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SECRETARY OF THE AIR FORCE**

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B-1 AIRCREW EVALUATION CRITERIA

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This volume implements AFPD 11-2, *Aircraft Rules and Procedures*; AFPD 11-4, *Aviation Service*; and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. It applies to all B-1 units. This instruction does not apply to Air National Guard (ANG) and Air Force Reserve Command (AFRC). MAJCOMs/DRUs/FOAs are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ USAF/A3O-AT, through HQ ACC/A3TV, for approval prior to publication in accordance with (IAW) AFPD 11-2, paragraph 4.2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ USAF/A3O-AT, HQ ACC/A3TV, and the user MAJCOM/DRU/FOA and National Guard Bureau 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 33-360, *Publications and Forms Management*. See paragraph 1.2. of this volume for guidance on submitting comments and suggesting improvements to this publication.

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Eval will forward approved recommendations to lead command OPR (HQ ACC/A3TV, 204 Dodd Blvd, Suite 133, Langley AFB VA 23665-2789). HQ USAF/A3/5 is the approval authority for changes to this instruction.

SUMMARY OF CHANGES

This document is substantially revised and must be completely reviewed.

The opening paragraph to this instruction has been reworded for clarity and updated. All references to AF Form IMT changed to AF Form in accordance with AFI 33-360, 18 MAY 2006, Section 3A-OVERVIEW, Para 3.1.1.1 and Section 3 B- TYPES OF FORM, Para 3.2.. Office designators are updated. **Table 1.1.** and **Table 1.2.** new layout and criteria. Para **1.5.** and subparas reworded for clarity and updated. **Chapter 2** reworded for clarity and updated. **Table 2.1.** revised for clarity and standardized with other MDS Vol 2; **Table 2.2. Emergency Procedures Evaluation** added; **Chapter 3** updated for clarity. **Chapter 4, Emergency Procedures Evaluation Criteria** added. References updated.

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Chapter 1

GENERAL INFORMATION

1.1. General. Conduct all evaluations in accordance with (IAW) the provisions of AFI 11-202 Vol 2, the ACC supplement to Vol 2 and this instruction.

1.2. Waivers. Waiver authority for this instruction is the MAJCOM A3. Waivers will be requested from the parent MAJCOM A3 through appropriate Stan/Eval channels

1.3. Procedures.

1.3.1. The Flight Examiner (FE) will brief the examinee on the purpose of the evaluation and how it will be conducted prior to the sortie. The examinee will accomplish required flight planning in accordance with the flight position during the evaluation. FEs will assist in mission planning/briefing as tasked and will be furnished a copy of necessary mission data and mission materials.

1.3.2. Unless specified, the examinee may fly in any flight position/seat which will best enable the FE to conduct a thorough evaluation.

1.3.3. If an actual emergency occurs, at a minimum the initial reaction will be evaluated. The FE will use discretion to determine when to suspend/terminate an evaluation. The FE may, at his or her discretion, choose to continue the evaluation. If the evaluation is continued, the evaluator will explicitly inform the crew of the change.

1.3.4. FEs should use authorized recording devices (e.g. Air Combat Maneuvering Instrumentation (ACMI), Range Integration Instrumentation System (RIIS), or digital recording) to re-construct/evaluate the mission. When used, these recordings will be managed as official electronic records IAW AFMAN 33-363 and disposed of only IAW the AF RDS. Contact supporting records professionals.

1.3.5. The FE will thoroughly critique all aspects of the flight. During the critique, the FE will review the examinee's overall rating, specific deviations, assigned area grades (if other than qualified), and assign any required additional training.

1.3.6. 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. Weapons System Trainer (WST) or verbal examination). FEs will document areas not evaluated in flight, the alternate methods used and justification in the Additional Comments portion of the AF Form 8, *Certificate of Aircrew Qualification*.

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

1.4.1. Compare examinee performance for each area accomplished during the evaluation with the area performance standards contained in AFI 11-202V2 and provided in this volume before assigning an appropriate grade. Exercise judgment for subjective areas and specific situations not covered.

1.4.2. The FE will base tolerances for in-flight 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 safety. The FE will consider cumulative deviations, compare to area grading criteria, and apply judgment when determining overall grades.

1.4.3. FE judgment is the determining factor in arriving at the overall grade.

1.4.4. **General Criteria.** 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/Mach	± 5%
	Navigation	± 3NM
	Tacan Arc	± 2NM
Q-	Altitude	± 300 feet
	Airspeed/Mach	± 10%
	Navigation	± 5 Miles
	Tacan Arc	± 3NM
U	Exceeds Q- tolerances	

1.5. Emergency Procedures Evaluation. Conduct EPEs in the Weapons System Trainer (WST). If the WST is unavailable, the EPE may be given verbally. EPEs are commensurate with the examinee's mission status (Combat Mission Ready [CMR] or Basic Mission Capable [BMC]). (**Note:** Airspeed and altitude tolerances are increased 50% for evaluations conducted in the WST.)

1.5.1. FEs will evaluate crewmembers of like specialty.

1.5.2. FEs will administer EPEs in the WST as integrated crews. The OG/CC may grant waivers permitting an independent mode EPE on a case by case basis. The OG/CC may grant an independent EPE waiver only for recurring evaluations. Post the MFR in the FEF until AF Form 8 completion, and annotate in the Additional Comments section of the AF Form 8. In no case will two consecutive EPEs be conducted in independent mode.

1.6. Documentation of Weapons Employment Results. Document weapons employment results in the Mission Description section of the AF Form 8. The abbreviations used to document weapons scores are in accordance with AFI 11-2B1 Vol 1, *B-1 Aircrew Training* or current MAJCOM RAP tasking message.

1.6.1. **Air-to-Surface.** Record delivery type and weapons grades for each air-to-surface delivery. Weapons delivery hit criteria for MSN evaluations is IAW AFI 11-2B-1V1, *B-1 Aircrew Training*. On unmanned ranges where precise scoring is not available or for simulated deliveries, FEs will assess weapons employment results based on procedures. Document results using "Hit/Miss" as in [Table 1.2](#). (**Note:** Impacts exceeding AFI 11-2B-1V1 hit criteria will be documented as a "Miss.")

Table 1.2. Weapons Employment Grades.

Weapons employment grades were:				
HASD	GD	LASD	DD	SD
*Miss	*Hit	Miss	Miss	*Miss
*FE Assessed				

1.6.2. **FE Judgment.** FEs will apply judgment when determining the weapons employment grade. FEs will not consider WSO performance as less than qualified based solely on unreliable/substandard scores. FEs may override substandard weapons scores when weapon delivery procedures are satisfactory. Conversely, if the evaluatee uses marginal or unacceptable procedures, the FE will grade accordingly regardless of scores. The FE will include justification for such an award in the Additional Comments Section of the AF Form 8.

1.7. Examinations:

1.7.1. Emergency Procedures Examination (Closed Book):

1.7.1.1. **General Knowledge.** This exam consists of a minimum of 20 questions and includes information applicable to the individual's crew position and the unit's mission. Units may increase the number of questions to provide an in-depth evaluation of the examinee's knowledge.

1.7.1.2. **Boldface.** This exam will consist of written recitation of each boldface procedure applicable to the individual's specialty. Each answer must contain all critical action items in proper sequence. Verbatim responses are not required; however, answers must clearly state the intended course of action.

1.7.2. **Qualification Examination (Open Book).** This examination will be derived from all flight manuals and governing command directives. The exam will consist of at least 50 questions. Units may increase the number of questions to provide an in-depth evaluation of the examinee's knowledge.

1.7.2.1. WSO exams will consist of questions applicable to both Offensive Systems Officer (OSO) and Defensive Systems Officer (DSO) positions.

1.8. Instructor Evaluations:

1.8.1. An instructor on a SPOT, RQ, or periodic evaluation who receives an area grade of U or Q- with additional training in any area will receive a QUAL grade of "Q3".

1.8.1.1. An individual on an INIT INSTR evaluation receiving an area grade of U or Q- with additional training in any area will receive an INSTR grade of "3". QUAL, INSTM or MSN may be graded "1", "2" or "3" accordingly.

