BY ORDER OF THE COMMANDER AIR FORCE SPECIAL OPERATIONS COMMAND

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Flying Operations

ADDITIONAL AIRCRAFT AIRCREW EVALUATION CRITERIA

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction 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 complements AFI 11-401, *Aviation Management*, and AFI 11-202, Vol 2, AFSOCSUP, *Aircrew Standardization/Evaluation Program*. It establishes standards for qualification, mission qualification, continuation, and upgrade training for Air Force Special Operations Command (AFSOC) Combat Aviation Advisor (CAA) aircrew members operating additional and supplemental aircraft. This instruction does not apply to the Air National Guard (ANG). This AFSOCI applies to Air Force Reserve Command (AFRC) units and members. Subordinate units may supplement this publication in accordance with (IAW) **Paragraph 1.5**. The Privacy Act of 1974 applies to certain information gathered pursuant to this instruction. This publication requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by 37 USC 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974) and 93-294 (Aviation Career Incentive Act of 1974), DODD 7730.57 (Aviation Career Incentive Act of 1974 and Required Annual Report, February 5, 1976, with Changes 1 and 2), and Executive Order 9397 as amended by Executive Order 13478. The applicable SORN, F011 AF XO A, Aviation Resource Management Systems (ARMS), is available at: **https://dpclo.defense.gov/privacy/SORNs/SORNS.html**. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF

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SUMMARY OF CHANGES

Deleted all references to helicopter/non fixed-wing evaluations. Tier requirements have been annotated.

Chapter 1

GENERAL INFORMATION

1.1. General. This instruction establishes requirements and grading criteria for the CAA additional aircraft ground and flight phases of initial, requalification and periodic flight evaluations. Aircrew evaluations will be conducted IAW this instruction and AFI 11-202, Vol 2, *Aircrew Standardization/Evaluation Program*. Specific areas for evaluation are prescribed to ensure an accurate assessment of the proficiency and capabilities of aircrews. Flight examiners use AFI 11-202, Vol 2, when conducting aircrew evaluations. Instructors use this AFI when preparing aircrews for qualification.

1.2. Applicability. This instruction applies to all CAA aircrew flying additional aircraft. For the purposes of this instruction, the term additional aircraft refers to aircraft other than those in the AFSOC inventory that are leased for periods of 6 months or greater.

1.3. Key Words and Definitions.

1.3.1. "Will" and "Shall" indicate a mandatory requirement.

1.3.2. "Should" is normally used to indicate a preferred, but not mandatory, method of accomplishment.

1.3.3. "May" indicates an acceptable or suggested means of accomplishment.

1.3.4. "Note" indicates operating procedures, techniques, etc., considered essential to emphasize.

1.4. Waivers. Waiver authority for the contents of this document is Headquarters (HQ) AFSOC/A3. Waiver requests should be submitted through Major Command (MAJCOM) Standardization and Evaluation channels to the HQ AFSOC/A3. AFRC waivers will be requested through Stan/Eval channels to HQ AFRC/A3. Post all waivers IAW AFI 11 202, Vol 2. (T-2).

1.4.1. Tier requirements refer to waiver authority based on level of risk.

1.4.1.1. “Tier 0” (T-0) requirements are reserved for requirements that non-compliance is determined and waived by respective non-Air Force authority.

1.4.1.2. “Tier 1” (T-1) requirements are reserved for requirements that non-compliance may put airman, mission, or program strongly at risk, and may only be waived by the MAJCOM/CC or delegate with concurrence of publication approver. When multiple MAJCOMs are affected, then T-1 is appropriate.

1.4.1.3. “Tier 2” (T-2) requirements are reserved for requirements that potentially put the mission at risk or potentially degrade the mission or program, and may only be waived by the MAJCOM/CC or delegate.

1.4.1.4. “Tier 3” (T-3) requirements are reserved for requirements that non-compliance has a remote risk of mission failure, and may be waived by the Wing/CC but no lower than the OG/CC.

1.5. Supplements. Units are encouraged to supplement this instruction with standard evaluation profiles that best fit the unit’s mission, equipment, and location. Units will forward a copy of

their supplements to HQ AFSOC/A3, through, HQ AFSOC/A3V for approval. Units below Group level will forward one copy of each supplement to their respective group OPR for pre-publication review.

1.6. Evaluation Procedures. Before the aircraft commanders (AC) briefing, the evaluator will inform the AC of any special requirements. Flight examiners will brief the examinee on the conduct, purpose, and requirements of the evaluation, as well as all applicable evaluation criteria, prior to the beginning of flight duties. The examinee will accomplish all required mission planning. Flight examiners will be furnished a copy of necessary charts, flight logs, mission folders, and any additional items they deem necessary.

1.6.1. Flight examiners will ensure all required training and documentation is complete prior to initial/requalification evaluations.

1.6.2. Unless requested by examinee and approved by squadron Director of Operations, the examinee will be current for all events evaluated during a periodic evaluation.

1.6.3. Flight examiners will not intentionally fail any equipment during flight evaluations, but may deny the use of systems not affecting safety of flight.

1.6.4. Under no circumstances will a 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.

1.6.5. The flight examiner should not ordinarily occupy a primary crew position during evaluations to ensure the most objective evaluation. When conditions warrant, the flight examiner may, at his/her discretion, occupy a primary crew position during an evaluation.

1.6.6. Evaluations will not ordinarily be administered during deployed advisory missions. **Exception:** For situations with extenuating circumstances evaluations may be administered by CAA evaluators during deployed advisory missions with concurrence of the examinee and the squadron commander.

1.6.7. 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.

1.7. Grading Instructions. All evaluations will follow the guidelines established in AFI 11202, Vol 2, and this volume. Flight examiners will use the AFSOC Form 48, *Flight Evaluations*, for their respective crew positions while performing the flight evaluation. Examiners will use the criteria contained in this volume to accomplish all flight, simulator, and emergency procedures evaluations. To ensure standard and objective evaluations, flight examiners will be thoroughly familiar with the prescribed evaluation criteria.

1.7.1. Area/Subarea Grades. Areas/subareas will have a two-level (Q/U) or three-level (Q/Q-/U) grading system. Discrepancies will be documented against the listed subareas.

1.7.1.1. 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.

1.7.1.2. 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.

1.7.1.3. 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. In this case, the flight examiner must thoroughly debrief the examinee.

1.7.2. 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. Critical areas are identified by (Critical) in the area title and by shading of the Q- block on the appropriate AFSOC Form 48 series.

1.8. Evaluation Requirements. Evaluation profiles will reflect a sampling of the unit's missions. Evaluation tables are provided to summarize evaluation areas. Areas common to all crew members are contained in **Table 2.1**. 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 (see **Paragraph 1.8.1**); and in-flight and/or alternate methods (see **Paragraph 1.8.2**). 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.

1.8.1. Simulator. Simulators may be used to accomplish evaluations if certified by HQ AFSOC/A3T and HQ AFSOC/A3V. Simulator certifications can be located at the HQ AFSOC/A3T website. Do not conduct two consecutive evaluations in the simulator. **Exception:** Instrument (INSTM) evaluations.

1.8.1.1. 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 Training*, which portion(s) of evaluation were conducted in simulator.

1.8.2. 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 (i.e., 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.

1.8.3. Grading Criteria. To the maximum extent possible, flight examiners will 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. Consider cumulative deviations when determining the overall grade.

1.8.3.1. 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.

1.9. 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 AFI 11-202, Vol 3, *General Flight Rules*, maximum FDP for an un-augmented crew). This does not mean the examiner must assume the examinee's position any time unsatisfactory performance is observed. 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.

1.9.1. Evaluators must report deviations/discrepancies from established procedures/directives in any area, regardless of the individual's crew specialty, to squadron/group commander, along with evaluator's recommendation for corrective action, IAW AFI 11-202, Vol 2.

1.10. Additional Training. Flight examiners are responsible for assigning additional training, at their discretion. Document additional training and completion IAW AFI 11-202, Vol 2. Any approved training device or medium may be used for additional training.

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

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

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

1.13. Multiple Qualification.

1.13.1. Evaluations. If it is determined that variants of like aircraft possess enough similarities multiple evaluations are not required. HQ AFSOC/A3V (HQ AFRC/A3 for reserve units) must approve consolidation of multiple mission design series (MDS). (T-2)

1.13.2. Pilots will not maintain qualification in more than two aircraft (HQ AFSOC/A3V is the approval authority for multi-qualification in two aircraft). **Exception:** Unit, Group and Higher Headquarters (HHQ) evaluator pilots will not maintain qualification in more than three aircraft (HQ AFSOC/A3 is the approval authority for three aircraft). At no time will CAA pilots maintain qualification in more than three aircraft. If mission dictates that a CAA pilot requires qualification in a fourth aircraft, administer a commander-directed downgrade to the pilot in one of their current 3 aircraft prior to upgrading in the fourth. (T-2)

1.13.3. Other aircrew members will not maintain qualification in more than three aircraft (HQ AFSOC/A3V [HQ AFRC/A3 for reserve units] is approval authority for multi-qualification). **Exception:** Unit, Group and HHQ evaluators will not maintain qualification in more than four aircraft (HQ AFSOC/A3 is approval authority for four aircraft). See Air Force Special Operations Command Instruction (AFSOCI) 11-219, Vol 1, *Additional Aircraft Training,* for further guidance. At no time will CAA aircrew (non-pilot) maintain qualification in more than four aircraft. If mission dictates that a CAA aircrew member (non-pilot) requires qualification in a fifth aircraft, administer a commander-directed downgrade to the aircrew (non-pilot) in one of their current 4 aircraft prior to upgrading in the fifth. (T-2)

1.13.4. A multi-qualification letter will be forwarded to HQ AFSOC/A3V [HQ AFRC/A3 for reserve units] through Standardization/Evaluation channels semiannually for review and approval.

1.14. Initial Cadre. Initial cadre will be conducted IAW AFI 11-202, Vol 2. (T-2)

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. This includes appropriate aircraft systems operation IAW applicable technical orders, flight manuals, instructions, and directives.

2.2. Requirements. Evaluate all crew members on areas listed in **Table 2.1**.

2.2.1. Examinations. All crew members will complete open and closed book examinations as a requisite to periodic evaluations IAW AFI 11-202, Vol 2. Written evaluations will be a prerequisite for an initial cadre evaluation.

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 stan/eval. 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. Examiners should include other general knowledge areas as well. For mission evaluations, evaluate mission-specific equipment and situations. EPEs should include sufficient in-flight and ground emergencies to evaluate the examinee's knowledge of systems and procedures to the flight examiner's satisfaction.

