

**BY ORDER OF THE COMMANDER  
AIR FORCE SPECIAL OPERATIONS  
COMMAND**

**AIR FORCE SPECIAL OPERATIONS  
COMMAND MANUAL 11-219, VOLUME 2**

**25 MARCH 2020**



***Flying Operations***

**COMBAT AVIATION ADVISOR  
AIRCREW EVALUATION CRITERIA**

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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 and aircrew supporting CAA qualification, mission qualification, continuation and upgrade training. This manual does not apply to the Air National Guard (ANG). This AFSOCMAN 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 manual. 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

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### **SUMMARY OF CHANGES**

This document is substantially revised and must be completely reviewed. Major changes include: the removal of Additional and Supplemental Aircraft and replacement with Non-USAF Inventory Qualification Required (NIQ) and Non-USAF Inventory Certification Required (NIC). **Table 1.1** Initial Cadre Agency responsibly, added. **Table 6.1** added. The publication was re-organized as follows: **Table 2.1** contains criteria common to all crew members. **Table 3.1** contains instructor criteria. **Table 4.1** contains criteria for pilot INSTM and QUAL examinations. **Table 4.2** contains criteria for MSN examinations common to all CAA pilots. **Table 5.1** contains MSN criteria unique to specialized mobility pilots. **Table 5.2** contains QUAL and MSN areas for loadmasters. **Table 6.1** contains criteria unique to ISR, MSN for pilots and QUAL/MSN for sensor operators.

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## Chapter 1

### GENERAL INFORMATION

**1.1. General.** AFI 11-202 Vol 2, *Aircrew Standardization/Evaluation Program* and this manual are considered the 11-2MDSV2 for operating Non Inventory Qualification (NIQ) and Non Inventory Certification (NIC) required aircraft. This manual establishes requirements and grading criteria for CAA ground and flight phases of initial, requalification and periodic evaluations. When this document references itself, it also refers to the aircraft specific addendum if applicable. Aircrew examinations will be conducted IAW this manual and AFI 11-202, Vol 2. Specific areas for evaluation are prescribed to ensure an accurate assessment of the proficiency and capabilities of aircrew. Flight examiners use AFI 11-202, Vol 2 and this manual, when conducting flight examinations on NIQ aircraft. Instructors use this manual when preparing aircrews for qualification in NIQ aircraft.

**1.2. Applicability.** This manual applies to all CAA aircrew and aircrew supporting CAA qualification, mission qualification, continuation and upgrade training.

#### **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.

1.3.5. “PIC” maintains overall control and responsibility for mission, crew and aircraft operations.

1.3.6. “INSTM” is used for the instrument ground and flight examinations.

1.3.7. “QUAL” is used for qualification ground and flight examinations.

1.3.8. “MSN” is used for mission ground and flight examinations.

1.3.9. “INSTR” is used for the instructor flight examination.

1.3.10. “SPOT” is used for spot ground and/or flight examinations.

1.3.11. “INIT” is for initial flight examinations and is a prefix for flight examinations.

1.3.12. “RQ” is used for requalification flight examinations and is a prefix for flight examinations.

**1.4. Waivers.** MAJCOM/A3 is the waiver authority for the contents of this document. Waiver requests should be submitted through MAJCOM Standardization and Evaluation channels. Post all waivers IAW AFI 11-202, Vol 2.

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

1.4.1.1. “Tier 0” (T-0) External to AF. Requests for waivers are processed through command channels to HAF publication OPR/HAF functional for submission consideration to non-AF 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 or mission or program failure, death, injury, legal jeopardy or fraud, waste or abuse. 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 SQ/CC.

1.4.2. Approval Authority. IAW Air Force Guidance Memorandum to AFI 33-360, *Publications and Forms Management*, approvals and authorities will reside at the lowest appropriate level and commanders may waive non-tiered requirements, but must send a copy of the approved waiver to the OPR of the higher headquarter publication being waived within 30 days of approval. (T-2). Sending an email to the waived publication OPR that includes a completed AF Form 679, or equivalent will suffice.

**1.5. Supplements.** Units are encouraged to supplement this manual with standard evaluation profiles that best fit the unit’s mission, equipment, and location. Units will forward a copy of their supplements to AFSOC/A3 through AFSOC/A3V for approval. (T-2). Units below Group level will forward one copy of each supplement to their respective group OPR for pre-publication review. (T-2).

**1.6. Addenda.** This manual is written to be aircraft agnostic. Aircraft specific requirements are placed as an addendum to this manual when appropriate.

1.6.1. Addendum A:

1.6.2. Addendum B: Mi-17

1.6.3. Addendum C:

1.6.4. Addendum D:

1.6.5. Addendum E: DHC-6

1.6.6. Addendum F: C-208

**1.7. Evaluation Procedures.** Before the PIC briefing, the flight examiner will inform the PIC 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. (T-3). The examinee will accomplish all required mission planning. (T-3). Flight examiners will be furnished a copy of planning or in-flight documents the flight examiner deems necessary. (T-3).

1.7.1. Flight examiners will ensure all required training and documentation is complete prior to INIT or RQ flight examinations. **(T-3)**.

1.7.2. Unless requested by the examinee and approved by the squadron operations officer, the examinee will be current for all events evaluated during a periodic flight examination. **(T-3)**.

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

1.7.4. Under no circumstances will a flight examiner allow the aircraft to slow to below one engine inoperative air minimum control speed (V<sub>mca</sub>), regardless of airspeed tolerances listed for specific areas. **(T-2)**.

1.7.5. Flight examinations will not normally be administered during deployed operations. **Exception:** For situations with extenuating circumstances, flight examinations may be administered by CAA flight examiners during deployed operations with concurrence of the squadron commander.

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

**1.8. Grading Instructions.** All examinations will follow the guidelines established in AFI 11-202, Vol 2 and this volume. **(T-3)**. Flight examiners will use the AF Form 3862, *Flight Evaluation Worksheet* or electronic equivalent. **(T-3)**. Flight examiners will use the criteria contained in this volume to accomplish all flight, simulator, and emergency procedures examinations. **(T-3)**. To ensure standard and objective flight examinations, flight examiners will be thoroughly familiar with the prescribed evaluation criteria. **(T-3)**.

1.8.1. 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. **(T-3)**.

1.8.1.1. 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.

1.8.1.2. Q- indicates the examinee is qualified to perform the assigned area/subarea tasks, but required 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.

1.8.1.3. U indicates a breach of flight discipline, performance outside allowable parameters, 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. **(T-3)**.

1.8.2. Critical Areas. Critical areas require adequate accomplishment by the aircrew in order to successfully achieve the mission objectives. If an aircrew receives an unqualified grade in any critical area, the overall grade for the evaluation will also be unqualified. **(T-3)**. Critical

areas are identified by (Critical) in the area title and by shading of the Q- block on the appropriate AF Form 3862. (T-3).

**1.9. Examination Requirements.** Flight Examination profiles will reflect a sampling of the examinee's assigned unit function per the CAA Mission Statement MFR (Specialized Mobility, ISR, etc). Examination tables are provided to summarize examination criteria. **Table 2.1** contains criteria common to all crew members. **Table 3.1** contains instructor criteria. **Table 4.1** contains criteria for pilot INSTM and QUAL examinations. **Table 4.2** contains criteria for MSN examinations common to all CAA pilots. **Table 5.1** contains MSN criteria unique to specialized mobility pilots. **Table 5.2** contains QUAL and MSN areas for loadmasters. **Table 6.1** contains criteria unique to ISR, MSN for pilots and QUAL/MSN for sensor operators. Examination methods are identified by notes in the crew specific tables and include: in-flight only; in-flight and/or in simulator (see **Paragraph 1.9.1**); and in-flight and/or alternate methods (see **Paragraph 1.9.2**). For areas without a note, flight examiners may evaluate at their discretion, if observed. If required events are not observed, the flight examinations is incomplete and will be accomplished on another flight. (T-3).

