knowledge. Failed to demonstrate/explain the procedures for aircraft system operations. Unsatisfactory knowledge of NAS rules and procedures.

5.6.17. Area 116. Automation Management.

5.6.17.1. Q. Established/followed guidelines for the operation of automated systems; aware of when systems should be disabled, and when programming actions must 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 CNI-MU. 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.

5.6.17.2. Q-. Had limited knowledge of guidelines for the operation of automated systems; unclear as to when systems should be disabled, or when programming actions must be verbalized and acknowledged. Slow to establish/follow PF and 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 CNI-MU. Inconsistently used automated systems at appropriate levels.

5.6.17.3. U. Did not establish/follow guidelines for the operation of automated systems; unaware of when systems should be disabled, or programming actions that must be verbalized and acknowledged. Did not establish/follow PF and 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 CNI-MU. 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.

5.6.18. Areas 117 - 149. Reserved for future use.

5.6.19. Area 150. Tactical Recovery. **Note:** Includes SCAs, overheads, downwind, random steep/shallow, etc.

5.6.19.1. Q. Followed procedures as briefed and in accordance with flight manual, directives, or published procedures. Displayed smooth, positive control throughout the recovery. Positioned aircraft to intercept glide path for normal landing. Gave proper consideration to threat location and adjusted pattern accordingly. Constantly cleared area of intended flight.

5.6.19.2. Q-. Performed recovery with minor deviations to published procedures. Aircraft control was not consistently positive and smooth. Over/under-shot final approach slightly but was able to intercept glide path for normal landing.

5.6.19.3. U. Recovery not performed in accordance with flight manual, directives, or published procedures. Displayed erratic aircraft control. Over/under-shot final approach, requiring a go-around or potentially unsafe maneuvering to intercept final. Failed to consider threat location or proximity and/or maneuvering could have placed the aircraft within lethal range of given threat system. Did not clear area of intended flight.

5.6.20. Area 151. Maximum Effort Takeoff.

5.6.20.1. Q. Displayed satisfactory knowledge of maximum effort procedures. Could describe and apply terms such as acceleration check speed, minimum field length for maximum effort takeoff, three-engine Vmca, etc. Thoroughly analyzed departure/landing runway and surrounding terrain. Reviewed all applicable takeoff and landing data (TOLD) and thoroughly briefed crew on their duties. Maintained smooth positive control throughout departure roll and takeoff. Climbed on speed and decreased angle or attack once clear of obstacle.

5.6.20.2. Q-. Minor deviations in knowledge or published procedures. Minor errors in describing or applying above terms. Minor errors or omissions in TOLD or crew briefing. Control inputs were abrupt. Minor deviations from published/briefed procedures did not jeopardize safety.

5.6.20.3. U. Procedures not in accordance with flight manual, directives, or published procedures. Failed to analyze assault zone constraints or verbalize concerns posed by terrain or other factors. Could not describe or apply above terms. Major errors in TOLD data review or crew briefing. Displayed unsatisfactory knowledge of assault procedures. Takeoff was not in accordance with with flight manual, directives, or published procedures. Did not use Vmca when conditions permitted. Raised flaps too quickly with relation to airspeed. Performance of maneuver jeopardized safety.

5.6.21. Area 152. Maximum Effort Landing.

5.6.21.1. Q. Adhered to published procedures. Maintained smooth approach path. Used proper aim points with positive corrections, as necessary. Touched down on centerline within the zone (defined as the marked 500’ zone or prebriefed 500’ zone if instrument markings are used) without excessive bouncing or crab. Maintained runway centerline

during rollout. Stopped at pre-briefed location or exited the runway at prebriefed location. Airspeed: ± 5 KIAS.

5.6.21.2. Q-. Minor deviations to published procedures. Aim point/aircraft alignment wandered or corrections were not smooth or timely. Landed in zone but had excessive bouncing or crab. Airspeed: + 10/- 5 KIAS.

5.6.21.3. U. Touchdown short of the landing zone. Touchdown beyond the landing zone and did not execute a go-around. Touchdown/rollout was more than 10 feet from centerline. Failed to stop at pre-briefed location or exit the runway at pre-briefed location.

5.6.22. Area 153. NVG Airland. **Note:** NVG Airland may be evaluated utilizing normal or maximum effort procedures. When evaluating copilots, use normal procedures.

5.6.22.1. For NVG Airland operations use the following areas for detailed criteria:

5.6.22.1.1. Area 101 – Takeoff.

5.6.22.1.2. Area 113 – Landing.

5.6.22.1.3. Area 110 – Missed Approach/Go-Around. **Note:** If using maximum effort procedures during NVG Airland procedures, additionally use the Areas 151 and 152.

5.6.22.2. Q. Takeoff, landing, and missed approach criteria listed were not exceeded. Displayed satisfactory knowledge of NVG Airland procedures. Thoroughly analyzed departure/landing runway and surrounding terrain.

5.6.22.3. Q-. Minor deviations in knowledge or published procedures. Errors did not affect safety or mission accomplishment.

5.6.22.4. U. Procedures not in accordance with flight manual, directives, or published procedures. Failed to analyze NVG Airland constraints or verbalize concerns posed by terrain or other factors. Could not describe or apply above terms. Displayed unsatisfactory knowledge of NVG Airland procedures. Major errors impacting safety and mission accomplishment.

5.6.23. Areas 154 - 199. Reserved for future use.

Chapter 6

COMBAT SYSTEMS OPERATOR EVALUATIONS

6.1. General. Mission qualified CSOs require a combined qualification and mission evaluation. CSOs maintaining only basic qualification require a QUAL flight evaluation. Instructors will demonstrate instructor duties on all periodic evaluations. **(T-2)**.