2.2.2.1. Examinees may use publications that are normally available in-flight. The examinee must, without reference to publications, be able to recite/write the proper emergency boldface actions in the correct sequence to the satisfaction of the evaluator (not necessarily a verbatim response). Boldface will be extracted from respective aircraft flight manuals and published in checklist format. Depending on type of aircraft, there may not be boldface procedures for all crew positions.

2.2.2.2. Grading criteria for EPE are outlined in Area 5 of General Grading Areas.

2.2.3. Publications Check. Required for all QUAL or combined QUAL/MSN evaluations as outlined in Area 12 of General Grading Areas.

2.2.4. Cockpit/Crew Resource Management (CRM). In accordance with AFI 11-290, *Cockpit/Crew Resource Management Training Program*, crew resource management skills will be evaluated during initial and periodic evaluations. 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 will 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.

Table 2.1. General Grading Areas (All Crew Positions and All Evaluations).

Area	Grading
1	Safety – CRITICAL [2]
2	Aircrew Discipline – CRITICAL [2]
3	Airmanship/Situational Awareness – CRITICAL [2]
4	Boldface/Critical Action Procedures (CAPS) – CRITICAL [3, 4]
5	Emergency Procedures Evaluation (EPE) [3]
6	Crew Coordination [2]
7	Mission Planning/Performance Data (Pilots & Flight Engineer (FE)) [3]
8	Knowledge/Currency of Directives [3]
9	Preflight [2]
10	Use of Checklist [3]
11	Forms/Reports/Logs [3]
12	Personal/Professional Equipment/Flight Publications [3]
13	Emergency and Life Support Equipment/Procedures [3]
14	Briefings/Debriefings [3]
15	Classified Material/Operations Security [3]
16	Antihijacking/Aircraft Security [3, 4]
17	Communications [2]
18	Risk Management/Decision Making [3]
19	Task Management [2]
20-29	Reserved for Future Use

Notes:

1. Required in-flight.
2. Required in-flight or simulator certified for this event.
3. Required in-flight or alternate method.
4. Only required for QUAL or combined QUAL/MSN evaluations.

2.3. General Grading Criteria.

2.3.1. Area 1. Safety – CRITICAL.

2.3.1.1. Q. Execute mission so as to avoid unnecessary risk. Make decisions regarding performance of tasks so as to provide best chance of efficient mission accomplishment without undue risk to aircraft or crew. 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. Was not aware of, or did not comply with, all safety factors required for the safe operation of the aircraft or mission accomplishment. A clear lack of judgment hampered or precluded mission accomplishment. Did not adequately clear the aircraft. Allowed a dangerous situation to develop without taking proper corrective action. 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. Provided direction/information when needed. Adapted to meet new situational demands and focused attention on the task. Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

2.3.2.2. U. Did not provide direction/information when needed. Did not adapt to meet new situational demands and focus attention on the task. Failed to exhibit strict flight or 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. Misanalyzed flight conditions and/or failed to recognize/understand mission developments, or demonstrated poor judgment to the extent that flight safety could have been compromised. Did not recognize the need for action. Not aware of performance of self 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 Action Procedures (CAPS) – CRITICAL.

2.3.4.1. Q. Able to recite/write the proper emergency boldface actions, without reference to publications, in the correct sequence to the satisfaction of the evaluator (not necessarily a verbatim response).

2.3.4.2. U. Unable 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-1. 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-2. 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. Q-3. Unsatisfactory systems/procedural knowledge. Unable 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. Maintain situational awareness of, and react appropriately to crew inputs. Communicate with crew so they understand pilot intentions and requirements to effect safe, efficient mission accomplishment. 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-. Minor deviations in CRM which did not affect safe/effective mission accomplishment. 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. Improperly or ineffectively managed resources and/or duties which caused task saturation, channelized attention, and distractions among crew members which could impact safety or mission accomplishment. 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/Performance Data (Pilots and FE).

2.3.7.1. Q. Prepare for flight with all required documentation and briefings required by AFIs and Technical Orders (TO). Be familiar with military and civilian Notice to Airman, weather, and flight plan procedures. Understand and interpret Takeoff and Landing Data (TOLD) and weight and balance information. Prepare navigation logs, charts and "frag" sheets appropriate for scheduled mission. Coordinate all mission information to include weather, taskings, defensive maneuvers, support missions (include air refueling information), emergency procedures, training requirements, and risk management matrix review. 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 critiqued plans to identify potential problem areas and ensured all had understanding of possible contingencies. When required, extracted necessary information from air tasking order/frag. 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/read files.

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 critique 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. Major errors or omissions that would preclude safe and effective mission accomplishment. 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 critique 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. Did not review or initial Go/No-Go items as required.

2.3.8. Area 8. Knowledge/Currency of Directives.

2.3.8.1. Q. Thoroughly familiar with all publications issued for the crew position plus flight information publication documents. Answer questions with reference to applicable publications. Know limitations, warnings, operating procedures, and operational prohibitions. For mission profiles, be thoroughly familiar with all applicable employment publications. All required publications are current and posted. 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-. Knowledge of capabilities, approved operating procedures, and rules is marginal in some areas but did not impact safe/effective mission accomplishment. Publications contain deficiencies which would not impact flight safety or mission accomplishment. Minor deviations to procedures. Unsure of directives and/or had difficulty locating information in appropriate publications.

2.3.8.3. U. Major errors or omissions in knowledge of operating capabilities or procedures that would preclude safe/effective mission accomplishment. Regulations/Directives were intentionally violated. Publications are outdated and/or contain deficiencies which would impact flight safety or mission accomplishment. Unaware of procedures and/or could not locate them in the appropriate publication in a timely manner.

2.3.9. Area 9. Preflight.

2.3.9.1. Q. Demonstrate working knowledge of the aircraft forms. Ensure appropriate survival and aircraft equipment for the entire mission is on board the aircraft. Complete systems preflight/inspections IAW TOs, checklists, and instructions. Individual technique complied with established procedures.

2.3.9.2. Q-. Minor deviations from established systems preflight/inspection that did not degrade mission effectiveness. 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. Did not use the checklist or omitted major item(s). Major deviations in procedure which would preclude safe mission accomplishment. Failed to accurately determine readiness of aircraft for flight or proper configuration to perform the mission. 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. Use strict checklist discipline. Call for and execute all required checklists in accordance with TOs and directives. Familiar with notes, warnings and cautions without direct reference to TOs. 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. Failed to use the proper checklist or was not adequately familiar with their contents. 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 IAW applicable directives. Relayed an accurate debrief of significant events to applicable agencies (Intel, Weather, Maintenance; Automated Inspection, Repair, Corrosion & Aircraft Tracking (AIRCAT); 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.

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 Life Support Equipment/Procedures.

2.3.13.1. Q. Satisfactory systems/procedural knowledge. Displayed satisfactory knowledge of the location and use of emergency and life support 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. Night Vision Goggles (NVG), life preserver unit, body armor and chemical gear as required for the mission. Be familiar with survival vest contents and the

operation of all components. Ensure the use of appropriate serviceable protective clothing and life support equipment. Understand how to use the life raft.

2.3.13.2. Q-. Marginal systems/procedural knowledge. Limited knowledge of location and use of emergency and life support 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. Minor deficiencies that did not impact flight safety or mission accomplishment.

2.3.13.3. U. Failed to use or properly employ life support equipment that could jeopardize personal or flight safety and/or mission effectiveness. Unsatisfactory systems/procedural knowledge. Displayed unsatisfactory knowledge of emergency and life support 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. Provide organized professional briefings and debriefings in accordance with directives during preflight, in-flight and post flight periods in a timely manner. Communicate critical information to crew(s), passengers and customers. Ensure briefing contained all applicable information. Prepared at briefing time. Present all objectives, training events and special interest items. Effectively use available briefing aids. Maximize crew understanding of mission requirements. Provide atmosphere conducive to crew inputs as required. Debrief mission using specific positive and negative feedback of team and individual performance. Provide specific ways to correct errors. Ask for inputs from others. Recapped key points and compared mission results with mission objectives. Copilots should not be expected to be in charge of all briefing/debriefing requirements.

2.3.14.2. Q-. Omitted items pertinent but not critical to the mission. Some difficulty communicating clearly. Events were out of sequence, redundant, and difficult to understand. Did not make effective use of available briefing aids. Limited discussion of training events or special interest items. Dwelled on nonessential items. Poor time management. Not fully prepared for briefing. Debriefed mission without specific positive and negative feedback on individual and team performance. 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. Disorganized sequence. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of knowledge of subject. Ignored crew and flight members' abilities, limitations, and/or questions. 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/or negative feedback during debriefing. Did not seek input from others. Did not recap key mission points nor compare mission results to mission objectives. Passengers were not briefed.

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. Is familiar with required communications procedures for any airspace used on the mission. Understand standard air traffic control directions and execute them accordingly.

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. Failed to comply with controlling agency instructions or accepted a clearance for which they could not comply. Entered controlled airspace without proper clearance.

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 of results of risk management analysis. 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.

2.3.20. Area 20-29. Reserved for Future Use.

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. It is assumed that all CAA aircrew are instructor qualified. CAA aircrew who are not instructor qualified are expected to reach instructor qualification prior to advising foreign aircrew.

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

3.2.1. There are no requisites for initial instructor evaluations. Requisites for periodic evaluations administered to qualified instructors will be completed IAW the requirements for the type of evaluation (QUAL/INSTM/MSN) being administered.

3.3. INSTM. Instrument instructor evaluations must be accomplished in an aircraft possessing adequate instrumentation IAW AFI 11-202, Vol 3. INSTM evaluation requirements are listed in AFI 11-202, Vol 2, and this instruction.

3.3.1. Initial/Requalification. Evaluate instructor candidates on instructor performance during a representative sample of unit's basic maneuvers. The examiner will act as a student during maneuvers that are considered high risk.

3.3.1.1. Evaluate instructor pilot candidate's instructional ability during a representative sample of emergency and instrument procedures.

3.3.2. Periodic. Qualified instructors will be evaluated to instructor standards during all periodic evaluations.

3.4. QUAL. Qualification instructor evaluations will be accomplished in all aircraft in which the aircrew member maintains instructor qualification.

3.4.1. Initial/Requalification. Evaluate instructor candidates on instructor performance during a representative sample of unit's basic maneuvers. The examiner will act as a student during maneuvers that are considered high risk.

3.4.1.1. Evaluate instructor pilot candidate's instructional ability during a representative sample of emergency and qualification procedures. Also, instructor pilot candidates must demonstrate each type of landing applicable to the aircraft from the instructor position.