1.8.2. An instructor receiving an area grade of U or Q- with additional training in any grading area will not perform instructor duties until additional training is complete. The FE will check the "Restrictions" block and annotate the restriction on the back of the AF Form 8

1.9. Records Disposition. Dispose of records IAW AFI 33-364, *Records Disposition – Procedures and Responsibilities*.

Chapter 2

EVALUATION REQUIREMENTS

2.1. General. Evaluation requirements are depicted in [Table 2.1.](#) and [Table 2.2.](#) All areas marked with an “R” are required and must be accomplished.

2.1.1. **Mission Data.** If using pre-planned products, the evaluatee is responsible for ensuring the data briefed and used in the aircraft is accurate and effective for mission accomplishment.

2.1.2. **Currency of Flight Publications.** During all evaluations, FEs will evaluate all required T.O.s and in-flight publications for currency and accuracy IAW AFI 11-202V2 and AFI 11-215, *USAF Flight Manuals Program*. Units may specify additional publications to be evaluated in the unit supplement to AFI 11-202V2.

2.2. Instrument/Qualification Evaluations. Pilot instrument, pilot qualification, WSO qualification, and instructor evaluations are generally flown in conjunction with MSN evaluations for efficiency. However, each evaluation type may be administered on any compatible training mission with the approval of the Chief of Stan/Eval and the commander's concurrence.

2.2.1. **Pilot Instrument Requirements.** The requirements for completion of the pilot instrument evaluation are delineated in [Table 2.1.](#) with specific area evaluation criteria in [Chapter 3.](#)

2.2.2. **Pilot Qualification Requirements.** In addition to the requirements delineated in [Table 2.1.](#) and specific area evaluation criteria in [Chapter 3,](#) the following applies:

2.2.2.1. **Emergency Traffic Patterns/Approaches/Landings .** FTU and FIC maneuver qualified instructors may either accomplish a No Flap/Slat Touch and Go in flight or a Simulated Two-Engine Out Approach/Go-Around in flight or in the simulator. (*Note.* Ref [Table 2.1.](#) Areas 21 and 22). All other pilots are required to accomplish a No Flap/Slat Touch and Go in flight.

2.2.2.1.1. For FTU/FIC qualified instructors, the WST may be used to complete this portion of the evaluation provided an emergency traffic pattern was accomplished in flight during the previous evaluation. The usage of the WST for a evaluation does not include emergency traffic patterns flown during an EPE.

2.2.3. **WSO Qualification Requirements.** WSO completion requirements are delineated in [Table 2.1.](#) and [Chapter 3.](#)

2.3. Mission Evaluation. Mission evaluation items are delineated in [Table 2.1.](#) with specific area evaluation criteria in [Chapter 3.](#) FEs will evaluate examinees at their highest qualification level. Evaluations during exercises or deployments, where permitted, are encouraged. (*Note:* BMC pilots and WSOs should only be evaluated on those missions they routinely perform. Examinees will only be evaluated on those areas for which they are current and qualified.)

2.3.1. **Evaluation Profiles.** Mission evaluations will reflect Designed Operational Capability (DOC) tasking scenarios. Mission evaluations will demonstrate the individual's ability to accomplish combat taskings to include special missions. Units will attempt to schedule actual weapon releases and formation for mission evaluations however single ship sorties may be used if necessary.

2.3.2. **Weapons Employment.** Any bomb run, actual or simulated, satisfies this requirement. All planned/attempted releases will be evaluated. Degraded delivery procedures can meet the requirements of the evaluation.

2.3.3. **Electronic Warfare Mission Evaluation Requirements.** Accomplish requirements delineated in **Table 2.1.**, column 6. Squadrons will schedule at least one defensive action electronic attack (EA) event. The run should be scheduled against a Multiple Threat Emissions Systems (MUTES) capable site, simulators, emulators, or actual EA assets. Threat scenarios should represent unit taskings. If the scheduled activity is attempted and not flown to completion due to circumstances beyond the aircrew's control, the requirements of this paragraph may be satisfied by accomplishing any portion of an EA run if the FE observes sufficient activity.

2.4. Offensive Systems Officer (OSO)/Defensive Systems Officer (DSO) only. Individuals qualified as OSO only will use **Table 2.1.** columns 4 and 5. DSO only qualified individuals will use **Table 2.1.** columns 4 and 6

2.5. Instructor Evaluation. Flight evaluations will include a thorough evaluation of the examinee's instructor knowledge and ability. Instructors are required to demonstrate instructor ability on all evaluations. For evaluations conducted in flight or the WST, the examinee will conduct a student critique following the crew debrief. Evaluators will provide the examinee a performance critique following the student critique.

2.5.1. For evaluations not accomplished in conjunction with an INSTM/QUAL/MSN evaluation, the examinee will brief, instruct, and debrief a flight or WST profile representative of the unit's mission. (**Note:** Do not accomplish Instructor Pilot evaluations in the WST.)

2.5.2. For scheduled instructor evaluations, the evaluator may require the examinee to present verbal explanations of equipment operations and procedures pertinent to crew duties and responsibilities. Special demonstrations or instruction requested by the evaluator should not interfere with normal mission accomplishment. Evaluators will provide sufficient time for the instructor to prepare for critiques.

2.5.3. **Instructor Pilot Evaluations.** All initial and recurring instructor pilot evaluations may be administered in conjunction with INSTM/QUAL/MSN evaluations. Except for the requirements delineated in **Table 2.1.**, specific profiles and/or events will be determined by the FE.

2.5.4. **Instructor WSO Evaluations.** All initial and recurring instructor WSO evaluations may be administered in conjunction with QUAL/MSN evaluations. The initial Instructor WSO evaluation may be conducted in flight or in the WST. The instructor examinee must demonstrate instructor abilities in both the OSO and DSO positions. As a minimum, the scheduled profile will include bombing and EA. If qualified as an OSO or DSO only, the examinee will perform duties for the respective position being evaluated.

Table 2.1. Evaluation Criteria

1 - Pilot Instrument Evaluation								
2 - Pilot Qualification Evaluation								
3 - Pilot Mission Evaluation								
4 - WSO Qualification Evaluation								
5 - WSO Air-to-Surface Mission Evaluation								
6 – WSO Electronic Warfare Mission Evaluation								
Area	Notes	Area Title	1	2	3	4	5	6
GENERAL								
1		MISSION PLANNING		R	R	R	R	R
2	5	BRIEFING		R	R	R	R	R
3		PRE-TAKEOFF		R	R	R	R	R
4		TAKEOFF		R				
5		NOT USED						
6		DEPARTURE		R		R		
7		LEVEL-OFF		R				
8	2	CRUISE/NAVIGATION		R	R	R	R	R
9	4	FORMATION						
10		IN-FLIGHT CHECKS		R	R	R	R	R
11		FUEL MANAGEMENT		R	R			
12		COMM/IFF		R	R	R	R	R
13		CREW COORDINATION/CRM		R	R	R	R	R
14	3	ADVANCED HANDLING/ TACTICAL MANEUVERING			R			
15		NOT USED						
16		SYSTEM/BIT CHECKS		R	R	R	R	R
17		AIR REFUELING			R			
18		DESCENT		R		R		
19		GO AROUND						
20		NOT USED						
21	3	EMERGENCY TRAFFIC PATTERN		R				
22	3	EMERGENCY APPROACH/LANDING		R				
23	1	VFR PATTERN/APPROACH		R				
24		NOT USED						
25	3	LANDING		R				
26		AFTER-LANDING		R		R		
27	5	FLIGHT/MISSION LEADERSHIP	R	R	R			
28		DEBRIEFING/CRITIQUE		R	R	R	R	R
29		KNOWLEDGE		R	R	R	R	R