6.2. Requirements. Evaluate all applicable general areas outlined in **Table 2.1** and **Table 4.1** on all evaluations. **(T-2)**. Also, evaluate all instructors on areas in **Table 3.1** on all evaluations. **(T-2).** CSO specific areas and criteria are listed in this chapter. For initial qualification or requalification evaluations, open and closed book examinations, boldface and an EPE are prerequisites, and for periodic evaluations these items are requisites.

6.3. Combined Qualification/Mission. In addition to areas listed in **Table 2.1, Table 3.1** and **Table 4.1**, mission evaluations will include areas in **Table 6.1 (T-2).** At a minimum, for a TAC MSN evaluation, annotate the following on the AF Form 8 in the comment section on the back of the form. Comments: the type of drop conducted, drop score, TOA/TOT, type of low-level flown, and if it was conducted in mountainous terrain. **(T-2)**.

6.3.1. Initial/Requalification.

6.3.1.1. TAC QUAL/MSN. Evaluations will include the following tactical events: airdrop, threat reaction and SCA. **(T-2)**. One of the listed tactical events must include at least 30 minutes of mountainous NVG low-level to TOA/TOT. **(T-2)**. The CSO must be actively directing the aircraft during the low-level. **(T-2)**. If the timed tactical event is a high-speed airdrop, then a separate slow-speed TOA/TOT is required. **(T-2)**. In that case, the evaluator will determine the length of the additional low-level. **(T-2)**.

6.3.1.2. EW QUAL/MSN. Evaluations will include the following tactical events: SME/orbit procedures with mission systems operations (not required in-flight) and AAR. **(T-2)**.

6.3.1.3. Failure to accomplish AAR. If unable to grade AAR, evaluators should attempt additional aircraft or WST sorties for the same evaluation, if practicable. If unable to evaluate AAR by any means, the evaluator will close the Form 8 and restrict the examinee from performing AAR without an instructor CSO. **(T-3)**. Aircraft qualification is not affected by this restriction and may be removed later via a SPOT evaluation.

6.3.2. Periodic.

6.3.2.1. Periodic TAC QUAL/MSN. Evaluation profile will include, as a minimum: 30 minutes of low-level to a TOT/TOA, a threat reaction, airdrop, and an SCA. **(T-2)**. TOT/TOA events may be an airdrop, air-to-air refueling, or tactical recovery/SCA. As a minimum, evaluate CSO direction of low level in mountainous terrain every other evaluation. **(T-2)**. Document in the comments section of the AF Form 8when accomplished. **(T-2)**.

6.3.2.2. Periodic EW QUAL/MSN. Evaluations will include the following tactical events: SME/orbit procedures with mission systems operations and AAR. **(T-2)**.

6.3.2.3. Air-to-Air Refueling. Include AAR on periodic evaluations to the maximum extent possible. Actual aircraft or a simulator should be used to the maximum extent possible, however CSOs may be ground evaluated on these procedures if unable due to scheduling, maxitenance, weather, etc.

6.4. Special Qualification Evaluations.

6.4.1. Mission Crew Commander (MCC). The "MCC QUAL" is a special mission qualification for EW Mission qualified CSOs. MCC QUAL evaluations will be conducted as a SPOT check and annotated on the Form 8. Refer to AFI 11-202, Vol 2, AFSOC Supplement. **(T-2)**. Annotate as a SPOT evaluation in the flight phase block of the FORM 8. Grading criteria can be found in **Table 2.1**, **Table 3.1** and **Table 6.2** For MCC qualified CSOs, the MCC SPOT check will be considered a prerequisite for periodic EW QUAL/MSN checks. **(T-2)**. CSOs failing to meet this prerequisite item will be decertified prior to the EW QUAL/MSN check. **(T-2)**. Remarks from the evaluator will be annotated in the mission description section under "Examiner's Remarks" on the AF Form 8. **(T-2)**.

6.4.2. MCC SPOT (initial/requalification/periodic). MCC initial/requalification checks must be conducted in the aircraft, and will not be combined with the CSO QUAL/MSN evaluation. **(T-2)**. Every other periodic evaluation must be conducted in the aircraft, and must be documented in the remarks section of the Form 8. **(T-2)**. Evaluation profiles should be scenario driven and must include, as a minimum, the following profile:

6.4.2.1. Mission crew planning. **(T-2)**.

6.4.2.2. Tactical employment of no less than two distinct mission events. **(T-2)**.

6.4.2.3. Tactical repositioning and retrograde procedures. **(T-2)**.

6.4.2.4. Post mission shutdown. **(T-3)**.

6.5. Grading Criteria. The following subparagraphs contain grading criteria for the areas listed in **Tables 6.1** and **6.2**

Table 6.1. CSO QUAL/MSN Grading Areas.

Area	Notes	Grading Areas	EW	TAC
200	1	Descent/Approach/Landing	X	X
201	1, 3	In-flight CARP Reevaluation		X
202	2	SCA Procedures	X	X
203-249		Reserved for future use		

Notes:

1. Required in-flight or simulator certified for this event.
2. Required in-flight or alternate method.
3. Required for airdrop CSO only.

Table 6.2. MCC Special QUAL Grading Areas.

Area	Notes	Grading Areas
250		Target Knowledge
251	1	Mission Crew Planning
252	1	Mission Equipment Knowledge/Operation
253	1	Tactical Employment
254	1	Mission Equipment Malfunction Analysis
255	1	System Setup
256	1	Jamming Ops/Antenna Orientation/Timing
257	1	Allocation/Use of Jamming/Broadcast Resources
258	1	Tactical Situation Monitoring
259	1	Mission Crew Supervision
260-299		Reserved for future use
Notes:		
1. Required in-flight or simulator certified for this event.		

6.5.1. Area 200. Descent/Approach/Landing.

6.5.1.1. Q. Monitored aircraft position, approach instructions, and tuned, identified, and monitored primary approach navigation aids. Furnished headings, ETAs, and other information to the pilot as required. Thoroughly understood approach and missed approach procedures. Ensured terrain clearance during approach by use of all available aids and area chart.

