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SECRETARY OF THE AIR FORCE**

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VOLUME 2**

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Flying Operations

F-15--AIRCREW EVALUATION CRITERIA



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This volume implements AFD 11-2, *Aircraft Rules and Procedures*; AFD 11-4, *Aviation Service*; and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. It applies to all F-15A/B/C/D units. It is not applicable to the Air Force Reserve Command (AFRC). MAJCOMs/DRUs/FOAs are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ USAF/XOOT, through HQ ACC/DOTV, for approval prior to publication IAW AFD 11-2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DOTV, and the user MAJCOM/DRU/FOA and NGB 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. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. **NOTE:** See paragraph 1.2. of this volume for guidance on submitting comments and suggesting improvements to this publication.

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The Paperwork Reduction Act of 1974 as amended in 1996 and the Air Force Forms Management Program IAW AFI 37-160V8, *The Air Force Publications and Forms Management Program--Developing and Processing Forms*, affects this volume.

SUMMARY OF REVISIONS

This change incorporates interim change IC 2004-01. Paragraph 1.5. wording changed to remove reference to flight simulator and add other training devices. Paragraph 1.6. changed to delete the requirement to check T.O.1-1C-1-25CL-1. Table 2.1. was amended to reflect changes. Area 36 is no longer annotated in Table 2.1. Paragraph 3.3.5., Area 45, Precision Approach, combines the grading criteria for the PAR and the ILS into one paragraph. Area 46 no longer used. Area 67 wording changed to add system anomalies. Note 4 added to area 72 in Table 2.1. A “|” indicates revised material since the last edition. Add or replace all paragraphs and tables for immediate implementation.

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Chapter 1

GENERAL INFORMATION

1.1. General. All evaluations will be conducted IAW the provisions of AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, and this volume.

1.2. Recommended Changes/Waivers. Recommendations for improvements to this volume will be submitted on AF Form 847, **Recommendation for Change of Publication**, to the parent MAJCOM (ANG: HQ ACC/DOTV). Recommendations approved will be forwarded to lead MAJCOM (HQ ACC/DOTV). Waiver authority for this publication is the MAJCOM/DO. Waivers will be requested from the parent MAJCOM Stan/Eval through appropriate channels.

1.3. Procedures:

1.3.1. Flight Examiners (FE) will use the evaluation criteria contained in **Chapter 3** for conducting all flight and emergency procedures evaluations. To ensure standard and objective evaluations, Flight Examiners will be thoroughly familiar with the prescribed evaluation criteria.

1.3.2. Recording devices (Video Tape Recorders (VTR), 8MM, Air Combat Maneuvering Instrumentation (ACMI), etc.) should be used, when available, to reconstruct/evaluate the mission.

1.3.3. Unless specified, the examinee or flight examiner may fly in any flight position/seat (to include chase) which will best enable the flight examiner to conduct a thorough evaluation.

1.3.4. The flight examiner will brief the examinee on the purpose of the evaluation and how it will be conducted prior to flight. The examinee will accomplish required flight planning in accordance with the flight position during the evaluation. Higher Headquarters (HHQ) flight examiners (and unit flight examiners as determined locally) will be furnished a copy of necessary mission data, mission materials and data transfer module loads.

1.3.5. Required areas are shown in **Table 2.1**. When it is impossible to evaluate a required area in flight, it may be evaluated by an alternate method (i.e., in a simulator/aircrew training device (ATD)/cockpit procedure trainer (CPT) or by oral examination) in order to complete the evaluation. The reason why required area(s) were not evaluated inflight and the alternate method of evaluation used will be documented in the Comments portion of the AF Form 8, **Certificate of Aircrew Qualification**.

1.3.6. The flight examiner will thoroughly debrief all aspects of the flight. This debrief will include the examinee's overall rating, specific deviations, area grades assigned (if other than qualified) and any required additional training.

1.4. Grading Instructions. Standards and performance parameters are contained in AFI 11-202V2 and this instruction.

1.4.1. The flight examiner will base tolerances for inflight parameters on conditions of smooth air and a stable aircraft. Do not consider momentary deviations from tolerances, provided the examinee applies prompt corrective action and such deviations do not jeopardize flying safety. The flight examiner will consider cumulative deviations when determining the overall grade.

1.4.2. When grading criteria specify that airspeed/angle of attack (AOA) be evaluated and the flight manual lists only a minimum/maximum/recommended airspeed/AOA for that area, the examinee will brief the desired airspeed/AOA.

1.4.3. The flight examiner will compare examinee performance for each area accomplished during the evaluation with the standards provided in this volume and assign an appropriate grade for the area. Derive the overall flight evaluation grade from the area grades based on a composite for the observed events and tasks IAW this publication.

1.4.3.1. Flight examiners will use the grading criteria in this volume to determine individual area grades. Flight examiner judgment must be exercised when the wording of areas is subjective and when specific situations are not covered.

1.4.3.2. If the examinee receives an unqualified area grade in any of the critical areas identified by this volume, an overall unqualified grade will be assigned. Unsatisfactory performance in any critical area or critical subarea will result in qualification level of "Q-3."

1.4.3.3. Flight examiner judgment will be the determining factor in arriving at the overall grade.

1.4.3.4. The following general criteria apply during all phases of flight except as noted for specific events and instrument final approaches:

Table 1.1. General Criteria.

Q	Altitude +/- 200 feet Airspeed +/- 5% Course +/- 5- degrees/3 NM (whichever is greater) TACAN Arc +/- 2 NM
Q-	Altitude +/- 300 feet Airspeed +/- 10% Course +/- 10 degrees/5 NM (whichever is greater) TACAN Arc +/- 3 NM
U	Exceeded Q- limits

1.5. Emergency Procedures Evaluation (EPE). EPE's will be conducted in an appropriate Aircrew Training Device, e.g. Operational Flying Trainers, Weapons and Tactics Trainers, Full Mission Trainers, etc. If an Aircrew Training Device is not available, the EPE may be given verbally only as a last resort. If this option is utilized, it will be noted on the AF Form 8 in the additional comments section. This evaluation will include areas commensurate with examinee's Ready Aircrew Program (RAP) training level and should highlight current items of interest such as recently discovered aircraft anomalies or unusual accident investigation results.

1.5.1. The following items will be included on all emergency procedures evaluations:

1.5.1.1. **Aircraft General Knowledge.**

1.5.1.2. **Emergency Procedures.** Evaluate a minimum of two emergency procedures per phase of flight (i.e., pre-takeoff, takeoff, cruise, and landing).

1.5.1.3. **Flight Coordination** (if applicable).

1.5.1.4. **Unusual Attitude Recoveries.** Required on all EPEs. This also fulfills the Area 15 (Unusual Attitude Recoveries) requirement for Pilot Instrument/Qualification evaluations.

1.5.2. The following additional items will be included on EPEs as a requisite for the instrument and/or qualification evaluation:

1.5.2.1. **AFMAN 11-217, Instrument Flight Procedures.** Evaluate a minimum of one Heads-up Display (HUD) out approach and use of standby/emergency instruments

1.5.2.2. **Alternate/Divert Airfields.** Evaluate a minimum of one approach at other than home base.

1.5.3. Mission evaluation scenarios should be tailored to unit tasking. The following additional items should be included on the emergency procedures evaluation given as a requisite to the mission evaluation:

1.5.3.1. Weapons system operation.

1.5.3.2. Electronic Attack (EA)/Electronic Protect (EP)/All Aspect Missile Defense (AAMD)

1.5.3.3. Weapons employment and switchology.

1.5.4. Examinees receiving an overall unqualified grade will be placed in supervised status until recommended additional training is completed and/or a reevaluation is successfully accomplished. On qualified with additional training EPEs, the FE will indicate if the additional training will be accomplished before the flight evaluation. Additional training and reevaluations will be accomplished IAW AFI 11-202V2.

1.5.5. The following grading criteria will be used to grade individual items on EPEs:

1.5.5.1. **Q.** Performance is correct. Quickly recognizes and corrects errors.

1.5.5.2. **Q-.** Performance is safe, but indicates limited proficiency. Makes errors of omission or commission.

1.5.5.3. **U.** Performance is unsafe or indicates lack of knowledge or ability.

1.6. Publications Check:

1.6.1. Publications that will be checked during the evaluation are:

1.6.1.1. T.O. 1F-15A-1CL-1

1.6.1.2. T.O. 1F-15A-34-1-3CL-1

1.6.1.3. Deleted

1.6.1.4. Local Inflight Guide

1.7. Documentation of Weapons Employment Results. Weapons employment results will be documented in the Mission Description Section of the AF Form 8 for mission evaluations. Include entries for each type of simulated ordnance that was employed.

1.7.1. **Air-to-Air.** Record the number of simulated missile/gunfiring attempts and the number that were valid as in **Table 1.2.**

Table 1.2. Weapons Employment Scores.

Weapons delivery scores were:		
	ATTEMPTED	VALID
AIM 120	2	1
8MM assessed		
Include entries for each type of simulated ordnance that was employed.		

1.7.2. **Flight Examiner Judgment.** Flight examiner judgment will be the determining factor in deciding the weapons employment grade. If the examinee fails to qualify in any event(s), the flight examiner may elect to award a higher area grade than warranted by the score(s). The flight examiner will include justification for such an award in the Comments Section of the AF Form 8.

1.8. Records Disposition. Records will be disposed of IAW AFMAN 37-139, *Records Disposition Schedule*.

Chapter 2

EVALUATION REQUIREMENTS

2.1. General:

2.1.1. All evaluations will follow the guidelines set in AFI 11-202V2, Chapter 4. The procedures and flight profiles outlined in this chapter apply to all F-15 units. Evaluation requirements are depicted in [Table 2.1](#).

2.1.2. Areas indicated with an "R" are required items for that evaluation. A required area is a specific area that must be evaluated to complete the evaluation. All required areas must be included in the flight evaluation profile. However, if it is impossible to accomplish a required area inflight, the flight examiner may elect to evaluate the area(s) by an alternate method (i.e., simulator, OFT, FMT, WTT, CPT, ATD verbally, etc.), in order to complete the evaluation. If the flight examiner determines the required item cannot be adequately evaluated by an alternate method, the examinee will require an additional flight to complete the evaluation.