3.4.2. Periodic. Qualified instructors will be evaluated to instructor standards during all periodic evaluations.

3.5. Mission . Mission instructor evaluations will be accomplished in all aircraft in which the aircrew member is instructor qualified in. Evaluate instructional ability during a representative sample of unit's mission events.

3.5.1. Initial/Requalification. Accomplish the initial/requalification mission instructor evaluation on a mission that permits accomplishment of all required instructor areas in-flight.

3.5.2. Periodic. Qualified instructors will be evaluated to instructor standards during all periodic evaluations.

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

Area	Grading Areas
30	Mission Preparation [3]
31	Instructional Ability [2]
32	Instructor Knowledge [3]
33	Briefings/Debriefings/Critique [3]
34	Demonstration of Maneuvers/Procedures [2]
35	Advisory Operations [3]
36-39	Reserved for future use

Notes:

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

3.6. Instructor Grading Criteria.

3.6.1. Area 30. 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 31. 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. Unable 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 32. 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 33. 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 34. 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. Was unable 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. Area 35. Advisory Operations.

3.6.6.1. Q. Able to demonstrate ability to consistently apply crew resource management and instructor techniques during advisory operations role play. Applies knowledge of advisory operations and simulated partner nation (PN) aircrew to operational risk management. Adequately briefs advisory mission. Able to use critical, logical and safe decision making when faced with role play challenges. Does not allow role player to put aircraft in unsafe condition. Does not allow unsafe practices.

3.6.6.2. Q-. Able to maneuver simulated PN aircrew through successful mission with minor errors in judgment, decision making and instructor techniques. Lacked command of particular situations. Errors did not impact safety or successful mission completion.

3.6.6.3. U. Unable to handle most challenges presented by simulated PN aircrew. Did not properly apply or gear instructor abilities in a culturally astute, adaptive fashion. Failure in advisory operations led to safety concern or failure to complete mission.

3.6.7. Areas 36 - 39. Reserved for future use.

Chapter 4

PILOT/COPILOT EVALUATIONS

4.1. General. All pilots and copilots require an INSTM and QUAL evaluation. MSN qualified pilots/copilots require a separate MSN evaluation. Copilots will be evaluated to the same area standards as pilots unless specified otherwise. Copilot crew coordination will not include duties and responsibilities expected of an AC. Instructors will demonstrate instructor duties on all periodic evaluations.

4.1.1. Pilots will receive evaluations in all additional aircraft they are qualified in IAW AFI 11202, Vol 2.

4.2. Requirements. Refer to **Chapter 2** for general and **Chapter 3** for instructor grading areas and criteria. Pilot/copilot required areas and criteria follow in this chapter.

4.3. INSTM. See **Table 4.1** for required INSTM evaluation areas. Instrument evaluations must be accomplished in an aircraft possessing adequate instrumentation IAW AFI 11202, Vol 3. Requisites (prerequisites for initial/requalification evaluations) include instrument examination. The INSTM evaluation will be conducted in-flight or in an approved simulator.

4.3.1. The evaluation profile will include: one precision approach, one non-precision approach; holding or procedure turn; circling pattern; and simulated engine-out instrument approach and missed approach/go-around.

4.3.2. If navigation flight instrumentation does not allow for the required number of approaches (i.e., Instrument Landing System (ILS), Tactical Air Navigation (TACAN), etc.) the AF Form 8 will state, for example, "TACAN approach not performed due to incompatible instrumentation."

4.4. QUAL. See **Table 4.1** for required QUAL evaluation areas. Requisites (prerequisites for initial/requalification evaluations) include qualification open and closed book examinations, EPE, and BOLDFACE examination. This evaluation is normally accomplished in combination with an instrument evaluation. The QUAL evaluation will be conducted in-flight or in an approved simulator.

4.4.1. The evaluation profile will include: Visual Flight Rules (VFR) pattern; takeoffs and various flap configuration landings consistent with the respective flight manual (only ACs/first pilots/instructors will accomplish 0% flap landings); touch-and-go procedures; simulated engine-out go-around, and simulated engine-out landing.

4.4.1.1. Copilot. Evaluate appropriate areas from the right seat.

4.4.1.2. First pilot. Evaluate appropriate areas from the left seat. Pilots who are maximum effort qualified will accomplish a max effort takeoff and landing. In addition, one takeoff and landing will be accomplished from right seat.

4.4.1.3. AC. Evaluate appropriate areas from the left seat.

4.5. MSN. See **Table 4.2** for MSN evaluation areas and subparagraphs below for requirements. Requisites (prerequisites for initial/requalification evaluations) include mission open and closed book examinations and EPE.

4.5.1. Initial/Requalification. The evaluation profile will include a minimum of 30 minutes of NVG low-level to a time on target (TOT)/time of arrival (TOA); tactical recovery (non-self-contained approach (SCA)); SCA; a maximum effort takeoff and landing (see **Paragraph 4.5.3**); threat reaction; NVG takeoff and landing and a Computed Airdrop Release Point (CARP) airdrop (actual or Simulated Airdrop Training Bundle (SATB). TOT/TOA events will be to either a simulated or actual event. First pilots/copilots will accomplish a NVG takeoff and landing using normal procedures (non-maximum effort). **Note:** This portion of the evaluation is not required if the additional aircraft does not have the speed and range to reach mountainous terrain.

4.5.2. Periodic. The evaluation profile will include a minimum of 30 minutes of NVG low-level to a TOT/TOA; tactical recovery (non-SCA); SCA; a maximum effort takeoff and landing (see **Paragraph 4.5.3**); threat reaction; NVG takeoff and landing and a CARP) airdrop (actual or Simulated). TOT/TOA events will be to either a simulated or actual event. First pilots/copilots will accomplish a NVG takeoff and landing using normal procedures (non-maximum effort).

4.5.3. Maximum Effort (ME) Takeoff and Landing. For aircraft with no clearly defined ME procedures this subarea is used to evaluate the examinees ability to land within a prescribed touchdown zone. If a landing zone is not available, a larger runway with a clearly identifiable 500 foot touch down zone may be used (instrument runway with requisite markings is sufficient). This event is normally accomplished as part of the mission evaluation. ME procedures are not required if it was 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, thoroughly debrief first pilots/copilots on ME procedures. NVG takeoff/landing may be credited if flown to max effort standards. **Note:** One go-around is permitted, provided the aircraft does not touch down short of the zone.

Table 4.1. Pilot/Copilot INSTM/QUAL Grading Areas.

Area	Grading Areas	QUAL	INSTM
40	Ground Operations/Taxi [2]	X	
41	Takeoff [2]	X	
42	Instrument Departure		X
43	En route Navigation/Use of navigational aids (NAVAID) [2]		X
44	Descent/Arrival Procedures [2]		X
45	Holding/Procedure Turn [2]		X
46	Precision Approach (PAR or ILS) [6]		
46a	Precision Approach Radar (PAR) [2, 5]		X
46b	Instrument Landing System (ILS) [2]		X
47	Non-Precision Approach [7]		
47a	TACAN [2]		X
47b	Very-High Frequency Omnidirectional Rangefinder (VOR) [2]		X
47c	Localizer (LOC) [2]		X

Area	Grading Areas	QUAL	INSTM
47d	Nondirectional Beacon (NDB) [2]		X
47e	Airport Surveillance Radar (ASR) [2, 5]		X
48	Circling/Side-Step Approach [2]		X
49	Simulated Engine-Out Approach [2]		X
50	Missed Approach/Go-Around [2]		X
51	Simulated Engine-Out Go-Around [2]	X	
52	VFR Pattern [2]	X	
53	Final Approach and Landing		
53a	100 Percent Flap Landing [2]	X	
53b	Partial Flap Landing (If applicable) [2]	X	
53c	No Flap Landing [2, 4]	X	
53d	Engine-Out Landing [2]	X	
53e	Touch-and-Go Landing [2]	X	
54	Fuel Conservation	X	
55	Systems Operations/Knowledge/Limitations/National Airspace System (NAS)	X	X
56	After Landing/Engine Shutdown [2]	X	
57-60	Reserved for future use		

Notes:

1. Required in-flight.
2. Required in-flight or simulator certified for this event.
3. Required in-flight or alternate method.
4. ACs/first pilots/instructors only.
5. Only one of the three required approaches may be controller directed (PAR/ASR).
6. Any one required.
7. Any two required.

Table 4.2. Pilot/Copilot MSN and Special Qualification Grading Areas.

Area	Grading Areas	MSN
61	NVG Low-Level Operations [1]	X
62	Threat Avoidance/Tactics [2]	X
63	Airdrop Procedures [1]	X
64	Tactical Recovery (SCA, overhead, downwind, random shallow/steep, etc.) [2, 4]	X
65	Maximum Effort Takeoff [2, 5]	X
66	Maximum Effort Landing [2, 5]	X
67	NVG Airland [1]	X
68	Systems Operations/Knowledge/Limitations [3]	X
69	TOT/TOA [1]	X

Area	Grading Areas	MSN
70-100	Reserved for future use	

Notes:

1. Required in-flight.
2. Required in-flight or simulator certified for this event.
3. Required in-flight or alternate method.
4. ACs/instructors only.
5. Copilots perform copilot duties only.

Table 4.3. General Criteria.

Q	Altitude	± 200 feet
	Airspeed	+10/- 5 knots or equivalent Kilometers Per Hour (KPH) (but not less than Vmca)
	Course	± 5°/3 Nautical Miles (nm) (whichever is greater)
	Arc	± 2 nm
Q-	Altitude	± 300 feet
	Airspeed	+15/- 10 knots or equivalent KPH (but not less than Vmca)
	Course	± 10°/5 nm (whichever is greater)
	Arc	± 3 nm
U		Exceeded Q- limits

4.6. Grading Criteria. The following subparagraphs contain grading criteria for the areas listed in **Tables 4.1** and **4.2**. The general criteria in **Table 4.3** apply during all phases of flight except as noted for specific events and instrument final approaches.

4.6.1. Area 40. Ground Operations/Taxi.

4.6.1.1. Q. Established and adhered to station, start engine, taxi, and takeoff 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 IAW flight manual. Conducted taxi operations according to flight manual, AFI 11-218, *Aircraft Operations and Movement on the Ground*, and local procedures.

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

4.6.1.3. 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.

4.6.2. Area 41. Takeoff.

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

4.6.2.2. 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.

4.6.2.3. 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.

4.6.3. Area 42. Instrument Departure.

4.6.3.1. Q. Performed departure IAW 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.

4.6.3.2. 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.

4.6.3.3. U. Instrument departure was not IAW TOs, directives, or published procedures. Failed to comply with published/directed departure, or controlling agency instructions. Accepted an inaccurate clearance. Aircraft control was erratic.