6.5.1.2. Q-. Monitored aircraft position but did not fully understand approach instructions/procedures. Slow to provide headings, ETAs, or other appropriate information.

6.5.1.3. U. Failed to monitor aircraft position or tune, identify and monitor the appropriate navigation aid. Did not ensure terrain clearance during the approach. Did not use appropriate chart/approach plate.

6.5.2. Area 201. In-flight CARP Reevaluation.

6.5.2.1. Q. CARP properly reevaluated in-flight and updated information conveyed to pilot.

6.5.2.2. Q-. CARP reevaluated in-flight but data was old or improperly computed. Errors were not great enough to cause an unsuccessful airdrop.

6.5.2.3. U. CARP not reevaluated in-flight or was improperly reevaluated leading to a no-drop or unsuccessful airdrop.

6.5.3. Area 202. SCA Procedures.

6.5.3.1. Q. Completed SCA in accordance with appropriate instructions. Successfully directed the aircraft to a position where a safe landing could have been accomplished. Used proper, clear, and concise terminology during entire approach.

6.5.3.2. Q-. Briefing was incomplete or deviated from established procedures. Improperly programmed equipment, had minor deviations on directing planned go-around or directed excessive course/glideslope corrections, but still able to direct aircraft to a point where a safe landing could be made.

6.5.3.3. U. Had unsatisfactory knowledge of SCA procedures. Failed to direct the aircraft to a point from which a safe landing could be made.

6.5.4. Areas 203 - 249. Reserved for future use.

6.5.5. Area 250. Target Knowledge.

6.5.5.1. Q. Had sufficient knowledge of applicable theater of operations target systems. Accurately described the operations, components and limitations of target systems to include optimal employment position.

6.5.5.2. Q-. Limited knowledge of the theater of operations target systems, which degraded mission accomplishment. Minor errors in describing the operations components and limitations of target systems with limited ability to identify employment positioning.

6.5.5.3. U. Knowledge of the theater of operations target systems was inadequate and prevented mission accomplishment. Could not describe operations, components and limitations of target systems, and could not define an adequate employment position.

6.5.6. Area 251. Mission Crew Planning.

6.5.6.1. Q. Checked all factors applicable to the mission. Complied with mission requirements. Demonstrated sufficient target knowledge, equipment knowledge, and tasking to complete mission planning in an effective manner. Complied with local directives governing procedures. Demonstrated knowledge of available alternatives.

6.5.6.2. Q-. Checked all factors required to complete mission planning, but with minor errors or omissions that did not degrade mission accomplishment. Target knowledge, equipment knowledge, or tasking comprehension was incomplete or inaccurate, but sufficient to complete mission planning. Minor deviations from local directives, governing procedures.

6.5.6.3. U. Errors or omissions in mission planning that could have jeopardized safety or adversely effected mission accomplishment. Target knowledge, equipment knowledge, or tasking comprehension was insufficient to complete mission planning. Deviations in procedures resulted in incomplete/inaccurate planning.

6.5.7. Area 252. Mission Equipment Knowledge/Operation.

6.5.7.1. Q. Demonstrated knowledge of all SME equipment capabilities, to include transmitter quantities, frequencies, parameters, and applications. In addition, demonstrated knowledge of antennas, frequencies, parameters, and applications.

6.5.7.2. Q-. Limited knowledge of all SME equipment capabilities, to include transmitter quantities, frequencies, parameters, and applications. In addition, demonstrated knowledge of antennas, frequencies, parameters, and applications.

6.5.7.3. U. Knowledge of SME equipment capabilities, to include transmitter quantities, frequencies, parameters, and applications was inadequate. In addition, demonstrated inadequate knowledge.

6.5.8. Area 253. Tactical Employment.

6.5.8.1. Q. Employed weapons system in accordance with published procedures. Made adjustments for limitations imposed by threats, terrain, or equipment failure/degraded operations and tasking.

6.5.8.2. Q-. Minor errors or deviations from published procedures while employing weapons system but did not prevent accomplishment of the mission. Demonstrated limited knowledge of adjustments for limitations imposed by threats, terrain, or equipment failure/degraded operations.

6.5.8.3. U. Major errors or deviations from published procedures that prevented accomplishment of the mission. Demonstrated inadequate knowledge of adjustments for limitations imposed by threats, terrain, or equipment failure/degraded operations.

6.5.9. Area 254. Mission Equipment Malfunction Analysis.

6.5.9.1. Q. Sufficient knowledge of work-around measures or recovery procedures for system malfunctions. Immediately recognized and analyzed malfunction indications and applied or directed the crew to apply corrective action or recovery procedures as the tactical situation dictated.

6.5.9.2. Q-. Limited knowledge of work-around measures or recovery procedures for system malfunctions. Slow to recognize or analyze malfunction indications. Slow to apply corrective action or recovery procedures. Applied corrective actions/recovery procedures at a time impractical for the tactical situation.

6.5.9.3. U. Displayed inadequate knowledge of work-around measures or recovery procedures for system malfunctions. Failed to recognize or properly analyze malfunction indications or failed to apply corrective action or recovery procedures as needed. Untimely application of corrective actions/recovery procedures significantly degraded mission accomplishment. Untimely application of recognition/reporting procedures significantly degraded mission accomplishment.

6.5.10. Area 255. System Setup.

6.5.10.1. Q. Complete knowledge of system operating parameters and mission data entries. Entered/checked appropriate parameters and data required for successful mission accomplishment. Completed system setup in a timely manner.

6.5.10.2. Q-. Limited knowledge of systems operating parameters and mission data entries. Minor errors or omissions when entering/checking parameters and data but did not deter mission accomplishment. Slow to complete system setup.

6.5.10.3. U. Displayed inadequate knowledge of system operating parameters and mission data entries. Major errors or omissions when entering/checking parameters and

data that prevented successful mission accomplishment. Delay in system setup was detrimental to mission accomplishment.