1 - Pilot Instrument Evaluation								
2 - Pilot Qualification Evaluation								
3 - Pilot Mission Evaluation								
4 - WSO Qualification Evaluation								
5 - WSO Air-to-Surface Mission Evaluation								
6 - WSO Electronic Warfare Mission Evaluation								
Area	Notes	Area Title	1	2	3	4	5	6
30	*	AIRMANSHIP	R	R	R	R	R	R
31	*	SAFETY	R	R	R	R	R	R
32	*	AIRCREW DISCIPLINE	R	R	R	R	R	R
33		INSTRUCTOR PERFORMANCE(if applicable)	R	R	R	R	R	R
34		NOT USED						
35	2	RADAR SCOPE/SENSOR INTERPRETATION				R	R	
36		TASK PRIORITIZATION						
37		EQUIPMENT OPERATIONS		R	R	R	R	R
38		PILOT IN COMMAND	R	R	R			
39-40		NOT USED						
INSTRUMENT								
41		HOLDING						
42		INSTRUMENT PENETRATION/ENROUTE DESCENT	R					
43		INSTRUMENT PATTERNS	R					
44	3	NON-PRECISION APPROACH	R					
45		NOT USED						
46	3	PRECISION APPROACH	R					
47		MISSED APPROACH/CLIMB OUT	R					
48		CIRCLING/SIDE-STEP APPROACH						
49		INSTRUMENT CROSS-CHECK	R					
50		NOT USED						
TACTICAL EMPLOYMENT								
A. GENERAL								
51		TACTICAL PLAN			R		R	R
52		TACTICAL EXECUTION			R		R	R
53		COMPOSITE FORCE INTERFACE						
54		RADIO/INTERPHONE TRANSMISSIONS		R	R	R	R	R
55		VISUAL LOOKOUT/RADAR SEARCH			R		R	
56		MUTUAL SUPPORT (IF APPLICABLE)			R		R	R
57	2	TACTICAL NAVIGATION			R		R	R
58		INGRESS			R		R	R

1 - Pilot Instrument Evaluation								
2 - Pilot Qualification Evaluation								
3 - Pilot Mission Evaluation								
4 - WSO Qualification Evaluation								
5 - WSO Air-to-Surface Mission Evaluation								
6 – WSO Electronic Warfare Mission Evaluation								
Area	Notes	Area Title	1	2	3	4	5	6
59		EGRESS			R		R	R
60		COMBAT SEPARATION						
61		TIMING			R		R	
62		TRAINING RULES/ROE			R		R	R
63		THREAT REACTIONS			R		R	R
64		TF PROCEDURES			R		R	
65		IN-FLIGHT REPORT						
66	3	EA /EXCM						R
67		WEAPON SYSTEM UTILIZATION				R	R	
68		SENSOR MANAGEMENT						
69		LOW ALT VISUAL CONTOUR						
70		NVG OPERATIONS						
B. AIR-TO-AIR								
71		RADAR MECHANIZATION						
72		NOT USED						
73		NOT USED						
74		DEFENSIVE REACTIONS						
75		NOT USED						
76		NOT USED						
77		COMMAND AND CONTROL INTEGRATION						
78-80		NOT USED						
C. AIR-TO-SURFACE								
81		TARGET ACQUISITION						
82	3	WEAPONS EMPLOYMENT			R		R	
83		RANGE PROCEDURES						
84		IR/EO SENSOR OPERATION						
85		NOT USED						
86		NOT USED						
87		SYSTEM AIDED WEAPONS DELIVERY (GUIDED WEAPONS)						
88		SYSTEM AIDED WEAPONS DELIVERY (UNGUIDED WEAPONS)						

1 - Pilot Instrument Evaluation								
2 - Pilot Qualification Evaluation								
3 - Pilot Mission Evaluation								
4 - WSO Qualification Evaluation								
5 - WSO Air-to-Surface Mission Evaluation								
6 - WSO Electronic Warfare Mission Evaluation								
Area	Notes	Area Title	1	2	3	4	5	6
89		CAS/TST						
90		NOT USED						
NOTES:								
* Indicates a critical area.								
1. Required for all evaluations conducted during day or night VFR conditions.								
2. Not required for DSO only evaluations.								
3. Must be evaluated in flight or in WST.								
4. Required for Flight Lead (FL) qualified pilots and multi-ship Mission Lead (MML) qualified WSOs, if available. This does not preclude FLs and MML WSOs from being evaluated in the same aircraft.								
5. Required for Aircraft Commander (AC) and FL qualified pilots, and SML and MML qualified WSOs when practical. This does not preclude ACs and SML/MML WSOs from being evaluated on the same aircraft.								

Table 2.2. Emergency Procedures Evaluation

1 - Pilot Emergency Procedures Evaluation				
2 - WSO Emergency Procedures Evaluation				
Area	Notes	Area Title	1	2
GENERAL				
201		AIRCRAFT GENERAL KNOWLEDGE	R	R
202		UNUSUAL ATTITUDE RECOVERIES	R	R
203		CREW COORDINATION/CHECKLIST USAGE	R	R
204		TF MALFUNCTION PROCEDURES	R	R
205		AIRMANSHIP	R	R
206		SAFETY	R	R
207		AIRCREW DISCIPLINE	R	R
CRITICAL ACTION PROCEDURES				
208		APU FIRE	R	

1 – Pilot Emergency Procedures Evaluation				
2 – WSO Emergency Procedures Evaluation				
Area	Notes	Area Title	1	2
209		ABORT	R	
210		ENGINE/NACELLE FIRE	R	
211		CONTROL STICK LOCKUP	R	
212		STALL PREVENTION/RECOVERY	R	
213		OWF FIRE	R	
214		BRAKE FAILURE	R	
215		UNCONTROLLED EJECTION	R	R
AIRCRAFT MALFUNCTIONS				
216		PRE-TAKEOFF		
217		TAKEOFF		
218		CRUISE/ENROUTE		
219		WEAPON DELIVERY MALFUNCTIONS		R
220		OAS/DAS ABNORMAL PROCEDURES		R
220		LOW ALTITUDE		
221		APPROACH		
222		LANDING		
223		OTHER		
INSTRUMENT PROCEDURES				
224		AFI11-217/202V3 PROCEDURES		
225		STANDBY INSTRUMENT USE		
226		ALTERNATE/DIVERT FIELD PROCEDURES		
227		LOCAL AREA PROCEDURES		
228		OTHER		

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. Annotate discrepancies on the back of the AF Form 8 by sub area.
- 3.1.3. Areas marked (P) are for pilots only; areas marked (AC) are for pilots qualified as aircraft commanders only; areas marked (W) are for WSOs only. All other areas are common to all aircrews.

3.2. General:

3.2.1. Area 1--Mission Planning:

3.2.1.1. Mission Planning:

- 3.2.1.1.1. **Q.** Developed a sound plan to accomplish the mission. Accurately and efficiently accomplished mission preparation. Established objectives for the mission. Checked all factors applicable to flight in accordance with applicable directives. Aware of alternatives available, if flight cannot be completed as planned.
- 3.2.1.1.2. **Q-** Same as above, except minor deviations, omissions, and/or errors which did not detract from mission effectiveness. Knowledge of performance capabilities or approved operating procedures/rules was marginal in some areas.
- 3.2.1.1.3. **U.** Major deviations, omissions, and/or errors would preclude safe/effective mission accomplishment. Displayed faulty knowledge of operating data or procedures. Did not review or initial Go/No-Go items.

3.2.1.2. Publications:

- 3.2.1.2.1. **Q.** Assigned flight manual publications were current and usable for any of the unit's combat taskings. Contained only minor deviations, omissions, and/or errors.
- 3.2.1.2.2. **Q-** Assigned flight manual publications contained deviations, omissions, and/or errors; however, contained everything necessary to effectively accomplish the mission and did not compromise safety of flight. Omitted minor training events.
- 3.2.1.2.3. **U.** Not up to "Q-" standards. Contained major deviations, omissions, and/or errors.

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. Briefed crew responsibilities, deconfliction contracts, combat mission priorities and sensor management. Concluded formation briefing (if applicable) in time to allow for crew briefing.
- 3.2.2.1.2. **Q-** Events out of sequence, hard to follow, some redundancy.

3.2.2.1.3. **U.** Confusing presentation. Illogical sequence during presentation caused confusion. Formation briefing (if applicable) did not allow time for adequate crew briefing. Failed to brief required areas.

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 non-essential mission items.

3.2.2.2.3. **U.** Did not use training aids. 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 techniques discussed for accomplishing the mission.

3.2.2.3.2. **Q-.** Objectives undefined and poorly quantified. Omitted minor training events.

