

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE MANUAL, 11-2MC-12W,  
VOLUME 2**



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***Flying Operations***

**MC-12W AIRCREW EVALUATION  
CRITERIA**

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This manual implements Air Force Policy Directive (AFPD) 11-2, *Flying Operations*, Air Force Instruction (AFI) 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, and AFPD 11-4, *Aviation Service*. It establishes evaluation criteria for initial and periodic aircrew qualification for all units operating Air Force Special Operations Command (AFSOC) BE-300 and MC-12W aircraft. It is used in conjunction with Air Force Manual (AFMAN) 11-202V2, *Aircrew Standardization/Evaluation Program*, AFSOC supplements. This manual is applicable to all individuals performing duties on BE-300/MC-12W aircraft, Air Force Reserve Command (AFRC) and the Air National Guard (ANG). This publication does not apply to the United States Space Force (USSF). Units are encouraged to supplement this manual with standard evaluation profiles that best fit the unit's mission, equipment, and location. Major Commands (MAJCOM)/Direct Reporting Units (DRU)/Field Operating Agencies (FOA) are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to Headquarters United States Air Force (HQ USAF)/A3TC, through Headquarters Air Force Special Operations Command (HQ AFSOC)/A3TA, for approval prior to publication in accordance with AFI 11-200. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to AF/A3TS, AFSOC/A3TA, and the user MAJCOM/DRU/FOA offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. Note: The terms Direct Reporting Unit (DRU) and Field Operating Agency (FOA) as used in this paragraph refer only to those DRUs/FOAs that report directly to HQ USAF. This Instruction requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by

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## **SUMMARY OF CHANGES**

This re-write includes the following changes: moved Night Vision Goggle (NVG) requirements to the Mission evaluation, changed ARMS IDs to six digits and changed HLZ Recce and Route Reconnaissance/Friendly Escort to Helicopter Assault Force and Ground Assault Force for both pilot and CSO mission evaluations.

<b>Chapter 1—GENERAL INFORMATION</b>	<b>4</b>
1.1. General.....	4
1.2. Evaluation Procedures. ....	4
1.3. Grading Instructions. ....	4
1.4. Evaluation Requirements. ....	5
1.5. Unsatisfactory Performance. ....	6
1.6. Additional Training. ....	6
1.7. Rechecks. ....	6
1.8. Special Qualifications. ....	6
1.9. Flight Evaluation Worksheets. ....	6
<b>Chapter 2—ALL EVALUATIONS</b>	<b>8</b>
2.1. General.....	8

	2.2.	Requirements. ....	8
Table	2.1.	General Grading Areas (all crew positions and all evaluations). ....	9
	2.3.	General Grading Criteria. ....	9
<b>Chapter 3—INSTRUCTOR EVALUATIONS</b>			<b>16</b>
	3.1.	General.....	16
	3.2.	Requirements. ....	16
	3.3.	Instrument. ....	16
	3.4.	Qualification (QUAL). ....	16
	3.5.	Mission. ....	16
Table	3.1.	Instructor Evaluation Grading Areas (All Crew Positions). ....	17
	3.6.	Instructor Grading Criteria.....	17
<b>Chapter 4—PILOT EVALUATIONS</b>			<b>20</b>
	4.1.	General.....	20
	4.2.	Requirements. ....	20
	4.3.	Instrument. ....	20
	4.4.	Qualification (QUAL). ....	20
	4.5.	Mission (MSN).....	20
Table	4.1.	Pilot INSTM/QUAL Grading Areas.....	21
Table	4.2.	Pilot MSN Grading Areas.....	22
Table	4.3.	General Criteria. ....	23
	4.6.	Grading Criteria. ....	23
<b>Chapter 5—COMBAT SYSTEMS OFFICER EVALUATION</b>			<b>38</b>
	5.1.	General.....	38
	5.2.	Requirements. ....	38
	5.3.	Combined Qualification/Mission (QUAL/MSN) Evaluations.....	38
	5.4.	Grading Criteria. ....	38
Table	5.1.	Combat Systems Office QUAL/MSN Grading Areas.....	39
<b>Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION</b>			<b>45</b>

## Chapter 1

### GENERAL INFORMATION

**1.1. General.** This manual establishes requirements and grading criteria for ground and flight phases of initial, requalification and periodic flight evaluations. Aircrew evaluations will be conducted in accordance with this manual and AFMAN 11-202V2\_AFSOCSUP, *Aircrew Standardization/ Evaluation Program*. **(T-1).** Specific areas for evaluation are prescribed to ensure an accurate assessment of the proficiency and capabilities of aircrews. Flight examiners use this manual when conducting aircrew evaluations. Instructors will use this manual when preparing aircrews for qualification. **(T-3).**

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

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

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

1.2.3. Flight examiners will not intentionally fail any equipment during flight evaluations, but may deny the use of systems not affecting safety of flight. **(T-3).** 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, and reduced engine power settings for simulated engine out maneuvers. **(T-3).**

1.2.4. Flight examiners will thoroughly debrief or 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).**

**1.3. Grading Instructions.** All evaluations will follow the guidelines set in AFMAN 11-202V2\_AFSOCSUP, and this manual. **(T-2).** Examiners will use the criteria contained in this manual to accomplish all flight and emergency procedures evaluations. **(T-2).** To ensure standard and objective evaluations, flight examiners will be thoroughly familiar with the prescribed evaluation criteria.

1.3.1. Area/Subarea Grades. Areas/subareas will have a two-level (Q/U) or three-level (Q/Q-/U) grading system. **(T-3).** Discrepancies will be documented against the listed subareas. **(T-3).**

1.3.1.1. Q is the desired level of performance. The examinee demonstrated a satisfactory knowledge of all required information, performed aircrew duties within the prescribed tolerances set forth in this manual.

1.3.1.2. Q- indicates the examinee is qualified to perform the assigned area/subarea tasks, but requires debriefing or additional training as determined by the flight examiner. Deviations from established standards must not exceed the prescribed Q- tolerances or jeopardize flight safety. **(T-3)**.

1.3.1.3. U indicates a breach of flight discipline, performance outside allowable parameters or deviations from prescribed procedures or 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)**.

1.3.2. Critical Areas. Critical areas require adequate accomplishment by the aircrew member in order to successfully achieve the mission objectives. If an aircrew member receives an unqualified grade in any critical area, the overall grade for the evaluation will also be unqualified. **(T-3)**. Critical areas are identified by “**(Critical)**” in the area title. See **Table 2.1** and **para 2.3**.

**1.4. Evaluation Requirements.** Evaluation profiles will reflect a sampling of the unit's missions. **(T-3)**. Evaluation tables are provided to summarize evaluation areas. Areas common to all crewmembers 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: inflight only; inflight and/or in simulator; and inflight and/or alternate methods. For areas without a note, flight examiners may evaluate at their discretion if observed. If required events are not observed, then the evaluation is incomplete and will be accomplished on another flight. **(T-3)**.

1.4.1. Simulator. Weapon System Trainers may be used to accomplish evaluations if certified by AFSOC/A3. Do not conduct two consecutive evaluations in the simulator (**Exception:** Instrument (INSTM) evaluations.).

1.4.1.1. If an area/subarea was not able to be evaluated inflight, 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.

1.4.2. Alternate Method. When it is impossible to evaluate an area inflight 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.

1.4.3. Grading Criteria. To the maximum extent possible, flight examiners will use the grading criteria in this manual to determine individual area grades. **(T-3)**. Exercise judgment when the wording of areas is subjective and when specific areas are not covered. Specific crew

position duties should be considered when evaluating mission events. Flight examiner judgment should be the determining factor in arriving at the overall grade. Consider cumulative deviations when determining the overall grade.