2.2. Pilot Instrument/Qualification Evaluation. A mission flown according to instrument flight rules (to the maximum extent practical) best fulfills the objective of the instrument/qualification evaluation. To the maximum extent possible, this evaluation will include approaches at airfields other than home or deployed locations (USAFE: Preferably non-US locations). This evaluation may be administered on any compatible training mission with the approval of the unit Chief of Stan/Eval with Commander's concurrence. When B/D aircraft are available, pilots may complete their Inst/Qual evaluation in a dual cockpit aircraft with a flight examiner occupying the rear cockpit. Minimum ground phase requisites are:

2.2.1. Instrument Refresher Course (IRC) Training (IAW AFMAN 11-210, *Instrument Refresher Course (IRC) Program*).

2.2.2. Instrument (IRC) examination.

2.2.3. Closed and open book qualification examinations.

2.2.4. EPE.

2.2.5. Publications check.

2.3. Mission Evaluation. Scenarios that represent unit Designed Operational Capability (DOC) tasking satisfy the requirements of this evaluation. The profiles will be designed to evaluate the training/flight position/special qualifications as well as basic airmanship of the examinee. Initial mission evaluations will be given in the primary DOC of the unit. Mission evaluations will normally be flown using unit formations and tactics. Examinees will be evaluated in the position of their highest qualification. If briefed, at the flight examiners discretion, portions may be flown in another position, but the emphasis is to have examinees evaluated at their highest qualification level. Based on the examinee's experience level, a wingman may be required to brief (to include tactics) and/or lead certain phases of the mission, but will not be evaluated using flight lead grading criteria. Evaluations during exercises or deployments are encouraged.

NOTE: Basic Mission Capable (BMC) pilots will only be evaluated on those missions routinely performed. Examinees will only be evaluated on those areas for which they are qualified.

2.3.1. Minimum ground phase requisites are:

2.3.1.1. EPE.

2.3.2. **Air-to-Air.** This evaluation will include, as a minimum, one intercept, offensive maneuvering and planned weapons employment. When practical, adversaries should simulate enemy aircraft, tactics and ordnance. Dissimilar aircraft are preferred. Additionally, pilots:

2.3.2.1. Must have an operable radar.

2.3.2.2. Will normally perform one Air Sovereignty Tasking (if applicable to unit DOC statement tasking).

2.3.2.3. When weather or other restrictions prohibit D/ACBT, or LOWAT, they may fly multiple intercepts.

2.4. Formal Course Evaluation. Syllabus evaluations will be flown IAW syllabus mission profile guidelines if stated, or on a mission profile developed from syllabus training objectives. Formal course guidelines may be modified, based on local operating considerations or flight examiner judgment, to complete the evaluation. Training objectives and related areas will be graded using the performance criteria in [Chapter 3](#).

2.5. Instructor Evaluation. Instructor evaluations will be conducted IAW AFI 11-202V2. Flight evaluations will include a thorough evaluation of the examinee's instructor knowledge and ability. This is a one-time check in which the examinee must demonstrate ability to instruct in some phase of the unit's mission. Except for requirements delineated in [Table 2.1.](#), specific profiles and/or events will be determined by the Flight Examiner. Subsequent evaluations (for example, Instrument/Qualification, Mission) will include instructor portions during the evaluations.

2.5.1. For units whose instructor pilots (IP) normally instruct from a chase aircraft, the examinee should fly a portion of the mission in the chase position, if feasible.

2.5.2. **FTU Instructor Pilot.** FTU Instructor Pilot mission evaluation profiles will normally be IAW the formal course syllabus for any mission which the IP is qualified to instruct.

2.6. FTU Instructor Pilot Rear Cockpit Evaluations. When FTU IPs are required to perform rear cockpit instructor duties, an evaluation of rear cockpit landings will be completed prior to performing rear cockpit landing instructor duties. These duties include instruction for and demonstration of landings during initial qualification training, requalification training, or additional training. Not required for operational unit rear cockpit qualified IPs.

2.6.1. Examinees will complete the evaluation as follows:

2.6.1.1. All rear cockpit landing qualification evaluations will include satisfactory demonstration of: overhead, straight-in and emergency pattern approaches and landings performed from the rear cockpit.

2.6.1.2. FTU IPs will accomplish the rear cockpit landing qualification during either the combined instrument/qualification sortie, the mission evaluation sortie or during another sortie as a requisite. Each unit will specify when the rear cockpit landing qualification will be completed and identify procedures for completion of this requirement in the unit supplement to AFI 11-202V2.

2.6.2. When the rear cockpit landing qualification is evaluated during a separate sortie as a requisite for a flight evaluation, record "SPOT" in the Flight Phase block on the AF Form 8. Describe the purpose of the evaluation as "Rear Cockpit Landing Qualification" in the Mission Description section of the Comments block. In addition, flight Examiners will document all discrepancies on the AF Form 8 in Section IV, paragraph b, under a subparagraph after the Emergency Procedures Evaluation (EPE) discrepancies as follows: "2. Rear Cockpit Landing Qualification." If no discrepancies are identified, enter "None" after the subparagraph title. A subparagraph 3 would then be used for flight discrepancies. If a reevaluation is required, an additional "SPOT" entry will be recorded in the Flight Phase block on the front of the AF Form 8. Additional training will be documented IAW AFI 11-202V2.

2.6.3. An initial rear cockpit landing qualification may be conducted independently of another evaluation. Flight Examiners will document completion of this Rear Cockpit Landing Qualification as a "SPOT" on an AF Form 8. Align the expiration date with the expiration date of the current evaluation during which the examinee would normally complete this requirement.

Table 2.1. Evaluations.

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
		GENERAL		
1		MISSION PLANNING	R	R
2		BRIEFING	R	R
3		PRETAKEOFF	R	R
4		TAKEOFF	R	
5		FORMATION TAKEOFF		
6		DEPARTURE	R	
7		LEVEL OFF	R	
8		CRUISE/NAVIGATION	R	
9		FORMATION		
10		IN-FLIGHT CHECKS	R	
11		FUEL MANAGEMENT	R	R

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
12		COMM/IFF/SIF	R	R
13		NOT USED		
14	1	AIRWORK/ADV HAND/TAC MANEUVER	R	
15	2	UNUSUAL ATTITUDE RECOVERIES	R	
16		WEAPONS SYSTEM/BIT CHECKS		
17		AIR REFUELING		
18		DESCENT	R	
19		GO-AROUND		
20		TRAIL RECOVERY		
21		EMERGENCY TRAFFIC PATTERNS	R	
22		EMERGENCY APPROACH/LANDING	R	
23		VFR PATTERN/APPROACH	R	
24		FORMATION APPROACH/LANDING		
25		LANDING	R	
26		AFTER-LANDING	R	
27		FLIGHT LEADERSHIP (if applicable)	R	R
28		DEBRIEFING/CRITIQUE	R	R
29		KNOWLEDGE	R	R
30	*	AIRMANSHIP	R	R
31	*	SAFETY	R	R
32	*	AIRCREW DISCIPLINE	R	R
33		INSTRUCTOR PERFORMANCE (if applicable)	R	R
34 - 40		NOT USED		

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
		INSTRUMENT		
41		HOLDING		
42		INSTRUMENT PENETRATION	R	
43		INSTRUMENT PATTERNS	R	
44		NONPRECISION APPROACH	R	
45	3	PRECISION APPROACH	R	
46		NOT USED		
47		MISSED APPROACH/CLIMB OUT	R	
48		CIRCLING/SIDE-STEP APPROACH		
49		INSTRUMENT CROSS-CHECK		
50		NOT USED		
		TACTICAL EMPLOYMENT		
		A. GENERAL		
51		TACTICAL PLAN		R
52		TACTICAL EXECUTION		R
53		GCI/AWACS/CF INTERFACE		
54		RADIO TRANSMISSIONS		R
55		VISUAL/RADAR LOOKOUT		R
56		MUTUAL SUPPORT (if applicable)		R
57		TACTICAL NAVIGATION		
58		INGRESS		

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
59		EGRESS		
60		COMBAT SEPARATION		
61		TIMING		
62		TRAINING RULES/ROE		R
63	4	THREAT REACTIONS		R
64		NOT USED		
65		IN-FLIGHT REPORT		R
66		EA/EP/AAMD		R
67		RADAR SCOPE/SENSOR UTILIZATION		R
68 - 70		NOT USED		
		B. AIR-TO-AIR		
71	4	RADAR SEARCH/SORTING		R
72	4	AIR SOVEREIGNTY TASKING (Air Defense Units)		R
73	4	TACTICAL INTERCEPT/PATROL		R
74		NOT USED		
75	4	OFFENSIVE MANEUVERING		R
76		DEFENSIVE/COUNTEROFFENSIVE MAN		
77	4	AIR-TO-AIR WEAPONS EMPLOYMENT		R

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
<p>* Asterisk denotes Critical Area</p> <p>NOTES:</p> <ol style="list-style-type: none"> 1. Airwork/Advanced Handling/Tactical Maneuvering. Units will determine appropriate proficiency maneuvers for pilot experience levels. Examples are, but are not limited to: <ol style="list-style-type: none"> a. Aerobatics b. Basic Fighter Maneuvers (BFM) c. Advanced handling characteristics d. Formation (fingertip, tactical, trail) 2. Unusual Attitude Recoveries. Do not perform unusual attitude recoveries in single-seat aircraft. They will be evaluated during EPE's or if evaluated in dual-seat aircraft in-flight, will be performed with a flight examiner in the aircraft. 3. Both a Precision Approach Radar (PAR) and an Instrument Landing System (ILS) must be evaluated if equipment and facilities are available. However, if facilities or equipment are not available, the flight evaluation may be completed as long as one precision approach is flown. 4. It may be impractical to evaluate these required items on certain FTU Instructor evaluations due to student syllabus constraints (e.g. BFM mission checks). Squadron commanders may approve these exceptions to validate instructor effectiveness. Document in the Additional Comments portion of the AF Form 8. 				