4.6.4. Area 43. En Route Navigation/Use of NAVAIDs.

4.6.4.1. 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.

4.6.4.2. 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.

4.6.4.3. 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. Exceeded Q- criteria.

4.6.5. Area 44. Descent/Arrival Procedures.

4.6.5.1. Q. Performed descent as directed. Complied with all flight manual, controller issued, or standard terminal arrival (STAR) restrictions in a proficient manner. Properly set altimeters and tuned, identified, and monitored all navaids. Accomplished all required checks.

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

4.6.5.3. U. Performed descent with major deviations. Failed to follow controller instructions or made erratic corrections. Failed to tune, identify, or monitor navaids or set altimeters properly. Exceeded flight manual limitations or did not accomplish required checks.

4.6.6. Area 45. Holding/Procedure Turn.

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

4.6.6.1.1. VOR leg timing: ± 15 seconds.

4.6.6.1.2. TACAN: ± 2 nm.

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

4.6.6.2.1. VOR Leg timing: ± 30 seconds.

4.6.6.2.2. TACAN: ± 3 nm.

4.6.6.3. U. Holding was not IAW TOs, directives, or published procedures. Exceeded Q- holding pattern limits.

4.6.7. Area 46. 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.

4.6.7.1. Q.

4.6.7.1.1. Airspeed: +10/-5 knots indicated air speed (KIAS) or equivalent KPH.

4.6.7.1.2. Heading: ± 5° of controller's instructions (PAR).

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

4.6.7.1.4. Azimuth: Within one dot (ILS).

4.6.7.2. Q-.

4.6.7.2.1. Airspeed: +15/-10 KIAS or equivalent KPH.

4.6.7.2.2. Heading: ± 10° of controller's instructions (PAR).

4.6.7.2.3. 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).

4.6.7.2.4. Azimuth: Within two dots (ILS).

4.6.7.3. U.

4.6.7.3.1. Exceeded Q- criteria.

4.6.7.4. Subarea 46a. Precision Approach Radar (PAR).

4.6.7.4.1. Q. Approach was IAW 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.

4.6.7.4.2. 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.

4.6.7.4.3. U. Approach not IAW 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.

4.6.7.5. Subarea 46b. Instrument Landing System (ILS).

4.6.7.5.1. Q. Approach was IAW 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.

4.6.7.5.2. 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.

4.6.7.5.3. U. Approach not IAW 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.

4.6.8. Area 47. Non-Precision Approach (TACAN, VOR, LOC, NDB, ASR). **Note:** Use the following criteria for Areas 47a-47e.

4.6.8.1. Q. Approach was IAW flight manual, directives, and published procedures. Used appropriate descent rate to arrive at Minimum Decision Altitude (MDA) at or before Visual Descent Point (VDP). Position permitted a safe landing. Smooth and timely response to controller's instructions (ASR).

4.6.8.1.1. Airspeed: +10/-5 knots or equivalent KPH.

4.6.8.1.2. Heading: ±5° (ASR).

4.6.8.1.3. Course: ±5° at missed approach point (MAP) (TAC, VOR, NDB), less than one dot deflection (LOC).

4.6.8.1.4. MDA: +100/-0 feet.

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

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

4.6.8.2.1. Airspeed: +15/-10 knots or equivalent KPH.

4.6.8.2.2. Heading: ±10° (ASR).

4.6.8.2.3. Course: ±10° at MAP (TAC, VOR, NDB).

4.6.8.2.4. Localizer: Within two dots deflection.

4.6.8.2.5. MDA: +150/-50 feet.

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

4.6.8.3. U. Approach not IAW 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.

4.6.8.4. Area 47a. TAC.

4.6.8.5. Area 47b. VOR.

4.6.8.6. Area 47c. LOC.

4.6.8.7. Area 47d. NDB.

4.6.8.8. Area 47e. ASR.

4.6.9. Area 48. Circling/Side-Step Approach.

4.6.9.1. 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.

4.6.9.1.1. Airspeed: +10/-5 knots or equivalent KPH.

4.6.9.1.2. Altitude: +100/-0 feet.

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

4.6.9.2.1. Airspeed: +15/-10 knots or equivalent KPH.

4.6.9.2.2. Altitude: +150/-50 feet.

4.6.9.3. 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.

4.6.10. Area 49. Simulated Engine-Out Approach. **Note:** Use approach criteria for the type of approach being flown and the following.

4.6.10.1. Q. Performed procedures IAW 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.

4.6.10.2. 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.

4.6.10.3. 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.

4.6.11. Area 50. Missed Approach/Go-Around.

4.6.11.1. Q. Executed missed approach IAW 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.

4.6.11.2. 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.

4.6.11.3. U. Did not execute missed approach IAW flight manual, 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.

4.6.12. Area 51. Simulated Engine-Out Go-Around. **Note:** Use Area 41 criteria and the following.

4.6.12.1. 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.

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

4.6.12.3. 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.

4.6.13. Area 52. VFR Pattern.

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

4.6.13.1.1. Airspeed: +10/-5 knots or equivalent KPH.

4.6.13.1.2. Pattern Altitude: ± 100 feet.

4.6.13.2. 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.

4.6.13.2.1. Airspeed: +15/-5 knots or equivalent KPH.

4.6.13.2.2. Pattern Altitude: ± 200 feet.

4.6.13.3. U. Major/unsafe deviations from published restrictions/local guidance. Did not perform traffic pattern and turn to final/final approach IAW flight manual, 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.

4.6.14. Area 53. Final Approach and Landing.

4.6.14.1. Areas 53a through 53e. Use the following criteria. **Note:** The following criteria is written to generally 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 glide slope 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.

4.6.14.1.1. Q. Performed landing as published/directed IAW flight manual. Crossed threshold at threshold speed ± 5 knots 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:

4.6.14.1.1.1. Touchdown Speed: ±5 knots or equivalent KPH.

4.6.14.1.1.2. Touchdown Point: Within 1,000 feet of intended touchdown point.

4.6.14.1.2. Q-. Performed landing with minor deviations to procedures as published/directed. Crossed threshold at threshold speed +10/-5 knots or equivalent KPH 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:

4.6.14.1.2.1. Touchdown Speed: +10/-5 knots or equivalent KPH.

4.6.14.1.2.2. Touchdown Point: Threshold -3,000 feet.

4.6.14.1.3. 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. Exceeded Q- criteria.

4.6.14.2. Area 53a. 100 Percent Flap Landing.

4.6.14.3. Area 53b. Partial Flap Landing (If applicable).

4.6.14.4. Area 53c. No Flap Landing.

4.6.14.5. Area 53d. Engine-Out Landing.

4.6.14.6. Area 53e. Touch-and-Go Landing.

4.6.15. Area 54. Fuel Conservation.

4.6.15.1. 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.

4.6.15.2. 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.

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

4.6.16. Area 55. Systems Operations/Knowledge/Limitations/NAS.

4.6.16.1. 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.

4.6.16.2. 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.

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

4.6.17. Area 56. After Landing/Engine Shutdown.

4.6.17.1. Q. Appropriate after landing/engine shutdown checks and aircraft taxi procedures accomplished IAW published procedures.

4.6.17.2. Q-. Minor deviations or omissions were made to published procedures.

4.6.17.3. U. Appropriate after landing/engine shutdown checks or aircraft taxi procedures were not IAW flight manual, directives or published procedures. Major deviations or omissions occurred which could have jeopardized safety.

4.6.18. Areas 57 - 60. Reserved for future use.

4.6.19. Area 61. NVG Low-Level Operations.

4.6.19.1. Q. Planned and flew a route to minimize risk to aircraft and crew for a given mission using aided or unaided procedures IAW governing directives and appropriate Tactics, Techniques and Procedures (TTP). Avoided excessive or numerous low-altitude warnings. Appropriately assisted navigator with TOT/TOA control. Maintained airspeed commensurate with navigator/copilot inputs. Flew appropriate profile for terrain and environmental conditions. Positively identified controlling terrain, turnpoints and key navigation points.

4.6.19.2. Q-. Had numerous low-altitude warnings but no significant compromise to safety. Minor deviations from TTPs and airspeed profile. Minor errors in positive identification of controlling terrain, turn points or key navigation points which did not compromise safety or mission success.

4.6.19.3. U. Had excessive amount and/or excessively low-altitude warnings. Major/unsafe deviations from established directives and appropriate TTP. Repeatedly failed to positively identify controlling terrain, turn points or key navigation points.

4.6.20. Area 62. Threat Avoidance/Tactics.

4.6.20.1. Q. Able to formulate a plan of action to avoid lethal range of given threat system. Executed the proper evasive maneuver in a timely manner when given an immediate threat. Adequately analyzed and degraded all threats ensuring effective mission accomplishment. Demonstrated satisfactory knowledge of defensive tactics. Aware of appropriate tactics to avoid threats and exposure.

4.6.20.2. Q-. Made minor errors in avoiding the lethal range of a given threat system which did not compromise mission accomplishment. Slow to execute the proper evasive maneuver. Minor errors in threat analysis or tactics selection. Limited knowledge of defensive tactics.

4.6.20.3. 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. Knowledge of defensive tactics was unsatisfactory.

4.6.21. Area 63. Airdrop Procedures.

4.6.21.1. Q. Complied with all published/briefed procedures. Correctly identified the Drop Zone (DZ) and made appropriate corrections to fine-tune the track. Track was flown IAW mission plan or as updated by crew. Aircraft configuration was correct. Escape was executed IAW published or briefed procedures.

4.6.21.1.1. Airspeed: ± 5 knots or equivalent KPH.

4.6.21.1.2. Altitude: + 50/- 0 feet.

4.6.21.2. Q-. Had minor deviations in published/briefed procedures. Identified the DZ late despite clear marking and sufficient landmarks. Alignment was satisfactory but tended to angle. Minor errors in escape procedures but did not affect mission accomplishment.

4.6.21.2.1. Airspeed: + 10/- 10 knots or equivalent KPH.

4.6.21.2.2. Altitude: + 100/- 50 feet.

4.6.21.3. U. Had major deviations to published/briefed procedures which adversely affected mission accomplishment. Was unable to identify DZ due to poor technique or pilot error. Did not fly proper alignment, or was unaware of alignment error. Mission not accomplished due to aircraft configuration, poor DZ acquisition, alignment, or deviation from procedures, caused by pilot error or omission. Did not recognize a no-drop situation.

4.6.22. Area 64. Tactical Recovery (SCA, overhead, downwind, random shallow/steep, etc.).

4.6.22.1. Q. Followed procedures as briefed and IAW 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.

4.6.22.2. 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.