1.4.3.1. Base tolerances for inflight 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.

**1.5. Unsatisfactory Performance.** If the flight examiner observes an aircrew examinee jeopardizing safety, the examiner will assume the duties of that examinee. **(T-3).** The examiner must take into consideration not to exceed their Flight Duty Period (FDP) as outlined in AFMAN 11-202V3\_AFSOCSUP, *General Flight Rules*, or AFMAN 11-2MC-12WV3, *Operations Procedures*. **(T-3).** The examiner will not assume the examinee's position for unsatisfactory performance if the examiner feels the examinee can continue safely with supervision. **(T-3).** If the flight examiner assumes the examinee's duties, the flight examiner will assign a Qualification Level 3 (Q-3) as the overall grade. **(T-3).**

1.5.1. 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, in accordance with AFMAN 11-202V2\_AFSOCSUP. **(T-2).**

**1.6. Additional Training.** Flight examiners are responsible for assigning additional training, ground or flight, at their discretion. Document additional training and completion in accordance with AFMAN 11-202V2\_AFSOCSUP. Any approved training device or medium may be used for additional training.

1.6.1. 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-3).**

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

**1.8. 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.

1.8.1. Special qualifications result in an AF Form 8. Document in accordance with AFMAN 11-202V2\_AFSOCSUP as a SPOT evaluation. Although a unit may maintain 100 percent of its crewmembers qualified, this documentation is still required due to intrafly and permanent change of station issues.

**1.9. Flight Evaluation Worksheets.** AF Form 3862, *Flight Evaluation Worksheet*, AFSOC Form 48, *Flight Evaluation Worksheet*, or a Patriot Excalibur (PEX) generated flight evaluation worksheet will be used to assist with the evaluation. **(T-3).** If a worksheet is used, these

worksheets must be current in relation to requirements outlined in this manual and evaluation tables. **(T-3)**.

## Chapter 2

### ALL EVALUATIONS

**2.1. General.** The general grading criteria contained in this chapter applies to all crew positions and all evaluations. The examinee must satisfactorily demonstrate the ability to perform required duties safely and effectively. **(T-3).** This includes appropriate aircraft systems operation in accordance with applicable technical orders, instructions, and directives.

**2.2. Requirements.** Evaluate all crewmembers on areas listed in [Table 2.1](#) For mission evaluations refer to specific Pilot, CSO and Instructor Chapters for grading instructions.

2.2.1. Examinations. All crewmembers will complete open, and closed book examinations as a requisite to periodic evaluations in accordance with AFMAN 11-202V2\_AFSOCSUP. **(T-2).** Pilots will complete the instrument examination as a requisite to periodic INSTM evaluations (T-2). All required examinations are a prerequisite for initial and requalification evaluations. Qualification (QUAL) and Mission (MSN) examinations may be combined and given as one examination. Reference AFMAN 11-202V2\_AFSOCSUP, for required number of questions and test question structure.

2.2.1.1. 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, inflight, in a simulator, or by another method determined by the examiner or unit standardization and evaluation (stan/eval) shop. Operations Group Standardization and Evaluation 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 shall include areas commensurate with the examinee's qualification and experience level. **(T-3).** Examiners should include other general knowledge areas as well. For mission evaluations, evaluate mission-specific equipment and situations. EPEs should include sufficient inflight and ground emergencies to evaluate the examinee's knowledge of systems and procedures to the flight examiner's satisfaction.

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

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

2.2.2. 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.

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



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

Area	Notes	Grading Areas
1		Safety - <b>CRITICAL</b>
2		Aircrew Discipline - <b>CRITICAL</b>
3		Airmanship/Situational Awareness - <b>CRITICAL</b>
4		CAPs - <b>CRITICAL</b>
5		Crew Coordination - <b>CRITICAL</b>
6		Emergency Procedures Evaluation
7		Mission Planning
8		Knowledge of Directives
9		Preflight
10		Use of Checklists
11		Forms/Reports/Logs
12		Personal/Professional Equipment/Flight Publications
13		Emergency and Life Support Equipment/Procedures
14		Briefings/Debriefings
15	1	Classified Material/Operations Security
16		Communication
17		Risk Management/Decision Making
18		Task Management
19		Reserved for Future Use
<b>Notes:</b>		
1. Only 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 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. CAPs – (CRITICAL).**

2.3.4.1. **Q**. Able to recite or write the proper emergency boldface actions/CAPs in the correct sequence with no discrepancies.

2.3.4.2. **U**. Failed to recite or write emergency boldface actions/CAPs in the correct sequence. Discrepancies in the procedure.

**2.3.5. Area 5. Crew Coordination – (CRITICAL).**

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

2.3.5.2. **U**. Breakdown in coordination with other crewmembers precluded mission accomplishment or jeopardized safety. Created confusion or delays that could have endangered the aircraft or prevented 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 ask for inputs and made no effort to make positive statements to motivate crewmembers.

**2.3.6. Area 6. Emergency Procedures Evaluation (EPE).**

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

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

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

**2.3.7. 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 crewmembers to ensure understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas and ensured all crewmembers understood possible contingencies. Checked all factors applicable to flight such as Flight Information Publication, weather, Notice to Airmen System, Global Positioning System (GPS) satellite coverage, 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 or 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, approved operating procedures, or rules.

2.3.7.3. **U.** Did not define the mission overview or goals. Lack of specific information on required tasks. Did not solicit feedback from other crewmembers 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 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 in accordance with 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. Performed preflight with minor procedural deviations that did not detract from mission safety/effectiveness.

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 crewmember 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. ORMs/Reports/Logs.**

2.3.11.1. **Q.** All required forms and/or flight plans were complete, accurate, legible, and accomplished on time in accordance with 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 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 location and use of emergency and life support equipment. Operated within prescribed limits and correctly diagnosed problems. Performed or 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 did not effectively use. Omitted, or deviated in use of checklist and/or available aids.

2.3.13.3. **U.** Unsatisfactory systems/procedural knowledge. Displayed unsatisfactory knowledge of emergency and 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. Appropriately integrated crew into mission briefs. Debriefed mission using specific, non-threatening positive or negative feedback of team and individual performance. Provided specific ways to correct errors. 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. Did not consistently seek input from others. Debriefed mission without specific, non-threatening positive or negative feedback on individual and team performance. 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 or 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. Mission timeline affected due to excessively long briefing. Did not seek input from others. Did not provide non-threatening positive and negative feedback during debriefing. 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. Communication.**

2.3.16.1. **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. Did not let rank affect mission safety.

2.3.16.2. **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.

2.3.16.3. **U.** Failed to communicate effectively. Continuously interrupted others, mumbled, or allowed personal conduct or attitude to interfere with communication among crewmembers. Withheld information or 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.

**2.3.17. Area 17. Risk Management/Decision Making.**

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

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

2.3.17.3. **U.** Failed to identify contingencies and alternatives. Made no effort to gather and cross check relevant data before deciding. Did not inform necessary crewmembers 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 crewmember participation; acted indecisively.

**2.3.18. Area 18. Task Management.**

2.3.18.1. **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 determine solutions. 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.

2.3.18.2. **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.

2.3.18.3. **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 should 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. **(T-3).** To the max extent possible, Initial Basic Instructor evaluations should be accomplished in conjunction with periodic instrument and qualification evaluations and the initial Mission Instructor evaluation should be in conjunction with a periodic mission evaluation, if within the periodic evaluation window. Accomplish periodic instructor evaluations in conjunction with periodic instrument, qualification, or mission evaluations in accordance with AFMAN 11-202V2\_AFSOCSUP. A requalification instructor evaluation is required anytime an instructor is unqualified for any reason to include commander directed downgrades. **(T-3).** During critical phases of flight and while performing/instructing simulated single engine procedures, a current IP/SEFE will be seated at the controls. **(T-2).** During all other phases of flight, the controls may be occupied by any pilot listed on the flight authorization.