Chapter 3

EVALUATION CRITERIA

3.1. General Grading Standards:

3.1.1. The grading criteria in this chapter are divided into three sections: General, Instrument, and Tactical Employment. Use all sections for criteria applicable to the events performed on the evaluation.

3.1.2. Where major areas are divided into subareas, only one grade will be assigned to the major areas. Discrepancies on the back of the AF Form 8 will be annotated by subarea.

3.2. General:

3.2.1. Area 1--Mission Planning:

3.2.1.1. Mission Preparation:

3.2.1.1.1. **Q.** Developed a sound plan to accomplish the mission. Checked all factors applicable to flight in accordance with applicable directives. Aware of alternatives available, if flight cannot be completed as planned. Read and initialed for all items in the Flight Crew Information File (FCIF)/Read Files. Prepared at briefing time.

3.2.1.1.2. **Q-.** Same as above, except minor error(s) or omission(s) that did not detract from mission effectiveness. Demonstrated limited knowledge of performance capabilities or approved operating procedures/rules in some areas.

3.2.1.1.3. **U.** Made major error(s) or omission(s) that would have prevented a safe or effective mission. Displayed faulty knowledge of operating data or procedures. Did not review or initial FCIF. Not prepared at briefing time.

3.2.1.2. Publications:

3.2.1.2.1. **Q.** Publications were current, contained all supplements/changes and were properly posted.

3.2.1.2.2. **Q-.** Publications contained deficiencies which would not impact flight safety or mission accomplishment.

3.2.1.2.3. **U.** Publications were outdated and/or contained deficiencies which would impact flight safety or mission accomplishment.

3.2.2. Area 2--Briefing:

3.2.2.1. Organization:

3.2.2.1.1. **Q.** Well organized and presented in a logical sequence. Concluded briefing in time to allow for element/ crew briefing (if applicable) and preflight of personal equipment, aircraft and ordnance.

3.2.2.1.2. **Q-.** Events out of sequence, hard to follow, some redundancy.

3.2.2.1.3. **U.** Confusing presentation. Did not allow time for element/crew briefing (if applicable) and preflight of personal equipment, aircraft and ordnance.

3.2.2.2. Presentation:

3.2.2.2.1. **Q.** Presented briefing in a professional manner. Effective use of training aids. Flight members clearly understood mission requirements.

3.2.2.2.2. **Q-.** Did not make effective use of available training aids. Dwelled on nonessential mission items.

3.2.2.2.3. **U.** Did not use training aids. Redundant throughout briefing. Lost interest of flight members Presentation created doubts or confusion.

3.2.2.3. Mission Coverage:

3.2.2.3.1. **Q.** Established objectives for the mission. Presented all training events and effective technique discussion for accomplishing the mission.

3.2.2.3.2. **Q-.** Omitted some minor training events. Limited discussion of techniques.

3.2.2.3.3. **U.** Did not establish objectives for the mission. Omitted major training events or did not discuss techniques.

3.2.2.4. Flight Member Consideration:

3.2.2.4.1. **Q.** Considered the abilities of all flight members. Briefed corrective action from previous mission and probable problem areas when appropriate.

3.2.2.4.2. **Q-.** Did not consider all flight members' abilities. Did not identify probable problem areas.

3.2.2.4.3. **U.** Ignored flight members' abilities and past problem areas.

3.2.3. Area 3--PreTakeoff:

3.2.3.1. **Q.** Established and adhered to station, start engine, taxi and take-off times to assure thorough preflight, check of personal equipment, crew briefing, etc. Accurately determined readiness of aircraft for flight. Performed all checks and procedures prior to takeoff in accordance with approved checklists and applicable directives.

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

3.2.3.3. **U.** Omitted major item(s) of the appropriate checklist. Major deviations in procedure which would preclude safe mission accomplishment. Failed to accurately determine readiness of aircraft for flight. Pilot errors directly contributed to a late takeoff which degraded the mission or made it non-effective.

3.2.4. Area 4--Takeoff:

3.2.4.1. **Q.** Maintained smooth aircraft control throughout takeoff. Performed takeoff in accordance with flight manual procedures and techniques.

3.2.4.2. **Q-.** Minor flight manual procedural or technique deviations. Control was rough or erratic.

3.2.4.3. **U.** Takeoff potentially dangerous. Exceeded aircraft/systems limitations. Raised gear too early. Failed to establish proper climb attitude. Over-controlled aircraft resulting in excessive deviations from intended flight path.

3.2.5. Area 5--Formation Takeoff:**3.2.5.1. Lead:**

3.2.5.1.1. **Q.** Smooth on controls. Excellent wingman consideration.

3.2.5.1.2. **Q-.** Occasionally rough on controls. Not unsafe; however, lack of wingman consideration made it difficult for the wingman to maintain position.

3.2.5.1.3. **U.** Rough on the controls. Did not consider the wingman.

3.2.5.2. Wingman:

3.2.5.2.1. **Q.** Maintained position with only momentary deviations. Maintained appropriate separation and complied with procedures and leader's instructions.

3.2.5.2.2. **Q-.** Over controlled the aircraft to the extent that formation position varied considerably.

3.2.5.2.3. **U.** Abrupt position corrections. Did not maintain appropriate separation or formation position throughout the takeoff.

3.2.6. Area 6--Departure:**3.2.6.1. Instrument/Visual Flight Rules (IFR/VFR):**

3.2.6.1.1. **Q.** Performed departure as published/directed and complied with all restrictions.

3.2.6.1.2. **Q-.** Minor deviations in airspeed and navigation occurred during completion of departure.

3.2.6.1.3. **U.** Failed to comply with published/directed departure instructions.

3.2.6.2. Trail Departure:

3.2.6.2.1. **Q.** Trail departure accomplished using proper procedures and techniques. Provided efficient commentary throughout departure and/or rendezvous.

3.2.6.2.2. **Q-.** Minor deviations from established or appropriate procedures.

3.2.6.2.3. **U.** Unable to accomplish trail departure or rendezvous. Gross overshoot or excessively slow rendezvous caused by poor technique or procedure. Missed rendezvous.

3.2.7. Area 7--Level Off:

3.2.7.1. **Q.** Leveled off smoothly. Promptly established proper cruise airspeed.

3.2.7.2. **Q-.** Level off was erratic. Slow in establishing proper cruise airspeed. Slow to set/reset altimeter, as required.

3.2.7.3. **U.** Level off was erratic. Exceeded Q limits. Excessive delay or failed to establish proper cruise airspeed. Failed to reset altimeter, as required.

3.2.8. Area 8--Cruise/Navigation:

3.2.8.1. **Q.** Demonstrated satisfactory capability to navigate using all available means. Used appropriate navigation procedures. Ensured nav aids were properly tuned, identified, and monitored. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace, i.e., Military Operating Area (MOA), Air Traffic Controlled

Assigned Airspace (ATCAA), Class C Airspace,, Class D Airspace, restricted area, etc. Fix to Fix within +/- 3 NM.

3.2.8.2. **Q-**. Minor errors in procedures/use of navigation equipment. Some deviations in tuning, identifying, and monitoring nav aids. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Fix to Fix within +/- 5 NM.

3.2.8.3. **U**. Major errors in procedures/use of navigation equipment. 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 parameters for Q-.

3.2.9. Area 9--Formation:

3.2.9.1. Flight Lead:

3.2.9.1.1. **Q**. Established and maintained appropriate formations utilizing published and briefed procedures. Maintained positive control of flight/element. Smooth on the controls and considered wingman. Planned ahead and made timely decisions. Ensured that wingman flew proper position. Effectively applied Cockpit Resource Management (CRM) skills throughout mission. For further guidance on CRM, see AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and AF Form 4031, **Skills Training Evaluation Form**.

3.2.9.1.2. **Q-**. Made minor deviations from published and/or briefed procedures. Demonstrated limited flight management. Occasionally rough on the controls. Maneuvered excessively, making it difficult for wingman to maintain position. Did not always plan ahead and/or hesitant in making decisions. Made minor mistakes applying CRM skills, but did not negatively impact mission accomplishment.

3.2.9.1.3. **U**. Formation flight not accomplished in accordance with published and/or briefed procedures. Did not establish appropriate formations. Continually rough on the controls. Maneuvered erratically causing wingman to break out or overrun formation. Provided little consideration for wingman. Indecisive. Failed to ensure wingman maintained proper position. Displayed little or no CRM skills, significantly impacting mission accomplishment.

3.2.9.2. Wingman:

3.2.9.2.1. **Q**. Maintained position in accordance with published and briefed procedures with only momentary deviations. Demonstrated smooth and immediate position corrections. Maintained safe separation and complied with leader's instructions. Rejoin was smooth and timely. Effectively applied Cockpit Resource Management (CRM) skills throughout mission. For further guidance on CRM, see AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and AF Form 4031, **CRM Skills Training Evaluation Form**.

3.2.9.2.2. **Q-**. Made minor deviations to published procedures. Slow to comply with leader's instructions. Varied position considerably. Over controlled. Slow to rejoin. Made minor mistakes applying CRM skills, but did not negatively impact mission accomplishment.

3.2.9.2.3. **U**. Formation flight not accomplished in accordance with published and/or briefed procedures. Did not comply with leader's instructions. Unable to maintain a formation position. Made abrupt position corrections. Did not maintain safe separation. Rejoin was unsafe. Displayed little or no CRM skills, significantly impacting mission accomplishment.

3.2.10. Area 10--Inflight Checks:

3.2.10.1. **Q.** Performed all inflight checks as required.

3.2.10.2. **Q-.** Same as qualified, except for minor deviations or omissions during checks. Did not detract from mission accomplishment.

3.2.10.3. **U.** Major deviations/omissions which detracted from mission accomplishment.

3.2.11. Area 11--Fuel Management:

3.2.11.1. **Q.** Actively monitored fuel throughout the mission. Complied with all established fuel requirements. Adhered to briefed Joker/Bingo calls.