3.2.2.3.3. **U.** Did not establish objectives for the mission. Omitted major training events.

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—Pre-Takeoff :

3.2.3.1. **Q.** Established and adhered to station, start engine, taxi times to assure thorough pre-flight, 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. Crew errors directly contributed to a late takeoff, which degraded the mission or resulted in a non-effective sortie.

3.2.4. Area 4 – (P) Takeoff:

3.2.4.1. **Q.** Maintained smooth aircraft control throughout takeoff. Performed takeoff IAW flight manual procedures.

3.2.4.2. **Q-.** Minor flight manual procedural deviations.

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

3.2.5. **Area 5 – Not Used.**

3.2.6. **Area 6 -- Departure:**

3.2.6.1. **Q.** Performed departure as published/directed and complied with all restrictions. Accomplished procedures and checklists required by the flight manual and governing directives accurately and efficiently.

3.2.6.2. **Q-.** Minor deviations in airspeed or navigation occurred during completion of departure. Minor omissions, deviations, and/or errors in procedures detracted from overall mission efficiency.

3.2.6.3. **U.** Failed to comply with published/directed departure instructions. Major omissions, deviations, and/or errors in procedures.

3.2.7. **Area 7 – (P) 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 extremely erratic. Exceeded Q- limits. Excessive delay or failed to establish proper cruise airspeed. Failed to set/reset altimeter, as required.

3.2.8. **Area 8 – Cruise/En-route Navigation:**

3.2.8.1. **Q.** Demonstrated satisfactory capability to navigate using all available means. Used appropriate navigation procedures. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace. Made all control times within published or briefed tolerances. At no time allowed the aircraft to deviate more than ten nautical miles from planned course. Fix-to-Fix $\pm 3\text{NM}$ (P). WSO advised pilot of altitude deviations prior to exceeding ± 200 feet (W).

3.2.8.2. **Q-.** Minor errors in procedures or use of navigation equipment. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Performance demonstrated a lack of knowledge or ability which could have affected mission accomplishment. Fix-to-Fix $\pm 5\text{NM}$ (P). WSO advised pilot of altitude deviations exceeding ± 300 feet (W).

3.2.8.3. **U.** Major errors in procedures or 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. **(P) Flight Lead:**

3.2.9.1.1.1. **Q.** Established and maintained effective formation for employment of assigned weapons utilizing published and briefed procedures. Planned/briefed effective flight and fragmentation deconfliction plan. Planned/briefed altitude consistent with mis-

sion requirement/restrictions. Maintained positive control of flight. Effective wingman consideration. Ensured deconfliction contracts were adhered to. Planned ahead and made timely decisions.

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

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

3.2.9.1.2. (W) Multi-Ship Mission Lead:

3.2.9.1.2.1. **Q**. Established and maintained effective formation for employment of assigned weapons utilizing published and briefed procedures. Planned/briefed effective flight and fragmentation deconfliction plan. Effective wingman consideration. Ensured adherence to deconfliction contracts. Planned ahead and made timely decisions.

3.2.9.1.2.2. **Q-**. Planned/briefed ineffective formation for assigned weapons, but did not compromise safety or fragmentation deconfliction. Made minor deviations from published and or briefed procedures which impacted mission negatively. Did not always plan ahead or make timely decisions.

3.2.9.1.2.3. **U**. Formation flight was not accomplished in accordance with published and/or briefed procedures affecting mission negatively. Failed to account for formation employment of assigned weapons. Provided little wingman consideration. Indecisive. Failed to maintain deconfliction contracts.

3.2.9.2. Wingman:

3.2.9.2.1. Pilot:

3.2.9.2.1.1. **Q**. Maintained position in accordance with published and/or briefed procedures with only momentary deviations. Demonstrated appropriate position corrections. Maintained appropriate separation and complied with flight lead's instructions. Maintained briefed deconfliction contract. Maintained mutual support during entire employment (ingress through egress). Rejoin was smooth and timely.

3.2.9.2.1.2. **Q-**. Made minor deviations to published and/or briefed procedures. Slow to comply with flight lead's instructions. Mutual support occasionally failed but did not affect mission effectiveness. Slow to rejoin.

3.2.9.2.1.3. **U**. Formation flight not accomplished in accordance with published and/or briefed procedures. Did not comply with flight lead's instructions. Unable to maintain a formation position. Failed to maintain deconfliction contract.

3.2.9.2.2. WSO:

3.2.9.2.2.1. **Q.** Effectively monitored formation utilizing published and/or briefed procedures. Provided timely and accurate description/direction of flight to maintain appropriate formation/position/rejoin. Maintained briefed deconfliction contract.

3.2.9.2.2.2. **Q-.** Made minor deviations from published and/or briefed procedures. Demonstrated limited formation monitoring. Occasionally slow/hesitant to provide description/direction as necessary to ensure correct formation/position/rejoin.

3.2.9.2.2.3. **U.** Formation flight not accomplished in accordance with published and/or briefed procedures. Provided inaccurate or little or no description/direction necessary to ensure appropriate formation and rejoin. Failed to maintain deconfliction contract.

3.2.10. **Area 10 – In-flight Checks:**

3.2.10.1. **Q.** Performed all in-flight 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.** Did not perform in-flight checks or monitor systems to the degree which an emergency condition could have developed if allowed to continue uncorrected.

3.2.11. **Area 11 – (P) 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 – Communications/IFF:**

3.2.12.1. **Q.** Complete knowledge of and compliance with correct Communication/IFF 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 chatter, 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/CRM**

3.2.13.1. **Q.** Effectively coordinated with other crewmembers/flight members during all phases of the mission. Effectively used CRM.

3.2.13.2. **Q-.** CRM/Coordination was lacking with other crewmembers/flight members to the extent minor deviations or omissions caused delays, confusion, degraded the successful delivery of weapons, and/or crew situational awareness. Crew communications were confusing and/or not well understood. CRM was the minimum acceptable.

3.2.13.3. **U.** Breakdown in coordination with other crewmembers/flight members precluded mission accomplishment or jeopardized safety. CRM was lacking to the extent the mission accomplishment was severely degraded. Created confusion or delays which could have endangered the aircraft or prevented reliable weapon delivery.

3.2.14. **Area 14 –(P) 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.

3.2.15. **Area 15 – Not Used**

3.2.16. **Area 16 –System/BIT Checks**

3.2.16.1. **Q.** Completed all checks. Thorough knowledge and performance of system checks. Accurately and efficiently analyzed equipment malfunctions with consistent reliable mission results.

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

3.2.16.3. **U.** Failed to complete system checks. General lack of knowledge on how to perform 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:** Any rendezvous will satisfy this requirement (IAW AFI 11-2B-1V1 electronic rendezvous procedures). Control time to the Air Refueling Control Point(ARCP) (point parallel) or the rendezvous point (generally the Air Refueling Initial Point (ARIP))

3.2.17.1.1. **Q.** Rendezvous accomplished using proper procedures. Demonstrated effective use of radio communications. Used proper communication procedures for briefed Emission Control (EMCON) level. Positively identified tanker by radar/visually and did not delay final closure.

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 which 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. **(P) Air Refueling Procedures:** Contact time will be at the discretion of the FE and will sufficiently demonstrate the examinees ability to receive onloads commensurate with unit tasks.

3.2.17.2.1. **Q.** Expeditiously established and maintained proper position. Used proper procedures. Aircraft control was positive and smooth. Refueled with no more than three 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 which did not affect the successful completion of air refueling. Performance caused no more than four pilot-induced disconnects.

3.2.17.2.3. **U.** Used unacceptable procedures. Excessive time to hookup delayed mission accomplishment. Unable to maintain contact position. Caused more than four pilot-induced disconnects. Unable to safely accomplish air refueling.

3.2.18. **Area 18 -- Descent:**

3.2.18.1. **Q.** Performed descent as directed, complied with all restrictions. Accomplished procedures and checklists required by the flight manual and governing directives accurately and efficiently.

3.2.18.2. **Q-.** Performed descent as directed with minor deviations. Accomplished procedures and checklists required by the flight manual and governing directives with minor omissions, deviations, or errors.