6.5.11. Area 256. Jamming Operations/Antenna Orientation/Timing.

6.5.11.1. Q. Initiated jamming/broadcast of required systems in accordance with electronic attack (EA) plan within one minute of preplanned or scheduled window. If tactical situation dictated a change in the jam/broadcast window, adjustments were made as required. Conducted jamming/broadcast look-through periods as required to ensure situational awareness was maintained throughout the entire jam window. Applicable systems antennas were oriented toward the target environment prior to jam initiation and throughout the mission.

6.5.11.2. Q-. Delayed jamming/broadast of a preplanned window for more than one minute but less than two minutes. Jam/broadcast window adjustments were made but not optimal for the tactical situation. Conducted limited jamming/broadcast look-through periods as required resulting in degraded situational awareness. Antennas momentarily oriented away from the target environment prior to initiation of jamming or throughout the mission.

6.5.11.3. U. Failed to initiate jamming within two minutes of a preplanned or scheduled window. Failed to make adjustments in the jam/broadcast window when the tactical situation dictated a change. Failed to conduct jamming/broadcast look-through periods as required resulting in a complete loss of situational awareness. Antennas were consistently oriented away from the target environment resulting in an adverse impact on mission accomplishment.

6.5.12. Area 257. Allocation/Use of Jamming/Broadcast Resources.

6.5.12.1. Q. Had thorough knowledge of and monitored appropriate management displays for evaluation of system effectiveness. Thorough knowledge of jamming/broadcast resources. Allocation of jamming/broadcast resources was optimal and appropriate for required operations. Effectively deconflicted separate jamming/broadcast systems.

6.5.12.2. Q-. Limited knowledge/monitoring of appropriate management displays. Limited knowledge of jamming/broadcast resources. Minor errors in allocation of jamming/broadcast resources that did not deter from overall operations. Minor errors or omissions in deconflicting jamming/broadcast systems that did not prevent mission accomplishment. Unnecessary delays in activation of appropriate targets.

6.5.12.3. U. Inadequate knowledge of/failed to monitor management displays. Inadequate knowledge of jamming/broadcast resources. Major errors in allocation of jamming/broadcast resources that prevented mission accomplishment. Failed to deconflict jamming/broadcast systems resulting in prevention of mission accomplishment. Failed to activate targets at required times such that appropriate targets were not jammed.

6.5.13. Area 258. Tactical Situation Monitoring.

6.5.13.1. Q. Correlated intelligence and operations inputs to stay abreast of the tactical situation. Analyzed incoming information and disseminated appropriate data in a timely manner.

6.5.13.2. Q-. Did not completely correlate operations and intelligence inputs to remain abreast of the tactical situation. Disseminated critical information but caused some delays.

6.5.13.3. U. Failed to remain sufficiently abreast of the tactical situation that impaired effective mission accomplishment. Failed to pass critical data to operators in need of the information.

6.5.14. Area 259. Mission Crew Supervision.

6.5.14.1. Q. Effectively supervised all mission crew functions, as applicable, to produce smooth and efficient mission accomplishment.

6.5.14.2. Q-. Supervised mission crew functions, but less-than-adequate mission crew management resulted in minor impact on mission accomplishment.

6.5.14.3. U. Supervision of mission crew personnel was insufficient or nonexistent. Lack of mission crew management had a major impact on mission accomplishment.

6.5.15. Areas 260 - 299. Reserved for future use.

Chapter 7

LOADMASTER (LM) EVALUATIONS

7.1. General. Mission qualified loadmasters require a combined qualification and mission evaluation. **(T-2).** Instructors will demonstrate instructor duties on all periodic evaluations. **(T-2).**

7.2. Requirements. Refer to **Table 2.1** for general, **Table 3.1** for instructor, and **Table 4.1** for common grading areas and criteria. Loadmaster specific areas and criteria are listed in this chapter.

7.3. Qualification. For qualification evaluations qualification open and closed book examinations, boldface, and an EPE are prerequisites for initial evaluations and requisites for individuals who are not mission qualified. **(T-2)**. The EPE should cover the following areas during a qualification evaluation: emergency signals, ground emergencies, in-flight emergencies (fuselage fire/smoke and fume elimination, in-flight door warning, rapid decompression, cargo door and ramp failure, cargo jettison, bailout procedures); landing emergencies (landing gear retracted, ditching). **(T-2)**.

7.3.1. Initial/Requalification. In addition to the areas listed in **Table 2.1** and **Table 3.1**, qualification evaluations will include Note 3 areas in **Table 4.1** and Note 1 areas in **Table 7.1** **(T-2).** Required events include a complete aircraft preflight, inflight procedures for a mission profile, and an aircraft postflight. **(T-2)**. In addition, evaluations will include cargo loading and offloading of floor, palletized, or rolling stock. **(T-3)**. If an actual load is not available for the flight evaluation portion, palletized, airdrop platform, or vehicle cargo will be static loaded upon completion of flight. **(T-2)**.

7.3.2. **Periodic** . Complete evaluation as outlined in **paragraph 7.3.1** **(T-2)**.

7.4. Combined Qualification/Mission. Mission evaluations may be administered concurrently with the initial qualification/requalification evaluation. Requalification evaluations will be administered as required to regain qualification. **(T-2)**. Mission open and closed book examinations and an EPE are requisites (prerequisites for initial). **(T-2)**.

7.4.1. Initial/Requalification. Administer the evaluation to include, as a minimum: a complete aircraft preflight; completion of the applicable weight and balance, load planning, onload/offload procedures with actuals, and an aircraft postflight. TAC mission qualification will also includ an actual airdrop to either a heavy equipment airdrop, CDS airdrop, or static line personnel. Military free fall (MFF), door bundles, and SATBs are not acceptable. **(T-2)**. EW mission qualification profile for a LM is identical to the QUAL only profile. Due to aircraft availability, the EW evaluation may be accomplished on the Commando Solo aircraft provided a full mission profile is accomplished with all other loadmaster evaluation requisites satisfied.