4.6.22.3. U. Recovery not performed IAW 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.

4.6.23. Area 65. Maximum Effort Takeoff.

4.6.23.1. Q. Thoroughly analyzed departure/landing runway and surrounding terrain. Reviewed all applicable TOLD and thoroughly briefed crew on their duties. Maintained smooth positive control throughout departure roll and takeoff. Climbed on-speed and decreased angle-of-attack once clear of obstacle.

4.6.23.2. 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.

4.6.23.3. U. Procedures not IAW flight manual, directives, or published procedures. Unable 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 IAW 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.

4.6.24. Area 66. Maximum Effort Landing.

4.6.24.1. 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 prebriefed location or exited the runway at prebriefed location.

4.6.24.1.1. Airspeed: ± 5 knots.

4.6.24.2. 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.

4.6.24.2.1. Airspeed: + 10/ - 5 knots.

4.6.24.3. 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. Unable to stop at prebriefed location or exit the runway at prebriefed location.

4.6.25. Area 67. NVG Airland. **Note:** NVG Airland may be evaluated utilizing normal or maximum effort procedures. When evaluating copilots, use normal procedures.

4.6.25.1. For non-assault NVG Airland operations use the following areas for detailed criteria:

4.6.25.1.1. Area 41 – Takeoff.

4.6.25.1.2. Area 53 – Landing.

4.6.25.1.3. Area 50 – Missed Approach/Go-Around.

Note: If using assault procedures during NVG Airland Procedures, additionally use the Areas 65 and 66.

4.6.25.2. 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.

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

4.6.25.4. U. Procedures not IAW flight manual, directives, or published procedures. Unable 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.

4.6.26. Area 68. Systems Operation/Knowledge/Limitations.

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

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

4.6.26.3. U. Unsatisfactory systems knowledge. Unable to demonstrate/explain the procedures for aircraft system operations.

4.6.27. Area 69. TOT/TOA Control.

4.6.27.1. Q. Accurately used all available data to arrive at the objective on time. Recomputed TOT/TOA in-flight as necessary, ± 60 second TOT/TOA.

4.6.27.2. Q-. Arrived at the objective on time but used excessive timing maneuvers or airspeed changes. Minor deviations in recomputing TOT/TOA in-flight as necessary, ± 90 second TOT/TOA.

4.6.27.3. U. Exceeded Q- criteria for airdrop/SCA. Could not accurately establish new TOT/TOA while airborne, when required.

4.6.28. Areas 70 - 100. Reserved for future use.

Chapter 5

NAVIGATOR EVALUATIONS

5.1. General. Mission qualified navigators require a combined qualification and mission evaluation. Navigators maintaining only basic qualification require a QUAL flight evaluation. Instructors will demonstrate instructor duties on all periodic evaluations.

5.2. Requirements. Evaluate all general areas outlined in **Table 2.1** on all evaluations. Also, evaluate all instructors on areas in **Table 3.1** on all evaluations. Navigator specific areas and criteria are listed in this chapter.

5.3. QUAL. In addition to areas listed in **Table 2.1** and **Table 3.1**, qualification evaluations will include Note 1 areas in **Table 5.1**.

5.3.1. Initial/Requalification. Navigators require an initial qualification evaluation in their primary USAF MDS prior to any nonstandard aircraft qualification evaluations. Requisites (prerequisites for initial/requalification evaluations) include Qualification Open and Closed Book examinations, EPE, and boldface (if applicable) examination. Required events include a minimum of a complete aircraft preflight, sortie, and a complete post flight. The evaluation profile will include a minimum of two hours of category I or category II routes using category I navigation procedures. State in the comments section of the AF Form 8 whether the evaluation was flown on a category I or category II route.

5.3.2. Periodic. Navigators are required a periodic qualification evaluation on each MDS they maintain qualification in. Complete evaluation as outlined in **Paragraph 5.3.1**.

5.4. Combined QUAL/MSN. In addition to areas listed in **Table 2.1** and **Table 3.1**, mission evaluations will include areas in **Table 5.1**. At a minimum, annotate the following on the AF Form 8, Section IV Comments: the type of drop conducted, drop score, TOT/TOA, type of low-level (LL) flown, and if it was conducted in mountainous terrain.

5.4.1. Initial/Requalification: Required in-flight events include at least 30 minutes of NVG LL timed to a tactical event. A tactical event is considered to be an airdrop or SCA. Though only one TOT/TOA is required, both events must be observed. The navigator must be acting as the primary navigator and actively directing the aircraft during the LL. Mountainous LL is recommended but not required.

5.4.2. Periodic. Required in-flight events are the same as initial/requalification evaluations noted above with the following exceptions: The LL must be at least 30 minutes. A TOT/TOA and threat reaction is required on all periodic evaluations. The TOT/TOA will be timed to a tactical event. A tactical event is considered to be airdrop or SCA. Two different tactical events will be observed.

Table 5.1. Navigator QUAL/MSN Grading Areas.

Area	Grading Areas
101	Flight Plan/Charts [3, 4]
102	Airdrop Data/Charts [3]
103	SCA Data/Charts [3]
104	Fuel Planning [3, 4]
105	Departure [3, 4]
106	LL Navigation Procedures [2]
107	Radio Navigation [3, 4]
108	Radar Navigation/Weather Avoidance [3, 4]
109	Low-Level Radar Navigation [2]
110	Navigation Systems [3, 4]
111	True Airspeed (TAS) Check [3, 4]
112	High-Altitude Course and Estimated Time of Arrival (ETA) Tolerance [3, 4]
113	Fuel Management [3, 4]
114	Descent/Approach/Landing [3, 4]
115	SCA Procedures [2]
116	Tactical Planning [3]
117	Defensive Systems Knowledge/Employment [3]
118	In-flight Threat Analysis/Maneuvers [3]
119	In-flight CARP Reevaluation [2]
120	Slowdown [2]
121	DZ Acquisition (Visual Airdrop) [2]
122	DZ Alignment [2]
123	Airdrop Procedures [2]
124	Escape [2]
125	Low-Level [2]
126	Low-Level NVG [2]
127	Altitude Calibration [2]
128	TOA/TOT Control [2]
129	Degraded Operations [2]
130	Warnings/Advisories [2]
131-150	Reserved for future use [1]

Notes:

1. Reserved for future use.
2. Required for MSN Flight Evaluation in-flight or simulator certified for this event.
3. Required in-flight or alternate method.
4. Required for QUAL-only flight evaluations.

5.5. Grading Criteria. The following subparagraphs contain grading criteria for the areas listed in **Tables 5.1**.

5.5.1. Area 101. Flight Plan/Charts.

5.5.1.1. Q. Completed a flight plan IAW applicable directives. Selected current navigation charts of a proper scale and type of the sortie profile. Charts were constructed IAW current directives. Demonstrated proper manual flight planning procedures, if required.

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

5.5.1.3. 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.

5.5.2. Area 102. Airdrop Data/Charts.

5.5.2.1. Q. Completed CARP IAW applicable directives. Correctly computed and plotted CARP based on the most accurate data available. Demonstrated proper manual CARP computation, if required.

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

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

5.5.3. Area 103. SCA Data/Charts.

5.5.3.1. Q. Completed SCA IAW applicable directives. Correctly computed and plotted SCA based on the most accurate data available.

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

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

5.5.4. Area 104. Fuel Planning.

5.5.4.1. Q. Completed a fuel plan IAW applicable directives. Used correct entering arguments (temp 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.

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

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

5.5.5. Area 105. Departure.

5.5.5.1. Q. Monitored headings, airspeeds, altitudes and aircraft position throughout departure. Used an instrument departure procedure and/or appropriate scale departure area chart. Provided headings, ETA, 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.

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

5.5.5.3. U. Did not monitor 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.

5.5.6. Area 106. Low-Level Navigation Procedures.

5.5.6.1. Q. Certain of exact aircraft position. Remained within 1 nm of course centerline or planned deviation. Exceptions: Threat avoidance, weather deviation, Air Traffic Control (ATC) 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.

5.5.6.2. 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.

5.5.6.3. U. Exceeded 3 nm during en route navigation without the above exceptions. Was unable to maintain position awareness throughout most of the route. Unable to accurately assess required timing or unaware of mission time status, jeopardizing mission accomplishment. Violated airspace restrictions. Poor airspeed control resulted in numerous or extreme airspeed adjustment. Descended below minimum altitude restrictions.

5.5.7. Area 107. Radio Navigation.

5.5.7.1. Q. Accurately tuned (if capable), identified, and interpreted readings of en route/terminal area TACANs, VORs or NDBs.

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

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

5.5.8. Area 108. Radar Navigation/Weather Avoidance.

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

5.5.8.2. 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.

5.5.8.3. 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.

5.5.9. Area 109. Low-Level Radar Navigation.

5.5.9.1. 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 LL and during terminal areas (DZ/Landing Zone) operations.

5.5.9.2. Q-. Improper radar tuning/interpretation caused confusion during LL 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.

5.5.9.3. U. Failed to tune radar sufficiently for safe LL 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.

5.5.10. Area 110. Navigation Systems.

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

5.5.10.2. 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.

5.5.10.3. 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.

5.5.11. Area 111. TAS Check.

5.5.11.1. Q. TAS check accomplished on time and error did not exceed 5 knots.

5.5.11.2. Q-. Minor errors in readings or computations. Error did not exceed 10 knots. Completed TAS check late.

5.5.11.3. U. Did not accomplish TAS check when required or error exceeded 10 knots.

5.5.12. Area 112. High-Altitude Course and ETA Tolerance.

5.5.12.1. Q. Unless required to deviate for weather or required by ATC, remained within 5 nm of course centerline, or within tolerances specified for Required Navigation Performance (RNP) airspace (if applicable), whichever is less. ETAs/revised ETA (RETA) were within 2 minutes of actual times of arrival (ATA).

5.5.12.2. Q-. Remained within 10 nm of course centerline. ETAs/RETAs were within 3 minutes of ATA.

5.5.12.3. U. Exceeded Q- criteria or exceeded RNP requirement. Evaluator had to alter aircraft heading to remain within course tolerance or clear special use airspace.

5.5.13. Area 113. Fuel Management.

5.5.13.1. Q. Maintained fuel management IAW directives. Kept pilot advised of fuel status.

5.5.13.2. Q-. Adequate fuel management with minor computation errors noted. Did not adequately update the pilot on fuel status.

5.5.13.3. 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.

5.5.14. Area 114. Descent/Approach/Landing.

5.5.14.1. 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.

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

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

5.5.15. Area 115. SCA Procedures.

5.5.15.1. Q. Completed SCA IAW 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.

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

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

5.5.16. Area 116. Tactical Planning.

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

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

5.5.16.3. 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).