3.2.18.3. **U.** Performed descent with major deviations. Procedures were accomplished with major deviations, omissions, and/or errors demonstrating unacceptable knowledge/ performance of the flight manual or governing directives.

3.2.19. **Area 19 – (P) Go-Around:**

3.2.19.1. **Q.** Initiated and performed go-around promptly in accordance with 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 self-initiate go-around when appropriate or directed. Applied incorrect procedures. Erratic aircraft control. Large deviations in runway alignment.

3.2.20. **Area 20 -- Not Used**

3.2.21. **Area 21 -- (P) 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 – (P) Emergency Approach/Landing:** (Configuration through completion of pattern)

3.2.22.1. **Q**. Performed emergency procedures IAW applicable directives. Adequately prioritized actions to safely recover the aircraft. Maintained aircraft control within appropriate standards.

3.2.22.2. **Q-**. Performed emergency procedures with minor deviations, omissions, and/or errors which did not jeopardize the safe recovery of the aircraft.

3.2.22.3. **U**. Performed emergency procedures with major deviations, omissions, and/or errors. Unable to safely recover the aircraft.

3.2.23. **Area 23 – (P) VFR Pattern/Approach:**

3.2.23.1. **Q**. Performed patterns/approaches IAW procedures 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. AOA ± 1 degree on final approach.

3.2.23.2. **Q-**. Performed patterns/approaches with minor deviations to procedures 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. AOA $\pm 1 \frac{1}{2}$ degrees on final approach.

3.2.23.3. **U**. Approaches not performed IAW procedures 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 – Not Used**

3.2.25. **Area 25 – (P) Landing:**

3.2.25.1. **Q**. Performed landings IAW procedures outlined in the flight manual, operational procedures, and local directives. Aircraft control was smooth and positive. Accurate runway alignment.

3.2.25.2. **Q-**. Performed landings IAW procedures outlined in the flight manual, operational procedures, and local directives with minor deviations, omissions, and/or errors, which did not jeopardize safety of flight. Aircraft control was rough however, runway alignment was accomplished.

3.2.25.3. **U**. Landing not performed IAW procedures outlined in the flight manual, operational procedures and local directives. Not up to "Q-" standards.

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. Safety was not jeopardized. Required forms completed with minor deviations, omissions, and/or errors.

3.2.26.3. **U**. Major deviations, omissions, and/or errors were made in performance of after-landing check or aircraft taxi procedures, which could have jeopardized safety. Data recorded inaccurately or omitted. Not up to "Q-" standards.

3.2.27. Area 27 – Flight/Mission Leadership (if applicable):

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

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

3.2.27.3. **U**. Did not accomplish the mission or failed to correct in-flight discrepancies. In-flight 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 which 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 subareas.

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. (P) Takeoff and Landing Data (TOLD) and Minimum Mach Tolerances:

3.2.29.2.1. **Q**. Computed all minimum runway required, critical field length, takeoff, and landing distances \pm 500 feet. All computed speeds were \pm 5 knots/ \pm .03 Mach.

3.2.29.2.2. **Q-**. Computed all minimum runway required, critical field length, takeoff, and landing distances \pm 800 feet. All computed speeds were \pm 10 knots/ \pm .05 Mach.

3.2.29.2.3. **U**. Exceeded criteria for Q-.

3.2.29.3. Emergency Procedures:

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

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

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

3.2.29.4. Flight Rules/Procedures:

3.2.29.4.1. **Q.** Thorough knowledge of flight rules and procedures. Thorough knowledge of local area procedures.

3.2.29.4.2. **Q-**. Deficiencies in depth of knowledge. Limited knowledge of local area procedures.

3.2.29.4.3. **U.** Inadequate knowledge of flight rules and procedures. Inadequate knowledge of local area procedures.

3.2.29.5. Weapon/Tactics/Threat:

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

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

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

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. Aware of performance of self and other flight members. Recognized, verbalized and acted on unexpected events.

3.2.30.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment or situational awareness to the extent which safety could have been compromised. Resources were not always effectively used to the extent which specific mission objectives were not achieved.

3.2.31. Area 31 – Safety (Critical):

3.2.31.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operations and conduct of the mission.

3.2.31.2. **U.** Was not aware of or did not comply with all safety factors required for safe operations or conduct of the mission. Failed to correctly accomplish Boldface procedures. Operated the aircraft or equipment 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 regulations.

3.2.33. Area 33 – Instructor Performance (if applicable):

3.2.33.1. Briefing/Debriefing:

3.2.33.1.1. **Q.** Presented a comprehensive, briefing/debriefing. Made use of available training aids. Analyzed 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 available training aids/reference material effectively. Briefing/debriefing below the caliber expected of instructors. Failed to define mission objectives.

3.2.33.2. Demonstration of Maneuvers/Equipment Operation:

3.2.33.2.1. **Q.** Performed required maneuvers or procedures within prescribed parameters. Provided concise, meaningful in-flight commentary. Demonstrated sound instructor proficiency.

3.2.33.2.2. **Q-.** Performed required maneuvers or procedures with minor deviations from prescribed parameters. In-flight commentary was sometimes unclear.

3.2.33.2.3. **U.** Was unable to properly perform required maneuvers or procedures. Made major procedural errors. Did not provide in-flight 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 and performance characteristics, mission, and tactics beyond the expectation of non-instructors.

3.2.33.3.2. **Q-.** Deficiencies noted in the 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 sound instructor 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 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 -- Not Used**3.2.35. Area 35 – (W) Radar Scope/Sensor Interpretation:**

3.2.35.1. **Q.** Correctly interpreted radar/sensor display. Was able to compensate for system errors or unanticipated developments to successfully employ radar/sensor.

3.2.35.2. **Q-.** Slow to interpret radar/sensor display. Had difficulties compensating for system errors or unanticipated developments.

3.2.35.3. **U.** Could not interpret radar/sensor display. Could not compensate for or identify system errors or unanticipated developments.

3.2.36. Area 36 – Task Prioritization:

3.2.36.1. **Q.** Correctly identified, prioritized and managed tasks based on existing and new information which assured mission success. Used available resources to manage workload, communicated task priorities to other crew members. Asked for assistance when overloaded. Displayed sound knowledge of systems. Effectively identified contingencies and alternatives. Gathered and crosschecked available data before acting. Clearly stated decisions and ensured they were understood. Investigated doubts and concerns of other crew members when necessary.

3.2.36.2. **Q-.** Made minor errors in prioritization, management of tasks, system knowledge which did not effect safe or effective mission accomplishment. Did not completely communicate task priorities to other crew members. Made minor errors in identifying contingencies, gathering data, or communicating a decision which did not effect safe or effective mission accomplishment.

3.2.36.3. **U.** Incorrectly prioritized or managed tasks. Displayed lack of systems knowledge causing task overload which seriously degraded mission accomplishment or safety of flight. Failed to communicate task priorities to other crew members. Failed to ask for assistance when overloaded. Improperly or ineffectively identified contingencies, gathered data, or communicated a decision which seriously degraded mission accomplishment or safety of flight.

3.2.37. Area 37 – Equipment Operations:

3.2.37.1. **Q.** Operated equipment according to procedures and checklists contained in the flight manuals and governing directives. Accurately and efficiently analyzed equipment malfunctions with consistent reliable mission results. No damage or significant system degradation resulted from operator inputs or lack of knowledge.

3.2.37.2. **Q-.** Operated equipment with minor deviations, omissions, and/or errors from procedures required by the flight manual or governing directives. Equipment malfunctions were consistently ignored, analyzed in error, or caused by erroneous data insertion. Deviations, omissions, and/or errors in malfunction analysis and prescribed procedures caused a degradation of equip-

ment performance. The level of performance or knowledge consistently resulted in marginal reliability. Did not damage equipment.

3.2.37.3. **U.** Not up to "Q-" standards. Equipment damage would have resulted due to circumstances within operator's control. Could not recognize a major equipment malfunction. Could not obtain acceptable results due to poor operational procedures.

3.2.38. Area 38 – (AC) Pilot in Command:

3.2.38.1. **Q.** Executed all PIC duties IAW directives found in AFI 11-2B-1-V3 and 11-202-V3. Demonstrated sound judgment expected and required from AC qualified pilots.