**3.3. Instrument.** INSTM instructor evaluations may be accomplished in the BE-300 or MC-12W.

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. **(T-3).**

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

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

**3.4. Qualification (QUAL).** Qualification instructor evaluations may be accomplished in the BE-300 or MC-12W.

3.4.1. Initial/Requalification. Evaluate instructor candidates on instructor performance during a representative sample of unit's basic maneuvers. The examiner will act as student during maneuvers that require an instructor. **(T-3).** All QUAL items listed in [Table 4.1](#) will be evaluated. **(T-3).**

3.4.1.1. Evaluate instructor pilot candidate's instructional ability during a representative sample of emergency and qualification procedures. Also, instructor pilot candidates must demonstrate each type of landing applicable to the aircraft from the right seat. **(T-3).**

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

**3.5. Mission.** Evaluate instructional ability during a representative sample of unit's mission events. Pilots must be aircraft commander qualified in a special mission event prior to receiving



instructor qualification/certification in that mission event. **(T-3)**. Instructor pilots may perform instruction from the jump seat during mission evaluations.

3.5.1. Initial/Requalification. Accomplish the initial mission instructor evaluation on a mission that permits accomplishment of all required instructor areas. All items listed in **Table 4.2** will be evaluated. **(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 (All Crew Positions).**

<b>Areas</b>	<b>Grading Areas</b>
20	Mission Preparation
21	Instructional Ability
22	Instructor Knowledge
23	Briefings/Debriefings/Critique
24	Demonstration of Maneuvers/Procedures

### **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. Provided appropriate and effective differentiation between technique and procedure when offering instruction.

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. Was unable to differentiate between technique and procedure.

**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 inflight 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. Inflight 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 inflight commentary and/or inflight 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 an MSN evaluation that may be evaluated during an INSTM and QUAL evaluation. Pilot crew coordination should include duties and responsibilities expected of an aircraft commander. Instructors shall demonstrate instructor duties on all periodic evaluations. **(T-3).** INSTM, QUAL, and MSN evaluations may be combined in accordance with AFMAN 11-202V2\_AFSOCSUP in certain situations. When combining evaluations ensure proper risk mitigation is considered for increased workload and FDP. Evaluator pilots may occupy a primary crew position during the evaluation.

4.1.1. Pilots may fly INSTM/QUAL evals in MC-12W, BE-300, or MAJCOM approved simulators.

**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 re-qualification evaluations) are in accordance with 11-202V2\_AFSOCSUP.

4.3.1. The evaluation profile will include: one precision approach and one non-precision approach, holding or procedure turn, and circling pattern. **(T-3).** INIT INSTM evaluations should normally be flown in the left seat.

**4.4. Qualification (QUAL).** See **Table 4.1** for required QUAL evaluation areas. Requisites (prerequisites for initial or re-qualification evaluations) are in accordance with 11-202V2\_AFSOCSUP. This evaluation is normally accomplished in combination with an instrument evaluation.

4.4.1. The evaluation profile will include: Visual Flight Rules (VFR) pattern, full, partial and no flap landings; touch-and-go procedures, simulated single engine-out arrival and landing and a tactical departure and arrival as well as missed approach. **(T-3).**

**4.5. Mission (MSN).** See **Table 4.2** for MSN evaluation areas and subparagraph below for requirements. The MSN Closed Book Test is a prerequisite for all INIT and RQ MSN Evaluations. MSN evaluations must be accomplished in an MC-12W or MAJCOM approved simulator/mission training device (MTD). **(T-3).**

4.5.1. All mission Evaluations profiles should include demonstrated usage of onboard mission systems during a realistic scenario that satisfies the requirements of a Combat Mission Profile [ST91XS] in accordance with AFSOC Ready Aircrew Program Tasking Memo (RTM).

4.5.2. Initial/Requalification. The evaluation profile should be at least 90 minutes, satisfy requirements of a Combat Mission Profile [ST91XS], and include either area 52 or area 53 events as well as other required areas and sub areas identified in **Table 4.2**. All INIT MSN and RQ MSN evaluations will include a NVG takeoff and landing. **(T-3).**

4.5.3. Periodic. The evaluation profile should be at least 60 minutes, satisfy requirements of a Combat Mission Profile [ST91XS], and include required areas and sub areas identified in **Table 4.2**.

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

Area	Notes	Grading Areas	QUAL	INSTM
25		Ground Operations & Taxi	X	
26		Takeoff	X	
27		Instrument Departure		X
28		Enroute Navigation/Use of Navigation Aids (NAVAID)		X
29		Descent & Arrival Procedures		X
30		Holding or Procedure Turn		X
31	1	Precision Approach		X
31a		PAR		
31b		Instrument Landing System (ILS) , Localizer (LOC) Performace with Vertical Guidance (LPV), Lateral Navigation (LNAV)/Vertical Navigation (VNAV)		
32	1	Non-Precision Approach		X
32a		LNAV		
32b		Variable Omni Range (VOR)		
32c		LOC, LP		
32d		Non-Directional Beacon (NDB)		
32e		ASR		
33		Circling or Side-Step Approach		X
34		Simulated Single Engine Missed Approach or Go-Around	X	
35		VFR Pattern	X	
36		Final Approach and Landing	X	
36a		Full Flap Landing	X	
36b		Partial Flap Landing	X	
36c		No Flap Landing	X	
36d		Simulated Engine-Out Arrival and Landing	X	
36e		Touch-and-Go Landing	X	
37		Fuel Management	X	
38		Systems Operations/Knowledge/Limitations/National Airspace System (NAS)	X	X
39	2	Unusual Attitude Recoveries	X	

Area	Notes	Grading Areas	QUAL	INST
<b>Notes:</b> 1. Only one of the two required approaches may be controller directed (PAR/ASR). 2. Only accomplish verbally or in a MAJCOM approved simulator.				

**Table 4.2. Pilot MSN Grading Areas.**

Area	Notes	Grading Areas	INIT/RQ	Periodic
40		Tactical Departure	X	X
41		Tactical Arrival	X	X
44	2, 3	NVG Airland	X	
45		Threat Avoidance & Tactics	X	X
46		Defensive Maneuver	X	X
47		Mission Management System Operations	X	X
48		IFF	X	
49		Objective Correlation/Target Development	X	
50		Dynamic Orbit Management / Vehicle Follow	X	X
51		Squirter Control	X	
52	1	Ground Assault Force Operations		
53	1	Helicopter Assault Force Operations		
54		Target Talk-on	X	X
55		Buddy Lase	X	X
56		Airspace Awareness	X	
57		TAC(A)	X	X
58		Systems Operations/Knowledge/Limitations	X	
59-69		Reserved for Future Use		
<b>Note:</b> 1. Either area 52 or area 53 will be accomplished on INIT and RQ evaluations. 2. If the aircraft and/or crew is certified. 3. If the evaluation occurs during the period of darkness and a suitable airfield is available.				

**Table 4.3. General Criteria.**

<b>Q</b>	Altitude	± 100 feet
	Airspeed	+10/-5 Knots Indicated Airspeed (KIAS)
	Course	± 5 degrees/3 Nautical Miles (NM) (whichever is greater)
	Arc	±1 NM
<b>Q-</b>	Altitude	± 200 feet
	Airspeed	+15/-10 knots
	Course	± 10 degrees/5 NM (whichever is greater)
	Arc	±2 NM
<b>U</b>		Exceeded Q- limits

**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 25. Ground Operations/Taxi.**

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

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 26. 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 27. Instrument Departure.**

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

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

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

**4.6.4. Area 28. En Route Navigation/Use of Navigational Aids (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 or inputted correct flight plan or changes in airframe flight management system (GPS, Flight Management System (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 inflight 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 or inputted 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 29. Descent/Arrival Procedures.**

4.6.5.1. **Q.** Performed descent as directed. Complied with all flight manual, NAS or controller issued, or STAR 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 30. Holding/Procedure Turn.**

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

4.6.6.1.1. VOR Leg timing:  $\pm 15$  seconds.



4.6.6.1.2. VOR/DME:  $\pm 1$  NM.

4.6.6.1.3. Area Navigation (RNAV)/GPS:  $\pm 1$  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:  $\pm 30$  seconds.