5.5.17. Area 117. Defensive Systems Knowledge/Employment.

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

5.5.17.2. 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.

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

5.5.18. Area 118. In-flight Threat Analysis/Maneuvers.

5.5.18.1. 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 when given an immediate threat. Adequately analyzed and defeated all threats ensuring effective mission accomplishment. Aware of appropriate tactics to avoid threats and exposure.

5.5.18.2. 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.

5.5.18.3. U. Major errors in tactics execution would have resulted in an unsuccessful mission.

5.5.19. Area 119. In-flight CARP Reevaluation.

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

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

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

5.5.20. Area 120. Slowdown.

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

5.5.20.2. Q-. Limited knowledge of slowdown procedures. Minor deviations did not affect mission accomplishment.

5.5.20.3. U. Had unsatisfactory knowledge of slowdown procedures. Major deviations adversely affected mission accomplishment..

5.5.21. Area 121. DZ Acquisition (Visual Airdrop).

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

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

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

5.5.22. Area 122. DZ Alignment.

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

5.5.22.2. Q-. Slow in directing aircraft to establish/maintain effective DZ alignment, but did not adversely impact mission accomplishment.

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

5.5.23. Area 123. Airdrop Procedures.

5.5.23.1. Q. Accurately used all available data to accomplish airdrop. Complied with all applicable directives.

5.5.23.2. Q-. Failed to use all data available to ensure the most accurate drop.

5.5.23.3. U. Incorrect procedures led to a drop score exceeding 300 yards.

5.5.24. Area 124. Escape.

5.5.24.1. Q. Escape executed IAW published or briefed procedures.

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

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

5.5.25. Area 125. Low-Level.

5.5.25.1. Q. Planned and flew Terrain Avoidance (TA) profile IAW governing directives and appropriate TTP. Demonstrated knowledge of TA by integrating systems into successful low-level mission. Properly recognized and rectified system failures and took corrective action as applicable. Altered method of LL if required. Implemented all possible measures to safely continue mission based on mission priority and threat scenario.

5.5.25.2. Q-. Minor errors in TA procedures or employment. Demonstrated limited knowledge of system capabilities or procedures; slow to take appropriate action. Demonstrated limited ability to recognize or rectify system failures. Could not accomplish corrective action without limited assistance or slow to take corrective action.

5.5.25.3. U. Failed to employ applicable systems to ensure mission accomplishment. Misunderstood system capabilities, failed to acknowledge system notifications or failed to fully integrate/interpret radar display while flying the profile. Did not recognize system failure or could not accomplish corrective action without assistance. Did not recommend alternate method of low-level when required. Lack of knowledge affected ability to accomplish mission using TA procedures.

5.5.26. Area 126. Low-Level (NVG).

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

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

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

5.5.27. Area 127. Altitude Calibration.

5.5.27.1. Q. Properly updated altimeter, both en route and near the objective area. Understood relationship of barometric and radar altimeter data on aircraft systems.

5.5.27.2. Q-. Completed altitude calibration which resulted in minor altitude deviations. Altitude calibration incorrectly accomplished or not accomplished in a timely manner (i.e., near the objective area).

5.5.27.3. U. Failed to accomplish altitude calibration or altitude calibration resulted in major errors.

5.5.28. Area 128. TOA/TOT Control.

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

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

5.5.28.3. U. Exceeded ± 30 seconds for airdrop/SCA. Could not accurately establish new TOT/TOA while airborne, when required.

5.5.29. Area 129. Degraded Operations.

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

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

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

5.5.30. Area 130. Warnings/Advisories.

5.5.30.1. Q. In-flight time warnings/advisories provided clear and concise information in a timely manner.

5.5.30.2. Q-. In-flight time warnings/advisories contained minor errors or omitted noncritical information.

5.5.30.3. U. Timing of in-flight time warnings/advisories adversely affected mission accomplishment.

5.5.31. Areas 131 - 150. Reserved for future use.

Chapter 6

FLIGHT ENGINEER (FE) EVALUATIONS

6.1. General. FEs maintaining basic qualification require a qualification flight evaluation only. Instructors will demonstrate instructor duties on all periodic evaluations.

6.2. Requirements. Evaluate all general areas outlined in **Table 2.1** on all evaluations. Also, evaluate all instructors on instructor areas in **Table 3.1** FE specific areas and criteria are listed in this chapter.

6.3. QUAL. Accomplish on any flight profile except Functional Check Flight and Acceptance Check Flights.

6.3.1. Initial/Requalification. In addition to areas listed in **Table 2.1** and **Table 3.1**, qualification evaluations will include Note 1 areas in **Table 6.1**. FEs require an initial qualification evaluation in their primary USAF MDS prior to any nonstandard aircraft qualification evaluations. Requisites (prerequisites for initial/requalification evaluations) include Qualification Open and Closed Book examinations, EPE, and boldface examination. Required events include a minimum of; complete aircraft preflight, a sortie, and a complete post flight.

6.3.2. Periodic. FEs are required a periodic qualification evaluation on each MDS they maintain qualification in. Complete evaluation as outlined in **Paragraph 6.3.1**.

6.4. Combined Evaluations(QUAL/MSN).

6.4.1. Initial/Requalification. Requisites (prerequisites for initial/requalification evaluations) include QUAL/Mission Open and Closed Book examinations, EPE, and boldface examination. Administer the evaluation on a mission that requires the examinee to operate aircraft systems, accomplish a tactical checklist, and perform other assigned duties to include a preflight and postflight.

6.4.2. Periodic . Required in-flight events are the same as initial/requalification evaluations noted in **Paragraph 6.4.1**.

Table 6.1. Flight Engineer QUAL/MSN Grading Areas.

Area	Grading Areas
151	AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document* [1]
152	TOLD [1]
153	Cockpit Checklist [1]
154	Before Starting Engines/Starting Engines [1]
155	Before Taxi/Taxi [1]
156	Before Takeoff/Lineup [1]
157	After Takeoff [1]
158	En Route [1]
159	Descent/Before Landing [1]
160	After Landing [1]

Area	Grading Areas
161	Engine Shutdown [1]
162	Before Leaving Airplane [1]
163	Tactical Checklists (as required) [2]
164	Postflight [1]
165	Mission Procedures (as required) [2]
166	Tactical Takeoff/Landing (as required) [2]
167	NVG Usage/Limitations (as required) [2]
168	Search and Rescue (SAR) Operations (as required) [2]
169	Ground Support Equipment [1]
170	Refuel/Defuel [1]
171	Engine [1]
172	Propeller [1]
173	Auxiliary Power Unit (APU) or Gas Turbine Compressor (GTC) [1]
174	Fire Detection/Extinguishing [1]
175	Oxygen [1]
176	Pneumatics/Bleed Air [1]
177	Pressurization/Depressurization [1]
178	Air-Conditioning/Floor Heating [1]
179	Anti-Icing/De-Icing [1]
180	Flight Controls [1]
181	Flaps [1]
182	Window/Hatches/Doors/Ramp [1]
183	Landing Gear/Nose Wheel Steering [1]
184	Brakes [1]
185	Hydraulics [1]
186	Fuel [1]
187	Electrical [1]
188	Radios/Radar/Navigation Equipment
189	Cockpit Voice Recorder (CVR)/Digital Flight Data Recorder (DFDR)
190	Defensive Systems (as required) [2]
191	Defensive Tactics/Threat Calls (as required) [2]
192-200	Reserved for future use

Notes:

1. Required for Basic Qualification only evaluations
2. Required for MSN portion of flight evaluation

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

6.5.1. Area 151. AFTO Form 781.

6.5.1.1. Q. Identified and reported discrepancies in a clear, concise, accurate, and timely manner IAW TO 00-20-1, *Aerospace Equipment Maintenance Inspection Documentation, Policies, and Procedures*.

6.5.1.2. Q-. Some information reported incorrectly or incompletely due to errors, omissions, or deviations. Limited knowledge of proper discrepancy reporting IAW TO 00-20-1.

6.5.1.3. U. Did not identify or report discrepancies; omitted or incorrectly reported significant information due to errors, omissions, or deviations.

6.5.2. Area 152. TOLD.

6.5.2.1. Q. Correctly computed the TOLD data using applicable performance data and corrections for existing field conditions. Transcribed mini TOLD data correctly. Was thoroughly knowledgeable of takeoff and landing performance data.

6.5.2.1.1. TOLD criteria:

6.5.2.1.1.1. Required Airspeeds: ±2 knots or 5 KPH.

6.5.2.1.1.2. Required Distances: ± 200 feet or 61 Meters.

6.5.2.1.1.3. Predicted Takeoff Power: ± 1 block value in performance manual (as applicable).

6.5.2.2. Q-. Minor errors in the use of applicable performance charts, computing the performance data, or correcting for existing field conditions resulting in data exceeding Q criteria. Incorrectly transcribed mini TOLD data. Had adequate knowledge of takeoff and landing performance data. Would not have compromised safety of flight.

6.5.2.2.1. TOLD criteria:

6.5.2.2.1.1. Required Airspeeds: ± 4 KIAS or 10 KPH.

6.5.2.2.1.2. Required Distances: ± 400 feet or 122 Meters.

6.5.2.2.1.3. Predicted Takeoff power: ± 2 block values in performance manual (as applicable).

6.5.2.3. U. Failed to compute TOLD data, omitted necessary corrections for existing field conditions, or errors in computing performance data resulted in airspeeds and/or distances exceeding Q- criteria. Limited knowledge of takeoff and landing performance data. Did or could have compromised safety of flight.

6.5.3. Areas 153 - 163. Checklists.

6.5.3.1. Q. Accomplished required checklists without errors, omissions, or deviations. Backed up pilots on flight parameters (i.e., altitudes, airspeeds, and clearances). Satisfactorily monitored engine/system indicators. Fully knowledgeable of performance charts and procedures required to obtain and record in-flight performance data. Fuel system usage and configuration was IAW flight manual and applicable directives. Recognized and corrected minor omissions or deviations. Recognized, reported, and properly documented out of limit conditions or malfunctions.

6.5.3.2. Q-. Accomplished required checklists with minor errors, omissions, or deviations. Backed up pilots on flight parameters (i.e., altitudes, airspeeds, and clearances) with some deviations. Monitored engine/system indicators with some deviations. Limited knowledge of performance charts and procedures required to obtain and/or record in-flight performance data. Limited knowledge of fuel system usage and configuration caused deviations from flight manual and applicable directives. Slow to recognize, report, and/or document out-of-limit conditions or malfunctions.