1.9.1. Simulator. Simulators may be used to accomplish flight examinations if certified by AFSOC/A3T and AFSOC/A3V. Simulator certifications can be located at the AFSOC/A3T website. Do not conduct two consecutive flight examinations in the simulator. **Exception:** INSTM flight examinations.

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

1.9.2. 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 examination on an additional flight.

1.9.3. Grading Criteria. To the maximum extent possible, flight examiners will use the grading criteria in this volume to determine individual area grades. (T-2). 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. 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.

## **1.10. Unsatisfactory Performance.**

1.10.1. If the flight examiner observes their examinee jeopardizing safety, the examiner will assume the duties of that aircrew (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). (T-2). 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.

1.10.2. The flight examiner must report deviations/discrepancies from established procedures/directives in any area regardless of the individual's crew specialty to the examinee's SQ/CC along with the flight examiner's recommendation for corrective action, IAW AFI 11-202, Vol 2. **(T-3)**.

### **1.11. Additional Training.**

1.11.1. 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.

1.11.2. 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 grade of Q-3. This option requires flight examiner discretion and judicious application. The examinee must be informed when the additional training begins and ends. **(T-3)**.

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

**1.13. Special Qualifications.** Special qualification flight examinations are administered for events that are not universal to all members in that crew position. Special qualification flight examinations may be conducted separately or in conjunction with the QUAL and/or MSN flight examinations. After qualification, areas can be graded as part of a periodic MSN flight examinations. There are no requisites for special qualification flight examinations unless specified. Refer to the appropriate crew position for any special qualification flight examination requirements.

**1.14. Sole Aircraft Qualification.** NIQ aircraft may be designated as the sole aircraft for pilots provided the aircraft is a suitable instrument platform (i.e., able to be used for an instrument flight evaluation). Other crew members may be assigned NIQ aircraft as their sole aircraft at the discretion of the unit operations officer.

### **1.15. Multiple Qualification.**

1.15.1. Approval. AFSOC/A3V or AFRC/A3 is the approval authority for multi-qualification via ADCON chain. Units will use stan/eval channels to forward the multi-qualification letter to MAJCOM/A3V semiannually for review and approval. **(T-2)**.

1.15.2. Flight Examinations. If it is determined by MAJCOM/A3V that variants of like aircraft possess enough similarities, multiple flight examinations are not required. The MAJCOM/A3V decision is documented via a memorandum and kept at MAJCOM/A3V.

1.15.3. Number of Aircraft Qualifications. Pilots will not maintain qualification in more than two aircraft. **(T-2)**. Non-pilot aircrew will not be qualified in more than three aircraft. **(T-2)**. Flight examiners are allowed qualification in one more aircraft than non-flight examiners. In order to keep aircrew within these constraints, commanders will use the discretionary decertification option on the AF Form 4348. **(T-2)**.

1.15.4. Aircrew will not enter into training on an additional aircraft until multi-qualification status is approved. (T-2). Verbal approval is satisfactory but paperwork must be complete. (T-2).

1.15.5. Certification on Non Inventory Certification (NIC) aircraft is not the same as qualification, and does not count against the number of aircraft qualifications.

### 1.16. Initial Cadre.

1.16.1. Initial cadre letters should provide a way to exit initial cadre status; an expiration date, typically one year after the initial cadre letter date; and when the normal periodic flight examination cycle starts.

1.16.2. Once the initial cadre status has concluded, the first flight examinations the initial cadre receive are initial flight examinations, such as INIT INSTM/QUAL/MSN. The initial cadre letter qualifies/certifies the individuals as instructors/flight examiners; therefore, an INIT INSTR is not required. If the initial cadre letter does not designate someone as an instructor/flight examiner, that aircrew requires an INIT INSTR checkride per **Chapter 3**. If the initial cadre letter provides different guidance than this paragraph, follow the initial cadre letter.

1.16.3. **Table 1.1** is a list of initial cadre (IC) or specified agency responsibilities derived from AFI 11-202, Vol 1 AFSOC Sup and AFI 11-202, Vol 2 AFSOC Sup. IC should check source documents for updates to requirements.

**Table 1.1. Initial Cadre Agency Responsibilities.**

What	Generator	Approver	Timeline	Source
IC Letter	SQ for the OG/CC	MAJCOM/A3	N/A	AFI 11-202v2 AFSOC Sup
Form 8s	SQ Stan/Eval	SQ/CC OG/CC	Within 6 months from date of IC Letter	AFI 11-202v2 AFSOC Sup
CONOPs	IC		IC Letter Expires Prior to training non-IC	AFI 11-202v1 AFSOC Sup
Addenda	IC	AFSOC/A3 v1 routes via A3T v2/3 routes via A3V	IC Letter Expires Prior to training non-IC	AFI 11-202v1 AFSOC Sup
Syllabus of Instruction	IC	AFSOC/A3T	IC Letter Expires	AFI 11-202v1 AFSOC Sup

			Prior to training non-IC	
Checklists	IC	AFSOC/A3V	IC Letter Expires  Prior to training non-IC	AFI 11-202v1 AFSOC Sup
Flight Manuals	Vendor	IC	IC Letter Expires	AFI 11-202v1 AFSOC Sup
Flight Manuals	IC		IC Letter Expires	AFI 11-202v1 AFSOC Sup
TTPs	IC		IC Letter Expires	AFI 11-202v1 AFSOC Sup
Training Materials	IC		IC Letter Expires	AFI 11-202v1 AFSOC Sup
Stan/Eval Tests	IC	AFSOC/A3V	IC Letter Expires	AFI 11-202v1 AFSOC Sup

**1.17. Non-USAF Flight Examiners.** Well-qualified instructors from other government agencies or contract commercial training providers may be selected as flight examiners.

1.17.1. Group Standardization and Evaluation (OGV) will select and designate in writing all non-USAF flight examiners and provide Air Force flight examiner training as required. **(T-3).**

1.17.2. All new non-USAF flight examiners will receive a SPOT evaluation within the first 12 months of flight examiner duty. **(T-3).** Thereafter, they will receive one evaluation every 17 months. This should be conducted by an OGV flight examiner, but it can be delegated to a qualified squadron flight examiner or MAJCOM flight examiner by the Chief of OGV.

1.17.3. All non-USAF flight examiners will be annotated on a letter of certification. **(T-3).**

## Chapter 2

### ALL FLIGHT EXAMINATIONS

**2.1. General.** The general grading criteria contained in this chapter applies to all crew positions and all flight examinations. 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 flight examinations and prerequisite to requalification and initial, non-instructor, evaluations IAW AFI 11-202, Vol 2. **(T-2)**.

2.2.1.1. INSTM examinees will take the instrument open book examination. **(T-2)**.

2.2.1.2. QUAL examinees will take the Open and Closed QUAL examination. **(T-2)**.

2.2.1.3. MSN examinees will take the Open and Closed MSN examination that matches the mission set for their flight examination. **(T-2)**.

2.2.1.3.1. Example: an ISR examinee will be given an ISR Open and Closed MSN examination.

2.2.1.3.2. If the aircrew has multiple mission sets in the same aircraft, only the Open and Closed MSN examination(s) for the applicable flight examination(s) are required.

2.2.2. Emergency Procedures Evaluation (EPE). An EPE is a requisite for all QUAL and MSN flight examinations except special mission flight examinations. 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. **(T-2)**. Examiners should include other general knowledge areas as well. For MSN flight examinations, 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/CAPs in the correct sequence to the satisfaction of the flight examiner (not necessarily a verbatim response). **(T-2)**. Boldface/CAPs will be extracted from respective aircraft flight manuals and published in checklist format. Depending on the aircraft, there may not be boldface/CAPs 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. A publications check is required for all QUAL or combined QUAL/MSN flight examinations as outlined in Area 12 of General Grading Areas. **(T-3)**.