4.6.6.2.2. VOR/DME:  $\pm 2$  NM.

4.6.6.2.3. RNAV/GPS:  $\pm 2$  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 31. Precision Approach (PAR, ILS, LNAV/VNAV or LPV). Note:** Use the following criteria for Areas 31a and 31b. 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:  $+10/-2$  KIAS

4.6.7.1.2. Heading:  $\pm 5$  degrees of controller's instructions (PAR).

4.6.7.1.3. Glide slope: Within one dot (ILS, LNAV/VNAV, LPV).

4.6.7.1.4. Azimuth: Within one dot (ILS, LNAV/VNAV, LPV).

4.6.7.2. **Q-**.

4.6.7.2.1. Airspeed:  $+15/-5$  KIAS.

4.6.7.2.2. Heading:  $\pm 10$  degrees of controller's instructions (PAR).

4.6.7.2.3. Glide slope: Within one dot low, two dots high (ILS, LNAV/VNAV, LPV), 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, LNAV/VNAV, LPV).

4.6.7.3. **U.**

4.6.7.3.1. Exceeded Q- criteria.

4.6.7.4. Subarea 31a. Precision Approach Radar.

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

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

4.6.7.5. Subarea 31b. Instrument Landing System, Localizer Performance with Vertical guidance, Lateral Navigation/ Vertical Navigation.

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

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

**4.6.8. Area 32. Non-Precision Approach (LNAV, VOR, LOC, NDB, ASR, LP).**  
**Note:** Use the following criteria for Areas 32a-32e. 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 in accordance with 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/-2 KIAS.

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

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

4.6.8.1.4. Azimuth: Less than one dot deflection (Localizer, LP)

4.6.8.1.5. MDA: +100/-0 feet.

4.6.8.1.6. MAP: Timing computed/adjusted within 10 seconds or distance within  $\pm .5$  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:  $\pm 10$  degrees (ASR).

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

4.6.8.2.4. Azimuth: Within two dots deflection (Localizer, LP)

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

4.6.8.4. Area 32a. LNAV.

4.6.8.5. Area 32b. VOR.

4.6.8.6. Area 32c. LOC, LP.

4.6.8.7. Area 32d. NDB.

4.6.8.8. Area 32e. ASR.

#### **4.6.9. Area 33. 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 with-out 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/-2 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 34. Simulated Single Engine Missed Approach/Go-Around .**

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

#### 4.6.11. Area 35. VFR Pattern.

4.6.11.1. **Q.** Adhered to published restrictions, procedures, or local guidance. Performed traffic pattern and turn to final/final approach in accordance with flight manual procedures. Aircraft control was smooth and positive. Did not over/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 in accordance with 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 36. Final Approach and Landing.

4.6.12.1. Areas 36a through 36e. Use the following criteria.

4.6.12.1.1. **Q.** Used sound judgment. Performed landing as published/directed in accordance with procedures and techniques outlined in the flight manual, operational procedures, and local directives. Configured at the appropriate position/altitude. Flew final in accordance with flight manual procedures, at pre-briefed airspeed (Vyse minimum) and glide path. Smooth and positive aircraft control throughout the round out and flare. Touched down with no crab. Complied with flight manual procedures for the use of brakes and reverse thrust. Met the following criteria:

4.6.12.1.1.1. Airspeed crossing the threshold was reference speed ( $V_{ref}$ ) +  $\frac{1}{2}$  the gust factor (not to exceed 10 knots), plus corrections for flap settings or other abnormal situations, +10/-0 knots.

4.6.12.1.1.2. Touchdown point was +1000/-300 feet of intended landing point as detailed in [paragraph 4.6.19.3](#).

4.6.12.1.1.3. Touched down and maintained not more than +/- 15 feet of runway centerline.

4.6.12.1.2. **Q-**. Safety not compromised. Performed landing with minor deviations to procedures and techniques as published/directed in the flight manual, operational procedures, and local directives. Configured at the position and altitude which allowed for a safe approach. Minor deviations from the flight manual procedures, airspeed, and altitudes. Unnecessary maneuvering due to minor errors in planning or judgment. Exceeded Q criteria but not the following:

4.6.12.1.2.1. Airspeed crossing the threshold was  $V_{ref}$  +  $\frac{1}{2}$  the gust factor (not to exceed 10 knots), plus corrections for flap settings or other abnormal situations, +15/-0 knots and was slightly high or low but no compromise of safety.

4.6.12.1.2.2. Touchdown point was +2000/-1000 feet of intended landing point as

detailed in [paragraph 4.6.19.3](#), not prior to runway threshold.

4.6.12.1.2.3. Touched down and maintained not more than +/- 25 feet of runway centerline.

4.6.12.1.3. **U.** Landing not performed as published/directed in accordance with procedures and techniques outlined in the flight manual, operational procedures and local directives. Exceeded Q- criteria. Major deviations from the flight manual procedures, airspeed and altitudes. Required excessive maneuvering due to inadequate planning or judgment. Touched down excessively crabbed. Failed to comply with flight manual procedures for the use of brakes and reverse thrust.

4.6.12.2. Area 36a. Full Flap Landing.

4.6.12.3. Area 36b. Partial Flap Landing.

4.6.12.4. Area 36c. No Flap Landing.

4.6.12.5. Area 36d. Simulated Engine-Out Arrival and Landing.

4.6.12.6. Area 36e. Touch-and-Go Landing.

**4.6.13. Area 37. Fuel Management.**

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 management. Successfully applied fuel management 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 management. Successfully applied some fuel management procedures, but missed several opportunities to apply fuel management procedures during the mission.

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

**4.6.14. Area 38. 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 39. Unusual Attitude Recovery.**

4.6.15.1. **Q.** Able to verbalize unusual attitude recovery procedures in a timely manner. Able to analyze a given unusual attitude and verbalize correct sequence of procedures necessary to affect recovery.

4.6.15.2. **Q-**. Made minor errors in the sequence of recovery or failed to verbalize the proper confirmation of the unusual attitude.

4.6.15.3. **U** . Unable to verbalize unusual attitude procedures for a given condition. Errors verbalized would result in significant damage to aircraft and/or inability to recover from the given unusual attitude.

**4.6.16. Area 40. Tactical Departure.**

4.6.16.1. **Q**. Followed procedures as briefed and in accordance with 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 in accordance with 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 41. Tactical Arrival.**

4.6.17.1. **Q**. Followed procedures as briefed and in accordance with flight manual, directives, or published procedures. Displayed smooth, positive control throughout the arrival. Gave proper consideration to threat location and adjusted arrival accordingly. Constantly cleared area of intended flight. Planned descent to achieve a stable transition from tactical enroute parameters to a predictable and repeatable final approach not later than 1/2 nm.

4.6.17.2. **Q-**. Performed arrival with minor deviations to published procedures. Aircraft control was not consistently positive and smooth. Transitioned from tactical approach to predictable and repeatable final inside 1/2 nm.

4.6.17.3. **U**. Arrival not performed in accordance with 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 or ensure proper terrain clearance. Never transitioned from tactical approach to predictable and repeatable final.

**4.6.18. Area 42. Short Field Takeoff (if applicable).**

4.6.18.1. **Q**. Displayed satisfactory knowledge of short field procedures. Thoroughly analyzed departure/landing runway and surrounding terrain. Reviewed all applicable Takeoff and Landing Data (TOLD) and thoroughly briefed crew on their duties. Maintained smooth positive control throughout departure roll and takeoff. Climbed on speed and decreased angle of attack once clear of obstacle(s).

4.6.18.2. **Q-**. Minor deviations in knowledge or published procedures. Minor errors or omissions in TOLD or crew briefing. Control inputs were abrupt. Minor deviations from published/briefed procedures did not jeopardize safety.

4.6.18.3. **U.** Procedures not in accordance with flight manual, directives, or published procedures. Failed to analyze landing zone constraints or verbalize concerns posed by terrain or other factors. Major errors in TOLD data review or crew briefing. Displayed unsatisfactory knowledge of short field procedures. Takeoff was not in accordance with flight manual, directives, or published procedures. Raised flaps too quickly with relation to airspeed. Performance of maneuver jeopardized safety.