6.5.3.3. U. Failed to accomplish required checklists or made numerous errors, omissions, or deviations. Failed to back up pilots on flight parameters (i.e., altitudes, airspeeds, and clearances). Failed to monitor engine/system indicators. Inadequate knowledge of performance charts and/or procedures required to obtain data for degraded engine operation. Had inadequate knowledge of fuel system usage and configuration. Allowed limitations to be exceeded, which, without correction, would/did cause damage to equipment.

6.5.4. Area 164. Postflight.

6.5.4.1. Q. Accomplished required checks without errors, omissions, or deviations. Insured aircraft properly configured for parking (i.e., nose gear pin, ground wires (if applicable), intakes, door locks).

6.5.4.2. Q-. Accomplished required checks with minor errors, omissions, or deviations. Minor errors insuring aircraft properly configured for parking.

6.5.4.3. U. Failed to accomplish required checks. Did not insure aircraft was properly configured for parking.

6.5.5. Area 165. Mission Procedures (as required). **Note:** FEs will be verbally evaluated on mission knowledge. Actual mission profiles will be flown to the maximum extent possible. Applicable mission requirements will be published in the local unit supplement to AFI 11202, Vol 2.

6.5.5.1. Q. Was fully knowledgeable of unit mission procedures. Was knowledgeable of mission events. Demonstrated adequate situational awareness.

6.5.5.2. Q-. Had limited knowledge of unit mission procedures. Demonstrated limited knowledge of mission events. Limited situational awareness.

6.5.5.3. U. Inadequate knowledge of unit mission procedures. Had inadequate knowledge of mission events. Had inadequate situational awareness.

6.5.6. Area 166. Tactical Takeoff/Landing (as required).

6.5.6.1. Q. Was fully knowledgeable of tactical takeoff and landing procedures IAW applicable directives. TOLD data computed within Q tolerances as stated in area 152.

6.5.6.2. Q-. Limited knowledge of tactical takeoff and landing procedures. TOLD data computed within Q- tolerances as stated in area 152.

6.5.6.3. U. Had inadequate knowledge of tactical takeoff and landing procedures. TOLD data exceeded Q- tolerances as stated in area 152.

6.5.7. Area 167. NVG Usage/Limitations (as required).

6.5.7.1. Q. Correctly described the use/limitations of NVGs. Properly preflighted, handled, and used NVGs during the flight.

6.5.7.2. 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 not negatively affected.

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

6.5.8. Area 168. SAR Operations (as required).

6.5.8.1. Q. Was fully knowledgeable of search procedures. Performed search checklist IAW applicable directives. Search performance data computed within TOLD criteria listed in Area 113.

6.5.8.2. Q-. Limited knowledge of search procedures. Minor deviations, errors, or omissions in search checklist that would not have adversely affected mission accomplishment. Search performance data computed within TOLD criteria listed in Area 113.

6.5.8.3. U. Had inadequate knowledge of search procedures. Was responsible for significant deviations, errors, and/or omissions in the search checklist that would have adversely affected the safe or timely accomplishment of the mission. Failed to compute TOLD card, omitted necessary corrections for existing conditions, or errors in computing performance data resulted in airspeeds and/or torque exceeding Q- criteria listed in Area 113.

6.5.9. Area 169. Ground Support Equipment.

6.5.9.1. Q. Accomplished or demonstrated a satisfactory knowledge of positioning, normal operation, and emergency shutdown of required ground support equipment with no errors, omissions, or deviations.

6.5.9.2. Q-. Accomplished or demonstrated a limited knowledge of positioning, normal operation, and emergency shutdown of required ground support equipment with minor errors, omissions, or deviations that did not jeopardize safety.

6.5.9.3. U. Failed to accomplish or demonstrate adequate knowledge of positioning, normal operation, and emergency shutdown of required ground support equipment that did or could have jeopardized safety.

6.5.10. Area 170. Refuel/Defuel.

6.5.10.1. Q. Demonstrated a satisfactory knowledge of or accomplished refuel/defuel operations with no errors, omissions, or deviations from established procedures. Maintained fuel balance limits and adhered to existing published safety precautions. Demonstrated a working knowledge of the aircraft and the refueling/defueling system. Demonstrated a satisfactory knowledge of concurrent refueling procedures and appropriate safety precautions IAW TO 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*.

6.5.10.2. Q-. Demonstrated a limited knowledge of or accomplished refuel/defuel operations with minor errors, omissions, or deviations that did not jeopardize safety. Limited knowledge of the aircraft refueling/defueling system and components.

6.5.10.3. U. Demonstrated inadequate knowledge of or failed to accomplish refuel/defuel operations, made errors, omissions, or deviations that would have jeopardized safety. Demonstrated inadequate knowledge of concurrent refueling operations and appropriate safety precautions.

6.5.11. Areas 171 - 190. Use the following criteria.

6.5.11.1. Q. Demonstrated a thorough knowledge of aircraft systems and operating limitations using all available assets.

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

6.5.11.3. U. Unsatisfactory systems knowledge. Unable to demonstrate or explain the procedures for aircraft systems operations with or without reference to the flight manual and/or available aids.

6.5.12. Area 191. Defensive Tactics/Threat Calls (as required).

6.5.12.1. Q. Satisfactory knowledge of defensive tactics. Properly identify threats and the maneuvers required to defeat it.

6.5.12.2. Q-. Limited knowledge of defensive tactics. Limited ability to identify threats and the maneuvers required to defeat them.

6.5.12.3. U. Had inadequate knowledge of proper scanning technique. Could not identify threats, or state maneuvers to defeat the threat.

6.5.13. Area 192 - 200. Reserved for future use.

Chapter 7

LOADMASTER EVALUATIONS

7.1. General. Mission qualified loadmasters require a combined qualification and mission evaluation. Instructors will demonstrate instructor duties on all periodic evaluations. The examinee must satisfactorily demonstrate the ability to perform all loadmaster duties safely and effectively, including the operation of appropriate aircraft systems IAW with applicable technical orders/flight manuals, instructions, and directives.

7.2. Requirements. Refer to **Chapter 2** for general and **Chapter 3** for instructor grading areas and criteria. Loadmaster specific areas and criteria are listed in this chapter.

7.3. Qualification Evaluations. For qualification evaluations, Qualification Open and Closed Book examinations (or Formal School End of Course examinations) are prerequisites for initial evaluations and requisites for individuals who are not mission qualified. Depending on the aircraft, boldface and EPE may be required for the evaluation. The EPE should cover areas applicable to the duties of a loadmaster on the aircraft being evaluated on.

7.3.1. Initial/Requalification. In addition to areas listed in **Table 2.1** and **Table 3.1**, qualification evaluations will include Note 1 areas in **Table 7.1**. Loadmasters require an initial qualification evaluation in any each MDS aircraft that the loadmaster maintains qualification on. Required events include a minimum of complete aircraft preflight, a sortie of any type, and a complete postflight.

7.3.2. Periodic. Periodic qualification evaluations will be accomplished on each MDS aircraft that the loadmaster maintains qualification on. Complete evaluation as outlined in **Paragraph 7.3.1**.

7.4. Mission Qualification. Mission evaluations may be administered concurrently with the initial qualification evaluation. Requalification evaluations will be administered as required to regain qualification. Mission Open and Closed Book examinations (or Formal School End of Course examinations) and an EPE are requisites (prerequisites for initial).

7.4.1. Initial/Requalification. Administer the evaluation to include, as a minimum: a complete aircraft preflight; completion of the applicable weight and balance forms; one airdrop if the aircraft is capable; and an aircraft postflight. Airdrop may be any equipment/personnel delivery. Door bundles may be used when it is the only type of equipment the aircraft is capable of dropping. SATBs airdrop is not acceptable for evaluation.

7.4.2. Periodic. Administer the evaluation on any flight representative of the mission of the aircraft being evaluated on. This includes airdrop (excluding SATBs), and Forward Area Refueling Point (FARP). Specify in the comment section of the AF Form 8, the type of mission accomplished. If the evaluation is accomplished on FARP the following restrictions apply:

7.4.3. Accomplish FARP evaluations on tanker aircraft under NVG conditions.

Table 7.1. Loadmaster QUAL/MSN Grading Areas.

Area	Grading Areas
201	Life Support Equipment [1]
202	Aircraft Configuration [1]
203	Load Planning/Inspection [1]
204	On/Offloading Procedures [1]
205	Supervisory Abilities [1]
206	Tie-Down/Restraint [1]
207	Winching Procedures [1, 3]
208	Hazardous Material [1]
209	Aircraft Limitations [1]
210	Passenger Handling [1]
211	Border Clearance [1]
212	Weight and Balance [1]
213	Scanner Duties [3]
214	Defensive Tactics/Threat Calls [3]
215	Engine Running Onload/Offload [3]
216	Infiltration/Exfiltration [2]
217	Systems Knowledge [1]
218	Airdrop Rigging Procedures [2]
219	Joint Airdrop Inspection [2]
220	Coordinated Tasks Briefing [1, 3]
221	Airdrop Knowledge [2]
222	NVG Usage/Limitations
223	Cockpit Checklist [1, 3]
224	Before Starting Engines/Starting Engines [1, 3]
225	Before Taxi/Taxi [1, 3]
226	Before Takeoff/Lineup [1, 3]
227	After Takeoff [1, 3]
228	En Route [1, 3]
229	Descent/Before Landing [1, 3]
230	After Landing [1, 3]
231	Engine Shutdown [1, 3]
232	Before Leaving Airplane [1, 3]
233	Tactical Checklists
234	Postflight [1, 3]
235	Mission Procedures [3]
236	Refuel/Defuel [1, 3]
237	FARP [2]
238-250	Reserved for future use

Area	Grading Areas

Notes:
1. Required for QUAL portion of flight evaluations.
2. Not required if aircraft is not equipped.
3. If loadmaster perform required duties for the aircraft.

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

7.5.1. Area 201. Life Support Equipment.

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

7.5.1.2. Q-. Difficulty locating, inspecting, and/or demonstrating the proper use of life support 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 life support or emergency equipment. Unsatisfactory knowledge of equipment.

7.5.2. Area 202. 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 203. 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. Unable to plan a passenger/cargo load and meet CG limits. Failed to inspect load for proper preparation and documentation.

7.5.4. Area 204. On/Offloading Procedures.

7.5.4.1. Q. Correctly on/offloaded the aircraft safely and in a timely manner.

7.5.4.2. Q-. Difficulty correctly on/offloading the aircraft.

7.5.4.3. U. Failed to correctly or safely on/offload the aircraft. Loading procedures caused undue delay.

7.5.5. Area 205. 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 206. 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 207. 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 208. Hazardous Material.