2.2.4. CRM. In accordance with AFI 11-290, *Cockpit/Crew Resource Management Training Program*, crew resource management skills will be evaluated during initial and periodic flight examinations. **(T-3)**. CRM skills are integral to all phases of flight; therefore no specific area

titled CRM exists. CRM skills are imbedded within specific grading criteria (mission planning, airmanship/situational awareness, crew coordination, communication, risk management/decision making, task management, and briefing/debriefing) and 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 flight examinations.

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

Area	Notes	Grading
1	1	Safety – CRITICAL
2	1	Aircrew Discipline – CRITICAL
3	1	Airmanship/Situational Awareness – CRITICAL
4	2,3	Boldface/Critical Action Procedures (CAPS) – CRITICAL
5	2	Emergency Procedures Evaluation (EPE)
6	1	Crew Coordination
7	2	Mission Planning/Performance Data
8	2	Knowledge/Currency of Directives
9	1	Preflight
10	2	Use of Checklist
11	2	Forms/Reports/Logs
12	2	Personal/Professional Equipment/Flight Publications
13	2	Emergency and Life Support Equipment/Procedures
14	2	Briefings/Debriefings
15	2	Classified Material/Operations Security
16	2,3	Antihijacking/Aircraft Security
17	1	Communications
18	2	Risk Management/Decision Making
19	1	Task Management
20		Systems Operation/Knowledge/Limitations
21-29		Reserved for Future Use
<b>Notes:</b>		
1. Required in-flight or simulator certified for this event.		
2. Required in-flight or alternate method.		
3. 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. Executed 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. Misanalysed 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/CAPs 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/CAPs 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.

2.3.7.1. Q. Clearly defined the mission overview and mission goals. Provided specific information on required tasks. Solicited feedback from other crew members to ensure understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas and ensured all had understanding of possible contingencies. Checked all factors applicable to flight such as Flight Information Publication, weather, Notice to Airmen System, alternate airfields, flight logs, performance data, fuel requirements, and charts. When required, extracted necessary information from air tasking order. 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 and unit 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 or rules.

2.3.7.3. U. Did not define the mission overview and goals. Lack of specific information on required tasks. Did not solicit feedback from other crew members to ensure understanding. Did not 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. .

#### 2.3.8. Area 8. Knowledge of Directives.

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

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

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

#### 2.3.9. Area 9. Preflight.

2.3.9.1. Q. 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 cryptologic 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 cryptologic 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 cryptologic 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 making decisions. 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. Systems Operation/Knowledge/Limitations.

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

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

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

#### 2.3.21. Area 21-29. Reserved for Future Use.

## Chapter 3

### INSTRUCTOR EVALUATIONS

**3.1. General.** The instructor grading criteria apply to INIT, RQ, and all periodic instructor flight examinations. 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 training, advising, assisting, or accompanying partnered forces.

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

3.2.1. IAW AFI 11-202, Vol 2 AFSOC Sup and with the exception of initial cadre instructors, aircrew who are multiple aircraft qualified in unlike MDS or additional aircraft, a separate INSTR flight examination is required per MDS or additional aircraft.

**3.3. INSTM.** INSTM instructor flight examination must be accomplished in an aircraft possessing adequate instrumentation IAW AFI 11-202, Vol 3. **(T-2)**. INSTM flight examination requirements are listed in AFI 11-202, Vol 2, and this manual.

3.3.1. INIT/RQ. Evaluate instructor candidates on instructor performance during a representative sample of examinee's basic maneuvers. The examiner will act as a student during maneuvers that are considered high risk. **(T-3)**.

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

3.3.1.2. Periodic. Qualified instructors will be evaluated to instructor standards during all periodic evaluations. **(T-2)**.

**3.4. QUAL.** QUAL instructor evaluations will be accomplished in all aircraft in which the aircrew maintains instructor qualification. **(T-2)**.

3.4.1. INIT/RQ. Evaluate instructor candidates on instructor performance during a representative sample of examinee's basic maneuvers. The examiner will act as a student during maneuvers that are considered high risk. **(T-3)**.

3.4.1.1. Evaluate instructor 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. **(T-3)**.

3.4.2. Periodic. Qualified instructors will be evaluated to instructor standards during all periodic flight examination. **(T-2)**.

**3.5. Mission.** MSN instructor flight examination will be accomplished in all aircraft in which the aircrew maintains instructor qualification. **(T-3).** Evaluate instructional ability during a representative sample of examinee's mission events.

3.5.1. INIT/RQ. Evaluate instructor candidates on instructor performance during a representative sample of unit's mission maneuvers. The examiner will act as a student during maneuvers that are considered high risk. **(T-3).**

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

**Table 3.1. Instructor Evaluation Grading Areas.**

Area	Notes	Grading Areas
30	2	Mission Preparation
31	1	Instructional Ability
32	2	Instructor Knowledge
33	2	Briefings/Debriefings/Critique
34	1	Demonstration of Maneuvers/Procedures
35	2	Advisory Operations
36-39		Reserved for future use
<b>Notes:</b>		
1. Required in-flight or simulator certified for this event.		
2. 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 EVALUATIONS

**4.1. General.** All pilots require an INSTM and QUAL flight examination. MSN qualified pilots require a separate MSN flight examination. **(T-2).** Instructors will demonstrate instructor duties on all periodic flight examination. **(T-2).** Flight examinations may be combined, such as INSTM/QUAL or INSTM/QUAL/MSN.

**4.2. Requirements.** Refer to **Chapter 2** and **Table 2.1** for general and **Chapter 3** and **Table 3.1** for instructor grading areas and criteria. Refer to **Table 4.2** for general pilot MSN grading areas and criteria common to all CAA pilots. Refer to the examinee's mission specific chapter for MSN specific grading areas and criteria: **Chapter 5** for Specialized Mobility, **Chapter 6** for ISR, and **Chapter 7** for Adaptive Strike. Pilot INSTM, QUAL, and general MSN required areas and criteria follow in this chapter.

**4.3. INSTM.** See **Table 4.1** for required INSTM evaluation areas. INSTM flight examination must be accomplished in an aircraft possessing adequate instrumentation IAW AFI 11-202, Vol 3. **(T-2).** The prerequisite for INIT and RQ flight examination or requisite for periodic flight examination is the INSTM examination. The INSTM flight examination will be conducted in-flight or in an approved simulator. **(T-2).**

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. **(T-3).** **Exception:** Single engine aircraft will conduct an engine out landing pattern in the place of a simulated engine out instrument approach. **(T-2).**

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." **(T-3).**

**4.4. QUAL.** See **Table 4.1** for required QUAL evaluation areas. The prerequisites for INIT and RQ flight examination or requisites for periodic flight examination are QUAL open and closed book examinations, EPE, and boldface/CAPs examination. This flight examination is normally accomplished in combination with an INSTM flight examination. The QUAL flight examination will be conducted in-flight or in an approved simulator. **(T-2).**

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; touch-and-go procedures; simulated engine-out go-around, and simulated engine-out landing. **(T-3).**

**4.5. Formation.** CAA pilots certified in formation may be evaluated. Use the following as criteria to grade a formation event during a flight examination:

4.5.1. Q. Established and maintained effective formation for sortie employment utilizing published and briefed procedures. Planned/briefed effective flight and deconfliction plan. Planned/briefed altitude consistent with sortie requirement/restrictions. Maintained positive control of flight. Effective wingman consideration. Adhered to deconfliction contracts. Planned ahead and made timely decisions.

4.5.2. Q-. Planned/briefed ineffective formation for sortie, but did not compromise safety. Made minor deviations from published and or briefed procedures. Demonstrated limited flight management. Did not always plan ahead or make timely decisions.

4.5.3. U. Formation flight was not accomplished in accordance with published and/or briefed procedures. Failed to account for formation employment. Provided little wingman consideration. Indecisive. Failed to maintain deconfliction contracts.