7.4.2. Periodic. Administer this evaluation on any flight representative of the EC-130J mission. **(T-2).** For the TAC QUAL, this includes airdrop (excluding MFF, door bundles or SATBs), air-to-air refueling, FARP, and infiltration/exfiltration (with certified equipment). Specify in the comment section of the AF Form 8 the type of mission accomplished. **(T-2)**.

If the evaluation is accomplished on FARP or infiltration/exfiltration, the following restrictions apply: **(T-2)**.

7.4.3. Infiltration/exfiltration load must consist of, as a minimum, one four-wheeled vehicle. **(T-2)**.

7.4.4. Accomplish FARP evaluations on aircraft under NVG conditions. **(T-2)**.

Table 7.1. Loadmaster QUAL/MSN Grading Areas.

Area	Notes	Grading Areas	EW	TAC
300	1	Aircrew Flight Equipment	X	X
301	1	Aircraft Configuration	X	X
302	1	Load Planning/Inspection	X	X
303	1, 2	On/Offloading Procedures	X	X
304	1	Supervisory Abilities	X	X
305	1	Tie-down/Restraint	X	X
306	1	Winching Procedures	X	X
307	1	Hazardous Material	X	X
308	1	Aircraft Limitations	X	X
309	1	Passenger Handling	X	X
310	1	Border Clearance	X	X
311	1	Scanner Duties	X	X
312	1	Engine Running Onload/Offload	X	X
313		NVG Infiltration/Exfiltration		X
314		Airdrop Rigging Procedures		X
315		Joint Airdrop Inspection		X
316		Coordinated Tasks Briefing		X
317		Airdrop Knowledge		X
318-		Reserved for future use		

Notes:

1. Required for QUAL portion of flight evaluations.
2. Required in aircraft or simulator certified for this event.

7.5. Grading Criteria. The following subparagraphs contain grading criteria for the areas listed in **Table 7.1**

7.5.1. Area 300. Aircrew Flight Equipment.

7.5.1.1. Q. Located, inspected, distributed, and/or demonstrated the proper use of aircrew flight or emergency equipment. Satisfactory knowledge of equipment.

7.5.1.2. Q-. Difficulty locating, inspecting, and/or demonstrating the proper use of aircrew flight or emergency equipment. Adequate knowledge of equipment, but needs improvement.

7.5.1.3. U. Failed to inspect, distribute, and/or demonstrate the proper use of aircrew flight or emergency equipment. Unsatisfactory knowledge of equipment.

7.5.2. Area 301. Aircraft Configuration.

7.5.2.1. Q. Ensured the aircraft was properly configured to accommodate mission requirements. Familiar with various configurations as outlined in applicable directives and properly stowed configuration items that were not used.

7.5.2.2. Q-. Difficulty configuring the aircraft but did not impede mission. Limited knowledge of various configurations as outlined in applicable directives.

7.5.2.3. U. Failed to ensure proper aircraft configuration or caused mission delays. Had unsatisfactory knowledge of configurations. Failed to properly stow configuration items.

7.5.3. Area 302. Load Planning/Inspection.

7.5.3.1. Q. Accurately planned a passenger/cargo load and met aircraft center of gravity (CG) limits. Inspected load for proper preparation and documentation.

7.5.3.2. Q-. Difficulty planning a passenger/cargo load to meet CG limits. Difficulty inspecting load for proper preparation and documentation.

7.5.3.3. U. Failed to plan a passenger/cargo load and meet CG limits. Failed to inspect load for proper preparation and documentation.

7.5.4. Area 303. On/Offloading Procedures.

7.5.4.1. Q. Correctly on/offloaded the aircraft safely and in a timely manner. Cargo entered into the multi-functional control display (MFCD)/CNI-MU with less than 10 inches variance from actual load placement.

7.5.4.2. Q-. Difficulty correctly on/offloading the aircraft. Cargo loaded in MFCD/CNI-MU 10-20 inches from actual load placement.

7.5.4.3. U. Failed to correctly or safely on/offload 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 off-load platform not programmed in MFCD exactly as they are loaded in the aircraft.

7.5.5. Area 304. Supervisory Abilities.

7.5.5.1. Q. Established and maintained control of personnel during loading operations.

7.5.5.2. Q-. Established and maintained control of personnel, but made minor supervisory errors. Safety was not compromised.

7.5.5.3. U. Did not establish or maintain control of personnel and/or safety was compromised.

7.5.6. Area 305. Tie-down/Restraint.

7.5.6.1. Q. Correctly calculated and applied correct amount of restraint to a given item. Understood and could state the principals of restraint.

7.5.6.2. Q-. Difficulty calculating or applying the correct amount of restraint. Did not fully understand the principals of restraint.

7.5.6.3. U. Failed to correctly calculate or apply the correct amount of restraint. Did not understand and could not state the principals of restraint.

7.5.7. Area 306. Winching Procedures.

7.5.7.1. Q. Correctly demonstrated and/or explained winching procedures.

7.5.7.2. Q-. Difficulty demonstrating and/or did not completely explain correct winching procedures but safety was not compromised.

7.5.7.3. U. Failed to demonstrate and/or did not explain correct winching procedures or safety was compromised.

7.5.8. Area 307. Hazardous Material.

7.5.8.1. Q. Understood hazardous cargo procedures. Could comply with the provisions of AFMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments,* and/or follow the procedures for air movement of hazardous cargo under tactical, contingency, or emergency conditions.

7.5.8.2. Q-. Understood hazardous cargo procedures, but made minor deviations stating them. Could comply with the provisions of AFMAN 24-204, and/or follow the procedures for air movement of hazardous cargo under tactical, contingency, or emergency conditions.