3.2.11.2. **Q-.** Errors in fuel management procedures which did not preclude mission accomplishment.

3.2.11.3. **U.** Failed to monitor fuel status or comply with established fuel requirements. Poor fuel management precluded mission accomplishment. Did not adhere to briefed fuel requirements.

3.2.12. Area 12--Comm/ Identification, Friend or Foe (IFF)/Selective Identification (SIF):

3.2.12.1. **Q.** Complete knowledge of and compliance with correct Comm/IFF/SIF procedures. Transmissions concise, accurate and utilized proper terminology. Complied with and acknowledged all required instructions. Thoroughly familiar with communications security requirements, HAVE QUICK and secure voice equipment (if applicable).

3.2.12.2. **Q-.** Occasional deviations from correct procedures required retransmissions or resetting codes. Slow in initiating or missed several required calls. Minor errors or omissions did not significantly detract from situational awareness, threat warning or mission accomplishment. Transmissions contained extraneous matter, were not in proper sequence or used nonstandard terminology. Demonstrated limited knowledge of communications security requirements, HAVE QUICK and secure voice equipment (if applicable).

3.2.12.3. **U.** Incorrect procedures or poor performance caused confusion and jeopardized mission accomplishment. Omitted numerous required radio calls. Inaccurate or confusing terminology significantly detracted from situational awareness, threat warning or mission accomplishment. Displayed inadequate knowledge of communications security requirements, HAVE QUICK and secure voice equipment (if applicable).

3.2.13. Area 13--Crew Coordination. Not used.**3.2.14. Area 14--Airwork/Advanced Handling/Tactical Maneuvering:**

3.2.14.1. **Q.** Aircraft control during maneuvers was positive and smooth. Maneuvers performed IAW directives and appropriate to the tactical situation/ environment. Adhered to established procedures.

3.2.14.2. **Q-.** Aircraft control during maneuvers not always smooth and positive, but adequate. Minor procedure deviations or lack of full consideration for the tactical situation.

3.2.14.3. **U.** Aircraft control erratic. Aircraft handling caused unsatisfactory accomplishment of maneuvers. Exceeded Q- criteria. Failed to consider the tactical situation. Temporary loss of aircraft control.

3.2.15. Area 15--Unusual Attitude Recoveries:

3.2.15.1. **Q.** Smooth, positive recovery to level flight with correct recovery procedures.

3.2.15.2. **Q-** Slow to analyze attitude, or erratic in recovery to level flight. Correct recovery procedures used.

3.2.15.3. **U.** Unable to determine attitude. Improper recovery procedures were used.

3.2.16. Area 16--Weapons System/Built-in Test (BIT) Checks:

3.2.16.1. **Q.** Completed all checks. Thorough knowledge and performance of weapons system checks.

3.2.16.2. **Q-** Completed most weapons system checks. Limited knowledge of checks. Unsure of systems degradation due to check failure.

3.2.16.3. **U.** Failed to complete weapons system checks. General lack of knowledge on how to perform weapons system checks. Unable to determine systems degradation due to check failures.

3.2.17. Area 17--Air Refueling:**3.2.17.1. Air Refueling Rendezvous:**

3.2.17.1.1. **Q.** Rendezvous effectively accomplished using proper procedures. Demonstrated effective use of radio communications. Used proper communication procedures for briefed Emission Control (EMCON) level.

3.2.17.1.2. **Q-** Rendezvous delayed by improper techniques, procedures or radio communications.

3.2.17.1.3. **U.** Displayed lack of knowledge or familiarity with procedures to the extent that air refueling was or could have been jeopardized. Failed rendezvous as a result of improper procedures. Gross overshoot, spent excessive time in trail or safety of flight jeopardized due to poor judgment.

3.2.17.2. Air Refueling Procedures/Techniques:

3.2.17.2.1. **Q.** Expeditiously established and maintained proper position. Used proper procedures. Aircraft control was positive and smooth. Refueled without pilot induced disconnects.

3.2.17.2.2. **Q-** Slow to recognize and apply needed corrections to establish and maintain proper position. Aircraft control was not always positive and smooth, but adequate. Accomplished published/directed procedures with deviations or omissions that did not affect the successful completion of air refueling. Performance caused no more than one pilot induced disconnect.

3.2.17.2.3. **U.** Erratic in the pre-contact/refueling position. Made deviations or omissions that affected flight safety and/or the successful completion of the air refueling. Used unacceptable procedures. Excessive time to hookup delayed mission accomplishment. Performance caused more than one pilot induced disconnect and/or delayed mission accomplishment.

3.2.18. Area 18--Descent:

3.2.18.1. **Q.** Performed descent as directed, complied with all restrictions.

3.2.18.2. **Q-** Performed descent as directed with minor deviations.

3.2.18.3. **U.** Performed descent with major deviations.

3.2.19. Area 19--Go Around:

3.2.19.1. **Q.** Initiated and performed go around promptly in accordance with flight manual and operational procedures and directives.

3.2.19.2. **Q-.** Slow to initiate go around or procedural steps.

3.2.19.3. **U.** Did not initiate go around when appropriate or directed. Techniques inappropriate or applied incorrect procedures.

3.2.20. Area 20--Trail Recovery:

3.2.20.1. **Q.** Performed approach IAW applicable procedures using proper techniques. Effective use of radar. Provided efficient commentary throughout recovery.

3.2.20.2. **Q-.** Performed approach with minor deviations from established or appropriate procedures. Slow to obtain radar lock on and/or contact due to poor technique. Inefficient commentary.

3.2.20.3. **U.** Approach not performed IAW applicable procedures. Unable to accomplish recovery due to poor technique.

3.2.21. Area 21--Emergency Traffic Pattern: (Prior to configuration. Includes simulated single engine and no-flap emergency pattern, as appropriate.)

3.2.21.1. **Q.** Complied with all flight manual and operational procedures. Maintained safe maneuvering airspeed/AOA. Flew approach compatible with the situation. Adjusted approach for type emergency simulated.

3.2.21.2. **Q-.** Minor procedural errors. Erratic airspeed/ AOA control. Errors did not detract from safe handling of the situation.

3.2.21.3. **U.** Did not comply with applicable procedures. Erratic airspeed/AOA control compounded problems associated with the emergency. Flew an approach which was incompatible with the simulated emergency. Did not adjust approach for simulated emergency.

3.2.22. Area 22--Emergency Approach/Landing (Configuration through Rollout):

3.2.22.1. **Q.** Used sound judgment. Configured at the appropriate position/altitude. Flew final based on recommended procedures, airspeed/AOA and glidepath. Smooth, positive control of aircraft. Could have landed safely. Set parameters for ejection if necessary. Touchdown point was IAW applicable guidance and permitted safe stopping in available runway. Arrestment gear could have been used, if appropriate.

3.2.22.2. **Q-.** Safety not compromised. Configured at a position and altitude which allowed for a safe approach. Could have landed safely with the following deviations:

3.2.22.2.1. Minor deviations from recommended procedures, airspeed/AOA and altitudes.

3.2.22.2.2. Unnecessary maneuvering due to minor errors in planning or judgment.

3.2.22.3. **U.** Major deviations from recommended procedures, airspeed/AOA and altitudes. Required excessive maneuvering due to inadequate planning or judgment. Could not have landed safely. Touchdown point was not IAW applicable guidance and did not or would not allow for safe

stopping on available runway. Did not set parameters for ejection if approach was unsuccessful. Arrestment gear was not or could not have been used.

3.2.23. Area 23--VFR Pattern/Approach:

3.2.23.1. **Q.** Performed patterns/approaches IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Aircraft control was smooth and positive. Accurately aligned with runway. Maintained proper/briefed airspeed/AOA. Airspeed -5/+10 knots.

3.2.23.2. **Q-.** Performed patterns/approaches with minor deviations to procedures and techniques outlined in the flight manual, operational procedures and local directives. Aircraft control was not consistently smooth, but safe. Alignment with runway varied. Slow to correct to proper/briefed airspeed/AOA. Airspeed -5/+15 knots

3.2.23.3. **U.** Approaches not performed IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Erratic aircraft control. Large deviations in runway alignment. Exceeded Q- parameters.

3.2.24. Area 24--Formation Approach/Landing:

3.2.24.1. Flight Lead:

3.2.24.1.1. **Q.** Smooth on controls and considered wingman. Complied with formation landing procedures. Flew approach as published/directed.

3.2.24.1.2. **Q-.** Occasionally rough on the controls. Not unsafe, but made it difficult for wingman to maintain position. Some procedural deviations. Slow to comply with published procedures.

3.2.24.1.3. **U.** Did not monitor wingman's position or configuration. Rough on the controls. No consideration for wingman. Placed wingman in a position from which a safe landing could not be made. Major deviations in procedures. Did not fly approach as published/directed. Flight could not land from approach.

3.2.24.2. Wingman:

3.2.24.2.1. **Q.** Maintained position with only momentary deviations. Smooth and immediate corrections. Maintained safe separation and complied with procedures and leader's instructions.

3.2.24.2.2. **Q-.** Varied position considerably. Over controlled.

3.2.24.2.3. **U.** Abrupt position corrections. Did not maintain appropriate separation. Unsafe wing position and/or procedural deviations.

3.2.25. Area 25--Landing. Applicable to normal VFR approaches. Where runway configuration, arresting cable placement or flight manual limitations require an adjustment to the desired touchdown point, a simulated runway threshold will be identified and the grading criteria applied accordingly. For instrument approaches, the examinee should utilize a normal glide slope from either the decision height or from a point where visual acquisition of the runway environment is made.

3.2.25.1. **Q.** Performed landings IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Touchdown Point -150' to 1000' from the runway threshold.

3.2.25.2. **Q-**. Performed landings with minor deviations to procedures and techniques outlined in the flight manual, operational procedures and local directives. Touchdown Point -0' to 149' or 1001' to 1500' from the runway threshold.

3.2.25.3. **U**. Landing not performed IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Touchdown Point exceeded Q- criteria.