**4.6.19. Area 44. NVG Airland .**

4.6.19.1. Use the following criteria for NVG Airland.

4.6.19.1.1. **Area 34--Missed Approach/Go-around .**

4.6.19.1.2. **Area 26--Takeoff or Area 42--Short Field Takeoff (if applicable).**

4.6.19.1.3. **Area 36--Final Approach and Landing or Area 43--Short Field Landing (if applicable).**

4.6.19.2. **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.

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

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

**4.6.20. Area 45. Threat Avoidance/Tactics.**

4.6.20.1. **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 published threat reaction guidance. Aware of post threat actions to include and procedures.

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

4.6.20.3. **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. Exceeded Q- criteria.

**4.6.21. Area 46. Defensive Systems**

4.6.21.1. **Q .** Demonstrated/explained a complete knowledge of the ALE/AAR-47, to include proper startup/shutdown procedures and program/mode selection. Troubleshooting was complete. Maximized defensive system effectiveness by only accepting clean Self Protection System (SPS) sensors with low to medium clutter, and selecting appropriate

flare program for threat and flare configuration. Utilized defensive systems in combat environment and followed published guidance on defensive system posture. Conducted ground hung flare check with aircraft in a safe or approved location and orientation after actual flare expenditure in flight.

4.6.21.2. **Q-** . Demonstrated marginal knowledge of ALE/AAR-47. Able to perform startup/shutdown procedures and program/mode selection with minimal input. Troubleshooting led to marginally-degraded system. Accepted aircraft with dirty or highly cluttered SPS sensors. Directed and/or simulated flare expenditure for a non-missile threat.

4.6.21.3. **U** . Demonstrated unsatisfactory knowledge of ALE/AAR-47. Unable to start system choose correct program/mode. Unable to troubleshoot. Removed SPS safety pin on the ground in an unsafe area. Did not utilize defensive system or took off with less than minimum acceptable flare amount (as defined by command guidance/Area of Responsibility (AOR) Special Instructions (SPINS)). Unnecessarily placed the system in a configuration that resulted in mission failure for ground personnel. Failed to conduct ground hung flare check with aircraft in safe or approved location/orientation after actual flare expenditure in flight. Exceeded Q- criteria.

#### 4.6.22. **Area 47. MMS (Mission Management System) Operations**

4.6.22.1. **Q** . Configured MMS software suite in a manner that enhanced mission accomplishment and, on a timeline consistent with normal ground operations. Troubleshooting steps were identified and accomplished in a timely manner. Relevant crew contracts for the operation and monitoring of MMS4 were developed, and examinee displayed on-mission proficiency with MMS4 equipment and software necessary to meet those contracts during all mission phases.

4.6.22.2. **Q-** . Displayed basic familiarity with MMS operations and configuration of software. Configuration or troubleshooting of MMS4 equipment and software, while successful, led to minor mission timeline changes that did not affect mission accomplishment. Configuration or operational proficiency with MMS4 equipment and software led to minor deviations in accomplishment of crew contracts and/or slight degradation in mission effectiveness but did not affect overall mission accomplishment.

4.6.22.3. **U** . Displayed ability to set up, configure, and/or troubleshoot MMS resulted in inability to abide by crew contracts and significant deviations in mission timeline or hindered mission accomplishment. Lack of proficiency with MMS4 equipment and software during mission accomplishment caused major mission deviations and/or compromised safety of air or ground players. Exceeded Q- criteria.

#### 4.6.23. **Area 48. IFF**

4.6.23.1. **Q** . Examinee accomplished all preflight and post flight checks and troubleshooting of the IFF system without deviation. Able to successfully identify and implement correct IFF configurations/modes for mission accomplishment.

4.6.23.2. **Q-** . Accomplished preflight and post flight checks and troubleshooting of the IFF system with minor deviations not hindering mission accomplishment. Able to identify and implement correct IFF configuration/modes with minor deviations in the selection or implementation timeline that did not hinder mission accomplishment.



4.6.23.3. **U** . Did not accomplish preflight or post flight checks of the IFF system or was unable to accomplish common troubleshooting steps to achieve an operational system. Selected operational configuration led to significant mission degradation. Exceeded Q-criteria

#### 4.6.24. **Area 49. Objective Correlation/Target Development**

4.6.24.1. **Q** . Demonstrated competent ability to identify and correlate desired target in a timely manner. Target updates provided quickly and accurate when prompted enhancing situational awareness to user. Demonstrated complete knowledge and able to identify target Essential Elements of Information (EEIs). Demonstrated ability to effectively maneuver aircraft during correlation.

4.6.24.2. **Q-**. Demonstrated partial ability to identify and correlate desired target causing minor delays. Target updates were delayed when prompted and/or updates had some inaccuracies. Provided inaccurate or incomplete identified of EEIs. Demonstrated marginal ability to maneuver aircraft during correlation causing minor delays or momentary loss of target.

4.6.24.3. **U** . Demonstrated unsatisfactory ability to identify and correlate desired target in a timely manner causing mission failure. Failed to provide target updates when prompted and/or provided multiple inaccurate, unclear, incomplete and/or delayed updates. Unable to discuss or identify target EEIs. Failed to maneuver aircraft during correlation causing permanent loss of target or several momentary losses of target. Exceeded Q-criteria.

#### 4.6.25. **Area 50. Dynamic Orbit Management / Vehicle Follow**

4.6.25.1. **Q** . Moved the aircraft in order to maintain optimum sensor coverage during all mission phases. Full Motion Video (FMV) prime orbits remained between 1 mile and 4.5 miles from the target unless directed otherwise by the Combat Systems Officer (CSO), ground party, or maneuvering for kinetic operations. Was able to maintain position dictated by the Tactical Systems Operator while performing dynamic signals intelligence operations. Antenna blanking was minimized and did not affect mission accomplishment. Zero nadirs occurred.

4.6.25.2. **Q-** . Placement of the aircraft during dynamic orbits deviated in such a manner to cause minor deviations in mission areas or timelines that did not hinder overall mission accomplishment or ground party safety. FMV prime orbit resulted in between 4.5 and 7 miles of offset from the target or a deviation from briefed aircrew/ground crew contracts. Orbit placement caused degradation in FMV interpretability. Antenna blanking resulted in minimal effect on mission accomplishment. Any potential nadirs were recognized and mitigation steps were taken before occurrence. Aircraft placement resulted in degraded or slow SI operability.

4.6.25.3. **U** . Placement of the aircraft during dynamic orbit operations caused significant deviations in mission accomplishment and/or affected safety of ground parties. Was unable to maintain within 7 miles offset from the target during dynamic FMV orbits or was consistently outside parameters discussed in crew contracts. Orbit placement during dynamic orbit operations resulted in unrecognized and unmitigated nadir. Was consistently

unable to receive and execute orbit inputs from the crew. SI prime orbit misplacement resulted in inability to execute SI operations. Exceeded Q- criteria.

#### **4.6.26. Area 51. Squirter Control**

4.6.26.1. **Q** . Demonstrated effective execution of squirter control using both onboard and off board sensors to sort, track, and label squirter. Assisted crew in providing effective and clear squirter plan in a timely manner. Executed effective orbit management in order to maintain positive control of one or more assigned squirter.

4.6.26.2. **Q-**. Demonstrated partially effective execution of squirter control using onboard and off board sensors. Provided partially effective or unclear squirter plan to aircrew and exterior players and/or squirter plan was delayed. Assigned track and labeled squirter, but track and labeling were delayed or incomplete. Provided updates and or talk-on, to users when prompted, but not to desired speed. Updates were sometimes unclear or inaccurate. Executed marginal sensor control resulting in momentary loss of assigned squirter.

4.6.26.3. **U** . Demonstrated unsatisfactory squirter control. Failed to use onboard and off board sensors to sort, track, and label squirter. Failed to provide squirter plan in a timely manner to aircrew or external players. Failed to assign track or label squirter. Failed to provide updates and/or talk-on, to users when prompted. Executed poor sensor control resulting in permanent loss of assigned squirter. Exceeded Q- criteria.

