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Flying Operations

U-28 AIRCREW EVALUATION CRITERIA

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This instruction implements AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*. It establishes evaluation criteria for initial and periodic aircrew qualification for all units operating Air Force Special Operations Command (AFSOC) PC-12 and U-28 aircraft. It is used in conjunction with Air Force Instruction (AFI) 11-202 Volume 2, *Aircrew Standardization/Evaluation Program*, and AFSOC supplements hereto (AFI 11-202V2, AFSOC Sup 1), *Aircrew Standardization/Evaluation Program*. This publication does not apply to the Air National Guard. This publication applies to Air Force Reserve Command (AFRC) units. This publication may be supplement in accordance with (IAW) **Paragraph 1.**5. The Paperwork Reduction Act of 1996 also affects this instruction. The reporting requirement in this publication is exempt from licensing in accordance with AFI 33-324, *The Information Collection and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*. The Privacy Act of 1974 applies to certain information gathered pursuant to this instruction. The Privacy Act System Number F011 AF XO A, Aviation Resource Management Systems (ARMS) covers required information. The authority for maintenance of ARMS is 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 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 (SSN), as amended by Executive Order 13478. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Air Force (AF) Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional chain of command. Unless prescribed within this publication,

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SUMMARY OF CHANGES

This document is substantially revised and must be completely reviewed. This revision reorganized the format of chapters and paragraphs for increased understanding with chapter two being applicable to all crew positions. Chapter 3 is guidance for all instructor evaluations. Chapter four is for pilot evaluations. All grading areas have been renumbered; the following grading areas have been added: Flight Management System (FMS)/Universal Navigation System (UNS)Operations, Radio/Secure communications, Identification, Friend, or Foe (IFF), Defensive Systems, Sentry, Mission Computer/Network Architecture, and Mission Systems Operation/Knowledge/Limitation. **Chapter 5**, Combat System Officer (CSO) Evaluations were added detailing guidance for evaluations for their crew positions. Guidance was added allowing approved simulators to be used to accomplish evaluations or portions of evaluations if certified by AFSOC/A3T and A3V. Guidance was clarified on the use of SPOT evaluations to document Special Qualification Evaluations. Tier statements have been included.

Chapter 1

GENERAL INFORMATION

1.1. General. This instruction establishes requirements and grading criteria for ground and flight phases of initial, requalification, and periodic flight evaluations. Aircrew evaluations will be conducted IAW this instruction and AFI 11-202V2, AFSOCSUPP. Specific areas for evaluation are prescribed to ensure an accurate assessment of the proficiency and capabilities of aircrews. Flight examiners use this AFI when conducting aircrew evaluations. Instructors will use this AFI when preparing aircrews for qualification.

1.2. Applicability. This instruction applies to all individuals performing duties on PC-12 and U-28 aircraft.

1.3. Keywords and definitions.

1.3.1. "***MUST***", "***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 operations procedures, techniques, etc., considered essential to emphasize.

1.4. Waivers. Waiver authority for the accomplishment of individual aircrew items on a case-by-case basis is Major Command (MAJCOM) Director of Operations (A3) (e.g., HQ AFSOC/A3). Waiver requests will be submitted through MAJCOM Standardization and Evaluation (A3V) channels to the HQ AFSOC/A3. (T-2)

1.4.1. Air Force Reserve Command (AFRC) Units will submit waivers to HQ AFRC/A3V for review, and will forward to HQ AFSOC/A3V for coordination and AFSOC/A3 approval. (T-2)

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

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

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

1.4.2.3. "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.

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

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

of MAJCOM supplements to HQ USAF/A3O-AT, through HQ AFSOC/A3V, for approval. Units below MAJCOM level will forward one copy of each supplement to their MAJCOM OPR for pre-publication review. (T-2)

1.6. Evaluation Procedures. Before the aircrew briefing, the evaluator will inform the examinee 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 flight. (AFRC only: Any unique evaluator inputs to the planned profile should be communicated to the examinee no later than 24 hours prior to scheduled mission brief). The examinee will accomplish all required mission planning. If an Operations Planning Team or Deployment Planning Team accomplishes mission planning, the examinee is ultimately responsible for the accuracy and completeness of all mission-planning paperwork. Flight examiners will be furnished a copy of necessary charts, flight logs, mission folders, and any additional items they deem necessary. (T-2)

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

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

1.6.3. Flight examiners will not intentionally fail any mission essential subsystem list (MESL) equipment during flight evaluations, but may deny the use of systems not affecting safety of flight. Systems that can be denied in flight are as follows: Navigational aids or displays, Autopilot, Flight Director, flaps for no flap landings, primary trim controls, or the Power Control Lever for Manual Override Lever operations. Examiners may use reduced engine power settings for simulated engine out maneuvers.

1.6.3.1. To maximize troubleshooting, flight examiners may fail mission equipment on the mission buses. These items are not required for flight, and will not be failed during critical phases of flight.

1.6.4. Flight examiners will thoroughly debrief or critique all aspects of the flight. During the critique, the flight examiner will review the examinee's overall rating, specific deviations, area/subarea grades assigned, and any additional training required.

1.7. Grading Instructions. All evaluations will follow the guidelines set in AFI 11-202V2, MAJCOM supplements, and this instruction. Examiners will use the criteria contained in this volume to accomplish all flight, simulator, and emergency procedures evaluations. (T-2)

1.7.1. **Critical Areas.** Critical areas require adequate accomplishment by the aircrew member in order to successfully achieve the mission objectives and will be graded either Q or U. If an aircrew member receives an unqualified grade in any critical area, the overall grade for the evaluation will also be unqualified. Critical areas are identified by "(**Critical**)" in the area title. (T-1)

1.8. Evaluation Requirements. Evaluation profiles will reflect a sampling of the unit's missions. Evaluation tables are provided to summarize evaluation areas. Areas common to all crew members are contained in **Table 2.1**. Instructor evaluation areas are in **Table 3.1**. Evaluation areas unique to each crew position are located in their respective chapter. Each crew specific chapter defines required events. Evaluation methods are identified by notes in the crew

specific tables and include: in flight only; in flight and/or in simulator (see **Paragraph 1.8.1**); and in flight and/or alternate methods (see **Paragraph 1.8.2**). For areas without a note, flight examiners may evaluate at their discretion if observed. If required events are not observed, then the evaluation is incomplete and will be accomplished on another flight. (T-2)

1.8.1. **Simulator.** Weapon System Trainers (WST) may be used to accomplish any evaluations if certified by AFSOC/A3. Do not conduct two consecutive evaluations in the simulator.