3.2.26. Area 26--After Landing:

3.2.26.1. **Q**. Appropriate after landing checks and aircraft taxi procedures accomplished in accordance with the flight manual and applicable directives. Completed all required forms accurately.

3.2.26.2. **Q-**. Same as qualified except some deviations or omissions noted in performance of after landing check and/or aircraft taxi procedures in which safety was not jeopardized. Required forms completed with minor errors.

3.2.26.3. **U**. Major deviations or omissions were made in performance of after-landing check or aircraft taxi procedures which could have jeopardized safety. Data recorded inaccurately or omitted.

3.2.27. Area 27--Flight Leadership:

3.2.27.1. **Q**. Positively directed the flight during accomplishment of the mission and made timely comments to correct discrepancies when required. Made sound and timely inflight decisions.

3.2.27.2. **Q-**. Inflight decisions delayed mission accomplishment or degraded training benefit.

3.2.27.3. **U**. Did not accomplish the mission or failed to correct inflight discrepancies. Inflight decisions jeopardized mission accomplishment.

3.2.28. Area 28--Debriefing/Critique:

3.2.28.1. **Q**. Thoroughly debriefed the mission (or applicable portions). Compared mission results with initial objectives that were established for the mission. Debriefed deviations. Offered corrective guidance as appropriate.

3.2.28.2. **Q-**. Limited debriefing. Did not thoroughly discuss performance in relationship to mission objectives. Did not debrief all deviations.

3.2.28.3. **U**. Did not debrief mission deviations or offer corrective guidance.

3.2.29. Area 29--Knowledge: (Evaluate all applicable sub areas.)

3.2.29.1. Aircraft General:

3.2.29.1.1. **Q**. Demonstrated thorough knowledge of aircraft systems, limitations and performance characteristics.

3.2.29.1.2. **Q-**. Knowledge of aircraft systems, limitations, and performance characteristics sufficient to perform the mission safely. Demonstrated deficiencies either in depth of knowledge or comprehension.

3.2.29.1.3. **U**. Demonstrated unsatisfactory knowledge of aircraft systems, limitations or performance characteristics.

3.2.29.2. Emergency Procedures:

3.2.29.2.1. **Q.** Displayed correct, immediate response to emergency situations. Effectively used checklist.

3.2.29.2.2. **Q-.** Response to certain emergency procedures was slow/confused. Used the checklist when appropriate, but slow to locate required data.

3.2.29.2.3. **U.** Unable to analyze problems or take corrective action. Did not use checklist, or lacks acceptable familiarity with its arrangement or contents.

3.2.29.3. Flight Rules/Procedures:

3.2.29.3.1. **Q.** Thorough knowledge of flight rules and procedures.

3.2.29.3.2. **Q-.** Deficiencies in depth of knowledge.

3.2.29.3.3. **U.** Inadequate knowledge of flight rules and procedures.

3.2.29.4. Weapon/Tactics/Threat:

3.2.29.4.1. **Q.** Thorough knowledge of all aircraft weapons systems, weapons effects, tactics and threats applicable to the unit mission.

3.2.29.4.2. **Q-.** Deficiencies in depth of knowledge or comprehension of weapons systems, weapons effects, tactics and threat knowledge which would not preclude successful mission accomplishment.

3.2.29.4.3. **U.** Insufficient knowledge of weapons, tactics and threat contributed to ineffective mission accomplishment.

3.2.29.5. Local Area Procedures:

3.2.29.5.1. **Q.** Thorough knowledge of local procedures.

3.2.29.5.2. **Q-.** Limited knowledge of local procedures.

3.2.29.5.3. **U.** Inadequate knowledge of local procedures.

3.2.29.6. Plans/Alert Procedures:

3.2.29.6.1. **Q.** Adequate knowledge of plans applicable to the unit mission. Thoroughly familiar with alert procedures and contingencies.

3.2.29.6.2. **Q-.** Deficiencies in depth of knowledge or comprehension of plans or alert procedures applicable to the unit.

3.2.29.6.3. **U.** Knowledge of plans/alert procedures insufficient to ensure effective mission accomplishment.

3.2.29.7. Authentication Procedures:

3.2.29.7.1. **Q.** Performed authentication with no errors.

3.2.29.7.2. **Q-.** Minor errors in authentication.

3.2.29.7.3. **U.** Unable to authenticate or authenticated incorrectly.

3.2.30. Area 30--Airmanship (Critical):

3.2.30.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

3.2.30.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

3.2.31. Area 31--Safety (Critical):

3.2.31.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.2.31.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Did not adequately clear. Operated the aircraft in a dangerous manner.

3.2.32. Area 32--Aircrew Discipline (Critical):

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

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

3.2.33. Area 33--Instructor Performance:**3.2.33.1. Briefing/Debriefing:**

3.2.33.1.1. **Q.** Presented a comprehensive, instructional briefing/debriefing which encompassed all mission events. Made excellent use of training aids. Excellent analysis of all events/maneuvers. Clearly defined objectives.

3.2.33.1.2. **Q-.** Minor errors or omissions in briefing/debriefing or mission critique. Occasionally unclear in analysis of events or maneuvers.

3.2.33.1.3. **U.** Major errors or omissions in briefing/debriefing. Analysis of events or maneuvers was incomplete, inaccurate or confusing. Did not use training aids/reference material effectively. Briefing/debriefing below the caliber of that expected of instructors. Failed to define mission objectives.

3.2.33.2. **Demonstration of Maneuvers.** (For instructor evaluations where the IP normally instructs from a chase aircraft, the examinee will fly a portion of the mission in the chase position.)

3.2.33.2.1. **Q.** Performed required maneuvers within prescribed parameters. Provided concise, meaningful inflight commentary. Demonstrated excellent instructor proficiency.

3.2.33.2.2. **Q-.** Performed required maneuvers with minor deviations from prescribed parameters. Inflight commentary was sometimes unclear.

3.2.33.2.3. **U.** Was unable to properly perform required maneuvers. Made major procedural errors. Did not provide inflight commentary. Demonstrated below average instructor proficiency.

3.2.33.3. Instructor Knowledge:

3.2.33.3.1. **Q.** Demonstrated in-depth knowledge of procedures, requirements, aircraft systems/performance characteristics, mission and tactics beyond that expected of non-instructors.

3.2.33.3.2. **Q-.** Deficiencies in depth of knowledge, comprehension of procedures, requirements, aircraft systems/performance characteristics, mission or tactics.

3.2.33.3.3. **U.** Unfamiliar with procedures, requirements, aircraft systems/performance characteristics, mission or tactics. Lack of knowledge in certain areas seriously detracted from instructor effectiveness.

3.2.33.4. Ability to Instruct:

3.2.33.4.1. **Q.** Demonstrated excellent instructor/evaluator ability. Clearly defined all mission requirements and any required additional training/corrective action. Instruction/evaluation was accurate, effective and timely. Was completely aware of aircraft/mission situation at all times.

3.2.33.4.2. **Q-.** Problems in communication or analysis degraded effectiveness of instruction/evaluation.

3.2.33.4.3. **U.** Demonstrated inadequate ability to instruct/evaluate. Unable to perform, teach or assess techniques, procedures, systems use or tactics. Did not remain aware of aircraft/mission situation at all times.

3.2.33.5. Training/Evaluation Forms Preparation:

3.2.33.5.1. **Q.** Completed appropriate training/evaluation records accurately. Adequately assessed and recorded performance. Comments were clear and pertinent.

3.2.33.5.2. **Q-.** Minor errors or omissions in training/evaluation records. Comments were incomplete or slightly unclear.

3.2.33.5.3. **U.** Did not complete required forms or records. Comments were invalid, unclear, or did not accurately document performance.

3.2.34. **Area 34 - 40.** Not used.

3.3. Instrument:**3.3.1. Area 41--Holding:**

3.3.1.1. **Q.** Performed entry and holding IAW published procedures and directives. Holding pattern limit exceeded by not more than:

3.3.1.1.1. VOR \pm 15 seconds

3.3.1.1.2. TACAN \pm 2 NM

3.3.1.2. **Q.** Holding pattern limit exceeded by not more than:

3.3.1.2.1. VOR \pm 20 seconds

3.3.1.2.2. TACAN \pm 3 NM

3.3.1.3. **U.** Holding was not IAW published procedures and directives. Exceeded criteria for Q or holding pattern limits.

3.3.2. Area 42--Instrument Penetration (Initial Approach Fix to Final Approach Fix/Descent Point):

3.3.2.1. **Q.** Performed the penetration and approach as published/directed and IAW applicable flight manuals. Complied with all restrictions. Made smooth and timely corrections.

3.3.2.2. **Q-.** Performed the penetration and approach with minor deviations. Complied with all restrictions. Slow to make corrections.

3.3.2.3. **U.** Performed the penetration and approach with major deviations. Erratic corrections.

3.3.3. Area 43--Instrument Patterns (Down-wind/Base Leg):

3.3.3.1. **Q.** Performed procedures as published or directed and IAW flight manual. Smooth and timely response to controller instruction.

3.3.3.2. **Q-.** Performed procedures with minor deviations. Slow to respond to controller instruction.

3.3.3.3. **U.** Performed procedures with major deviations/ erratic corrections. Failed to comply with controller instruction.

3.3.4. Area 44--Non-Precision Approach:

3.3.4.1. **Q.** Adhered to all published/directed procedures and restrictions. Used appropriate descent rate to arrive at Minimum Descent Altitude (MDA) at or before the Visual Descent Point (VDP) or Missed Approach Point (MAP). Position would have permitted a safe landing. Maintained proper/briefed AOA.

3.3.4.1.1. Airspeed +10/-5 kts

3.3.4.1.2. Heading ± 5 degrees (Airport Surveillance Radar (ASR))

3.3.4.1.3. Course ± 5 degrees at MAP

3.3.4.1.4. Localizer less than one dot deflection

3.3.4.1.5. Minimum Descent Altitude +100/0 feet

3.3.4.2. **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 correct to proper/ briefed AOA.