#### **4.6.27. Area 52. Ground Assault Force Operations**

4.6.27.1. **Q** . Demonstrated effective and timely route recce, orbit operations, and if requested route development for Ground Assault Force (GAF). Assisted crew in mitigating threats to friendlies, safely routed friendly ground forces around all identified and pop-up threats. Provided clear and accurate threat calls in a timely manner when prompted. Maintained Situational Awareness (SA) of friendlies throughout GAF.

4.6.27.2. **Q-**. Demonstrated marginal and/or delayed route recce or orbit operations in support of GAF. Route development was incomplete, delayed, or incorrect. Executed marginal orbit operations resulting in missed threats to friendly ground forces. Didn't mitigate all threats to friendly as a result of failure to route friendly ground forces around one identified or pop-up threat. Some threat calls were unclear, inaccurate, or delayed. Momentary loss SA of friendlies during GAF.

4.6.27.3. **U** . Demonstrated unsatisfactory route recce and orbit operations in support of GAF. Failed to provide adequate route development or turn-by-turn in a timely manner. Failed to identify threats as a result of poor sensor control/operation. Failed to route friendly ground forces around multiple identified or pop-up threats. Failed to pass threat calls or provided multiple delayed and/or unclear calls resulting in elevated threat to ground forces. Exceeded Q- criteria.

#### **4.6.28. Area 53. Helicopter Assault Force Operations**

4.6.28.1. **Q**. Demonstrated effective and timely Helicopter Assault Force (HAF) support operations. Demonstrated complete understanding of Helicopter Landing Zone (HLZ) parameters and EEIs. Executed effective orbit operations during HAF operations. Assisted crew in mitigating threats to friendly forces, safely routed HAF and/or friendly ground forces around all identified and pop-up threats. Assisted crew with CASEVAC

operations resulting in timely exfiltration of friendly forces. Provided clear and accurate updates, HLZ briefs, communication relays, and/or threat calls in a timely manner when prompted.

4.6.28.2. **Q-** . Demonstrated partially effective HAF support operations. Demonstrated partial understanding of HLZ parameters and EEIs. Executed marginal orbit operations resulting in missed threats. Did not mitigate all threats to friendly as a result of failure to assist crew in routing friendly ground forces around one identified or pop-up threat. Assisted crew in identifying and coordinating new CASEVAC HLZ when prompted, but not to desired accuracy or speed. Some updates, HLZ briefs, comm relays, and/or threat calls were inaccurate, unclear, or delayed.

4.6.28.3. **U**. Demonstrated unsatisfactory HAF support operations. Demonstrated unsatisfactory understanding of HLZ parameters and EEIs. Failed to identify threats as a result of poor orbit operations. Failed to route friendly ground forces around multiple identified or pop-up threats as a result of failure to assist crew. Failed to assist crew in identifying and/or coordinating new CASEVAC HLZ resulting in severely delayed exfil of friendly forces. Multiple updates, HLZ briefs, comm relays, and/or threat calls were inaccurate, unclear, and/or delayed. Exceeded Q- criteria.

#### 4.6.29. **Area 54. Target Talk-on**

4.6.29.1. **Q** . Demonstrated satisfactory ability to execute talk-on to a static and/or dynamic POI in a timely manner. Demonstrated complete knowledge of talk-on and Laser Spot Track (LST) Tactics Techniques and Procedures (TTPs). Demonstrated clear, concise, and accurate communications and brevity throughout talk-on.

4.6.29.2. **Q -**. Demonstrated ability to execute talk-on to static or moving point of interest (POI) with some discrepancies resulting in minor delays. Minor discrepancies in knowledge or execution of talk-on and LST TTPs. Some communications were unclear, not concise, and/or inaccurate. Some improper use of brevity.

4.6.29.3. **U** . Demonstrated unsatisfactory ability to execute talk-on to a static and/or dynamic POI in a timely manner. Major discrepancies and/or lack of knowledge of talk-on and/or LST TTPs. Several communications were unclear, not concise, and/or inaccurate. Several improper uses of brevity. Exceeded Q- criteria.

#### 4.6.30. **Area 55. Buddy Lase**

4.6.30.1. **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 deconfliction with all players. Provided clear and accurate communications in a timely manner when prompted.

4.6.30.2. **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 deconfliction was delayed or inaccurate, but did not jeopardize aircraft safety. Some calls were unclear, inaccurate, and/or delayed.

4.6.30.3. **U** . Demonstrated unsatisfactory ability to execute buddy laser operations. Demonstrated unsatisfactory understanding of buddy laser operational TTPs, laser limitations, aircraft placement, and weapons effects. Failed to execute 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 deconfliction was unsatisfactory and jeopardized aircraft safety. Several calls were unclear, inaccurate, and/or delayed. Exceeded Q- criteria.

#### 4.6.31. **Area 56. Airspace Awareness**

4.6.31.1. **Q** . Demonstrated satisfactory knowledge of various NAS and tactical airspace control measures as they apply to mission operations. Requested initial tactical airspace no later than climb out with appropriate C2 agency. Avoided known Restricted Operations Zones (ROZ) and complied with Fire Support Coordination Measures (FCSM)/Tactical Engagement Zones (TEZ) deconfliction. Utilized mission software or Flight Management System (FMS) effectively to maintain airspace situational awareness. Accounted for wind and remained within assigned airspace. Requested new tactical airspace/flight level changes prior to departing currently assigned airspace. Followed procedural control rules in non-radar controlled airspace. Effectively deconflicted aircraft within assigned airspace as Tactical Air Coordinator – Airborne (TAC(A)).

4.6.31.2. **Q-** . Demonstrated marginal knowledge of NAS and tactical airspace control measures as they apply to mission operations. Late to request airspace. Momentary deviation outside of assigned airspace with immediate correction of aircraft heading back inside. Momentarily flew within buffer distance (as defined by command guidance/AOR SPINS) of a national border/Area Defense Zone (ADIZ) without permission.

4.6.31.3. **U** . Demonstrated unsatisfactory knowledge of NAS and tactical airspace control measures as they apply to mission operations. Unable to utilize mission software or Flight Management System (FMS) to maintain airspace situational awareness. Unrecognized exit of assigned airspace requiring other aircrew or C2 agency intervention. Crossed a national border/ADIZ without permission. Exceeded Q- criteria.

#### 4.6.32. **Area 57. TAC(A)**

4.6.32.1. **Q**. Successfully performed all TAC(A) duties in accordance with regulatory and procedural guidance. Received and relayed aircraft check-ins with minimal errors. Passed all applicable area of operations (AO) updates to incoming aircraft in a timely manner. Coordinated with the CSO and ground parties for initial sensor tasking for all players. Was able to coordinate with ground parties to formulate and/or execute proper airspace control measures. Took into account aircraft fuel states and performed any necessary coordination to alleviate air stack vacancies during critical mission times.

4.6.32.2. **Q-**. Performed TAC(A) duties in accordance with regulatory and procedural guidance with minor deviations that did not affect safety. Missed multiple items on aircraft

check-ins or relays resulting in unnecessary extra communications. Failed to relay AO update items that resulted in temporary degradation in situational awareness for one or more aircraft in the air stack. Was unaware of or failed to relay initial sensor tasking at aircraft check-in. Slow to formulate or execute airspace control measures resulting in minor mission delays. Did not plan for fuel states of aircraft in the air stack as they related to mission timing.

4.6.32.3. **U.** Execution of TAC(A) duties resulted in major mission deviations and/or compromised safety of flight. Unable to perform communications necessary to successfully check in aircraft and relay those check-ins to the ground party. Failed to pass critical safety of flight information to aircraft entering the AO. Failed to formulate or coordinate airspace control measures or executed aircraft control measures that resulted in compromised safety of flight. Exceeded Q- criteria.

**4.6.33. Area 58. Systems Operation/Knowledge/Limitations.**

4.6.33.1. **Q.** Demonstrated/explained a complete knowledge of aircraft systems operations/limitations and was able to apply this knowledge to enhance mission accomplishment.

4.6.33.2. **Q-.** Marginal knowledge of aircraft systems operations and limitations in some areas. Sometimes unable to apply knowledge to mission accomplishment. Noted deficiencies did not affect safety or mission effectiveness.