**4.6. Short-Field Takeoff and Landing Procedures.** For aircraft with no clearly defined short-field 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 MSN flight examination. Short-field procedures are not required if it was evaluated during the previous QUAL flight examination. NVG takeoff/landing may be credited if flown to short-field standards. **Note:** One go-around is permitted, provided the aircraft does not touch down short of the zone.

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

Area	Notes	Grading Areas	QUAL	INSTM
40	2	Ground Operations/Taxi	X	
41		Fuel Planning	X	
42	2	Takeoff	X	
43		Instrument Departure		X
44	2	En route Navigation/Use of navigational aids (NAVAID)		X
45	2	Descent/Arrival Procedures		X
46	2	Holding/Procedure Turn		X
47	5	<b>Precision Approach (PAR or ILS)</b>		
47a	2,4	Precision Approach Radar (PAR)		X
47b	2	Instrument Landing System (ILS)		X
48	6	<b>Non-Precision Approach</b>		
48a	2	RNAV/GPS (If applicable)		X
48b	2	Very-High Frequency Omnidirectional Range-finder (VOR)		X
48c	2	Localizer (LOC)		X
48d	2	Nondirectional Beacon (NDB)		X
48e	2,4	Airport Surveillance Radar (ASR)		X
49	2	Circling/Side-Step Approach		X
50	2,8	Simulated Engine-Out Approach		X
51	2	Missed Approach/Go-Around		X
52	2,8	Simulated Engine-Out Go-Around(If applicable)	X	
53	2	VFR Pattern	X	
54		<b>Final Approach and Landing</b>		
54a	2	Full Flap Landing	X	

54b	2	Partial Flap Landing (If applicable)	X	
54c	2	No Flap Landing	X	
54d	2	Engine-Out Landing	X	
54e	2	Touch-and-Go Landing	X	
55	3	Systems Operations/ Knowledge/ Limitations/ National Airspace System (NAS)	X	X
56	2	After Landing/Engine Shutdown	X	
57	2	Threat Avoidance/Tactics	X	
58	2	Tactical Recovery (SCA, overhead, downwind, random shallow/steep, etc.)	X	
59	2	Short-field Takeoff Procedures	X	
60	2	Short-field Landing Procedures	X	
61	1	NVG Airland	X	
62	2,7	Simulated Flame Out	X	
63	2,7	Emergency Landing Procedure	X	
64-79		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 one of the three required approaches may be controller directed (PAR/ASR).
5. Any one required.
6. Any two required.
7. Single Engine Aircraft Only
8. Multiple Engine Aircraft Only

**Table 4.2. General Criteria.**

Q	Altitude	± 200 feet
	Airspeed	+10/- 5 knots or equivalent (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 (but not less than Vmca)
	Course	± 10°/5 nm (whichever is greater)
	Arc	± 3 nm
U		Exceeded Q- limits

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

4.7.1. Area 40. Ground Operations/Taxi.

4.7.1.1. 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.

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

4.7.1.3. 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.

4.7.2. Area 41. Fuel Planning.

4.7.2.1. Q. Possessed a high level of knowledge of all applicable aircraft publications and flight planning procedures and understood how to apply both to effectively manage fuel to meet mission requirements. Successfully applied fuel management procedures during the mission.

4.7.2.2. Q-. Possessed some knowledge of applicable aircraft publications and flight planning procedures and understood how to apply both to manage fuel to meet mission requirements. Successfully applied some fuel management procedures, but mismanaged fuel during the mission, to the detriment, but not failure of the mission.

4.7.2.3. U. Unaware of proper fuel management procedures. Failed to apply proper fuel management procedures during planning and/or mission execution resulting in negative mission impact.

4.7.3. Area 42. Takeoff.

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

4.7.3.2. 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.

4.7.3.3. 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.

4.7.4. Area 43. Instrument Departure.

4.7.4.1. 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.

4.7.4.2. 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.

4.7.4.3. 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.

#### 4.7.5. Area 44. En Route Navigation/Use of NAVAIDs.

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

4.7.5.2. Q-. Minor errors in procedures/use of navigation equipment. Some deviations in tuning, identifying, and monitoring nav aids 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.

4.7.5.3. U. Major errors in procedures/use of navigation equipment. Did not ensure nav aids 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.

#### 4.7.6. Area 45. Descent/Arrival Procedures.

4.7.6.1. 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 nav aids. Accomplished all required checks.

4.7.6.2. 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.

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

#### 4.7.7. Area 46. Holding/Procedure Turn.

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

4.7.7.1.1. VOR leg timing:  $\pm 15$  seconds.

4.7.7.1.2. TACAN:  $\pm 2$  nm.

4.7.7.1.3. RNAV/GPS:  $\pm 1$  nm.

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

4.7.7.2.1. VOR Leg timing:  $\pm 30$  seconds.

4.7.7.2.2. TACAN:  $\pm 3$  nm.

4.7.7.2.3. RNAV/GPS:  $\pm 2$  nm.

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

4.7.8. Area 47. 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.

4.7.8.1. Q.

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

4.7.8.1.2. Heading:  $\pm 5^\circ$  of controller's instructions (PAR).

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

4.7.8.1.4. Azimuth: Within one dot (ILS).

4.7.8.2. Q-.

4.7.8.2.1. Airspeed:  $+15/-10$  KIAS or equivalent.

4.7.8.2.2. Heading:  $\pm 10^\circ$  of controller's instructions (PAR).

4.7.8.2.3. 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).

4.7.8.2.4. Azimuth: Within two dots (ILS).

4.7.8.3. U.

4.7.8.3.1. Exceeded Q- criteria.

4.7.8.4. Subarea 47a. Precision Approach Radar (PAR).

4.7.8.4.1. 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.

4.7.8.4.2. 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.

4.7.8.4.3. 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.

#### 4.7.8.5. Subarea 47b. Instrument Landing System (ILS).

4.7.8.5.1. 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.

4.7.8.5.2. 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.

4.7.8.5.3. 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.

4.7.9. Area 48. **Non-Precision Approach (RNAV/GPS, VOR, LOC, NDB, ASR). Note:** Use the following criteria for Areas 48a-48e. Use the following criteria as general tolerances for airspeed, altitude, heading, and azimuth. Airspeed tolerances are based on computed or briefed approach speed.

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

4.7.9.1.1. Airspeed: +10/-5 KIAS.

4.7.9.1.2. Heading:  $\pm 5$  degrees (ASR).

4.7.9.1.3. Course:  $\pm 5$  degrees at MAP (RNAV/GPS, VOR, NDB)

4.7.9.1.4. Localizer: Less than one dot deflection.

4.7.9.1.5. MDA: +100/-0 feet.

4.7.9.1.6. MAP: Timing computed/adjusted within 10 seconds or distance within  $\pm 0.5$  nm.

4.7.9.2. 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).

4.7.9.2.1. Airspeed: +15/-5 KIAS.

4.7.9.2.2. Heading:  $\pm 10$  degrees (ASR).

4.7.9.2.3. Course:  $\pm 10$  degrees at MAP (NAV/GPS, VOR, NDB).

4.7.9.2.4. Localizer: Within two dots deflection.

4.7.9.2.5. MDA: +150/-50 feet.

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

4.7.9.3. 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.