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

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

1.8.3. **Grading Criteria.** To the maximum extent possible, flight examiners will use the grading criteria in this volume and AFSOCI 11-2U-28V2, to determine individual area grades. Exercise judgment when the wording of areas is subjective and when specific areas are not covered. Flight examiner judgment will be the determining factor in arriving at the overall grade. Consider cumulative deviations when determining the overall grade. (T-2)

1.8.3.1. Base tolerances for in-flight parameters on conditions of smooth air and a stable aircraft. In some cases, momentary deviations are allowable provided the examinee applies prompt corrective action and such deviations do not jeopardize safety.

1.9. Unsatisfactory Performance. If the flight examiner observes an aircrew counterpart jeopardizing safety, the examiner will assume the duties of that aircrew member (provided the examiner's basic Flight Duty Period (FDP) has not expired. If the examiner feels the examinee can continue safely with supervision, the examiner is not required to assume the examinee's duties. If the flight examiner assumes the examinee's duties, assign a Qualification Level 3 (Q-3) as the overall grade. (T-2).

1.9.1. Evaluators must report deviations or discrepancies from established procedures or directives in any area, regardless of the individual's crew specialty, to the squadron or group commander, along with evaluator's recommendation for corrective action, IAW AFI 11-202V2 and MAJCOM supplements. (T-2)

1.10. Additional Training. Flight examiners are responsible for assigning additional training at their discretion.

1.10.1. Additional training may be accomplished on the same flight as the evaluation, provided the unique situation presents a valuable training opportunity (i.e., crosswind landings), and the discrepancy requiring the additional training will not result in overall Q-3 evaluation. This option requires flight examiner discretion and judicious application. The examinee must be informed when the additional training begins and ends. (T-2)

1.11. Rechecks. Rechecks will normally be administered by a flight examiner other than the one who administered the original evaluation. (T-3)

1.12. Special Qualifications. Special qualification evaluations are administered for events that are not universal to all members in that crew position. Special qualification evaluations may be conducted separately or in conjunction with the qualification or mission evaluations. After qualification, areas can be graded as part of periodic mission evaluations. There are no requisites for special qualification evaluations unless specified. Refer to the appropriate crew position for any special qualification evaluation requirements.

1.12.1. Special qualifications result in an AF Form 8, documented as a SPOT evaluation. Although a unit may maintain 100 percent of its crew members qualified, this documentation is still required due to intrafly and permanent change of station issues.

1.13. Flight Evaluation Worksheets. AFSOC Form 48 generated flight evaluation worksheets or electronic equivalent (Patriot Excalibur) are permitted to assist with the evaluation. If a worksheet is used, it must be current in relation to requirements outlined in this instruction and evaluation tables. (T-2)

1.14. Multiple Qualifications. The PC-12 Trainer and U-28 are different in mission design but the same airframe model. Once differences training is complete, pilots may complete Instrument (INSTM) and Qualification (QUAL) evaluations in the PC-12 Trainer, U-28, or approved simulator. Once the INSTM/QUAL evaluation is complete, the qualification will be awarded in both the U-28 and PC-12 Trainer. Mission (MSN) evaluations must be completed in a U-28 or approved simulator. CSOs will complete QUAL and MSN evaluations in the U-28 or approved simulator. (T-2)

Chapter 2

ALL EVALUATIONS

2.1. General. The general grading criteria contained in this chapter applies to all crew positions and all evaluations. The examinee must satisfactorily demonstrate the ability to perform required duties safely and effectively. This includes appropriate aircraft systems operation IAW applicable technical orders, instructions, and directives. (T-2)

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

2.2.1. **Examinations.** All crew members will complete open and closed book examinations as a requisite to periodic evaluations. Pilots will complete the instrument examination as a requisite to periodic INSTM evaluations. QUAL and MSN examinations may be combined and given as one examination. (T-2)

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

2.2.2.1. Examinees may use publications that are normally available in flight. The examinee should accomplish all Critical Actions Procedures (CAP) from memory and should provide the initial steps of the emergency procedures that, in the opinion of the examiner, would not allow time for reference.

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

2.2.3. **Publications Check.** Required for all INSTM, QUAL, MSN, or combined evaluations (e.g. INSTM/QUAL/MSN) as outlined in area 12 of General Grading Areas.

2.2.4. **Cockpit/Crew Resource Management (CRM).** In accordance with AFI 11-290, *Cockpit/Crew Resource Management Training Program*, crew resource management skills will be evaluated during initial and periodic evaluations. CRM skills are integral to all phases of flight; therefore no specific area titled CRM exists. CRM skills are imbedded within specific grading criteria (mission planning, airmanship/situational awareness, crew coordination, communication, risk management/decision making, task management, and briefing/debriefing) and include all of the skills listed on the AF Form 4031, *CRM Skills Criteria Training/Evaluation Form*. Therefore, use of the AF Form 4031 is unnecessary for evaluations. (T-2)

2.2.5. **Formal Course Evaluations.** Fly syllabus evaluations IAW syllabus mission profile guidelines if stated, or on a mission profile developed from syllabus training objectives. All required areas must be evaluated for the type of evaluation being flown, IAW guidance in this volume. Grade training objectives and related areas using the performance criteria in this

volume. Formal course guidelines may be modified, based on local operating considerations or examiner judgment, to complete the evaluation. (T-2)

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

Areas	Notes	Grading Areas
1	1	Safety – CRITICAL
2	1	Aircrew Discipline – CRITICAL
3	1	Airmanship/Situational Awareness – CRITICAL
4	2, 3	Critical Action Procedures (CAP) – CRITICAL
5	2	Emergency Procedures Evaluation
6	1	Crew Coordination
7	2	Mission Planning
8	2	Knowledge of Directives
9	1	Preflight
10	1	Use of Checklists
11	2	Forms/Reports
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	Aircraft Security
17	1	Communication
18	2	Risk Management/Decision Making
19	1	Task Management

Notes:

1. Required in flight or in a simulator certified for this event.
2. May be accomplished via an alternate method.
3. Required for QUAL and MSN evaluations.

2.3. General Grading Criteria.

2.3.1. **Area 1. Safety - (CRITICAL).**

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

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

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

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

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

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

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

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

2.3.4. **Area 4. CAP – (CRITICAL).**

2.3.4.1. **Q.** Able to accomplish the proper critical action procedure, as applicable, in the correct sequence with no discrepancies..

2.3.4.2. **U.** Failed to accomplish CAP in the correct sequence. Discrepancies in the procedure.