3.3.4.2.1. Airspeed +15/-5 kts

3.3.4.2.2. Heading ± 10 degrees (ASR)

3.3.4.2.3. Course ± 10 degrees at MAP

3.3.4.2.4. Localizer within two dots deflection

3.3.4.2.5. Minimum Descent Altitude +150/-50 feet

3.3.4.3. **U.** Did not comply with published/directed procedures or restrictions. Exceeded Q limits. Maintained steady state flight below the MDA, even though the -50 foot limit was not exceeded. Could not land safely from the approach.

NOTE: The -50 foot tolerance applies only to momentary excursions.

3.3.5. Area 45--Precision Approach (PAR): (See Note 3, **Table 2.1.**)

3.3.5.1. **Q.** Performed procedures as directed and IAW applicable flight manual. Smooth and timely response to controller's instructions (PAR). Complied with decision height. Position would have permitted a safe landing. Maintained proper/briefed AOA. Maintained glide path with only minor deviations.

3.3.5.1.1. Airspeed +10 to -5 kts

3.3.5.1.2. Heading within 5 degrees of controller's instructions (PAR)

3.3.5.1.3. Glide Slope/Azimuth within one dot (ILS)

3.3.5.2. **Q-.** Performed procedures with minor deviations. Slow to respond to controller's instructions (PAR). Slow to make corrections or initiate procedures. Position would have permitted a safe landing. Slow to correct to proper/briefed AOA. Improper glide path control.

3.3.5.2.1. Airspeed +15 to -5 kts

3.3.5.2.2. Heading within 10 degrees of controller's instructions (PAR)

3.3.5.2.3. Glide Slope within one dot low/two dots high (ILS)

3.3.5.2.4. Azimuth within two dots (ILS)

3.3.5.3. **U.** Performed procedures with major deviations. Did not respond to controller's instructions (PAR). Erratic corrections. Exceeded Q- limits. Did not comply with decision height and/or position would not have permitted a safe landing. Erratic glide path control.

3.3.6. Area 46--Not Used

3.3.6.1. DELETED.

3.3.6.1.1. DELETED.

3.3.6.1.2. DELETED.

3.3.6.2. DELETED.

3.3.6.2.1. DELETED.

3.3.6.2.2. DELETED.

3.3.6.2.3. DELETED.

3.3.6.2.4. DELETED.

3.3.6.3. DELETED.

3.3.7. Area 47--Missed Approach/Climb Out:

3.3.7.1. **Q.** Executed missed approach/climbout as published directed. Completed all procedures IAW applicable flight manual.

3.3.7.2. **Q.** Executed missed approach/climbout with minor deviations. Slow to comply with published procedures, controller's instructions or flight manual procedures.

3.3.7.3. **U.** Executed missed approach/climbout with major deviations, or did not comply with applicable directives.

3.3.8. Area 48--Circling/Side Step Approach:

3.3.8.1. **Q.** Performed circling/sidestep approach in accordance with procedures and techniques outlined in the flight manual and AFMAN 11-217. Aircraft control was positive and smooth. Proper runway alignment.

3.3.8.2. **Q-.** Performed circling/sidestep approach with minor deviations to procedures and techniques outlined in the flight manual and AFMAN 11-217. Aircraft control was not consistently smooth, but safe. Runway alignment varied, but go around not required.

3.3.8.3. **U.** Circling/sidestep approach not performed in accordance with procedures and techniques outlined in the flight manual and AFMAN 11-217. Erratic aircraft control. Large deviations in runway alignment required go around.

3.3.9. Area 49--Instrument Cross Check:

3.3.9.1. **Q.** Effective instrument cross-check. Smooth and positive aircraft control throughout flight. Meets "Q" criteria listed in General Criteria, applicable special events or instrument final approaches.

3.3.9.2. **Q-.** Slow instrument cross-check. Aircraft control occasionally abrupt to compensate for recognition of errors. Meets "Q-" criteria listed in General Criteria, applicable special events or instrument final approaches.

3.3.9.3. **U.** Inadequate instrument cross-check. Erratic aircraft control. Exceeded Q- limits.

3.3.10. **Area 50.** Not used.

3.4. Tactical Employment:

3.4.1. General:

3.4.1.1. Area 51--Tactical Plan:

3.4.1.1.1. **Q.** Well developed plan that included consideration of mission objectives, the threat and capabilities of all flight members. Addressed contingencies in development of plan.

3.4.1.1.2. **Q-.** Minor omissions in the plan resulted in less than optimum achievement of objectives and detracted from mission effectiveness. Planned tactics resulted in unnecessary difficulty.

3.4.1.1.3. **U.** Major errors in the plan precluded accomplishment of the stated objectives.

3.4.1.2. Area 52--Tactical Execution:

3.4.1.2.1. **Q.** Applied tactics consistent with the threat, current directives, and good judgment. Executed the plan and achieved mission goals. Quickly adapted to changing environment. Maintained situational awareness.

3.4.1.2.2. **Q-.** Minor deviations from tactical plan which did not result in an ineffective mission. Slow to adapt to changing environment. Poor situational awareness.

3.4.1.2.3. **U.** Unable to accomplish the mission due to major errors of commission or omission during execution of the plan. Situational awareness lost.

3.4.1.3. Area 53--Ground Control Intercept (GCI)/Airborne Warning and Control System (AWACS)/Composite Force Interface:

3.4.1.3.1. **Q.** Effectively planned for and used GCI/AWACS to enhance mission and achieve objectives. No confusion between GCI/AWACS and fighters.

3.4.1.3.2. **Q-.** Minor confusion between GCI/AWACS and fighters. Less than optimum use of GCI/AWACS which did not affect the fighter's offensive advantage.

3.4.1.3.3. **U.** Inadequate or incorrect use of GCI/AWACS resulted in loss of offensive potential.

3.4.1.4. Area 54--Radio Transmission Usage and Discipline:

3.4.1.4.1. **Q.** Radio communications were concise, accurate and effectively used to direct maneuvers or describe the tactical situation.

3.4.1.4.2. **Q-.** Minor terminology errors or omissions occurred, but did not significantly detract from situational awareness, mutual support or mission accomplishment. Extraneous comments over primary or secondary radios presented minor distractions.

3.4.1.4.3. **U.** Radio communications over primary/secondary radios were inadequate or excessive. Inaccurate or confusing terminology significantly detracted from mutual support, situational awareness or mission accomplishment.

3.4.1.5. Area 55--Visual Lookout:

3.4.1.5.1. **Q.** Demonstrated thorough knowledge and effective application of visual lookout techniques for all phases of flight.

3.4.1.5.2. **Q-.** Demonstrated limited knowledge of visual lookout techniques. Did not establish lookout responsibilities for all phases of flight. Slow to acquire threats to flight or targets to be attacked.

3.4.1.5.3. **U.** Demonstrated unsatisfactory knowledge and/or application of visual lookout responsibilities. Allowed threat to penetrate to short range undetected.

3.4.1.6. Area 56--Mutual Support:

3.4.1.6.1. **Q.** Maintained mutual support during entire engagement thus sustaining an offensive posture and/or negating all attacks. Adhered to all engaged and support responsibilities.

3.4.1.6.2. **Q-.** Mutual support occasionally broke down resulting in temporary confusion or the loss of an offensive advantage. Demonstrated limited knowledge of engaged and support responsibilities.

3.4.1.6.3. **U.** Mutual support broke down resulting in the flight being put in a defensive position from which all attacks were not negated. Demonstrated inadequate knowledge of engaged and support responsibilities.

3.4.1.7. Area 57--Tactical Navigation:

3.4.1.7.1. **General:**

3.4.1.7.1.1. **Q.** Navigated to desired destination and remained geographically oriented during the tactical portion of the mission along the desired route. Altitude and route of flight reflected consideration for enemy threats. Maintained terrain awareness. Complied with established altitude minimums. Adhered to airspace restrictions.

NOTE: Airspace restrictions include buffer zones, restrictive fire plans, fire support coordination lines, friendly artillery fans, ingress/egress corridors and other airspace restrictions.

3.4.1.7.1.2. **Q-.** Deviations from planned route of flight were recognized and corrected. Maintained terrain awareness. Altitude control contributed to exposure to threats for brief periods. Did not optimize terrain masking (if applicable).

3.4.1.7.1.3. **U.** Failed to locate desired destination. Deviations from planned route of flight exposed flight to threats. Violated airspace restrictions or altitude minimums. Poor airspeed/altitude control contributed to disorientation. Inadequate terrain awareness. Did not use terrain masking (if applicable).

3.4.1.7.2. High Altitude:

3.4.1.7.2.1. **Q.** Used proper procedures/DR techniques. Maintained course within 3NM. Properly used available aids to navigation. Maintained altitude consistent with mission requirements/restrictions.

3.4.1.7.2.2. **Q-.** Errors in procedures/techniques. Maintained course within 6NM. Minor errors in use of available navigation aids. Minor deviations from planned altitude.

3.4.1.7.2.3. **U.** Unable to use DR or appropriate navigation aids. Exceeded Q- tolerances. Major altitude

3.4.1.7.3. Medium Altitude:

3.4.1.7.3.1. **Q.** Demonstrated satisfactory capability to adjust for deviations in time and course; only minor corrections required.

3.4.1.7.3.2. **Q-.** Medium level course and airspeed control resulted in large corrections. Minor error in procedures/ use of navigation equipment.

3.4.1.7.3.3. **U.** Failed to recognize checkpoints or adjust for deviations in course. Major errors in procedures/use of navigation equipment.

3.4.1.7.4. Low Altitude:

3.4.1.7.4.1. **Q.** Demonstrated satisfactory capability to adjust for deviations in time and course; only minor corrections required. Remained oriented within 2 NM of planned course or adjusted course and within route or airspace boundaries. Used terrain masking as circumstances allowed.

3.4.1.7.4.2. **Q-.** Low level altitude and airspeed control resulted in large corrections. Remained oriented within 3 NM of planned course and/or adjusted course within route boundaries.