3.2.38.2. **U.** Failed to properly execute all PIC duties. Errors in judgment not expected or tolerated from AC qualified pilots.

3.2.39. Areas 39-40 – Not Used

3.3. Instrument:

3.3.1. Area 41 – (P) Holding:

3.3.1.1. **Q.** Performed entry and holding IAW published procedures and directives. Tactical Air Navigation (TACAN) holding pattern limit exceeded by not more than ± 2 NM.

3.3.1.2. **Q-.** Minor deviations to procedures or directives. TACAN holding pattern limit exceeded by not more than ± 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 – (P) Instrument Penetration/Enroute Descent:

3.3.2.1. **Q.** Performed the penetration/enroute descent 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/enroute descent and approach with minor deviations. Complied with all restrictions. Slow to make corrections.

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

3.3.3. Area 43 – (P) Instrument Patterns:

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 – (P) 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 airspeed/AOA.

3.3.4.1.1. Airspeed +10/-5 knots AOA \pm 1 degree on final approach.

3.3.4.1.2. Heading \pm 5 degrees (Airport Surveillance Radar (ASR))

3.3.4.1.3. Course \pm 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 knots AOA \pm 1 ½ degrees on final approach.

3.3.4.2.2. Heading \pm 10 degrees (ASR)

3.3.4.2.3. Course \pm 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 – Not Used**

3.3.6. **Area 46 – (P) Precision Approach:**

3.3.6.1. **Q.** Performed procedures as published and IAW applicable flight manual. Smooth and timely corrections to azimuth and glide slope and/or controller's instructions. Complied with decision height and position would have permitted a safe landing. Maintained proper/briefed airspeed/AOA.

3.3.6.1.1. Airspeed +10/-5 knots/ AOA \pm 1 degree on final approach.

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

3.3.6.1.3. Heading within 5 degrees of controller instruction (Precision Approach Radar (PAR))

3.3.6.2. **Q-** Performed procedures with minor deviations. Slow to make corrections or initiate procedures. Position would have permitted a safe landing. Slow to correct to proper/briefed airspeed/AOA. Initiated appropriate action at Decision Height \pm 50 feet.

3.3.6.2.1. Airspeed +15/-5 knots/ AOA \pm 1 ½ degrees on final approach.

3.3.6.2.2. Glide Slope within one dot low/two dots high (Instrument Landing System (ILS)/ Airborne Instrument Landing Approach (AILA))

3.3.6.2.3. Azimuth within two dots (ILS/AILA)

3.3.6.2.4. Heading within 10 degrees of controller instruction. (PAR)

3.3.6.3. **U.** Performed procedures with major deviations. Erratic corrections. Exceeded Q- limits. Did not comply with decision height or position at DH would not have permitted a safe landing.

3.3.7. Area 47 -- (P) Missed Approach/Climb Out:

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

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

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

3.3.8. Area 48 – (P) Circling/Side-step Approach:

3.3.8.1. **Q.** Performed circling/side-step approach IAW procedures outlined in the flight manual and directives. Aircraft control was positive and smooth. Proper runway alignment.

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

3.3.8.3. **U.** Circling/side-step approach not performed in accordance with procedures outlined in the flight manual and directives. Erratic aircraft control. Large deviations in runway alignment required go-around.

3.3.9. Area 49 – (P) Instrument Cross-Check:

3.3.9.1. **Q.** Effective instrument crosscheck during actual or simulated IMC conditions IAW applicable flight manuals and directives. Complied with all restrictions. Made smooth and timely corrections. Meets "Q" criteria listed in General Criteria, applicable special events or instrument final approaches.

3.3.9.2. **Q-.** Slow instrument crosscheck during actual or simulated IMC conditions with minor deviations. Complied with all restrictions, however made abrupt corrections as a result of slow instrument crosscheck. Meets "Q-" criteria listed in General Criteria, applicable special events or instrument final approaches.

3.3.9.3. **U.** Failed to adequately perform an instrument crosscheck during actual or simulated IMC conditions causing major deviations. Erratic corrections as a result of poor instrument cross-check.

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 included consideration of mission objectives, threats, restrictions, release criteria, ATO/SPINS, egress routing, re-attack plan 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. Threat reactions were timely and correct.

3.4.1.2.2. **Q-** Applied tactics with only minor deviations, omissions, and/or errors which degraded the reliable release of weapons or mission effectiveness but did not prevent the successful accomplishment of the overall mission goal. Slow to react to a changing environment. Situational awareness and timely threat reactions were poor.

3.4.1.2.3. **U.** Unable to accomplish the mission due to major errors or omissions during execution of the tactical plan. Situational awareness lost. Numerous threat reactions were omitted or incorrect. Failed to perform maneuvers to counter threat.

3.4.1.3. Area 53 – Composite Force Interface (CF):

3.4.1.3.1. **Q.** Effectively planned/integrated with Composite Force Assets to enhance mission and achieve objectives. No confusion between CF Assets which did not degrade mission effectiveness.

3.4.1.3.2. **Q-** Minor confusion between CF Assets Less than optimum use of CF Assets, which significantly detracted from mission success.

3.4.1.3.3. **U.** Inadequate or incorrect use of CF Assets resulted in mission failure.

3.4.1.4. Area 54 – Radio/Interphone Transmissions – Usage and Discipline:

3.4.1.4.1. **Q.** Communications (both inter- and intra-cockpit) 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.** Communications over radios/interphone 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 / Radar Search:

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

3.4.1.5.2. **Q-** Demonstrated limited knowledge of visual/radar lookout procedures. 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/radar lookout responsibilities.

3.4.1.6. Area 56 – Mutual Support:

3.4.1.6.1. **Q.** Maintained mutual support during entire employment (ingress through egress). 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.** All control times were met within Air Tasking Order (ATO), Special Instructions (SPINS), governing directives, or briefed tolerances. Time On Target (TOT) tolerances will be met or will cover the TOT window. 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.** Exceeded Q- parameters. Failed to locate desired destination. Failed to cover TOT window due to inadequate planning or use of resources. 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/Medium Altitude:

3.4.1.7.2.1. **Q.** Used proper procedures. Properly used available aids to navigation. Maintained altitude consistent with mission requirements/restrictions. Demonstrated satisfactory capability to adjust for deviations in time and course; only minor corrections required.

3.4.1.7.2.2. **Q-.** Errors in procedures. Minor errors in use of available navigation aids. Minor deviations from planned altitude. Medium level course and airspeed control resulted in large corrections. Minor error in procedures/ use of navigation equipment.

3.4.1.7.2.3. **U.** Unable to use alternate or appropriate navigation aids. Exceeded Q- tolerances. Major altitude deviations. Failed to recognize checkpoints or adjust for deviations in course. Major errors in procedures/use of navigation equipment.

3.4.1.7.3. Low Altitude:

3.4.1.7.3.1. **Q.** Required procedures and checklists were accomplished accurately and efficiently. Demonstrated satisfactory capability to adjust for deviations in time and course; only minor corrections required. Remained within route or airspace boundaries. Used terrain masking as circumstances allowed. Flight Information Publications (FLIP) AP/1B route width or training area/Military Operations Area (MOA) boundaries were not exceeded.

3.4.1.7.3.2. **Q-.** Procedures and checklists required by applicable directives were accomplished with omissions, deviations, or errors which detracted from effective mission accomplishment. Limited positional and situational awareness. FLIP AP/1B route width or training area/MOA boundaries were not exceeded.

3.4.1.7.3.3. **U.** Failed to recognize checkpoints or adjust for deviations in time and course. Exceeded FLIP AP/1B route width or training area/MOA boundaries. Did not use terrain masking if available and tactically required. Exceeded Q- parameters. Major errors in procedures/use of navigation equipment.

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. Receiver monitoring and procedures were accomplished IAW operating directives.

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. Procedures were accomplished with only minor deviations, omissions or errors demonstrating minimum acceptable knowledge/performance of the flight manual or governing directives.

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. Procedures were accomplished with major deviations, omissions, and/or errors demonstrating unacceptable knowledge/performance of the flight manual or governing directives

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 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. Required actions were incomplete or were accomplished with minor deviations, omissions, and/or errors.