- 4.7.9.3.1. Area 48a. RNAV/GPS.
  - 4.7.9.3.2. Area 48b. VOR.
  - 4.7.9.3.3. Area 48c. LOC.
  - 4.7.9.3.4. Area 48d. NDB.
  - 4.7.9.3.5. Area 48e. ASR.
- 4.7.10. Area 49. Circling/Side-Step Approach.
- 4.7.10.1. 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.
    - 4.7.10.1.1. Airspeed: +10/-5 knots or equivalent.
    - 4.7.10.1.2. Altitude: +100/-0 feet.
  - 4.7.10.2. Q-. Slow to comply with controller's instructions. Attained runway alignment but occasionally required excessive bank angles or maneuvering.
    - 4.7.10.2.1. Airspeed: +15/-10 knots or equivalent.
    - 4.7.10.2.2. Altitude: +150/-50 feet.
  - 4.7.10.3. 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.
- 4.7.11. Area 50. Simulated Engine-Out Approach. **Note:** Use approach criteria for the type of approach being flown and the following.
- 4.7.11.1. 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 and proper consideration was given to maneuvering with regard to the "dead" engine (multi-engine aircraft). Aircraft was properly trimmed. ELP was flown IAW established procedures and flight parameters and effectively positioned the aircraft for safe landing (single-engine aircraft).
  - 4.7.11.2. Q-. Minor deviations in procedures/aircraft control allowed the aircraft to occasionally be in uncoordinated flight (multi-engine aircraft). Minor deviations in procedure and flight parameters occurred during ELP execution (single-engine aircraft). Unnecessary maneuvering due to minor errors in planning or judgment.
  - 4.7.11.3. U. Major/unsafe deviations from procedures. Individual technique unsafe or violated established procedures. Aircraft was not properly trimmed. Aircraft was flown consistently in uncoordinated flight. Unsafe airspeeds or maneuvers occurred during ELP execution (single-engine aircraft). Potentially unsafe maneuvering with regard to the dead engine (multi-engine aircraft).

#### 4.7.12. Area 51. Missed Approach/Go-Around.

4.7.12.1. 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.

4.7.12.2. 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.

4.7.12.3. 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.

#### 4.7.13. Area 52. Simulated Engine-Out Go-Around. **Note:** Use Area 42 criteria and the following.

4.7.13.1. 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.

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

4.7.13.3. 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.

#### 4.7.14. Area 53. VFR Pattern.

4.7.14.1. 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.

4.7.14.1.1. Airspeed: +10/-5 knots or equivalent.

4.7.14.1.2. Pattern Altitude:  $\pm$  100 feet.

4.7.14.2. 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.

4.7.14.2.1. Airspeed: +15/-5 knots or equivalent.

4.7.14.2.2. Pattern Altitude:  $\pm$  200 feet.

4.7.14.3. 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.

#### 4.7.15. Area 54. Final Approach and Landing.

4.7.15.1. Areas 54a through 54e. 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. **(T-3)**. 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. **(T-3)**. 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.

4.7.15.1.1. Q. Performed landing as published/directed IAW flight manual. Crossed threshold at threshold speed  $\pm 5$  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:

4.7.15.1.1.1. Touchdown Speed:  $\pm 5$  knots or equivalent.

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

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

4.7.15.1.2.1. Touchdown Speed:  $+10/-5$  knots or equivalent.

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

4.7.15.1.3. 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.

4.7.15.2. Area 54a. 100 Percent Flap Landing.

4.7.15.3. Area 54b. Partial Flap Landing (If applicable).

4.7.15.4. Area 54c. No Flap Landing.

4.7.15.5. Area 54d. Engine-Out Landing.

4.7.15.6. Area 54e. Touch-and-Go Landing.

#### 4.7.16. Area 55. Systems Operations/Knowledge/Limitations/NAS.

4.7.16.1. 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.

4.7.16.2. 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.

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

4.7.17. Area 56. After Landing/Engine Shutdown.

4.7.17.1. Q. Appropriate after landing/engine shutdown checks procedures accomplished IAW published procedures.

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

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

4.7.18. Area 57. Threat Avoidance/Tactics.

4.7.18.1. 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.

4.7.18.2. 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.

4.7.18.3. 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.

4.7.19. Area 58. Tactical Recovery (SCA, overhead, downwind, random shallow/steep, etc.).

4.7.19.1. 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.

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

4.7.19.3. 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.

#### 4.7.20. Area 59. Short-field Takeoff Procedure.

4.7.20.1. 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.

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

4.7.20.3. 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.

#### 4.7.21. Area 60. Short-Field Landing Procedure.

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

4.7.21.1.1. Airspeed:  $\pm 5$  knots.

4.7.21.2. Q-. Minor deviations to published procedures. Aim point/aircraft alignment wandered or corrections were not smooth or timely. Landed in zone but had excessive bouncing or crab.

4.7.21.2.1. Airspeed: + 10/ - 5 knots.

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

#### 4.7.22. Area 61. NVG Airland. **Note:** NVG Airland may be evaluated utilizing normal or short-field procedures.

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

4.7.22.1.1. Area 42 – Takeoff.

4.7.22.1.2. Area 54 – Landing.

4.7.22.1.3. Area 51 – Missed Approach/Go-Around.

4.7.23. **NOTE:** If using short-field procedures during NVG Airland Procedures, additionally use the Areas 59 and 60.

4.7.23.1. 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.

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

4.7.23.3. 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.

#### 4.7.24. Area 62. Simulated Flame Out

4.7.24.1. Q Possessed a high level of knowledge of energy management and emergency procedures. Properly analyzed the emergency scenario presented and took proper action. Followed published maneuver guidance (AFM, POH, etc) to a point that would result in a safe landing within the first third of the runway. Ensured crew ran the applicable emergency checklist.

4.7.24.2. Q- Marginal knowledge of energy management and emergency procedures. Slow to analyze the situation, resulting in more difficult maneuvering than required. Mentioned emergency checklists but did not run them. Followed maneuver guidance (AFM, POH, etc) with some deviations, but landing would still be safe, either touching down on pavement and running off or landing short but safely (e.g. in under run).

4.7.24.3. U Unsatisfactory knowledge of energy management and emergency procedures. Did not properly analyze the situation and/or took improper action. Failed to manage energy properly. Eventual landing would not have been safe or off of the intended landing surface. Failed to use emergency checklists.

#### 4.7.25. Area 63. Emergency Landing Procedure

4.7.25.1. Q Possessed a high level of knowledge of ELP procedures. If EP initiated from outside the landing pattern, determined energy state and at which key position the ELP would be intercepted. Configured appropriately, determined energy state, or flew off energy correctly at each key (+/- 200 ft at high key, +/-100 ft at low key. Properly corrected key positions to account for wind.

4.7.25.2. Q- Marginal knowledge of ELP procedures. Incorrectly determined energy state and did not intercept ELP as anticipated. Configured late, marginally miscalculated energy state, or flew off energy incompletely/too far at each key (+/-300 ft at high key, +/- 150 ft at low key). Incompletely corrected key positions for winds.

4.7.25.3. Unsatisfactory knowledge of ELP procedures. Unable to determine energy state prior to entering ELP. Configured inappropriately or failed to configure, incorrectly determined energy state, or flew off exceeding Q- criteria. Received approach to stall or stall indication and did not correct appropriately. Did not correct key positions for wind.

#### 4.7.26. Areas 64 - 79. Reserved for future use.

## Chapter 5

### SPECIALIZED MOBILITY EVALUATIONS

**5.1. General.** All specialized mobility pilots require a specialized mobility MSN evaluation. (T-2). All specialized mobility loadmasters require a QUAL and a specialized mobility MSN evaluation that may be combined into a QUAL/MSN evaluation. (T-2). Instructors will demonstrate instructor duties on all periodic evaluations. (T-2).

**5.2. Requirements.** Evaluate all specialized mobility crew members on areas listed in [Table 5.1](#) for pilots and [Table 5.2](#) for loadmasters.

5.2.1. Examinations. All specialized mobility pilots will complete MSN open and closed book examinations as a requisite to periodic evaluations or prerequisite for INIT/RQ flight examinations. (T-2). All specialized mobility loadmasters will complete QUAL and/or MSN open and closed book examinations as a requisite to periodic evaluations or prerequisites for INIT/RQ flight examinations. (T-2).

5.2.2. Emergency Procedures Evaluation (EPE). See [Paragraph 2.2.2](#)

#### *SECTION A—: Specialized Mobility Pilot MSN*

**5.3. MSN.** See [Table 5.1](#) for MSN evaluation areas and subparagraphs below for requirements. The prerequisites for INIT and RQ evaluations or requisites for periodic evaluations are MSN open and closed book examinations, an EPE, and boldface/CAPs. Low-level portions of the evaluation should be flown in mountainous terrain as much as practicable.