2.3.5. **Area 5. Emergency Procedures Evaluation.**

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

2.3.6. **Area 6. Crew Coordination.**

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

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

2.3.6.3. **U.** Did not provide direction or 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.** Completed aircraft systems preflight/inspections IAW aircraft operating manuals, checklists, and instructions. Individual technique complied with established procedures.

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

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

2.3.10. **Area 10. Use of Checklist.**

2.3.10.1. **Q.** Consistently used correct checklist(s), 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 or action.

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

2.3.11. **Area 11. Forms/Reports.**

2.3.11.1. **Q.** All required forms and/or flight plans were complete, accurate, legible, and accomplished on time IAW applicable directives. Relayed an accurate debrief of significant events to applicable agencies (Mission Planners, Intelligence, Weather, Maintenance, etc.).

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

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

2.3.12. **Area 12. Personal/Professional Equipment/Flight Publications.**

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 or changes, and were properly posted.

2.3.12.2. **Q-.** Did not have all required personal or 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 or 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 out dated 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 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.

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. Omitted, or deviated in use of checklist and/or available aids.

2.3.13.3. **U.** Unsatisfactory systems/procedural knowledge. Displayed unsatisfactory knowledge of emergency and 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.** Ensured briefing contained all applicable information. Prepared at briefing time. Briefings effectively organized and professionally presented in a logical sequence. Presented all objectives, training events and special interest items. Effectively used available briefing aids. Debriefed mission using specific, non-threatening positive and negative feedback of team and individual performance. Provided specific ways to correct errors. Asked for inputs from others. Re-capped key points and compared mission results with mission objectives.

2.3.14.2. **Q-.** Omitted items pertinent but not critical to the mission. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Limited discussion of training events or special interest items. Dwelled on non-essential items. Not fully prepared for briefing. Debriefed mission without specific, non-threatening positive and negative feedback on individual and team performance. Did not consistently seek input from others. Incomplete or inadequate re-cap of key points and comparison of mission results to mission objectives.

2.3.14.3. **U.** Failed to conduct or attend required briefings. Failed to use appropriate briefing aids. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of knowledge of subject. Briefing poorly organized and not presented in a logical sequence. Presented erroneous information that would affect safe or 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 non-threatening positive and negative feedback during debriefing. Did not seek input from others. Did not re-cap key mission points nor compare mission results to mission objectives.

2.3.15. **Area 15. Classified Material/Operations Security.**

2.3.15.1. **Q.** Demonstrated thorough knowledge of Communications Security (COMSEC), Operations Security (OPSEC), and courier (if applicable) procedures. Had positive control of classified documents and information used throughout the mission. Properly stored, handled, and/or destroyed all classified or COMSEC material or information generated during the mission. Practiced sound COMSEC and OPSEC during all phases of the mission. Identified, requested and obtained all crypto-logical material required for the mission.

2.3.15.2. **Q-.** Limited knowledge of COMSEC or 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 or COMSEC, and did not impact mission accomplishment. Identified crypto-logical material required for mission, but was slow in requesting or obtaining material or did so only after being prompted.

2.3.15.3. **U.** Unsatisfactory knowledge of COMSEC or 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 crypto-logical materials required for the mission.

2.3.16. **Area 16. Aircraft Security.**

2.3.16.1. **Q.** Explained proper anti-hijacking and aircraft security procedures.

2.3.16.2. **Q-.** Difficulty explaining proper anti-hijacking and aircraft security procedures.

2.3.16.3. **U.** Could not explain proper anti-hijacking and aircraft security procedures.

2.3.17. **Area 17. Communication.**

2.3.17.1. **Q.** Communicated using precise, standard terminology. Acknowledged all communications. Asked for or provided clarification when necessary. Stated opinions or ideas. Asked questions when uncertain. Advocated specific courses of action.

2.3.17.2. **Q-.** Unclear or incomplete communication led to repetition or misunderstanding. Slow to ask for or give constructive feedback or clarifications. Inconsistent use of precise, standard terminology. Did not always state opinions or 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 personal conduct or attitude was detrimental to communication among crew members. Withheld information and failed to solicit or respond to constructive criticism. Failed to use precise, standard terminology. Repeatedly failed to acknowledge communications. Did not state opinions, ask questions when unsure, or attempt to motivate flight members using positive statements.

2.3.18. **Area 18. Risk Management/Decision Making.**

2.3.18.1. **Q.** Identified contingencies and alternatives. Gathered and cross-checked relevant data before deciding. Clearly stated problems and proposed solutions.

Investigated doubts and concerns of crew members. Used facts to come up with solution. Involved and informed necessary crew members when appropriate. Coordinated mission and crew activities to establish a 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 and crew activities to establish a proper balance between command authority and crew member participation, and acted indecisively at times.

2.3.18.3. **U.** Failed to identify contingencies and alternatives. Made no effort to gather and cross check relevant data before deciding. Did not inform necessary crew members when appropriate. Did not use facts to come up with a solution. Avoided or delayed necessary decisions which jeopardized mission effectiveness. Did not coordinate mission and crew activities to establish a 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 or 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 a high level of vigilance in both high and low workload conditions. Slow to prepare for expected or contingency situations. Created some self-imposed workload or 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 a high level of vigilance in both high and low workload conditions. Extremely slow to prepare for expected or contingency situations. Created self-imposed workload or stress due to lack of planning. Failed to recognize and report work overloads in self and others.

Chapter 3

INSTRUCTOR EVALUATIONS

3.1. General. The instructor grading criteria apply to initial, requalification, and all periodic instructor evaluations. The examinee will demonstrate the ability to instruct in a safe and effective manner.

3.2. Requirements. Evaluate instructors on areas listed in **Table 3.1**. Instructor candidates must be qualified in all areas they will instruct. Initial instructor evaluations may be a stand-alone evaluation or accomplished in conjunction with a periodic INSTM, QUAL, or MSN evaluation. Accomplish periodic instructor evaluations in conjunction with periodic INSTM, QUAL, or MSN evaluations. (T-2)

3.2.1. On periodic evaluations, qualified instructors will be evaluated to instructor standards. (T2)

3.2.2. On all evaluations, if conditions permit, instructor certified events may be evaluated.

3.3. Instrument. INSTM instructor evaluations may be accomplished in the PC-12 Trainer, U-28, or approved simulator.

3.3.1. **Initial/Requalification.** Evaluate instructor candidates on instructor performance during a representative sample of unit's basic maneuvers. All INSTM items listed in **Table 4.1** will be evaluated. **Exception:** If the instructor candidate is not within their evaluation eligibility period, the candidate's instructional ability may be evaluated while the INSTM items in Table 4.1. are flown by a student under their supervision. Only one non-precision approach is required. A minimum of one instrument approach will be flown by the candidate. (T-2)