3.4.1.9.3. **U.** Egress caused excessive exposure to threats. Flight join-up was not accomplished or resulted in excessive exposure to threats. Required actions were not accomplished. Demonstrated unacceptable knowledge of procedures.

3.4.1.10. **Area 60 – Combat Separation:**

3.4.1.10.1. **Q.** Adhered to briefed/directed separation procedures. Positive control of flight during separation.

3.4.1.10.2. **Q-** Minor deviations from briefed/directed separation procedures. Limited control of flight 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 an emergency fuel condition would have developed if allowed to continue uncorrected. Could not effectively regain mutual support.

3.4.1.11. **Area 61 – Timing.** Time will be based on pre-planned Time On Target (TOT) (ordnance impact) or push time. Adjustments in TOT will be made for non-aircrew-caused delays. In the case of "no spot," timing will be adjusted to a bomb release or splash time. If range clearance is delayed, time at a pre-planned IP may be substituted for TOT. The FE may widen this timing criteria if the examinee was forced to maneuver extensively along the ingress route due to reactions to simulated enemy defenses, weather, outside agencies, CAS employment contingencies, etc.

3.4.1.11.1. **Q.** Within assigned TOT window

3.4.1.11.2. **Q-** \pm 2 minutes of assigned window

3.4.1.11.3. **U.** Exceeded Q- parameters.

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/expended appropriate countermeasures and performed maneuvers to counter threat. Maintained aircraft within design limits and normal flying parameters.

3.4.1.13.2. **Q-** Threat reaction/identification was slow or inconsistent. Slow to accomplish/expend appropriate countermeasures or perform maneuvers to counter threat. Maintained aircraft within design limits and normal flying parameters.

3.4.1.13.3. **U.** Numerous threat reactions were omitted, incorrect, or improperly identified. Failed to accomplish/expend countermeasures or perform maneuvers to counter threat. Poor execution of maneuvers resulted in exceeding aircraft design limits or unsafe situation.

3.4.1.14. **Area 64--Terrain Following (TF) Procedures.** A TF Flyup will be accomplished as a requirement to complete this area of evaluation.

3.4.1.14.1. **Q.** Accomplished required procedures and checklists accurately and efficiently. Used correct clearance plane setting for the route segment flown. Coordination with the crew provided accurate terrain assessment along the flight path of the aircraft. Effective use of terrain masking. Effectively controlled airspeed to meet mission timing and minimum mach requirements. Proper application of fly-up procedures resulted in safe terrain separation and recovery at or above the briefed minimum safe altitude.

3.4.1.14.2. **Q-** Accomplished required procedures and checklists with minor deviations which did not preclude successful accomplishment of TF or the TF flyup. Ineffective assessment or use of terrain. Airspeed control was unnecessarily erratic but did not exceed mission timing or minimum mach requirements. Minor deviations in application of fly-up procedures resulted in safe terrain separation and recovery did not meet “Q” standards.

3.4.1.14.3. **U.** Does not meet Q- standards. Allowed airspeed to decay below minimum Mach during TF flight. Significant procedural errors which could cause inadequate terrain clearance during TF or TF flyup operations. Flyup procedures resulted in an unsafe situation. Fly-up procedures resulted in unsafe terrain separation or recovery below or not near the briefed minimum safe altitude, or over-g of the aircraft.

3.4.1.15. **Area 65 – In-flight Report:**

3.4.1.15.1. **Q.** Gave accurate, precise in-flight reports in the correct format.

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

3.4.1.15.3. **U.** Failed to make in-flight reports. Unfamiliar with in-flight reporting procedures.

3.4.1.16. **Area 66 – Electronic Warfare**

3.4.1.16.1. **(W) Electronic Attack:**

3.4.1.16.1.1. **Q.** Required actions against surface threats were in accordance with applicable directives. Countermeasures were correctly applied in a timely manner and all threats were identified/countered with only minor deviations. Thorough knowledge of the Defensive Avionics System (DAS) demonstrated.

3.4.1.16.1.2. **Q-** Required actions were accomplished with minor deviations, omissions, and/or errors which detracted from mission effectiveness. Slow to apply countermeasures with deviations demonstrating limited knowledge of the flight manual or governing directives.

3.4.1.16.1.3. **U.** Required actions were accomplished with major deviations, omissions, and/or errors which significantly detracted from mission effectiveness or prevented mission accomplishment. Countermeasures were either late or inappropriate for the threat encountered demonstrating a lack of knowledge and indicating a definite need for additional training. Failed to identify/counter threats consistent with DAS capabilities.

3.4.1.16.2. **Expendable Procedures:** All expendable procedures (actual or simulated) will be graded in this area.

3.4.1.16.2.1. **Q.** Expendable procedures were accomplished in a timely manner and, according to the flight manual and governing directives, with only minor deviations, omissions, and/or errors.

3.4.1.16.2.2. **Q-** Expendable procedures were accomplished according to the flight manual and governing directives, but with deviations, omissions, and/or errors demonstrating limited knowledge of flight manual or governing directives. Slow to apply expendable countermeasures.

3.4.1.16.2.3. **U.** Expendable procedures were omitted, incorrect, or improperly applied with errors demonstrating a lack of knowledge of the flight manual or governing directives.

3.4.1.17. Area 67 – (W) Weapons System Utilization:

3.4.1.17.1. **Q.** Correctly utilized the weapon system to deliver the desired ordnance (actual or simulated). Executed all required procedures to successfully employ the weapon. Effectively integrated Radar, GPS, INS position error, and target pod (TGP) to achieve optimum results.

3.4.1.17.2. **Q-.** Late to prepare the weapon system to deliver the desired ordnance. Minor procedural errors degraded weapons employment. Slow to integrate Radar, GPS, INS position error, and TGP. Did not achieve optimum results.

3.4.1.17.3. **U.** Did not correctly prepare the weapon system to deliver the desired ordnance. Improper procedures during the attack resulted in unsuccessful weapons delivery. Failed to integrate Radar, GPS, INS position error, and TGP. Did not achieve desired weapons effects.

3.4.1.18. Area 68--Sensor Management:

3.4.1.18.1. **Q.** Correctly planned, briefed, prioritized and executed a sound sensor management plan. Identified high task periods and primary/secondary/tertiary sensors based on mission priorities and flight member responsibilities. Accounted for threats, changes in tasking, weather and flight member experience. Re-prioritized sensor tasks based on existing and new information to ensure mission success. Displayed sound knowledge of sensor systems.

3.4.1.18.2. **Q-.** Made minor errors in planning, prioritization and management of sensor tasks. Did not completely account for threats, changes in tasking, weather or flight member experience.

3.4.1.18.3. **U.** Incorrectly managed sensor tasks in a manner which seriously degraded mission accomplishment or safety of flight. Over-tasked other flight members or failed to communicate task over-load. Displayed lack of knowledge of sensor systems.

3.4.1.19. Area 69 – (P) Low Altitude Visual Contour:

3.4.1.19.1. **Q.** Accomplished required procedures and checklists accurately and efficiently. Coordination with the crew provided accurate terrain assessment and visual updates as necessary along the flight path of the aircraft. Effective use of terrain masking. Effectively controlled airspeed to meet mission timing requirements.

3.4.1.19.2. **Q-.** Accomplished required procedures and checklists with some deviations which did not negate the advantages low altitude operations. Ineffective assessment or use of terrain. Airspeed control was unnecessarily erratic but did not exceed mission timing.

3.4.1.19.3. **U.** Not up to Q- standards. Except for momentary crossings over irregular terrain (with no further attempt to make corrections), deviations were in excess of ± 200 feet.

3.4.1.20. Area 70 – (P) NVG Operations:

3.4.1.20.1. **Q.** Calibration and setup of night vision equipment accomplished IAW applicable directives. Effective use of NVGs to enhance situational awareness, tactical employment, and terrain masking. Effective coordination of NVG employment with established TF procedures.

3.4.1.20.2. **Q-** Minor deviations to equipment calibration and/or setup. Ineffective coordination of NVG operations with established procedures detracted from effective mission accomplishment. Situational awareness and/or tactical employment were not optimized. Did not compromise safety of flight.

3.4.1.20.3. **U.** Does not meet Q- standards.