7.5.8.3. U. Did not understand hazardous cargo procedures in AFMAN 24-204.

7.5.9. Area 308. Aircraft Limitations. **Note:** Limitations may include, but are not limited to cargo floor, roller station, compartment, pallet weight, height, nets, and loading aids.

7.5.9.1. Q. Correctly stated, understood, and could apply the correct limitations associated with the aircraft, on/offloading, and associated equipment.

7.5.9.2. Q-. Had difficulty stating various limitations. Had difficulty locating correct limitations in the loading manual.

7.5.9.3. U. Failed to state various limitations, or could not locate correct limitations in the loading manual.

7.5.10. Area 309. Passenger Handling.

7.5.10.1. Q. Correctly briefed and performed passenger handling procedures.

7.5.10.2. Q-. Had difficulty briefing and/or performing passenger handling procedures.

7.5.10.3. U. Failed to brief and/or did not perform proper passenger handling procedures.

7.5.11. Area 310. Border Clearance.

7.5.11.1. Q. Correctly followed command guidelines. Completed/explained border clearance requirements in accordance with current directives.

7.5.11.2. Q-. Difficulty explaining border clearance requirements. Minor mistakes degraded effectiveness.

7.5.11.3. U. Could not accurately complete forms. Unaware of command guidance, or could not explain requirements.

7.5.12. Area 311. Scanner Duties.

7.5.12.1. Q. Periodically performed scanner duties by monitoring aircraft interior and exterior for abnormal conditions.

7.5.12.2. Q-. Did not scan in a timely manner to recognize abnormal conditions.

7.5.12.3. U. Failed to perform scanner duties by monitoring or making periodic checks of the aircraft interior and exterior for abnormal conditions.

7.5.13. Area 312. Engine Running Onload/Offload.

7.5.13.1. Q. Followed/explained proper procedures for engine running on/offload operations.

7.5.13.2. Q-. Difficulty following/explaining proper procedures for engine running on/offload operations.

7.5.13.3. U. Did not follow/explain proper procedures for engine running on/offloading.

7.5.14. Area 313. NVG Infiltration/Exfiltration.

7.5.14.1. Q. Followed/explained proper procedures for NVG infiltration/exfiltration operations.

7.5.14.2. Q-. Difficulty following/explaining proper procedures for NVG infiltration/exfiltration operations.

7.5.14.3. U. Did not follow/explain proper procedures for NVG infiltration/exfiltration operations.

7.5.15. Area 314. Airdrop Rigging Procedures.

7.5.15.1. Q. Correctly rigged and identified key airdrop components.

7.5.15.2. Q-. Difficulty rigging and/or identifying key airdrop components.

7.5.15.3. U. Failed to rig and/or identify key airdrop components.

7.5.16. Area 315. Joint Airdrop Inspection (if required).

7.5.16.1. Q. Correctly completed/explained the joint airdrop inspection.

7.5.16.2. Q-. Had difficulty completing/explaining the joint airdrop inspection.

7.5.16.3. U. Failed to or had extreme difficulty completing/explaining the joint airdrop inspection.

7.5.17. Area 316. Coordinated Tasks Briefing (if required).

7.5.17.1. Q. Correctly briefed the coordinated tasks in accordance with current directives.

7.5.17.2. Q-. Had difficulty briefing the coordinated tasks in accordance with current directives.

7.5.17.3. U. Failed to accomplish the coordinated tasks briefing in accordance with current directives.

7.5.18. Area 317. Airdrop Knowledge.

7.5.18.1. Q. Correctly demonstrated airdrop procedures for the event being flown, if performed. Knowledge of and airdrop load information and procedures for other types of loads were satisfactory.

7.5.18.2. Q-. Had difficulty demonstrating and/or understanding airdrop procedures and airdrop load information.

7.5.18.3. U. Could not demonstrate and/or understand airdrop procedures and airdrop load information.

7.5.19. Areas 318-399. Reserved for future use.

Chapter 8

DIRECT SUPPORT OPERATOR EVALUATIONS

8.1. General. Direct Support Operator (DSO) requires a combined qualification and mission evaluation. **(T-2)**. Instructors will demonstrate instructor duties on all periodic evaluations. **(T-2)**. Refer to AFSOCMAN 11-2DSOV2, *DSO Evaluation Criteria* for additional information.

Chapter 9

AIRBORNE MISSION SYSTEMS OPERATOR (AMSO) EVALUATIONS

9.1. General. Mission qualified AMSO require a combined qualification and mission evaluation. Instructors will demonstrate instructor duties on all periodic evaluations. **(T-2)**.

9.2. Requirements. Refer to **Chapter 2** and **Chapter 4** for all evaluations and **Chapter 3** for instructor evaluations. AMSO specific areas and criteria are listed in this chapter. See **Table 9.1** for required areas.

9.3. Combined AMSO Mission Qualification (MK).

9.3.1. Initial/Requalification. All areas in **Table 9.1** must be evaluated on initial/re-qualification evaluations. **(T-2)**. MK initial MSN/QUAL can be given in the narrow band crew position and/or wideband crew position. MK initial/requalification evaluations must be conducted in the aircraft. Open and closed book examinations and an EPE are prerequisites. Qualification/mission evaluations will include sub areas listed in **Table 2.1**, **Table 3.1** (instructors), and **Table 9.1** as required for each crew position. **(T-2)**.

9.3.2. Periodic Qualification/Mission. Requirements for periodic evaluations are the same as initial/requalification evaluations. Every other periodic evaluation should be conducted in the aircraft, and must be documented in the remarks section of the Form 8. Open and closed book examinations boldface and an EPE are requisites for periodic evaluations **(T-3)**.