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

3.4. Qualification. Qualification instructor pilot evaluations may be accomplished in the PC-12 Trainer, U-28, or approved simulator. CSOs will be evaluated in a U-28 or approved simulator. (T-2)

3.4.1. **Initial/Requalification.** Evaluate instructor candidates on instructor performance during a representative sample of unit's basic maneuvers. All QUAL items listed in **Table 4.1** will be evaluated for instructor pilot candidates. All items listed in **Table 5.1** will be evaluated for instructor CSO candidates. **Exception:** If the instructor candidate is not within their evaluation eligibility period, the candidate's instructional ability may be evaluated while the required items are accomplished by a student under their supervision. (T-2)

3.4.1.1. Evaluate instructor candidate's instructional ability during a representative sample of emergency and qualification procedures. Instructor pilot candidates must demonstrate or instruct each type of landing applicable to the aircraft. (T-2)

3.5. Mission. Mission instructor evaluations will be accomplished in the U-28 or approved simulator. Pilots must be aircraft commander qualified in a special mission prior to receiving instructor qualification/certification in that mission. (T-2)

3.5.1. **Initial/Requalification.** Accomplish the initial mission instructor evaluation on a mission that permits accomplishment of all required instructor areas and a sampling of events seen on a tactical mission sortie for their crew position. A representative sample of the items listed in **Table 4.2** and **Table 5.2** will be evaluated for instructor pilot and CSO candidates.

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

Areas	Notes	Grading Areas
20	2	Mission Preparation
21	1	Instructional Ability
22	2	Instructor Knowledge
23	2	Briefings/Debriefings/Critique
24	1	Demonstration of Maneuvers/Procedures
25-29		Reserved for future use
Notes: 1. Required in flight or in a simulator certified for this event. 2. May be accomplished via an alternate method.		

3.6. Instructor Grading Criteria.

3.6.1. Area 20. Mission Preparation.

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

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

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

3.6.2. Area 21. Instructional Ability.

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

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

3.6.2.3. **U.** Failed to effectively communicate or provide timely feedback. Performed or taught improper procedures/techniques/tactics to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe maneuvers/situations in a timely manner. Made no attempt to instruct.

3.6.3. **Area 22. Instructor Knowledge.**

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

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

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

3.6.4. **Area 23. Briefings/Debriefings/Critique.**

3.6.4.1. **Q.** Briefings/Debriefings 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's past performance. Analysis of events or maneuvers was incomplete, inaccurate, or confusing. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

3.6.5. **Area 24. Demonstration of Maneuvers/Procedures.**

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

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

3.6.5.3. **U.** Failed to properly perform required maneuvers or 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.

Chapter 4

PILOT EVALUATIONS

4.1. General. All pilots require an INSTM and QUAL evaluation. MSN qualified pilots require a MSN evaluation. Pilot crew coordination will include duties and responsibilities expected of an aircraft commander. Instructors will demonstrate instructor duties on all periodic evaluations. If approved by the squadron commander or director of operations, INSTM, QUAL, and MSN evaluations may be combined into one sortie. (T-2)

4.1.1. For initial INSTM/QUAL checkrides in the PC-12 Trainer, basic qualification can be awarded in both U-28 and PC-12 Trainer aircraft. All AFI 11-2U-28V1, *U-28 Aircrew Training* will still apply, and aircrew in student status will not fly without instructor supervision until a MSN checkride is complete. (T-2)

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

4.3. Instrument. See **Table 4.1** for required INSTM evaluation areas. Requisites (prerequisites for initial or requalification evaluations) include the instrument examination.

4.3.1. The evaluation profile will include: one precision approach; one non-precision approaches; holding or procedure turn; circling pattern; and missed approach. (T-2)

4.3.2. **Initial/Requalification.** All initial and requalification evaluations will be INSTM evaluations. The instrument examination is a prerequisite for initial evaluations. Attend the Instrument Refresher Course (IRC) prior to taking the instrument examination. (T-2)

4.3.3. **Periodic.** Evaluation may be conducted in the PC-12 Trainer, U-28, or approved simulator.

4.4. Qualification. See **Table 4.1** for required QUAL evaluation areas. Requisites (prerequisites for initial or requalification evaluations) include QUAL Open and Closed Book examinations (or Formal School End of Course examinations), and EPE. This evaluation is normally accomplished in combination with an INSTM evaluation.

4.4.1. The evaluation profile will include: Visual Flight Rules (VFR) pattern; Full, Partial and No flap landings; touch-and-go procedures; and simulated engine-out approach. (T-2).

4.4.2. **Initial/Requalification/Periodic.** If the pilot is an aircraft commander, the evaluation should normally be flown from the left seat.

4.5. Mission. See **Table 4.2** for MSN evaluation areas and subparagraph below for requirements. Requisites (prerequisites for initial or requalification evaluations) include Pilot Mission Open and Pilot Mission Closed Book examinations and EPE. Copilot evaluations will be flown from the right seat only. Evaluations for aircraft commanders and instructor pilots may be flown from either seat. Document in the comments section of the AF Form 8, *Certificate of Aircrew Qualification*, which seat examinee occupied during the evaluation. (T-2)

4.5.1. **Initial/Requalification/Periodic.** The evaluation profile will include:

4.5.1.1. The operation of mission systems on a sortie that satisfies the requirements of a Tactical Mission Sortie IAW AFI 11-2U-28V1, and accomplishes at least 5 of the 10 mission events from **Table 4.2**.

4.5.1.2. A tactical takeoff/departure and a tactical recovery/landing.

4.5.1.3. Optional: A Night Vision Goggle (NVG) takeoff and/or landing, only if portions of sortie are flown after ending of evening nautical twilight (EENT) and before beginning of morning nautical twilight (BMNT).

Table 4.1. Pilot INSTM/QUAL Grading Areas.