4.6.33.3. **U.** Unsatisfactory systems knowledge. Failed to demonstrate/explain the procedures for aircraft system operations. Exceeded Q- criteria.

## Chapter 5

### COMBAT SYSTEMS OFFICER EVALUATION

**5.1. General.** Combat Systems Officers require a combined QUAL and MSN evaluation. Instructors should demonstrate instructor duties on all periodic evaluations.

**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 .** All mission evaluation profiles should include demonstrated usage of onboard mission systems during a realistic scenario that satisfies the requirements of a Combat Mission Profile [ST91XS] in accordance with AFSOC RTM.

5.3.1. Initial/Requalification. The evaluation profile should be at least 90 minutes, satisfy requirements of a Combat Mission Profile [ST91XS], include required areas identified in [Table 5.1](#), and an Emergency Procedure.

5.3.2. Periodic. The evaluation profile should be at least 60 minutes, satisfy requirements of a Combat Mission Profile [ST91XS], include required areas identified in [Table 5.1](#), and an Emergency Procedure.

**5.4. Grading Criteria.** The following subparagraphs contain grading criteria for the areas listed in [Table 5.1](#).

**Table 5.1. Combat Systems Office QUAL/MSN Grading Areas.**

Area	Notes	Grading Areas	EVAL Type	INIT/R Q	Periodic
70	2	Mission Systems Operation/Knowledge/Limitations	QUAL	X	
71	1	Battlespace Awareness	QUAL	X	
72	2	Mission Computer/Network Architecture	MSN	X	
73	2	Radios/Secure Communications	QUAL	X	
74	1	Objective Correlation/Target Development	MSN	X	
75	1	Dynamic Orbit Management / Vehicle Follow	MSN	X	X
76	1	Squirter Control	MSN	X	
77	1, 3	Ground Assault Force Operations	MSN		
78	1, 3	Helicopter Assault Force Operations	MSN		
79	1	Target Talk-on	MSN	X	X
80	1	Buddy Lase	MSN	X	X
81	1	TAC(A)	MSN	X	X
82-84		Reserved for future use			
<b>Note:</b> 1. Required in flight or in a simulator certified for this event. 2. May be accomplished via an alternate method. 3. Either area 77 or area 78 must be accomplished on INIT or RQ evaluations.					

**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 in accordance with guides, instructions, and the Aircrew Operating Handbooks.

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 but 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 satisfactory 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 aircraft 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 aircraft 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, or program frequencies into the aircraft radios. Unable to troubleshoot or troubleshooting resulted in degraded radio operation.

#### **5.4.5. Area 74. Objective Correlation/Target Development.**

5.4.5.1. **Q** . Demonstrated competent ability to identify and correlate desired target in a timely manner. Target updates provided quickly and accurate when prompted enhancing situational awareness to user. Demonstrated complete knowledge and able to identify



target Essential Elements of Information (EEIs). Executed effective sensor control maintaining positive control of target objective/area.

5.4.5.2. **Q-**. Demonstrated partial ability to identify and correlate desired target causing minor delays. Target updates were delayed when prompted and/or updates had some inaccuracies. Provided inaccurate or incomplete EEIs. Executed marginal sensor control resulting in momentary loss of target objective/area.

5.4.5.3. **U** . Demonstrated unsatisfactory ability to identify and correlate desired target in a timely manner causing mission failure. Failed to provide target updates when prompted and/or provided multiple inaccurate, unclear, incomplete and/or delayed updates. Unable to discuss or identify target EEIs. Executed poor sensor control resulting in complete loss of target objective/area.

#### 5.4.6. **Area 75. Vehicle Follow/Moving Target Track.**

5.4.6.1. **Q** . Demonstrated satisfactory ability to track one or more dynamic targets using on board and off board sensors. Maintained positive control of target vehicle/object through follow. Provided timely and accurate updates to user to include target movements and stop location grids. Executed effective sensor control and orbit operations to maintain track of target.

5.4.6.2. **Q-** . Demonstrated marginal ability to track one or more dynamic targets using on board and off board sensors resulting in momentary loss of target. Provided some updates that were inaccurate, not concise, unclear, and/or delayed. Executed marginal sensor control and/or orbit operations resulting in momentary loss of target.

5.4.6.3. **U** . Demonstrated unsatisfactory ability to track one or more dynamic targets using on board and off board sensors. Failed to provide updates or multiple updates were inaccurate, not concise, unclear, and/or delayed. Executed inadequate sensor control or orbit operations resulting in permanent loss of target and/or multiple momentary losses of target.

#### 5.4.7. **Area 76. Squirter Control.**

5.4.7.1. **Q** . Demonstrated effective execution of squirter control using both onboard and off board sensors to sort, track, and label squirter. Provided effective and clear squirter plan in a timely manner to aircrew and all exterior players. Effectively assigned track and labeled squirter in a timely manner. Provided timely and accurate squirter update, and if applicable talk-on, to users when prompted. Executed effective sensor control in order to maintain positive control of one or more assigned squirter.

5.4.7.2. **Q-**. Demonstrated partially effective execution of squirter control using onboard and off board sensors. Provided partially effective or unclear squirter plan to aircrew and exterior players and/or squirter plan was delayed. Assigned track and labeled squirter, but track and labeling were delayed or incomplete. Provided updates and or talk-on, to users when prompted, but not to desired speed. Updates were sometimes unclear or inaccurate. Executed marginal sensor control resulting in momentary loss of assigned squirter.

5.4.7.3. **U** . Demonstrated unsatisfactory squirter control. Failed to use onboard and off board sensors to sort, track, and label squirter. Failed to provide squirter plan in a timely manner to aircrew or external players. Failed to assign track or label squirter. Failed to

provide updates and/or talk-on, to users when prompted. Executed poor sensor control resulting in permanent loss of assigned squirter.

#### **5.4.8. Area 77. Ground Assault Force (GAF) Operations.**

5.4.8.1. **Q** . Demonstrated effective and timely route reconnaissance and defensive scan, and if requested route development and turn-by-turn, for GAF. Executed effective sensor control resulting in identification of all threats. Mitigated threats to friendlies, safely routed friendly ground forces around all identified and pop-up threats. Provided clear and accurate threat calls in a timely manner. Maintained Situational Awareness of friendlies throughout GAF.

5.4.8.2. **Q-**. Demonstrated marginal and/or delayed route recce and defensive scan for GAF. Route development was incomplete and/or some turn-by-turn calls were delayed or incorrect. Executed marginal sensor control resulting in missed threats to friendly ground forces. Marginal mitigation of threats to friendly ground forces as a result in delayed reaction in routing GAF around obstacles or threats. Delayed identification of threats leading to minor impacts to mission success and safety of friendly forces. Some threat calls were unclear, inaccurate, or delayed. Momentary loss of situational awareness of friendlies during GAF.

5.4.8.3. **U** . Demonstrated unsatisfactory route recce and/or defensive scan for GAF. Failed to provide adequate route development or turn-by-turn in a timely manner. Failed to identify threats as a result of poor sensor control/operation. Failed to route friendly ground forces around multiple identified or pop-up threats. Failed to pass threat calls or provided multiple delayed and/or unclear calls resulting in elevated threat to ground forces.

#### **5.4.9. Area 78. Helicopter Assault Force (HAF) Operations.**

5.4.9.1. **Q** . Demonstrated effective and timely HLZ identification, support, and defensive scan for HAF. Demonstrated complete understanding of HLZ parameters and EEIs. Executed effective sensor control resulting in identification of all threats. Mitigated threats to friendly forces, safely routed HAF and/or friendly ground forces around all identified and pop up threats. Identified and successfully coordinated new CASEVAC HLZ when prompted in a timely manner. Provided clear and accurate updates, HLZ briefs, comm relays, and/or threat calls in a timely manner.