9.4. Special Mission Qualification.

9.4.1. Mission Crew Supervisor (MCS). The "MCS QUAL" is a special mission qualification for mission technician qualified AMSOs. The Mission Crew Supervisor (MCS) position requires prior MK qualification. MCS QUAL evaluations will be conducted as a SPOT check and annotated on the Form 8. Refer to AFI 11-202, Vol 2, AFSOC Supplement. **(T-2)**. Annotate as a SPOT evaluation in the flight phase block of the Form 8. Grading criteria can be found in **Table 2.1**, **Table 3.1** and **Table 9.1** For MCS qualified AMSOs, the MCS SPOT check will be considered a requisite for periodic MK QUAL/MSN checks. **(T-3)**. Remarks from the evaluator will be annotated in the mission description section under "Examiner's Remarks."

9.4.2. MCS SPOT (Initial/Requalification/Periodic). MCS Initial/Requalification SPOT checks must be conducted in the aircraft, and will not be combined with MK QUAL/MSN evaluation. **(T-3)**. Every other periodic evaluation must be conducted in the aircraft, and must be documented in the remarks section of the Form 8. **(T-3)**. Periodic MCS SPOT evaluations may be combined with the MK QUAL/MSN. Evaluation profiles should be scenario driven and must include, as a minimum, the following profile:

9.4.2.1. Mission crew planning. **(T-3)**.

9.4.2.2. Tactical employment of no less than two distinct mission events. **(T-3)**.

9.4.2.3. Tactical repositioning and retrograde procedures. **(T-3)**.

9.4.2.4. Post mission shutdown. **(T-3)**.

Table 9.1. Airborne Missions Systems Operators (AMSO) Grading Areas.(T-2)

Area	Notes	Grading Areas	MK	MCS
500		MCC Equipment		X
501		Manual/Degraded Operations	X	X
502	1	Power Up	X	X
503	1	Amplifier Checks	X	X
504	1	System Checks	X	X
505	1	Program Checks	X	X
506	1	Antenna Systems Checks	X	X
507	1	Event Operations	X	X
508	1	Power Down/Post Flight/Debriefing	X	X
509-599		Reserved for future use.		
Notes: 1. Required in-flight or simulator certified for this event.				

9.5. Grading Criteria. The following subparagraphs contain grading criteria for the areas listed in **Table 9.1**

9.5.1. Area 500. MCC Equipment (MCS only).

9.5.1.1. Q. Adequately completed or assisted the MCC in planning, directing, monitoring and controlling mission execution using MCS or MCC monitor lines, radios, crew coordination and digital intercom system (ICS).

9.5.1.2. Q-. Limited quality and quantity of completion or assistance provided to the MCC in planning, directing, monitoring and controlling mission execution using MSC or MCC monitor lines, radios, crew coordination and Digital ICS.

9.5.1.3. U. Inadequate quality and quantity completion or assistance provided to the MCC in planning, directing, and monitoring and controlling mission execution using MCS monitor lines, radios, crew coordination and Digital ICS.

9.5.2. Area 501. Manual/Degraded Operations.

9.5.2.1. Q. Adequate operational knowledge of the applicable systems, to continue operations without the server providing modulation and/or radio frequency (RF) routing. Demonstrated proper procedure to use carryon modulation equipment, as well as use alternative methods to route RF, program and monitoring material in meeting objectives.

9.5.2.2. Q-. Limited operational knowledge of the applicable subsystem, to continue operations without the server providing modulation and /or RF routing. Accomplished procedures for manual operations with minor errors or omissions that did not adversely

affect mission accomplishment. Unsure or hesitant when routing RF, program and monitoring sources.

9.5.2.3. U. Unsatisfactory operational knowledge of the applicable systems, to continue operations without the server providing modulation and/or RF routing. Unable to use manual operations without major errors or omissions, adversely affecting mission accomplishment.

9.5.3. Area 502. Power Up.

9.5.3.1. Q. Adequate systems knowledge to perform power up procedures to meet event requirements. Time to power up: less than 15 minutes.

9.5.3.2. Q-. Limited systems knowledge to perform power up procedures to meet event requirements. Time to power up: 15-20 minutes.

9.5.3.3. U. Inadequate systems knowledge to perform power up procedures to meet event requirements. Time to power up: greater than 20 minutes.

9.5.4. Area 503. Amplifier Checks.

9.5.4.1. Q. Adequate systems knowledge to perform power level, voltage standing wave ratio, and frequency checks accurately and timely. Proficiency 15 minutes.

9.5.4.2. Q-. Limited systems knowledge to perform power level, voltage standing wave ratio, and frequency checks accurately and timely. Proficiency 15-20 minutes.

9.5.4.3. U. Inadequate systems knowledge to perform power level, voltage standing wave ratio, and frequency checks. Unacceptable proficiency greater than 20 minutes.

9.5.5. Area 504. Systems Checks.

9.5.5.1. Q. Adequate systems knowledge to apply modulation, check transmitter quality, modulation level, and harmonics accurately and timely. Proficiency 15 minutes.

9.5.5.2. Q-. Limited systems knowledge to apply modulation, check transmitter quality, modulation level, and harmonics accurately and timely. Proficiency 15-25 minutes.

9.5.5.3. U. Inadequate systems knowledge to apply modulation, check transmitter quality, modulation level, and harmonics accurately and timely. Unacceptable proficiency greater than 25 minutes.

9.5.6. Area 505. Program Checks.

9.5.6.1. Q. Adequate systems knowledge to configure patching as required, record modulation as required, review modulation as required, set up levels, and cue program materials accurately and timely. Proficiency 15 minutes.

9.5.6.2. Q-. Limited systems knowledge to configure patching, record modulation as required, review modulation as required, set up levels, and cue program materials accurately and timely. Proficiency 15-20 minutes.

9.5.6.3. U. Inadequate systems knowledge to configure patching, record modulation as required, review modulation as required, set up levels, and cue program materials. Unacceptable proficiency greater than 20 minutes.

9.5.7. Area 506. Antenna Systems Checks.

9.5.7.1. Q. Adequate systems knowledge to operate receiver, check frequency, report unexpected findings, and measure/minimize voltage standing wave ratio (VSWR) as required accurately and timely. Proficiency 15 minutes.