Area	Notes	Grading Areas	QUAL	INSTM
30	1	Ground Operations & Taxi	X	
31	1	Takeoff	X	
32	1	Instrument Departure		X
33	1	Enroute Navigation/Use of Navigation Aids (NAVAIDS)		X
34	1	Descent and Arrival Procedures		X
35	1	Holding or Procedure Turn		X
36	3, 4	**Precision Approach**		
36a	2	Precision Approach Radar (PAR)		X
36b	2	Instrument Landing System (ILS)		X
37	3, 5	**Non-Precision Approach**		
37a	1	Area Navigation (RNAV)/ Global Positioning System (GPS)		X
37b	1	Variable Omni Range (VOR)		X
37c	1	Localizer (LOC)		X
37d	1	Non Directional Beacon (NDB)		X
37e		Airborne Surveillance Radar (ASR)		X
38	2	Circling or Side-Step Approach		X
39	1	Missed Approach or Go-Around		X
40	1	VFR Pattern	X	
41		**Final Approach and Landing**		
41a	1	Full Flap Landing	X	
41b	1	Partial Flap Landing	X	
41c	1	No Flap Landing	X	

Area	Notes	Grading Areas	QUAL	INSTM
41d	1	Simulated Engine Out Approach	X	
41e	1	Touch-and-Go Landing	X	
42	2	Fuel Conservation	X	
43	2	Systems Operations/Knowledge/Limitations/National Airspace System (NAS)	X	
44-49		Reserved for future use		

Notes:

1. Required in-flight or in a simulator certified for this event.
2. May be accomplished via an alternate method.
3. Only one of the three required approaches may be controller directed (PAR/ASR).
4. Any one required.
5. Any two required.

Table 4.2. Pilot MSN Grading Areas.

Area	Notes	MSN	Grading Areas
50	2	X	Threat Avoidance and Tactics
51	1	X	Tactical Departure
52	1	X	Tactical Recovery
53			Reserved for Future Use
54			Reserved for Future Use
55	1, 3	X	NVG Airland
56	1	X	Flight Management System (FMS)/UNS Operation
57	2	X	Radios/Secure Communications
58	2	X	IFF
59	2	X	Defensive Systems
60	2	X	Mission Computer/Network Architecture
61	2	X	Mission Systems Operations/Knowledge/Limitations
62		X	Objective Correlation/Target Development (Mission Event #1)
63		X	Vehicle Follow (Mission Event #2)
64		X	Squirter Control (Mission Event #3)

65		X	Route Reconnaissance / Friendly Escort (Mission Event #4)
66		X	Helicopter Landing Zone Reconnaissance (Mission Event #5)
67		X	Target Talk-on (Mission Event #6)
68		X	Mission Event #7
69		X	Buddy Lase (Mission Event #8)
70		X	Airspace Awareness and Orbit Operations (Mission Event #9)
71		X	TAC-A and Warden (Mission Event #10)

Table 4.3. General Criteria.

Q	Altitude	± 100 feet
	Airspeed	+10/-5 Knots Indicated Airspeed (KIAS)
	Course	± 5 degrees/2 Nautical Miles (nm) (whichever is greater)
	Arc	± 1 nm
Q-	Altitude	±200 feet
	Airspeed	+15/-10 knots
	Course	±10 degrees/5 nm (whichever is greater)
	Arc	±2 nm
U		Exceeded Q- limitations

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

4.6.1. **Area 30. Ground Operations/Taxi.**

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

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

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

4.6.2. **Area 31. Takeoff.**

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

4.6.2.2. **Q-.** Minor deviations from published procedures without affecting safety of flight. Aircraft control was safe but not consistently smooth and positive. Hesitant in application of procedures or corrections.

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

4.6.3. **Area 32. Instrument Departure.**

4.6.3.1. **Q.** Performed departure IAW published procedures and directives. Complied with all restrictions or controlling agency instructions. Made all required reports. Applied course and heading corrections promptly. Demonstrated smooth and positive aircraft control.

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

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

4.6.4. **Area 33. En Route Navigation/Use of NAVAIDS.**

4.6.4.1. **Q.** Able to navigate using all available means. Used appropriate navigation procedures. Ensured navigational aids were properly tuned, identified, and monitored. Input correct flight plan or changes in airframe flight management system (GPS, FMS, etc.). Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.

4.6.4.2. **Q-.** Minor errors in procedures or use of navigation equipment. Some deviations in tuning, identifying, and monitoring navigational aids or changing information in flight management system (GPS, FMS, etc.) were observed. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Slow to adjust for deviations in time and course.

4.6.4.3. **U.** Major errors in procedures/use of navigation equipment. Did not ensure NAVAIDS were tuned, identified and monitored. Input incorrect flight plan or changes in airframe flight management system (GPS, FMS, etc.). Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace. Exceeded Q- criteria.

4.6.5. **Area 34. Descent/Arrival Procedures.**

4.6.5.1. **Q.** Performed descent as directed. Complied with all flight manual, NAS or controller issued, or Standard Terminal Arrival restrictions in a proficient manner. Accomplished all required checks.

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

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

4.6.6. **Area 35. Holding/Procedure Turn.**

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

4.6.6.1.1. VOR Leg timing: ± 15 seconds.

4.6.6.1.2. VOR/Distance Measuring Equipment (DME): ± 1 nm.

4.6.6.1.3. RNAV/GPS: ± 1 nm.

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

4.6.6.2.1. VOR Leg timing: ± 30 seconds.

4.6.6.2.2. VOR/DME: ± 2 nm.

4.6.6.2.3. RNAV/GPS: ± 2 nm.

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

4.6.7. **Area 36. Precision Approach (PAR or ILS). Note: Use the following criteria for Areas 36a and 36b. Use the following criteria as general tolerances for airspeed, altitude, heading, glide slope, and azimuth. Airspeed tolerances are based on computed or briefed approach speed.**

4.6.7.1. **Q.**

4.6.7.1.1. Airspeed: +10/-5 KIAS

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

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

4.6.7.1.4. Azimuth: Within one dot (ILS).

4.6.7.2. **Q-.**

4.6.7.2.1. Airspeed: +15/-5 KIAS.

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

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

4.6.7.2.4. Azimuth: Within two dots (ILS).

4.6.7.3. **U.**

4.6.7.3.1. Exceeded Q- criteria.

4.6.7.4. **Area 36a. Precision Approach Radar.**

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

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

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

4.6.7.5. **Area 36b. Instrument Landing System.**

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

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

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

4.6.8. **Area 37. Non-Precision Approach (RNAV/GPS, VOR, LOC, NDB, ASR). Note:** Use the following criteria for Areas 37a-37e. Use the following criteria as general tolerances for airspeed, altitude, heading, and azimuth. Airspeed tolerances are based on computed or briefed approach speed.

4.6.8.1. **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).