5.4.9.2. **Q-** . Demonstrated partially effective HLZ identification, support, and/or defensive scan for HAF. Demonstrated partial understanding of HLZ parameters and EEIs. Executed marginal sensor control resulting in missed threats. Did not mitigate all threats to friendly as a result of failure to route friendly ground forces around one identified or pop-up threat. Identified and coordinated new CASEVAC HLZ when prompted, but not to desired accuracy or speed. Some updates, HLZ briefs, communication relays, and/or threat calls were inaccurate, unclear, or delayed.

5.4.9.3. **U**. Demonstrated unsatisfactory HLZ identification, support, and/or defensive scan for HAF. Demonstrated unsatisfactory understanding of HLZ parameters and EEIs. Failed to identify threats as a result of inadequate sensor control/operation. Failed to route friendly ground forces around multiple identified or pop-up threats. Failed to or severely delayed identification and/or coordination of CASEVAC HLZ when prompted. Multiple

updates, HLZ briefs, communications relays, and/or threat calls were inaccurate, unclear, and/or delayed.

#### 5.4.10. Area 79. Target Talk-On.

5.4.10.1. **Q** . Demonstrated satisfactory ability to execute talk-on to a static and/or dynamic POI in a timely manner. Demonstrated complete knowledge of talk-on and LST TTPs. Demonstrated clear, concise, and accurate communications and brevity throughout talk-on.

5.4.10.2. **Q-** . Demonstrated ability to execute talk-on to static or moving POI with some discrepancies resulting in minor delays. Minor discrepancies in knowledge or execution of talk-on and LST TTPs. Some communications were unclear, not concise, and/or inaccurate. Some improper use of brevity.

5.4.10.3. **U** . Demonstrated unsatisfactory ability to execute talk-on to a static and/or dynamic POI in a timely manner. Major discrepancies and/or lack of knowledge of talk-on and/or LST TTPs. Several communications were unclear, not concise, and/or inaccurate. Several improper uses of brevity.

#### 5.4.11. Area 80. Buddy Lase.

5.4.11.1. **Q** . Demonstrated satisfactory ability to execute effective buddy lase operations. Understood and able to discuss buddy lase operational TTPs, laser limitations, laser placement, and weapons effects with no discrepancies. Executed all checklist with no discrepancies and in a timely manner. Provided active and effective laser energy on desired impact point throughout engagement with no deviations. Provided clear and accurate communications in a timely manner.

5.4.11.2. **Q-** . Demonstrated marginal ability to execute buddy lase operations. Demonstrated partial understanding of buddy lase operational TTPs, laser limitations, laser placement, and weapons effects. Executed checklist with some discrepancies, missed a checklist item, and/or delayed use of checklist resulting in minor delays. Provided active and effective laser energy on desired impact point but had momentary pause of energy or deviations in laser placement on desired impact point. Did not result in mission failure.

5.4.11.3. **U** . Demonstrated unsatisfactory ability to execute buddy lase operations. Demonstrated unsatisfactory understanding of buddy lase operational TTPs, laser limitations, laser placement, and weapons effects. Failed to execute checklist, omitted several checklist items, and/or delayed use of checklist resulting in major delays. Failed to provide active and effective laser energy on desired impact point resulting in mission failure.

#### 5.4.12. Area 81. TAC(A).

5.4.12.1. **Q** . Demonstrated satisfactory ability to execute TAC(A) operations in accordance with Special Operations Forces guidance to meet Ground Force Commander (GFC) intent. Demonstrated complete understanding of TAC(A) duties, responsibilities and TTPs. Able to effectively assign and manage air stack and sensors throughout operation. Provided clear and effective sensor deconfliction plan, air stack update, and airspace deconfliction in a timely manner.

5.4.12.2. Q- . Demonstrated marginal ability to execute TAC(A) operations in accordance with GFC intent. Demonstrated partial understanding of TAC(A) duties, responsibilities and TTPs. Demonstrated partially effective and/or delayed management of air stack and/or sensors. Minor discrepancies or delayed execution of sensor deconfliction plan, air stack updates, and/or airspace deconfliction.

5.4.12.3. U. Demonstrated unsatisfactory ability to execute TAC(A) operations resulting in failure to meet GFC intent. Demonstrated unsatisfactory understanding of TAC(A) duties, responsibilities and TTPs. Demonstrated unsatisfactory management of air stack and/or sensors. Major discrepancies in execution of sensor deconfliction plan, air stack updates, and/or airspace deconfliction.

CHARLES S. CORCORAN, Maj Gen, USAF  
Acting Deputy Chief of Staff, Operations

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

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

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

AFMAN 11-202V2, *Aircrew Standardization and Evaluation Program*, 30 August 2021

AFI 11-202V2\_AFSOCSUP, *Aircrew Standardization and Evaluation Program*, 03 October 2019

AFMAN 11-202V3, *Flight Operations*, 10 January 2022

AFMAN 11-202V3\_AFSOCSUP, *Flight Operations*, 15 March 2021

AFMAN 11-218, *Aircraft Operations and Movement on the Ground*, 05 April 2019

AFMAN 11-290 *Cockpit/Crew Resource Management and Threat & Error Management Program*, 25 October 2021

AFMAN 11-2MC-12WV3, *MC-12W Operations Procedures*, 1 July 2022

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

DAFMAN 90-161, *Publishing Processes and Procedures*, 15 April 2022

***Adopted Forms***

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 3862, *Flight Evaluation Worksheet*

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

***Abbreviations and Acronyms***

**ADIZ**—Area Defense Zone

**AF**—Air Force

**AFI**—Air Force Instruction

**AFPD**—Air Force Policy Directive

**AFRC**—Air Force Reserve Command

**AFSOC**—Air Force Special Operations Command

**AOR**—Area of Responsibility

**ANG**—Air National Guard

**ARMS**—Aviation Resource Management Systems

**ASR**—Airborne Surveillance Radar

**CAPs**—Critical Actions Procedures  
**CASEVAC**—Casualty Evacuation  
**COMSEC**—Communications Security  
**CRM**—Crew Resource Management  
**CSO**—Combat Systems Officer  
**DME**—Distance Measuring Equipment  
**EI**—Essential Elements of Information  
**EPE**—Emergency Procedures Evaluation  
**FDP**—Flight Duty Period  
**FMS**—Flight Management System  
**FMV**—Full Motion Video  
**GAF**—Ground Assault Force  
**GFC**—Ground Force Commander  
**GPS**—Global Positioning System  
**HAF**—Helicopter Assault Force  
**HLZ**—Helicopter Landing Zone  
**ILS**—Instrument Landing System  
**INSTM**—Instrument  
**KIAS**—Knots Indicated Air Speed  
**LOC**—Localizer  
**LNAV**—Lateral Navigation  
**LPV**—Localized Performance with Vertical Guidance  
**LST**—Laser Spot Track  
**MAJCOM**—Major Command  
**MDA**—Minimum Descent Altitude  
**MSN**—Mission  
**NAS**—National Air Space  
**NAVAIDS**—Navigational Aids  
**NDB**—Non-Directional Beacon  
**NM**—Nautical Miles  
**NVG**—Night Vision Goggle  
**OPR**—Office of Primary Responsibility

**OPSEC**—Operations Security

**POI**—Point of Interest

**QUAL**—Qualification

**RNAV**—Area Navigation

**SPINS**—Special Instructions

**SPS**—Self Protection System

**TAC(A)**—Tactical Air Coordinator (Airborne)

**TTPs**—Tactics, Techniques, and Procedures

**VDP**—Visual Descent Point

**VFR**—Visual Flight Rules

**VNAV**—Vertical Navigation

**VOR**—Variable Omni Range

**VREF**—Reference Speed

### *Office Symbols*

**AFSOC/A3**—AFSOC Operations

**AFSOC/A3T**—AFSOC Training

**AFSOC/A3V**—AFSOC Standardization and Evaluation

### *Terms*

**“Must”, “Will” and “Shall”**—indicate a mandatory requirement.

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

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

**“Note”**—indicates operations procedures, techniques, etc., considered essential to emphasize.

**Definitions—Intrafly**— The exchange and/or substitution of aircrew members from separate units under the same MAJCOM to accomplish flying missions.