5.3.1. INIT/RQ. 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, short-field 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. (T-3).

5.3.2. Periodic. The evaluation profile will include a minimum of 30 minutes of NVG low-level to a TOT/TOA; tactical recovery, maximum effort takeoff and landing (see [Paragraph 4.5.3](#)); threat reaction; NVG takeoff and landing and either an actual or simulated CARP airdrop. TOT/TOA events will be to either a simulated or actual event. (T-3).

**Table 5.1. Specialized Mobility Pilot MSN.**

Area	Note	Grading Areas	MSN
501	1	Low-Level1	X
502	1	Airdrop Procedures 1	X
503	1	Timing Control 1	X
504-519		Reserved for future use	
<b>Note:</b>			
1. Required in-flight.			

#### 5.4. Pilot Specialized Mobility MSN Grading Areas.

##### 5.4.1. Area 501. Low-Level Operations.

5.4.1.1. 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 TTPs. Avoided excessive or numerous low-altitude warnings. Appropriately used TOT/TOA controls. Maintained airspeed commensurate with crew inputs. Flew appropriate profile for terrain and environmental conditions. Positively identified controlling terrain, turnpoints and key navigation points.

5.4.1.2. 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.

5.4.1.3. 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.

##### 5.4.2. Area 502. Airdrop Procedures.

5.4.2.1. Q. Complied with all published/briefed procedures. Correctly identified the 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.

5.4.2.1.1. Airspeed:  $\pm 5$  knots or equivalent.

5.4.2.1.2. Altitude: + 50/- 0 feet.

5.4.2.2. 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.

5.4.2.2.1. Airspeed: + 10/- 10 knots or equivalent.

5.4.2.2.2. Altitude: + 100/- 50 feet.

5.4.2.3. 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.

##### 5.4.3. Area 503. Timing Control.

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

5.4.3.2. Q-. Arrived at the objective on time but used excessive timing maneuvers or airspeed changes. Minor deviations in re-computing TOT/TOA in-flight as necessary,  $\pm 90$  second TOT/TOA.

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

5.4.4. Area 504-519 Reserved for future use.

**SECTION B—: Specialized Mobility Loadmaster Evaluations**

**5.5. General.** All loadmasters require QUAL and MSN evaluations. (T-2). Instructors will demonstrate instructor duties on all periodic evaluations. (T-2). The QUAL and MSN evaluations may be combined IAW AFI 11-202, Vol 2.

**5.6. Requirements.** Refer to **Chapter 2** and **Table 2.1** for general and **Chapter 3** and **Table 3.1** for instructor grading areas and criteria. Loadmaster specific areas and criteria are listed in this chapter in **Table 5.2**.

**5.7. Qualification.** See **Table 5.2** for required QUAL evaluation areas. The prerequisites for INIT and RQ evaluations or requisites for periodic evaluations are QUAL Open and Closed Book examinations, Boldface/CAPs, and an EPE. (T-3). The EPE should cover areas applicable to the duties of a loadmaster on the aircraft being evaluated on, to include the following: emergency signals, ground emergencies, in-flight emergencies, and landing emergencies.

5.7.1. INIT/RQ and Periodic. In addition to **Table 5.2**, items listed in **Table 2.1** (and **Table 3.1** for instructors) will be evaluated on all QUAL evaluations. (T-3). Loadmasters require an INIT QUAL and periodic evaluation for each aircraft that the loadmaster maintains a qualification status. (T-3). Required events include a minimum of complete aircraft preflight, completion of Weight and Balance data, normal in-flight duties, and a complete aircraft post flight.

**5.8. Mission.** See **Table 5.2** for required MSN evaluation areas. Requisites (prerequisites for initial or requalification evaluations) include MSN Open and Closed Book examinations (or Formal School End of Course examinations), Boldface/CAPs (if applicable), and an EPE. The EPE should cover areas applicable to the duties of a loadmaster on the aircraft being evaluated on to include the following: emergency signals, ground emergencies, in-flight emergencies, and landing emergencies. Requalification evaluations will be administered as required to regain qualification. (T-3).

5.8.1. INIT/RQ and Periodic. In addition to **Table 5.2**, items listed in **Table 2.1** (and **Table 3.1** for instructors) will be evaluated on all MSN evaluations. Loadmasters require an INIT MSN and periodic evaluations for each aircraft that the loadmaster maintains a mission qualification status. Required events include a minimum of complete aircraft preflight, completion of Weight and Balance data, one actual airdrop (LCLA or personnel), normal in-flight mission duties, and a complete aircraft post flight. (T-3).

**Table 5.2. Loadmaster QUAL/MSN Grading Areas.**

Area	Note	Grading Areas
520	1	Life Support Equipment
521	1	Aircraft Configuration/Preflight
522	1	Load Planning/Inspection
523	1	On/Offloading Procedures

524	1	Supervisory Abilities
525	1	Tie-Down/Restraint
526	1,3	Winching Procedures
527	1	Hazardous Material
528	1	Aircraft Limitations
529	1	Passenger Handling
530	1	Border Clearance
531	1	Weight and Balance
532	3	Scanner Duties
533	3	Defensive Tactics/Threat Calls
534	3	Engine Running Onload/Offload
535	2	Infiltration/Exfiltration
536	1	Systems Knowledge
537	2	Airdrop Rigging Procedures
538	2	Joint Airdrop Inspection
539	1,3	Coordinated Tasks Briefing
540	2	Airdrop Knowledge
541		NVG Usage/Limitations
542	1,3	Cockpit Checklist
543	1,3	Before Starting Engines/Starting Engines
544	1,3	Before Taxi/Taxi
545	1,3	Before Takeoff/Lineup
546	1,3	After Takeoff
547	1,3	En Route
548	1,3	Descent/Before Landing
549	1,3	After Landing
550	1,3	Engine Shutdown
551	1,3	Before Leaving Airplane
552		Tactical Checklists
553	1,3	Postflight
554	3	Mission Procedures
555	1,3	Refuel/Defuel
556	2	FARP
557-		Reserved for future use

**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.

Required in-flight or alternate method.

If loadmasters perform required duties for the aircraft.

**5.9. Grading Criteria.** The following subparagraphs contain grading criteria for the areas listed in **Tables 5.2**

5.9.1. Area 520. Life Support Equipment.

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

5.9.1.2. Q-. Difficulty locating, inspecting, and/or demonstrating the proper use of life support or emergency equipment. Adequate knowledge of equipment, but needs improvement.

5.9.1.3. U. Failed to inspect, distribute and/or demonstrate the proper use of life support or emergency equipment. Unsatisfactory knowledge of equipment.

5.9.2. Area 521. Aircraft Configuration/Preflight.

5.9.2.1. 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. Accomplish thorough preflight IAW checklists and directives.

5.9.2.2. Q-. Difficulty configuring the aircraft but did not impede mission. Limited knowledge of various configurations as outlined in applicable directives. Accomplish preflight but with minor errors and/or omissions.

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

5.9.3. Area 522. Load Planning/Inspection.

5.9.3.1. Q. Accurately planned a passenger/cargo load and met aircraft Center of Gravity (CG) limits. Inspected load for proper preparation and documentation.

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

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

5.9.4. Area 523. On/Offloading Procedures.

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

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

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

5.9.5. Area 524. Supervisory Abilities.

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

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

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

5.9.6. Area 525. Tie-Down/Restraint.

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

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

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

5.9.7. Area 526. Winching Procedures.

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

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

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

5.9.8. Area 527. Hazardous Material.

5.9.8.1. 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.

5.9.8.2. 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.