4.6.8.1.1. Airspeed: +10/-5 KIAS.

4.6.8.1.2. Heading: ± 5 degrees (ASR).

4.6.8.1.3. Course: ± 5 degrees at MAP (RNAV/GPS, VOR, NDB)

4.6.8.1.4. Localizer: Less than one dot deflection.

4.6.8.1.5. MDA: +100/-0 feet.

4.6.8.1.6. MAP: Timing computed/adjusted within 10 seconds or distance within ± 0.5 nm.

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

4.6.8.2.1. Airspeed: +15/-5 KIAS.

4.6.8.2.2. Heading: ± 10 degrees (ASR).

4.6.8.2.3. Course: ± 10 degrees at MAP (NAV/GPS, VOR, NDB).

4.6.8.2.4. Localizer: Within two dots deflection.

4.6.8.2.5. MDA: +150/-50 feet.

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

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

4.6.8.4. **Area 37a. RNAV/GPS.**

4.6.8.5. **Area 37b. VOR.**

4.6.8.6. **Area 37c. LOC.**

4.6.8.7. **Area 37d. NDB.**

4.6.8.8. **Area 37e. ASR.**

4.6.9. **Area 38. Circling/Side-Step Approach.**

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

4.6.9.1.1. Airspeed: +10/-5 KIAS.

4.6.9.1.2. Altitude: +100/-0 feet.

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

4.6.9.2.1. Airspeed: +15/-5 KIAS.

4.6.9.2.2. Altitude: +150/-50 feet.

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

4.6.10. **Area 39. Missed Approach/Go-Around.**

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

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

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

4.6.11. **Area 40. VFR Pattern.**

4.6.11.1. **Q.** Adhered to published restrictions, procedures, or local guidance. Performed traffic pattern and turn to final/final approach IAW flight manual procedures. Aircraft control was smooth and positive. Did not over/undershoot final approach. Constantly cleared area of intended flight.

4.6.11.2. **Q-.** Minor deviations from published restrictions/local guidance. Performed traffic pattern and turn to final/final approach with minor deviations to procedures. Aircraft control was safe but not consistently smooth and positive. Over/under-shot final approach slightly but was able to intercept a normal glide path. Adequately cleared area of intended flight.

4.6.11.3. **U.** Major/unsafe deviations from published restrictions/local guidance. Did not perform traffic pattern and turn to final/final approach IAW technical orders, directives, or published procedures. Displayed erratic aircraft control. Over/undershot final approach by a wide margin requiring a go-around or potentially unsafe maneuvering on final. Did not clear area of intended flight. Exceeded Q- criteria.

4.6.12. **Area 41. Final Approach and Landing.**

4.6.12.1. **Areas 41a through 41e.** Use the following criteria. **Note:** The following criteria apply to all landings. Flight examiners must apply these criteria judiciously to allow for the unique characteristics of each type of landing. Where runway configuration, arresting cable placement, or flight manual limitations require an adjustment to the desired touchdown point, a simulated runway threshold will be identified and the grading criteria applied accordingly. For instrument approaches, the examinee should utilize a normal glide slope from either the decision height or from a point where visual acquisition of the runway environment is made. Specific items to evaluate include threshold altitude/airspeed, runway alignment, flare, touchdown speed, and landing crab.

4.6.12.1.1. **Q.** Performed landing as published/directed IAW flight manual. Crossed threshold at Vref +10/-0 knots and the proper attitude. Smooth and positive aircraft control throughout the round out and flare. Touched down with no crab on centerline. Complied with flight manual procedures for the use of brakes and reverse thrust. Met the following criteria:

4.6.12.1.1.1. Touchdown Speed (if applicable): 5 ± 5 KIAS.

4.6.12.1.1.2. Touchdown Point: Past threshold and within 1,000 feet of intended touchdown point.

4.6.12.1.2. **Q-.** Performed landing with minor deviations to procedures as published/directed. Crossed threshold at Vref +15/-5 knots slightly high or low but no compromise of safety. Touched down not more than ± 7 feet of centerline. Exceeded Q criteria but not the following:

4.6.12.1.2.1. Touchdown Speed (if applicable): +10/-5 KIAS.

4.6.12.1.2.2. Touchdown Point: Past threshold and within 1,500 feet of intended touchdown point.

4.6.12.1.3. **U.** Landing not performed as published/directed. Exceeded Q- criteria. Failed to comply with flight manual procedures for the use of brakes and reverse thrust. Exceeded Q- criteria.

4.6.12.2. **Area 41a. Full Flap Landing.**

4.6.12.3. **Area 41b. Partial Flap Landing.**

4.6.12.4. **Area 41c. No Flap Landing.**

4.6.12.5. **Area 41d. Simulated Engine-Out Approach.**

4.6.12.6. **Area 41e. Touch-and-Go Landing.**

4.6.13. **Area 42. Fuel Conservation.**

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

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

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

4.6.14. **Area 43. Systems Operation/Knowledge/Limitations/NAS.**

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

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

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

4.6.15. **Area 50. Threat Avoidance/Tactics.**

4.6.15.1. **Q.** Able to formulate a plan of action to avoid the lethal range of a 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 systems/tactics. Aware of appropriate tactics to avoid threats and exposure.

4.6.15.2. **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 systems.

4.6.15.3. **U.** Did not avoid the lethal range of a 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 systems was unsatisfactory.

4.6.16. **Area 51. Tactical Departure.**

4.6.16.1. **Q.** Followed procedures as briefed and IAW flight manual, directives, or published procedures. Displayed smooth, positive control throughout the departure. Gave proper consideration to threat location and adjusted departure accordingly. Constantly cleared area of intended flight.

4.6.16.2. **Q-.** Performed departure with minor deviations to published procedures. Aircraft control was not consistently positive and smooth.

4.6.16.3. **U.** Departure not performed IAW flight manual, directives or published procedures. Displayed erratic aircraft control. Failed to consider threat location or proximity and/or maneuvering could have placed the aircraft within the lethal range of a given threat system. Did not clear the area of intended flight.

4.6.17. **Area 52. Tactical Recovery.** **Note:** Includes penetrations, overheads, downwind, or random steep.

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

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

4.6.17.3. **U.** Recovery not performed IAW flight manual, directives or published procedures. Displayed erratic aircraft control. Over/undershot 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 the lethal range of a given threat system. Did not clear area of intended flight.

4.6.18. Area 53. Reserved for future use.

4.6.19. Area 54. Reserved for future use.

4.6.20. **Area 55. NVG Airland (if applicable).**

4.6.20.1. Use the following criteria for NVG Airland.

4.6.20.1.1. **Area 26 – Takeoff**

4.6.20.1.2. **Area 39 – Missed Approach/Go-Around.**

4.6.20.1.3. **Area 41 – Final Approach and Landing.**

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

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

4.6.20.4. **U.** Procedures not IAW flight manual, directives, or published procedures. Failed to analyze NVG Airland constraints or verbalize concerns posed by terrain or other factors. Displayed unsatisfactory knowledge of NVG Airland procedures. Major errors impacting safety and mission accomplishment.