7.5.8.1. Q. Understood hazardous cargo procedures. Could comply with the provisions of AFMAN 24-204(I), *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(I), 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(I).

7.5.9. Area 209. Aircraft Limitations.

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 210. 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 211. Border Clearance.

7.5.11.1. Q. Correctly followed command guidelines. Completed/explained border clearance requirements IAW 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 212. Weight and Balance.

7.5.12.1. Q. Knowledge of aircraft limitations and weight and balance directives was satisfactory. Completed weight and balance accurately with only minor errors.

7.5.12.1.1. Aircraft gross takeoff limits: Not exceeded.

7.5.12.1.2. CG limitations: Not exceeded.

7.5.12.2. Q-. Limited knowledge of aircraft limitations and weight and balance directives. Had difficulty completing weight and balance. Aircraft limitations were not exceeded.

7.5.12.3. U. Knowledge of aircraft limitations and weight and balance directives was inadequate. Failed to complete weight and balance accurately. Exceeded aircraft limitations.

7.5.13. Area 213. Scanner Duties.

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

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

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

7.5.14. Area 214. Defensive Tactics/Threat Calls.

7.5.14.1. Q. Satisfactory knowledge of defensive tactics employed by the aircraft. Properly identify threats and the maneuvers required to defeat it. Explain proper scanning technique.

7.5.14.2. Q-. Limited knowledge of proper scanning techniques. Limited ability to identify threats and the maneuvers required to defeat them.

7.5.14.3. U. Had inadequate knowledge of proper scanning technique. Could not identify threats, or state maneuvers to defeat the threat.

7.5.15. Area 215. Engine Running Onload/Offload.

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

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

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

7.5.16. Area 216. Infiltration/Exfiltration.

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

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

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

7.5.17. Area 217. Systems Knowledge. **Note:** As a minimum, evaluate the following areas (as applicable): QUAL: All systems loadmasters are responsible for operating during non-tactical missions. MSN: All systems loadmasters are responsible for operating during tactical missions.

7.5.17.1. Q. Displayed satisfactory knowledge of systems, ensuring satisfactory operation within prescribed limits. Explained proper corrective action for each type of malfunction that loadmasters have action to perform.

7.5.17.2. Q-. Difficulty in displaying a satisfactory knowledge of systems. Slow to analyze problems or apply proper corrective actions.

7.5.17.3. U. Failed to display a satisfactory knowledge of systems. Unable to analyze problems or apply proper corrective actions.

7.5.18. Area 218. Airdrop Rigging Procedures.

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

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

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

7.5.19. Area 219. Joint Airdrop Inspection.

7.5.19.1. Q. Correctly completed/explained the joint airdrop inspection (if required).

7.5.19.2. Q-. Had difficulty completing/explaining the joint airdrop inspection (if required).

7.5.19.3. U. Failed to or had extreme difficulty completing/explaining the joint airdrop inspection (if required).

7.5.20. Area 220. Coordinated Tasks Briefing.

7.5.20.1. Q. Correctly briefed the coordinated tasks IAW current directives (if required).

7.5.20.2. Q-. Had difficulty briefing the coordinated tasks IAW current directives (if required).

7.5.20.3. U. Failed to accomplish the coordinated tasks briefing IAW current directives (if required).

7.5.21. Area 221. Airdrop Knowledge.

7.5.21.1. 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.

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

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

7.5.22. Area 222. NVG Usage/Limitations.

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

7.5.22.2. 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.

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

7.5.23. Areas 223 - 233. Use the following criteria.

7.5.23.1. Q. Accomplished required checklists without errors, omissions, or deviations. Backed up pilots on flight parameters (i.e., altitudes, airspeeds, and clearances). Satisfactorily monitored engine/system indicators. Recognized and corrected minor omissions or deviations. Recognized, reported, and properly documented out of limit conditions or malfunctions.

7.5.23.2. Q-. Accomplished required checklists with minor errors, omissions, or deviations. Backed up pilots on flight parameters (i.e., altitudes, airspeeds, and clearances) with some deviations. Monitored engine/system indicators with some deviations. Slow to recognize, report, and/or document out of limit conditions or malfunctions.

7.5.23.3. U. Failed to accomplish required checklists or made numerous errors, omissions, or deviations. Failed to back up pilots on flight parameters (i.e., altitudes, airspeeds, and clearances). Failed to monitor engine/system indicators. Allowed limitations to be exceeded, which, without correction, would cause damage to equipment.

7.5.24. Area 234. Postflight.

7.5.24.1. Q. Accomplished required checklists without errors, omissions, or deviations. Insured aircraft properly configured for parking. (i.e., nose gear pin, ground wires (if applicable), intakes, door locks).

7.5.24.2. Q-. Accomplished required checklists with minor errors, omissions, or deviations. Minor errors insuring aircraft properly configured for parking.

7.5.24.3. U. Failed to accomplish required checklists. Did not insure aircraft was properly configured for parking.

7.5.25. Area 236. Mission Procedures. **Note:** Loadmasters will be verbally evaluated on mission knowledge. Actual mission profiles will be flown to the maximum extent possible.

7.5.25.1. Q. Was fully knowledgeable of unit mission procedures. Was knowledgeable of mission events. Demonstrated adequate situational awareness.

7.5.25.2. Q-. Had limited knowledge of unit mission procedures. Demonstrated limited knowledge of mission events. Limited situational awareness.

7.5.25.3. U. Inadequate knowledge of unit mission procedures. Had inadequate knowledge of mission events. Had inadequate situational awareness.

7.5.26. Area 237. Refuel/Defuel.

7.5.26.1. Q. Demonstrated a satisfactory knowledge of or accomplished refuel/defuel operations with no errors, omissions, or deviations from established procedures. Demonstrated a working knowledge of the aircraft refueling/defueling system.

7.5.26.2. Q-. Demonstrated a limited knowledge of or accomplished refuel/defuel operations with minor errors, omissions, or deviations that did not jeopardize safety. Limited knowledge of the aircraft refueling/defueling system and components.

7.5.26.3. U. Demonstrated inadequate knowledge of or failed to accomplish refuel/defuel operations, made errors, omissions, or deviations that would have jeopardized safety.

7.5.27. Area 238. FARP.

7.5.27.1. Q. Satisfactorily demonstrated knowledge of FARP equipment, and emergency procedures. Satisfactorily performed all items associated with loadmaster duties, exercised sound crew coordination principles, and situational awareness.

7.5.27.2. Q-. Minor deviations in knowledge associated with loadmaster and FARP equipment. Minor omissions in procedures during performance loadmaster duties.

7.5.27.3. U. Lacks adequate knowledge to safely perform FARP duties to include loadmaster duties, FARP equipment, and/or emergency procedures. Could not perform loadmaster duties to the extent of creating unnecessary delays and/or jeopardizing FARP completion. Could not exercise sound crew coordination and/or situational awareness.

7.5.28. Area 238-250. Reserved for future use.

HANS R. KASPAR, Col, USAF
Director of Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 11-2, *Aircrew Operations*, 19 January 2012

AFPD 11-4, *Aviation Service*, 1 September 2004

AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, 19 January 2012

AFI 11-202, Vol 1, *Aircrew Training*, 22 November 2010

AFI 11-202, Vol 2, *Aircrew Standardization/Evaluation Program*, 13 September 2010

AFI 11-202, Vol 3, *General Flight Rules*, 22 October 2010

AFI 11-218, *Aircraft Operations and Movement on the Ground*, 28 October 2011

AFI 11-290, *Cockpit/Crew Resource Management Training Program*, 15 October 2012

AFI 11-401, *Aviation Management*, 10 December 2010

AFMAN 24-204(I), *Preparing Hazardous Materials for Military Air Shipments*, 03 December 2012

AFMAN 33-363, *Management of Records*, 1 March 2008

AFSOCI 11-219, Vol 1, *Additional Aircraft Training*, 1 September 2003

TO 00-20-1, *Aerospace Equipment Maintenance Inspection Documentation, Policies, and Procedures*, 1 April 2013

TO 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, 20 April 2013

Prescribed Forms

No forms are prescribed in this document.

Adopted Forms

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

AFSOC Form 48, *Flight Evaluations*

AF Form 8, *Certificate of Aircrew Training*

AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AC—Aircraft Commander

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFRIMS—Air Force Records Information Management System

AFSOC—Air Force Special Operations Command

AFSOCI—Air Force Special Operations Command Instruction

AIRCAT—Automated Inspection, Repair, Corrosion & Aircraft Tracking

ANG—Air National Guard

APU—Auxiliary Power Unit

ARMS—Aviation Resource Management Systems

ASR—Airport Surveillance Radar

ATA—Actual Time of Arrival

ATC—Air Traffic Control

CAA—Combat Aviation Advisor

CARP—Computed Airdrop Release Point

CG—Center of Gravity

COMSEC—Communications Security

CRM—Crew Resource Management

CVR—Cockpit Voice Recorder

DFDR—Digital Flight Data Recorder

DZ—Drop Zone

EPE—Emergency Procedures Evaluation

ETA—Estimated Time of Arrival

ETP—Equal Time Point

FARP—Forward Area Refueling Point

FDP—Flight Duty Period

FE—Flight Engineer

GTC—Gas Turbine Compressor

HQ—Headquarters

HHQ—Higher Headquarters

IAW—In Accordance With

ILS—Instrument Landing System

INSTM—Instrument

KIAS—Knots Indicated Airspeed

KPH—Kilometers Per Hour

LL—Low-Level

LOC—Localizer

MAJCOM—Major Command

MDA—Minimum Descent Altitude

MDS—Mission Design Series

ME—Maximum Effort

MAP—Missed Approach Point

MSN—Mission

NAS—National Airspace System

NAVAID—Navigational Aid

NDB—Nondirectional Beacon

nm—Nautical Miles

NVG—Night Vision Goggles

OPR—Office of Primary Responsibility

OPSEC—Operations Security

PAR—Precision Approach Radar

PN—Partner Nation

QUAL—Qualification

RDS—Records Disposition Schedule

RETA—Revised ETA

RNP—Required Navigation Performance

SAR—Search and Rescue

SATB—Simulated Airdrop Training Bundle

SCA—Self-Contained Approach

STAR—Standard Terminal Arrival

TA—Terrain Avoidance

TACAN—Tactical Air Navigation

TAS—True Airspeed

TO—Technical Orders

TOA—Time of Arrival

TOLD—Takeoff and Landing Data

TOT—Time on Target

TTP—Tactics, Techniques and Procedures

VDP—Visual Descent Point

VFR—Visual Flight Rules

Vmca—One Engine Inoperative Air Minimum Control Speed

VOR—Very-High Frequency Omnidirectional Rangefinder