5.9.8.3. U. Did not understand hazardous cargo procedures in AFMAN 24-204(I).

5.9.9. Area 528. Aircraft Limitations.

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

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

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

5.9.10. Area 529. Passenger Handling.

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

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

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

5.9.11. Area 530. Border Clearance.

5.9.11.1. Q. Correctly followed command guidelines. Completed/explained border clearance requirements IAW current directives.

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

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

5.9.12. Area 531. Weight and Balance.

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

5.9.12.1.1. Aircraft gross takeoff limits: Not exceeded.

5.9.12.1.2. CG limitations: Not exceeded.

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

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

5.9.13. Area 532. Scanner Duties.

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

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

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

5.9.14. Area 533. Defensive Tactics/Threat Calls.

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

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

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

5.9.15. Area 534. Engine Running Onload/Offload.

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

5.9.15.2. Difficulty following/explaining proper procedures for engine running on/offload operations.

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

5.9.16. Area 535. Infiltration/Exfiltration.

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

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

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

5.9.17. Area 536. Systems Knowledge. **Note:** As a minimum, evaluate the following areas (as applicable): QUAL: All systems special mission aviators are responsible for operating during non- tactical missions. MSN: All systems special mission aviators are responsible for operating during tactical missions.

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

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

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

5.9.18. Area 537. Airdrop Rigging Procedures.

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

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

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

5.9.19. Area 538. Joint Airdrop Inspection.

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

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

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

5.9.20. Area 539. Coordinated Tasks Briefing.

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

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

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

5.9.21. Area 540. Airdrop Knowledge.

5.9.21.1. 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.

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

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

5.9.22. Area 541. NVG Usage/Limitations.

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

5.9.22.2. 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.

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

5.9.23. Areas 542 - 552. Use the following criteria.

5.9.23.1. 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.

5.9.23.2. 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.

5.9.23.3. 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.

5.9.24. Area 553. Postflight.

5.9.24.1. 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).

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

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

5.9.25. Area 554. Mission Procedures. **Note:** loadmasters can be verbally evaluated on mission knowledge. Actual mission profiles should be flown to the maximum extent possible.

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

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

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

5.9.26. Area 555. Refuel/Defuel.

5.9.26.1. 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.

5.9.26.2. 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.

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

5.9.27. Area 556. FARP.

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

5.9.27.2. Q-. Minor deviations in knowledge associated with special mission aviator and FARP equipment. Minor omissions in procedures during performance special mission aviator duties.

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

5.9.28. Area 557-599. Reserved for future use.

## Chapter 6

### ISR EVALUATIONS

**6.1. General.** This section is guidance for ISR examinations and flight examinations for ISR pilot MSN and sensor operator QUAL/MSN. IAW AFI 11-202, Vol 2, cross-crew position ISR MSN flight examinations are allowed if a crew position flight examiner is unavailable, delaying the flight examination is not desirable, and the unit commander approves. Furthermore, the cross-crew position flight examiner must be certified in all events they are evaluating IAW AFI 11-202, Vol 2. (T-2).

**6.2. MSN.** See [Table 6.1](#) for applicable MSN evaluation areas and subparagraphs below for requirements.

6.2.1. Requisites. INIT/RQ flight examination prerequisites and periodic requisites include mission Open and Closed Book examinations, boldface/CAPs, and an EPE.

6.2.2. ISR INIT/RQ/Periodic MSN Eval Profile. ISR MSN flight examination profile will include at least 4 of the mission events listed in [Table 6.1](#). (T-3).

#### *SECTION A—: Pilot MSN Evaluations*

**6.3. Pilot ISR INIT/RQ/Periodic MSN Eval Profile.** In addition to [Paragraphs 6.2, 6.2.1.](#) and [6.2.2.](#), pilots must fly a takeoff, departure, arrival, and landing. (T-3).

#### *SECTION B—: Sensor Operator Evaluations*

**6.4. Sensor Operator General.** Combat Systems Officers, Special Mission Aviators, and Sensor Operators are included in this section as “sensor operator.” If pilots are needed as qualified sensor operators, the selected pilots will follow this section for the sensor operator flight examination. MSN qualified sensor operators may combined the QUAL and MSN flight examination. Instructors will demonstrate instructor duties on all periodic evaluations. The examinee must satisfactorily demonstrate the ability to perform all sensor duties safely and effectively, including the operation of appropriate aircraft systems IAW with applicable technical orders/flight manuals, instructions, and directives.

**6.5. Sensor Operator Requirements.** Refer to [Chapter 2](#) and [Table 2.1](#) for general and [Chapter 3](#) and [Table 3.1](#) for instructor grading areas and criteria. ISR specific mission areas and criteria are listed in [Table 6.1](#).

**Table 6.1. ISR MSN and Special Qualification Grading Areas.**

Area	Note	ISR Grading Areas	MSN
601	1	Target Identification	X
602	1	Target Development	X
603	2	Squirter Control <sup>2</sup>	X
604	2	Route Reconnaissance/Friendly Escort <sup>2</sup>	X
605	2	Direct Action Support <sup>2</sup>	X

606	2	Helicopter Landing Zone Reconnaissance2	X
607	2	Target Talk-On2	X
608	2	Close Air Support / Troops in Contact2	X
609	2	TAC (A)2	X
610	2	Buddy Lasing TTPs2	X
611-699		Reserved for future use	
<b>Notes:</b>			
1. Required in-flight.			
2. Required in-flight or simulator certified for this event.			
Required in-flight or alternate method.			

## 6.6. ISR Grading Criteria.

### 6.6.1. Area 601. Target Identification.

6.6.1.1. Q. Used charts/imagery/text or verbal descriptions, demonstrated the ability to acquire and identify targets/confirmation prior to the aircraft attaining the tangent (rolling-in). Performed reacquisition of previously identified targets/confirmation points as required by mission needs without delaying mission accomplishment or jeopardizing flight safety.

6.6.1.2. Q-. Minor difficulty using charts/imagery/text or verbal descriptions to acquire and identify targets/confirmation points prior to the aircraft attaining the tangent (rolling-in). Performed reacquisition of previously identified targets/confirmation points as required by mission needs, but not to the desired levels of speed and proficiency. Mission accomplishment and flight safety not jeopardized.

6.6.1.3. U. Examinee failed to acquire and/or identify targets/confirmation points prior to the aircraft attaining the tangent (rolling-in). Examinee failed to reacquire previously identified targets/confirmation points as required by mission needs. Caused significant mission delays and/or jeopardized flight safety.

### 6.6.2. Area 602. Target Development.

6.6.2.1. Q. Positioned the aircraft and sensor to gain and maintain situational awareness (SA). Maintained chain-of-custody of an objective within reason given weather, terrain limitations, and scenario constraints. Coordinated with crew in a timely and accurate manner.

6.6.2.2. Q-. Positioned the aircraft and sensor to gain and maintain limited SA. Lapses in chain-of-custody caused loss of intelligence and/or SA. Coordinated with crew but not to the speed or accuracy required. Marginal performance did not result in mission failure.

6.6.2.3. U. Failed to position the aircraft and sensor to gain and maintain SA. Large lapses or loss in chain-of-custody caused loss of intelligence and/or SA. Failed to coordinate with crew in a timely or accuracy manner. Mission accomplishment was jeopardized or mission failed.

### 6.6.3. Area 603. Squirter Control.

6.6.3.1. Q. Demonstrated ability in locating, tracking, and labeling squirter. Communicated with friendly forces to relay squirter position and direction of travel. Examinee was able to coordinate with other assets for sensor taskings.

6.6.3.2. Q-. Performed the tasks associated with locating, tracking, and labeling squirter, but not to the desired speed or proficiency. Partially able to communicate with friendly forces to relay squirter position and direction of travel. Partially able to coordinate with other assets for sensor taskings. Examinee caused minor delays to mission accomplishment but did not jeopardize flight safety.

6.6.3.3. U. Examinee failed to perform the tasks associated with locating, tracking, and labeling squirter. Examinee did not communicate with friendly forces to relay squirter position and direction of travel. Examinee was not able to coordinate with other assets for sensor taskings. Mission accomplishment and/or flight safety was jeopardized.