3.4.1.7.4.3. **U.** Failed to recognize checkpoints or adjust for deviations in time and course. Exceeded low level route boundaries. Did not use terrain masking if available and tactically required. Exceeded Q- parameters. Major errors in procedures/use of navigation equipment. Violated low level instructions/restricted airspace.

3.4.1.8. Area 58--Ingress:

3.4.1.8.1. **Q.** Aware of all known/simulated threats and defenses. Employed effective use of terrain masking and/or route and altitude selection.

3.4.1.8.2. **Q-.** Ignored some of the known/simulated threats and defenses. Improper use of terrain masking and/or route and altitude selection resulted in unnecessary exposure.

3.4.1.8.3. **U.** Failed to honor known/simulated threats and defenses significantly reducing survivability. Failed to employ effective terrain masking and/or route or altitude threat deconfliction.

3.4.1.9. Area 59--Egress:

3.4.1.9.1. **Q.** Effectively used evasive maneuvers and terrain masking to complete an expeditious egress from the target area. Flight/element join up was accomplished as soon as possible without undue exposure to enemy defenses.

3.4.1.9.2. **Q-.** Egress contributed to unnecessary exposure to threats and delayed flight join up and departure from target area.

3.4.1.9.3. **U.** Egress caused excessive exposure to threats. Flight/element join up was not accomplished or resulted in excessive exposure to threats.

3.4.1.10. Area 60--Combat Separation:

3.4.1.10.1. **Q.** Adhered to briefed/directed separation procedures. Positive control of flight/element during separation. Maintained mutual support with adversary unable to achieve valid simulated missile/gun firing parameters.

3.4.1.10.2. **Q-.** Minor deviations from briefed/directed separation procedures. Limited control of flight/element during separation. Allowed mutual support to break down intermittently.

3.4.1.10.3. **U.** Did not adhere to briefed/directed separation procedures to the degree that an emergency fuel condition would have developed if allowed to continue uncorrected. Could not effectively separate from the engagement or could not regain mutual support.

3.4.1.11. **Area 61--Timing.** Time will be based on pre-planned vulnerability period (Defensive Counter Air (DCA)) or push time (Offensive Counter Air (OCA) Sweep). Adjustments in Time over Target (TOT) will be made for non-aircrew-caused delays. The FE may widen this timing criterion if the examinee was forced to maneuver extensively along the ingress route due to simulated enemy air or ground defense reactions and/or weather.

3.4.1.11.1. **Q.** \pm 1 minute. Covered TOT.

3.4.1.11.2. **Q-.** \pm 2 minutes. Covered TOT.

3.4.1.11.3. **U.** Exceeded Q- parameters. Failed to cover TOT due to inadequate planning or use of resources.

3.4.1.12. Area 62--Training Rules/Rules of Engagement (ROE):

3.4.1.12.1. **Q.** Adhered to and knowledgeable of all training rules/ROE.

3.4.1.12.2. **Q-.** Minor deviations. Made timely and positive corrections. Did not jeopardize safety of flight.

3.4.1.12.3. **U.** Significant deviations indicating a lack of knowledge of training rules/ROE.

3.4.1.13. **Area 63--Threat Reactions:**

3.4.1.13.1. **Q.** Threat reactions were timely and correct. Accomplished appropriate countermeasures and performed maneuvers to counter threat.

3.4.1.13.2. **Q-.** Threat reactions were slow or inconsistent. Slow to accomplish appropriate countermeasures or perform maneuvers to counter threat.

3.4.1.13.3. **U.** Numerous threat reactions were omitted or incorrect. Failed to accomplish countermeasures or perform maneuvers to counter threat.

3.4.1.14. **Area 64.** Not used.

3.4.1.15. **Area 65--Inflight Report:**

3.4.1.15.1. **Q.** Gave accurate, precise inflight reports in correct format.

3.4.1.15.2. **Q-.** Deviated from established procedures/format. Completed reports.

3.4.1.15.3. **U.** Failed to make inflight reports. Unfamiliar with inflight reporting procedures.

3.4.1.16. **Area 66--Electronic Attack (EA)/Electronic Protect (EP)/All Aspect Missile Defense (AAMD):**

3.4.1.16.1. **Q.** Interpretation of threat scope aural tones, warning lights and operation of CMD/ICS systems, indicated thorough knowledge.

3.4.1.16.2. **Q-.** Interpretation of threat scope, aural tones, warning lights and operation of CMD/ICS systems indicated limited knowledge.

3.4.1.16.3. **U.** Displayed unsatisfactory interpretation of threat scope, aural tones, warning lights or operation of CMD/ICS system.

3.4.1.17. **Area 67--Radar Scope/Sensor Utilization:**

3.4.1.17.1. **Q.** Correctly utilized all on board sensors to successfully employ weapons systems. Was able to compensate for system errors or unanticipated developments to successfully employ radar/sensor.

3.4.1.17.2. **Q-.** Slow to assimilate all on board sensors into tactical game plan. Minor procedural errors degraded weapons system employment. Had difficulties compensating for system errors or unanticipated developments.

NOTE: A successful reattack caused by minor procedural errors during the initial attack is an example of degraded weapons employment.

3.4.1.17.3. **U.** Did not utilize or misinterpretation of on board sensor information led to unsuccessful weapons system employment. Could not compensate for or identify system errors or unanticipated developments.

3.4.1.18. **Areas 68-70.** Not used.

3.4.2. **Air-to-Air:**

3.4.2.1. **Area 71--Radar Search/Sorting Technique:**

3.4.2.1.1. **Q.** Demonstrated satisfactory knowledge and effective application of radar search/sorting techniques for all phases of flight. Recognized chaff/EA and compensated for lock transfer. Utilized radar, with proper EP techniques, to maximum extent possible.

3.4.2.1.2. **Q-.** Demonstrated adequate knowledge of radar search techniques. Did not establish radar search responsibilities for all phases of flight. Allowed /EA/chaff to excessively delay target acquisition/intercept. Late contacts resulted in excessive maneuvering during target acquisition.

3.4.2.1.3. **U.** Demonstrated unsatisfactory knowledge and/or application of radar search responsibilities. Unable to counter the threat/combat chaff. Did not acquire the target due to aircrew error.

3.4.2.2. Area 72--Air Sovereignty Tasking:

3.4.2.2.1. **Q.** Responded properly to directive commentary. Completed all required armament/safety checks. Successfully completed visual identification pass. Properly performed procedures for air defense operations.

3.4.2.2.2. **Q-.** Slow response to directive commentary contributed to delayed completion of a visual identification pass or required large position corrections to complete a firing pass. Completed all required armament/safety checks. Minor deficiencies during performance of procedures for air defense operations.

3.4.2.2.3. **U.** Failed to complete intercepts/visual identification passes because of improper procedures. Did not complete an armament/safety check. Failed to perform proper procedures for air defense operations.

3.4.2.3. Area 73--Tactical Intercept/Patrol:

3.4.2.3.1. **Q.** Thorough knowledge and correct employment of tactical intercept procedures. Intercept resulted in a successful VID/EID followed by an offensive attack, if applicable. CAP successfully employed and designated airspace patrolled in a satisfactory manner.

3.4.2.3.2. **Q-.** Limited knowledge of tactical intercept procedures. Intercept resulted in a successful VID/EID; however, large or difficult corrections were required to complete the pass and subsequent attack. CAP could have been more effective.

3.4.2.3.3. **U.** Intercept unsuccessful due to poor techniques and/or improper procedures. Intercept terminated in a counteroffensive position. Designated CAP airspace not patrolled effectively or attacks not negated.

3.4.2.4. **Area 74.** Not used.

3.4.2.5. Area 75--Offensive Maneuvering:

3.4.2.5.1. **Q.** Effective use of basic fighter maneuvering and air combat maneuvering to attack/counter opposing aircraft. Good aircraft control. Effectively managed energy level during engagements.

3.4.2.5.2. **Q-.** Limited maneuvering proficiency; however, during engagements did not effectively counter opposing aircraft. Occasionally mismanaged energy levels, jeopardizing offensive advantage.

3.4.2.5.3. U. Unsatisfactory knowledge or performance of maneuvers, aircraft handling or energy management. Lost offensive advantage.

3.4.2.6. Area 76--Defensive/Counteroffensive Maneuvering:

3.4.2.6.1. Q. Performed correct initial move to counter attack of opposing aircraft. Used correct maneuvers to negate the threat.

3.4.2.6.2. Q-. Some hesitation or confusion during initial stages of counteroffensive/defensive situation. Minor errors in energy management or BFM delayed negating the attack of an opposing aircraft.

3.4.2.6.3. U. Unable to negate attack of opposing aircraft.

3.4.2.7. Area 77--Air-to-Air Weapons Employment. Snapshots assessed as misses may be discounted from computations if attacks were tactically sound and attempted within designated parameters.

3.4.2.7.1. Q. Demonstrated proper knowledge of missile/gun firing procedures and attack parameters. Simulated missile/gun-firing were accomplished at each opportunity and within designated parameters. Successfully completed 75 percent (or two of three/one of two) of attempted shots.

3.4.2.7.2. Q-. Demonstrated limited knowledge of missile/gun firing procedures and attack parameters. Simulated employment of weapons was successful but made minor errors which did not affect overall result. Slow to recognize appropriate parameters. Successfully completed 50 percent or more of all attempted shots (four or more attempts).

3.4.2.7.3. U. Demonstrated inadequate knowledge of missile/gun firing procedures or attack parameters. Attempts to simulate weapons employment were unsuccessful due to aircrew error. Did not meet Q- criteria.