4.6.21. **Area 56. FMS/UNS Operation.**

4.6.21.1. **Q.** Demonstrated/explained a complete knowledge of the flight management system, including, but not limited to, loading a flight plan, waypoint and pattern entry, loading a GPS approach, and checking Receiver Autonomous Integrity Monitoring (RAIM). Troubleshooting was complete.

4.6.21.2. **Q-.** Demonstrated/explained a marginal knowledge of the flight management system, including, but not limited to, loading a flight plan, waypoint and pattern entry, loading a GPS approach, and checking RAIM. Troubleshooting led to marginally-degraded system. Unable to complete tasks in a timely manner.

4.6.21.3. **U.** Level of knowledge was unsatisfactory. Unable to demonstrate/explain the flight management system, including, but not limited to, loading a flight plan, waypoint and pattern entry, loading a GPS approach, and checking RAIM. Unable to troubleshoot or troubleshooting was incomplete and led to fully degraded system.

4.6.22. **Area 57. Radios/Secure Communications.**

4.6.22.1. **Q.** Demonstrated/explained a complete knowledge of the radios, to include the ARC231, PRC-117F/G, and hand-held radios. Able to load presets, operate in correct secure mode, and program frequencies in a timely manner. Troubleshooting led to fully functional radio usage.

4.6.22.2. **Q-.** Demonstrated/explained a marginal knowledge of the radios, to include the ARC231, PRC-117F/G, and hand-held radios. Able to load presets, operate in correct secure mode, and program short-notice frequencies with some difficulty. Troubleshooting resulted in semi-degraded radio operation.

4.6.22.3. **U.** Level of knowledge was unsatisfactory. Unable to load presets, operate in correct secure mode, and program frequencies into the ARC-231, PRC-117F/G, and

hand-held radios. Unable to troubleshoot, or troubleshooting resulted in degraded radio operation.

4.6.23. **Area 58. IFF.**

4.6.23.1. **Q.** Demonstrated/explained a complete knowledge of the APX-119, to include proper startup/shutdown procedures, brightness and range control, and data entry. Troubleshooting was complete.

4.6.23.2. **Q-.** Demonstrated/explained a marginal knowledge of the APX-119, to include proper startup/shutdown procedures, brightness and range control, and data entry. Troubleshooting was incomplete.

4.6.23.3. **U.** Level of knowledge was unsatisfactory. Unable to startup/shutdown APX-119. Unable to control the range or brightness. Unable to enter IFF data. Troubleshooting further degraded the system.

4.6.24. **Area 59. Defensive Systems.**

4.6.24.1. **Q.** Demonstrated/explained a complete knowledge of the ALE-47 and AAR-54, to include proper startup/shutdown procedures, and program/mode selection. Troubleshooting was complete.

4.6.24.2. **Q-.** Demonstrated/explained a marginal knowledge of the ALE-47 and AAR-54. Able to perform startup/shutdown procedures, and program/mode selection with minimal input. Troubleshooting led to marginally-degraded system.

4.6.24.3. **U.** Level of knowledge was unsatisfactory. Unable to start system or choose correct program/mode. Unable to troubleshoot.

4.6.25. **Area 60. Mission Computer/Network Architecture.**

4.6.25.1. **Q.** Demonstrated/explained a complete knowledge of aircraft network architecture and mission computer setup to include all standard software applications. Able to successfully navigate through the architecture and troubleshoot as required. Led to fully operational mission computers.

4.6.25.2. **Q-.** Demonstrated/explained a marginal knowledge of aircraft network architecture and mission computer setup. Unable to fully utilize software applications which could potentially lead to mission degradation. Data entry slow or needed assistance to setup mission computer. Troubleshooting resulted in some systems not functional.

4.6.25.3. **U.** Level of knowledge was unsatisfactory. Unable to properly setup mission computers and/or utilize associated software applications. Unable to properly troubleshoot which led to mission degradation.

4.6.26. **Area 61. Mission Systems Operations/Knowledge/Limitations.**

4.6.26.1. **Q.** Demonstrated competent operation of systems/equipment associated with the pilot position, Mission Computer Systems, and other associated equipment/systems IAW guides, instructions, and mission operator handbook(s).

4.6.26.2. **Q-.** Demonstrated partial proficiency that did not jeopardize mission accomplishment or flight safety while operating the systems/equipment associated with the pilot position, Mission Computer Systems, and other associated equipment/systems.

4.6.26.3. **U.** Demonstrated unsatisfactory proficiency with the systems/equipment associated with the pilot position, Mission Computer Systems, and other associated equipment/systems.

4.6.27. **Area 62-71. Pilot Mission Events**

4.6.27.1. Refer to AFSOCI 11-2U-28V2 for grading instructions for the areas in **4.6.27**.

Chapter 5

COMBAT SYSTEMS OFFICER EVALUATIONS

5.1. General. CSOs require a combined QUAL and MSN evaluation. Instructors will demonstrate instructor duties on all periodic evaluations. (T-2)

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

5.3. Combined Qualification/Mission (QUAL/MSN) Evaluations. See **Table 5.1** for required evaluation areas. Requisites (pre-requisites for initial or requalification evaluations) include the CSO Open and CSO Closed Book examinations, and EPE.

5.3.1. **Initial/Requalification.** Evaluations should include a minimum of 90 minutes of demonstrated usage of onboard systems. The flight must incorporate a realistic scenario that satisfies the requirements of a Tactical Mission Sortie IAW AFI 11-2U-28V1, and an emergency procedure. The evaluation profile will include at least five of the ten mission events listed in **Table 5.1** as detailed in AFSOCI 11-2U-28 V2, in order to be credited. (T-2)

5.3.2. **Periodic.** Required in-flight events are the same as initial/requalification evaluations noted above except should include 60 minutes of systems usage and will include four of the ten mission events listed in **Table 5.1** as detailed in AFSOCI 11-2U-28V2, in order to be credited. (T-2)

Table 5.1. Combat Systems Officer QUAL/MSN Grading Areas.