### 6.6.4. Area 604. Route Reconnaissance / Friendly Escort.

6.6.4.1. Q. Performed the tasks associated with searching a route and providing turn by turn directions to friendly forces. Was able to locate targets of opportunity and threats along lines of communication, using appropriate search methods and guidance techniques.

6.6.4.2. Q-. Performed the tasks associated with searching a route and providing turn by turn directions to friendly forces, but not to the desired speed of proficiency. Was partially able to locate targets of opportunity and threats along lines of communication (LOCs), using appropriate search methods and guidance techniques. Mission accomplishment and/or flight safety was not jeopardized.

6.6.4.3. U. Examinee failed to perform the tasks associated with searching a route and providing turn by turn directions to friendly forces. Was not able to locate targets of opportunity and threats along lines of communication, using appropriate search methods and guidance techniques. Mission accomplishment was significantly affected and/or flight safety was jeopardized.

### 6.6.5. Area 605. Direct Action Support

6.6.5.1. Q. Performed the tasks associated with direct action support, providing situational awareness to ground force. Was able to locate threats and hazardous obstructions and provide ground forces situational awareness using appropriate search methods and equipment capabilities.

6.6.5.2. Q-. Partially provided situational awareness to ground force or did not provide situational awareness to the desired speed or proficiency. Mission accomplishment and/or flight safety was not jeopardized.

6.6.5.3. U. Examinee failed to perform the tasks associated with direct action support and failed to provide situational awareness to ground force. Examinee jeopardized flight safety or mission accomplishment.

### 6.6.6. Area 606. Helicopter Landing Zone Reconnaissance.

6.6.6.1. Q. Performed the tasks associated with searching a HLZ and providing a "hot/cold" call to friendly forces. Was able to locate threats and hazardous obstructions near the HLZ, using appropriate search methods and equipment capabilities.

6.6.6.2. Q-. Performed the tasks associated with searching a HLZ and providing a "hot/cold" call to friendly forces, but not to the desired speed or proficiency. Was partially able to locate threats and hazardous obstructions near the HLZ, using appropriate search methods and system capabilities. Mission accomplishment and/or flight safety was not jeopardized.

6.6.6.3. U. Examinee failed to perform the tasks associated with searching a HLZ and providing a "hot/cold" call to friendly forces. Was not able to locate threats and hazardous obstructions near the HLZ, using appropriate search methods and equipment capabilities. Mission accomplishment was significantly affected and/or flight safety was jeopardized.

#### 6.6.7. Area 607. Target Talk-On.

6.6.7.1. Q. Performed the proper procedure for talking another person/sensor onto the desired location/target. Followed "big-to-small" process and designated sufficient "get-well" point and unit of measurements. Talk-on was accomplished without significant delay and proper confirmatory comm was used to verify final acquisition of location or target.

6.6.7.2. Q-. Performed most elements of procedure for talking another person or sensor onto the desired location of target. Followed "big-to-small" process with some delays and/or failed to designate a "get-well" point or unit of measure. Confirmatory comm was sufficient to verify final acquisition of location/target. Examinee caused minor delays to mission accomplishment but did not jeopardize flight safety.

6.6.7.3. U. Examinee was unable to follow procedures for talking another person/sensor onto a location or target. "Big-to small" process was not used or did not provide sufficient information. Supporting information was not used or provided in an unusable manner. Information provided was insufficient to direct the other person or sensor onto the desired location/target. Mission accomplishment was significantly affected and/or flight safety was jeopardized.

#### 6.6.8. Area 608. Close Air Support and Troops in Contact.

6.6.8.1. Q. Demonstrated effective/timely knowledge and performance of CAS/TIC procedures. Used range/bearing, laser sparkle, marking devices, and/or incoming radio, to determine the position of friendly forces versus target locations(s). Was able to talk on fire support assets onto the target by target talk on and/or laser sparkle. Coordinated with crew to help ensure timely and accurate firepower to support friendly units or TIC.

6.6.8.2. Q-. Examinee demonstrated CAS/TIC procedures, but not to the desired levels of knowledge and performance. Used range/bearing, laser sparkle, marking devices, and/or incoming radio, to determine the position of friendly forces versus target locations(s), but not to the desired levels of proficiency and/or desired speed. Was able to talk on fire support assets onto the target by target talk on and/or laser sparkle, but not to the desired speed and proficiency. Crew coordination was not as timely as desired but did not significantly delay mission and/or support to friendly units or TIC. Flight safety or the safety of ground parties was not jeopardized.

6.6.8.3. U. Failed to successfully perform CAS tasking. Misidentified or failed to locate friendly forces and/or enemy forces. Lack of knowledge and/or performance resulted in delayed fire support to such an extent, that fire support did not achieve mission objective. Flight safety or the safety of ground parties was jeopardized.

6.6.9. Area 609. TAC(A).

6.6.9.1. Q. Demonstrated effective/timely knowledge and performance of TAC(A) duties. Followed check in/out procedures and ensured aircraft de-confliction and proper altitude separation. Sensor taskings assigned to additional sensors ensured proper coverage of the target area.

6.6.9.2. Q-. Examinee demonstrated TAC(A) duties, but not to the desired levels of knowledge and performance. Minor difficulty in following check in/out procedures and managing proper altitude separation. Sensor taskings allowed for most of the target area being scanned.

6.6.9.3. U. Failed to successfully perform TAC(A) duties. Did not follow check in/out procedures. Failed to maintain proper altitude separation of participating aircraft. Flight safety was jeopardized. Sensor taskings did not effectively cover the target area.

6.6.10. Area 610. Buddy Lase TTPs.

6.6.10.1. Q. Demonstrated high ability to execute effective buddy lase operations. Understood and able to discuss buddy lase operational TTPs, laser limitations, aircraft placement, and weapons effects with no discrepancies. Executed all checklist with no discrepancies and in a timely manner. Accurately maneuvered aircraft in order to provide effective and active laser placement throughout engagement. Executed satisfactory weapons de-confliction with all players. Provided clear and accurate communications in a timely manner when prompted.

6.6.10.2. Q-. Demonstrated marginal ability to execute buddy lase operations. Demonstrated partial understanding of buddy lase operational TTPs, laser limitations, aircraft placement, and/or weapons effects. Executed checklist with some discrepancies, missed a checklist item, and/or delayed use of checklist resulting in minor delays. Maneuvered aircraft in order to provide active and effective laser energy on desired impact point, but had momentary pause of energy or deviations in laser placement due to poor aircraft placement or maneuvering during engagement. Weapons de-confliction was delayed or inaccurate, but did not jeopardize aircraft safety. Some calls were unclear, inaccurate, and/or delayed.

6.6.10.3. U. Demonstrated unsatisfactory ability to execute buddy lase operations. Demonstrated unsatisfactory understanding of buddy lase operational TTPs, laser limitations, aircraft placement, and weapons effects. Failed to executed checklist, omitted several checklist items, and/or delayed use of checklist resulting in major delays. Aircraft placement or maneuvering was unsatisfactory resulting in ineffective laser energy. Weapons de-confliction was unsatisfactory and jeopardized aircraft safety. Several calls were unclear, inaccurate, and/or delayed. Exceeded Q- criteria.

6.6.11. Areas 611-699. Reserved for future use.

## Chapter 7

### PRECISION STRIKE EVALUATIONS

**7.1. General.** This section is reserved for future use. Areas 701-799 are reserved for this chapter.

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Director of Operations

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

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

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

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

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

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

AFSOCI 11-219, Vol 1, *Additional Aircraft Training*, 20 November 2013

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

***Adopted Forms***

AF Form 3862, *Flight Evaluation Worksheet*

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  
**AFSOI**—Air Force Special Operations Command Instruction  
**AFSOCMAN**—Air Force Special Operations Command Manual  
**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  
**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  
**SA**—Situational Awareness  
**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