9.5.7.2. Q-. Limited systems knowledge to operate receiver, check frequency, report unexpected findings, and measure/minimize VSWR as required accurately and timely. Proficiency 15-20 minutes.

9.5.7.3. U. Inadequate systems knowledge to operate receiver, check frequency, report unexpected findings, and measure/minimize VSWR as required accurately and timely. Unacceptable proficiency greater than 20 minutes.

9.5.8. Area 507. Event Operations.

9.5.8.1. Q. Adequate systems knowledge and skill to apply modulation, confirm frequency, antenna, and mode accurately and timely. Document events as required. Proficiency 1 minute.

9.5.8.2. Q-. Limited systems knowledge and skill to apply modulation, confirm frequency, antenna, and mode accurately and timely. Event documentation contains minor errors. Proficiency 1-2 minutes.

9.5.8.3. U. Inadequate systems knowledge to and skill to apply modulation; confirm frequency, antenna, and mode accurately and timely. Event documentation inaccurate or nonexistent. Unacceptable proficiency greater than 2 minutes.

9.5.9. Area 508. Power Down/Post Flight/Debriefing.

9.5.9.1. Q. Had thorough knowledge and performed required procedures. Correctly determined condition and status of equipment. Documented required equipment notes, discrepancies, and modulation quality. Thoroughly debriefed maintenance personnel as required.

9.5.9.2. Q-. Had limited knowledge of required procedures. Was unsure of condition or status of the equipment. Required documentation was incomplete. Maintenance debriefing was not concise or thorough.

9.5.9.3. U. Knowledge of required procedures was unsatisfactory. Major deviations in procedures. Could not determine condition or status of equipment. Required documentation was incorrect. Maintenance debriefing was inadequate.

9.5.10. Areas 509 - 599. Reserved for future use.

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

AFPD 11-4, *Aviation Service,* 12 April 2019

AFI 11-2EC-130J, Vol 3, *EC-130J Operations Procedures,* 8 April 2015

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

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

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

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

AFMAN 11-2EC-130J, Vol 1, *EC-130J Aircrew Training,* 10 December 2018

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

AFMAN 11-202, Vol 3, *Flight Operations,* 10 June 2020

AFMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments,* 13 July 2017

AFSOCMAN 11-2DSO, Vol 2, *Direct Support Operator Aircrew Evaluation Criteria,* 21 August 2019

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

Executive Order 9397, *Numbering System for Federal Accounts Relating to Individual Persons*

Privacy Act (5 U.S.C. § 552a)

Adopted Forms

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 8a, *Certificate of Universal Aircrew Qualification*

AF Form 847, *Recommendation for Change of Publication*

AF Form 3862, *Flight Evaluation Worksheet*

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

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

Abbreviations and Acronyms

AAR—Air-to-Air Refueling

AbMN—Airborne Mission Network

AF—Air Force

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFSOC—Air Force Special Operations Command

AFTRS—Air Force Tactical Receive Suite

AGL—Above Ground Level

AMSO—Airborne Mission Systems Operator

ASR—Airport Surveillance Radar

ATO—Air Tasking Order

CARP—Computed Air Release Point

CAT—Category

CDS—Container Delivery System

CG—Center of Gravity

CNI-MU—Communication, Navigation, Identification Management Unit

COMSEC—Communication Security

CRM—Cockpit/Crew Resource Management

CSO—Combat Systems Operator

DSO—Direct Support Operator

DZ—Drop Zone

EA—Electronic Attack

EPE—Emergency Procedures Evaluation

ETA—Estimated Time of Arrival

ETP—Equal Time Point

EW—Electronic Warfare

FARP—Forward Area Refueling Point

FCIF—Flight Crew Information File

FDP—Flight Duty Period

FP—First Pilot

HQ—Headquarters

ICS—Digital Intercom System

ILS—Instrument Landing System

INSTM—Instrument

IP—Instructor Pilot

IPRA—Integrated Precision Radar Approach

KIAS—Knots Indicated Airspeed

KuSS—Ku Spread Spectrum

LM—Loadmaster

LOC—Localizer

MAC—Mean Aerodynamic Chord

MAJCOM—Major Command

MAP—Missed Approach Point

MCC—Mission Crew Commander

MCS—Mission Crew Supervisor

MDA—Minimum Descent Altitude

ME—Maximum Effort

MFCD—Multi-functional Control Display

MFF—Military Free Fall

MiRC—Messenger Internet Relay Chat

MK—Airborne Mission Systems Operator Mission Qualification

MP—Mission Pilot

MSN—Mission

NAS—National Airspace System

NAVAIDS—Navigational Aids

NDB—Nondirectional Beacon

nm—Nautical Mile

NVG—Night Vision Goggle(s)

OGV—Office of Standardization and Evaluations

OPSEC—Operations Security

PAR—Precision Approach/Radar

PF—Pilot Flying

PM—Pilot Monitoring

QUAL—Qualification

RF—Radio Frequency

RNP—Required Navigation Performance

SA—Situational Awareness

SAMS-ESA—Specialized Airborne Mission System-Enhanced Situational Awareness

SATB—Standard Airdrop Training Bundle

SCA—Self-Contained Approach

SME—Special Mission Equipment

SORN—System of Record Notice

SPOT—Aircrew Evaluation with No Requisites Required

STAR—Standard Terminal Arrival Route

TAC—Tactical

TACAN—Tactical Air Navigation

TOA—Time-of-Arrival

TOLD—Takeoff and Landing Data

TOT—Time-on-Target

TTP—Tactics, Techniques, and Procedures

USAF—United States Air Force

VFR—Visual Flight Rules

Vmca—Air Minimum Control Speed

VOR—Very High Frequency Omnidirectional Range

VSWR—Voltage Standing Wave Ratio

WST—Weapon System Trainer(s)