Area	Notes	Grading Areas	QUAL	MSN
70	2	Mission Systems Operation/Knowledge/Limitations	X	
71	1	Battle Space Awareness	X	
72	2	Mission Computer/Network Architecture		X
73	2	Radios/Secure Communications	X	
74	1, 4	Objective Correlation/Target Development (Mission Event #1)		X
75	1, 3	Vehicle Follow (Mission Event #2)		X
76	1, 4	Squirter Control (Mission Event #3)		X
77	1	Route Reconnaissance / Friendly Escort (Mission Event #4)		X
78	1	Helicopter Landing Zone Reconnaissance (Mission Event #5)		X
79	1, 3	Target Talk-on (Mission Event #6)		X
80	1, 3	Mission Event #7		X

81	1	Buddy Lase (Mission Event #8)		X
82-84		Reserved for future use		

Notes:

1. Required in flight or in a simulator certified for this event.
2. May be accomplished via an alternate method.
3. Required on All Evaluations
4. Required on Initial/Requalification Evaluations

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

5.4.1. **Area 70. Mission Systems Operation/Knowledge/Limitations.**

5.4.1.1. **Q.** Demonstrated competent operation of systems/equipment associated with the CSO position, Mission Computer Systems, and other associated equipment/systems IAW guides, instructions, and mission operator handbook(s).

5.4.1.2. **Q-.** Demonstrated partial proficiency that did not jeopardize mission accomplishment or flight safety while operating the systems/equipment associated with the CSO position, Mission Computer Systems, and other associated equipment/systems.

5.4.1.3. **U.** Demonstrated unsatisfactory proficiency with the systems/equipment associated with the CSO position, Mission Computer Systems, and other associated equipment/systems.

5.4.2. **Area 71. Battle Space Awareness.**

5.4.2.1. **Q.** Using charts/imagery/text or verbal descriptions, demonstrated the ability to acquire and maintain situational awareness with onboard systems while keeping track of the aircraft position and heading versus the location of objectives, threats, terrain, and friendly locations.

5.4.2.2. **Q-.** Using charts/imagery/text or verbal descriptions, demonstrated the ability to acquire and maintain situational awareness with the onboard systems while keeping track of the aircraft position and heading versus the location of objectives, threats, terrain, and friendly locations, but not to the desired speed or proficiency. Examinee caused minor delays to mission accomplishment and did not jeopardize flight safety.

5.4.2.3. **U.** Using charts/imagery/text or verbal descriptions, failed to demonstrate the ability to acquire and maintain situational awareness with the onboard systems while keeping track of the aircraft position and heading versus the location of objectives, threats, terrain, and friendly locations. Mission accomplishment and/or flight safety was jeopardized.

5.4.3. **Area 72. Mission Computer/Network Architecture.**

5.4.3.1. **Q.** Demonstrated/explained a complete knowledge of aircraft network architecture and mission computer setup to include all standard software applications.

Able to successfully navigate through the architecture and troubleshoot as required. Led to fully operational mission computers.

5.4.3.2. **Q-.** Demonstrated/explained a marginal knowledge of aircraft network architecture and mission computer setup. Unable to fully utilize software applications which could potentially lead to mission degradation. Data entry slow or needed assistance to setup mission computer. Troubleshooting resulted in some systems not functional.

5.4.3.3. **U.** Level of knowledge was unsatisfactory. Unable to properly setup mission computers and/or utilize associated software applications. Unable to properly troubleshoot which led to mission degradation.

5.4.4. **Area 73. Radios/Secure Communications.**

5.4.4.1. **Q.** Demonstrated/explained a complete knowledge of the radios, to include on-board aircraft radios and handheld radios. Able to load presets, operate in correct secure mode, and program frequencies in a timely manner. Troubleshooting led to fully functional radio usage.

5.4.4.2. **Q-.** Demonstrated/explained a marginal knowledge of the radios, to on-board aircraft radios and handheld radios. Able to load presets, operate in correct secure mode, and program short-notice frequencies with some difficulty. Troubleshooting resulted in semi-degraded radio operation.

5.4.4.3. **U.** Level of knowledge was unsatisfactory. Unable to load presets, operate in correct secure mode, and program frequencies into the on-board aircraft radios and handheld radios. Unable to troubleshoot or troubleshooting resulted in degraded radio operation.

5.4.5. **Area 74-81. Mission Event #1-8**. (Mission events 9-10 are for pilots only)

5.4.5.1. Refer to AFSOCI 11-2U28V2 for grading instructions for the areas in **5.4.5**.

BURTON M. FIELD, Lt General, USAF
DCS, Operations, Plans & Requirements

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

Reference

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

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

AFI 11-202V2, AFSOC Sup 1, *Aircrew Standardization/Evaluation Program,* 4 July 2007

AFI 11-218, *Aircraft Operations and Movement on the Ground,* 11 May 2005

AFI 11-290, *Cockpit/Crew Resource Management Training Program,* 11 April 2001

AFI 11-2U-28V1, *U-28 Aircrew Training,* 8 September 2009

AFI 11-2U-28V3, *U-28 Operations Procedures,* 6 November 2012

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

AFSOCI 11-2U-28V2, *Additional U-28 Evaluation Criteria*, 2012

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 673, *Request to Issue Publication*

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

Abbreviations and Acronyms

AF—Air Force

AFI—Air Force Instruction

AFRC—Air Force Reserve Command

AFSOC—Air Force Special Operations Command

ARMS—Aviation Resource Management Systems

ASR—Airborne Surveillance Radar

BMNT—Beginning of Morning Nautical Twilight

CAP—Critical Actions Procedures

COMSEC—Communications Security

CRM—Crew Resource Management

DME—Distance Measuring Equipment

EENT—End of Evening Nautical Twilight

EPE—Emergency Procedures Evaluation

FDP—Flight Duty Period

FMS—Flight Management System

GPS—Global Positioning System

HPW—High Performance Waveform

IAW—In Accordance With

IFF—Identification, Friend, or Foe

ILS—Instrument Landing System

INSTM—Instrument

KIAS—Knots Indicated Air Speed

LOC—Localizer

MAJCOM—Major Command

MBITR—Multiband Inter Team Radio

MDA—Minimum Descent Altitude

MESL—Mission Equipment Subset List

MSN—Mission

NAS—National Air Space

NAVAIDS—Navigation Aids

NDB—Non Directional Beacon

nm—Nautical Miles

NVG—Night Vision Goggle

OPR—Office of Primary Responsibility

OPSEC—Operations Security

PAR—Precision Approach Radar

QUAL—Qualification

RAIM—Receiver Autonomous Integrity Monitoring

RDS—Records Disposition Schedule

RNAV—Area Navigation

TOLD—Takeoff and Landing Data

UNS/FMS—Universal Navigation System/ Flight Management System

VDP—Visual Descent Point

VFR—Visual Flight Rules

VOR—Variable Omni Range