3.4.2.8. Areas 78-130. Not used.

RONALD E. KEYS, Lt General, USAF
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Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 11-2, *Aircraft Rules and Procedures*

AFI 11-202V2, *Aircrew Standardization/Evaluation Program*

AFMAN 11-210, *Instrument Refresher Course (IRC) Program*

AFMAN 11-217, *Instrument Flight Procedures*

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

AFPD 11-4, *Aviation Service*

AFI 33-360V1, *Publications Management Program*

AFMAN 37-139, *Records Disposition Schedule*

T.O. 1F-15A-1CL-1, *Flight Crew Checklist*

T.O. 1F-15A-34-1-3CL-1, *Flight Crew Non-Nuclear Weapon Delivery Checklist*

T.O. 1-1C-1-25CL-1, *Air Refueling Procedures*

Abbreviations and Acronyms

AAMD—All Aspect Missile Defense

ACMI—Air Combat Maneuvering Instrumentation

AOA—Angle of Attack

ASR—Airport Surveillance Radar

ATA—Airport Traffic Area

ATC—Air Traffic Control

ATCAA—Air Traffic Controlled Assigned Airspace

ATD—Aircrew Training Device

AWACS—Airborne Warning and Control System

BFM—Basic Fighter Maneuver

BIT—Built in test

BMC—Basic Mission Capable

CPT—Cockpit Procedure Trainer

CRM—Cockpit Resource Management

DB—Dive Bomb

DCA—Defensive Counter Air

DOC—Designed Operational Capability
EA—Electronic Attack
EMCON—Emission Control
EP—Electronic Protect
EPE—Emergency Procedure Evaluation
FCIF—Flight Crew Information File
FE—Flight Examiner
FMT—Full Mission Trainer
FTU—Formal Training Unit
GCI—Ground Control Intercept
HHQ—Higher Headquarter
HUD—Head Up Display
IFF—Identification, Friend or Foe
ILS—Instrument Landing System
IP—Instructor Pilot
IRC—Instrument Refresher Course
LGB—Laser Guide Bomb
MAP—Missed Approach Point
MCOPR—MAJCOM Office of Primary Responsibility
MDA—Minimum Descent Altitude
MOA—Military Operating Area
NGB—National Guard Bureau
OCA—Offensive Counter Air
OFT—Operational Flying Training
PAR—Precision Approach Radar
RAP—Ready Aircrew Program
RCR—Runway Conditions Reading
ROE—Rule of Engagement
RWR—Radar Warning Receiver
SIF—Selective Identification
TOT—Time over Target
TRSA—Terminal Radar Service Area

VDP—Visual Descent Point

VFR—Visual Flight Rules

VTR—Video Tape Recorder

WTT—Weapons and Tactics Trainer

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Attachment 2

IC 2004-01 TO AFI 11-2F-15 VOLUME 2, F-15 AIRCREW EVALUATION DATA

3 FEBRUARY 2004

SUMMARY OF REVISIONS

This change incorporates interim change IC 2004-01. Paragraph 1.5. wording changed to remove reference to flight simulator and add other training devices. Paragraph 1.6. changed to delete the requirement to check T.O.1-1C-1-25CL-1. Table 2.1. was amended to reflect changes. Area 36 is no longer annotated in Table 2.1. Paragraph 3.3.5., Area 45, Precision Approach, combines the grading criteria for the PAR and the ILS into one paragraph. Area 46 no longer used. Area 67 wording changed to add system anomalies. Note 4 added to area 72 in Table 2.1. A “” indicates revised material since the last edition. Add or replace all paragraphs and tables for immediate implementation.

1.5. Emergency Procedures Evaluation (EPE). EPE's will be conducted in an appropriate Aircrew Training Device, e.g. Operational Flying Trainers, Weapons and Tactics Trainers, Full Mission Trainers, etc. If an Aircrew Training Device is not available, the EPE may be given verbally only as a last resort. If this option is utilized, it will be noted on the AF Form 8 in the additional comments section. This evaluation will include areas commensurate with examinee's Ready Aircrew Program (RAP) training level and should highlight current items of interest such as recently discovered aircraft anomalies or unusual accident investigation results.

1.6.1.3. Deleted

Table 2.1. Evaluations.

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
		GENERAL		
1		MISSION PLANNING	R	R
2		BRIEFING	R	R
3		PRETAKEOFF	R	R
4		TAKEOFF	R	
5		FORMATION TAKEOFF		
6		DEPARTURE	R	

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
7		LEVEL OFF	R	
8		CRUISE/NAVIGATION	R	
9		FORMATION		
10		IN-FLIGHT CHECKS	R	
11		FUEL MANAGEMENT	R	R
12		COMM/IFF/SIF	R	R
13		NOT USED		
14	1	AIRWORK/ADV HAND/TAC MANEUVER	R	
15	2	UNUSUAL ATTITUDE RECOVERIES	R	
16		WEAPONS SYSTEM/BIT CHECKS		
17		AIR REFUELING		
18		DESCENT	R	
19		GO-AROUND		
20		TRAIL RECOVERY		
21		EMERGENCY TRAFFIC PATTERNS	R	
22		EMERGENCY APPROACH/LANDING	R	
23		VFR PATTERN/APPROACH	R	
24		FORMATION APPROACH/LANDING		
25		LANDING	R	
26		AFTER-LANDING	R	
27		FLIGHT LEADERSHIP (if applicable)	R	R
28		DEBRIEFING/CRITIQUE	R	R

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
29		KNOWLEDGE	R	R
30	*	AIRMANSHIP	R	R
31	*	SAFETY	R	R
32	*	AIRCREW DISCIPLINE	R	R
33		INSTRUCTOR PERFORMANCE (if applicable)	R	R
34 - 40		NOT USED		
		INSTRUMENT		
41		HOLDING		
42		INSTRUMENT PENETRATION	R	
43		INSTRUMENT PATTERNS	R	
44		NONPRECISION APPROACH	R	
45	3	PRECISION APPROACH	R	
46		NOT USED		
47		MISSED APPROACH/CLIMB OUT	R	
48		CIRCLING/SIDE-STEP APPROACH		
49		INSTRUMENT CROSS-CHECK		
50		NOT USED		
		TACTICAL EMPLOYMENT		
		A. GENERAL		
51		TACTICAL PLAN		R

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
52		TACTICAL EXECUTION		R
53		GCI/AWACS/CF INTERFACE		
54		RADIO TRANSMISSIONS		R
55		VISUAL/RADAR LOOKOUT		R
56		MUTUAL SUPPORT (if applicable)		R
57		TACTICAL NAVIGATION		
58		INGRESS		
59		EGRESS		
60		COMBAT SEPARATION		
61		TIMING		
62		TRAINING RULES/ROE		R
63	4	THREAT REACTIONS		R
64		NOT USED		
65		IN-FLIGHT REPORT		R
66		EA/EP/AAMD		R
67		RADAR SCOPE/SENSOR UTILIZATION		R
68 - 70		NOT USED		
		B. AIR-TO-AIR		
71	4	RADAR SEARCH/SORTING		R
72	4	AIR SOVEREIGNTY TASKING (Air Defense Units)		R
73	4	TACTICAL INTERCEPT/PATROL		R

AREA	NOTES	AREA TITLE	INST/ QUAL	MISSION
74		NOT USED		
75	4	OFFENSIVE MANEUVERING		R
76		DEFENSIVE/COUNTEROFFENSIVE MAN		
77	4	AIR-TO-AIR WEAPONS EMPLOY- MENT		R

* Asterisk denotes Critical Area

NOTES:

1. Airwork/Advanced Handling/Tactical Maneuvering. Units will determine appropriate proficiency maneuvers for pilot experience levels. Examples are, but are not limited to:

- a. Aerobatics
- b. Basic Fighter Maneuvers (BFM)
- c. Advanced handling characteristics
- d. Formation (fingertip, tactical, trail)

2. Unusual Attitude Recoveries. Do not perform unusual attitude recoveries in single-seat aircraft. They will be evaluated during EPE's or if evaluated in dual-seat aircraft in-flight, will be performed with a flight examiner in the aircraft.

3. Both a Precision Approach Radar (PAR) and an Instrument Landing System (ILS) must be evaluated if equipment and facilities are available. However, if facilities or equipment are not available, the flight evaluation may be completed as long as one precision approach is flown.

4. It may be impractical to evaluate these required items on certain FTU Instructor evaluations due to student syllabus constraints (e.g. BFM mission checks). Squadron commanders may approve these exceptions to validate instructor effectiveness. Document in the Additional Comments portion of the AF Form 8.

3.3.5.1. **Q.** Performed procedures as directed and IAW applicable flight manual. Smooth and timely response to controller's instructions (PAR). Complied with decision height. Position would have permitted a safe landing. Maintained proper/briefed AOA. Maintained glide path with only minor deviations.

3.3.5.1.2. Heading within 5 degrees of controller's instructions (PAR)

3.3.5.1.3. Glide Slope/Azimuth within one dot (ILS)

3.3.5.2. **Q-** Performed procedures with minor deviations. Slow to respond to controller's instructions (PAR). Slow to make corrections or initiate procedures. Position would have permitted a safe landing. Slow to correct to proper/briefed AOA. Improper glide path control.

3.3.5.2.2. Heading within 10 degrees of controller's instructions (PAR)

3.3.5.2.3. Glide Slope within one dot low/two dots high (ILS)

3.3.5.2.4. Azimuth within two dots (ILS)

3.3.5.3. **U.** Performed procedures with major deviations. Did not respond to controller's instructions (PAR). Erratic corrections. Exceeded Q- limits. Did not comply with decision height and/or position would not have permitted a safe landing. Erratic glide path control.

3.3.6. Area 46--Not Used

3.3.6.1. – 3.3.6.3. Deleted

3.4.1.17. Area 67--Radar Scope/Sensor Utilization:

3.4.1.17.1. **Q.** Correctly utilized all on board sensors to successfully employ weapons systems. Was able to compensate for system errors or unanticipated developments to successfully employ radar/sensor.

3.4.1.17.2. **Q-.** Slow to assimilate all on board sensors into tactical game plan. Minor procedural errors degraded weapons system employment. Had difficulties compensating for system errors or unanticipated developments.

NOTE: A successful reattack caused by minor procedural errors during the initial attack is an example of degraded weapons employment.

3.4.1.17.3. **U.** Did not utilize or misinterpretation of on board sensor information led to unsuccessful weapons system employment. Could not compensate for or identify system errors or unanticipated developments.