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

3.4.2.1. **Area 71 – Radar Mechanization:**

3.4.2.1.1. **Q.** Demonstrated satisfactory knowledge and effective application of radar search/sorting techniques for all phases of flight. Utilized radar 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. Late contacts resulted in late maneuvering during defensive maneuvers.

3.4.2.1.3. **U.** Demonstrated unsatisfactory knowledge and or application of radar search responsibilities. Did not acquire the threat due to aircrew error.

3.4.2.2. **Area 72-73 – Not Used**

3.4.2.3. **Area 74 – Defensive Reactions:**

3.4.2.3.1. **Pilot Reactions:**

3.4.2.3.1.1. **Q.** Performed correct initial maneuver to counter attacking aircraft. Threat reactions were timely. Maintained aircraft within design limits and normal flying parameters.

3.4.2.3.1.2. **Q-** Some hesitation or confusion during initial stages of defensive situation. Threat reaction was slow. Minor errors in energy management delayed negating the attack of an opposing aircraft.

3.4.2.3.1.3. **U.** Numerous threat reactions were omitted, incorrect, or improperly identified. Unable to negate attack of opposing aircraft due to aircrew error. Errors in defensive maneuver did not negate the attack of opposing aircraft. Poor maneuvers resulted in exceeding aircraft design limits or unsafe situation.

3.4.2.3.2. **WSO Reactions:**

3.4.2.3.2.1. **Q.** Required actions against AIs were in accordance with applicable directives. Required actions were timely and correctly applied with only minor deviations, omissions, and/or errors. All threats were identified/countered consistent with DAS/sensor capabilities

3.4.2.3.2.2. **Q-** Required actions were accomplished, with minor deviations, omissions, and/or errors which detracted from effective mission accomplishment. Slow to identify/counter threats consistent with DAS/sensor capabilities.

3.4.2.3.3. **U.** Required actions were accomplished with major deviations, omissions, and/or errors which significantly detracted from mission effectiveness or prevented mission accomplishment. Failed to identify/counter threats consistent with DAS/sensor capabilities.

3.4.2.4. **Area 75-76 – Not Used**

3.4.2.5. **Area 77 – Command and Control Integration:**

3.4.2.5.1. **Q.** Effectively integrated AWACS/GCI information into tactical plan. Requested threat picture when required. Communicated changes in the tactical situation, weather, and threats to Command and Control agencies.

3.4.2.5.2. **Q-.** Slow to integrate AWACS/GCI information into tactical plan. Slow to request threat picture. Incomplete communication of changes in the tactical situation, weather, and threats to Command and Control agencies.

3.4.2.5.3. **U.** Failed to integrate AWACS/GCI information into tactical plan. Failed to request threat picture when required. Inadequate communication of changes in the tactical situation, weather, and threats to Command and Control agencies.

3.4.2.6. **Area 78-80 – Not Used**

3.4.3. **Air-to-Surface:**

3.4.3.1. **Area 81 – (W) Target Acquisition:**

3.4.3.1.1. **Q.** Target/Offset Aim Point (OAP) acquired (if required) on the first attack with radar and or TGT Pod, if missed due to difficult target identification features, a successful reattack was accomplished. For multiple target scenarios, all targets were acquired on the first attack or with a successful reattack.

3.4.3.1.2. **Q-.** Late to acquire the target/OAP with radar and or TGT Pod, degraded the initial attack or reattack. For multiple target scenarios, 50 percent or more of the targets were acquired on the first attack or with a successful reattack.

3.4.3.1.3. **U.** Target/OAP was not acquired. For multiple target scenarios, less than 50 percent of the targets were acquired on the first attack or with a successful reattack.

NOTE: A successful reattack is defined as being within parameters to effectively employ the planned weapons against the target.

3.4.3.2. **Area 82 – Weapons Employment:** Evaluate each planned/attempted release.

3.4.3.2.1. **Q.** Correctly utilized the weapon system to deliver the desired ordnance (actual or simulated) and correctly analyzed malfunctions. Executed all required procedures to successfully employ the weapon. Crosshair placement/weapon score was within AFI 11-2B-1V1, established reliability criteria. Achieved all weapons release parameters. At least 50% of all bombs in each event were within hit criteria.

3.4.3.2.2. **Q-.** Minor errors in knowledge of weapons delivery procedures, attack parameters, weapons computations, or error analysis for the events performed. Minor procedural errors degraded weapons employment. At least 50% of all bombs in each event were within hit criteria.

3.4.3.2.3. **U.** Demonstrated inadequate knowledge of weapons delivery procedures, attack parameters, weapons computations or error analysis for the events flown. Did not correctly prepare the weapon system to deliver the desired ordnance. Improper procedures during the attack resulted in unsuccessful weapons delivery. Less than 50% of all bombs in each event were within hit criteria. The overall grade for weapons employment will be unqualified when any of the following occur:

- 3.4.3.2.3.1. Failure to recognize an obvious malfunction/error adversely affecting delivery capability.
- 3.4.3.2.3.2. Unable to successfully accomplish a weapons release as a result of erroneous or incomplete inflight/mission planning.
- 3.4.3.2.3.3. Failure to achieve weapon safe escape and safe separation parameters for specific weapons planned.
- 3.4.3.2.3.4. Failure to achieve briefed track tolerances.
- 3.4.3.2.3.5. Attempted or released weapons in contradiction with the mission directives/SPINS.

NOTE: If, in the FE's judgment, the pilot/WSO could not successfully attack a target, the FE may also give an unqualified grade in AIRMANSHIP.

3.4.3.3. Area 83 – Range Procedures

- 3.4.3.3.1. **Q.** Used proper procedures for entering and exiting the range. Range operations followed established procedures.
- 3.4.3.3.2. **Q-** Minor deviations from established procedures for range entry, exit or operations.
- 3.4.3.3.3. **U.** Major deviations from established procedures for range entry, exit or operations.

3.4.3.4. Area 84 -- (W) IR/EO Sensor Operation:

- 3.4.3.4.1. **Q.** Correctly operated the sensor to acquire the target. Was able to properly search and tune the sensor display to aid weapons delivery.
- 3.4.3.4.2. **Q-** Poor tuning of sensor and or poor search technique hindered target identification delaying weapons delivery. Did not thoroughly understand tuning and /or search procedures.
- 3.4.3.4.3. **U.** Improper tuning of sensor prevented target identification or weapons delivery. Poor use of level/gain controls created an unusable picture. Did not understand basic tuning controls and their function. Improper search technique resulted in late or no TGT acquisition.

3.4.3.5. Area 85-86 – Not Used

3.4.3.6. Area 87 – System Aided Weapons Delivery (Guided Weapons)

- 3.4.3.6.1. **Q.** Correctly released the weapon at the planned delivery parameters. Followed all current procedures and guidance during the weapon delivery. Correctly loaded options (if applicable) and statused weapons. Weapon time of flight adequate for desired weapons effects. Correct target coordinates entered.
- 3.4.3.6.2. **Q-** Minor errors resulting in release outside the planned weapon delivery parameters degraded weapons effectiveness. Mission planning errors resulted in degraded weapon effectiveness. Slow to analyze or correct weapon errors. Minor errors in weapon delivery and recovery procedures degraded weapons effectiveness.

3.4.3.6.3. **U.** Improper release parameters resulted in the weapon being delivered outside weapon limits. Used improper procedures which caused the weapon to miss the target. Major errors in execution of weapon delivery procedures. Unable to load options or status weapons.

3.4.3.7. Area 88 – System Aided Systems Delivery Procedures (Unguided Weapons):

3.4.3.7.1. **Q.** Correctly released the weapon at the planned delivery parameters. Airspeed, altitude and roll rate steady prior to release. Followed all current procedures during the weapon delivery. Correct target coordinates entered.

3.4.3.7.2. **Q -.** Minor errors resulting in release outside the planned weapon delivery parameters degraded weapons effectiveness. Errors in airspeed, altitude or roll control degraded delivery accuracy. Minor errors in weapon delivery procedures degraded weapons effectiveness.

3.4.3.7.3. **U.** Improper release parameters resulted in the weapon being delivered outside weapon limits. Wrong target coordinates entered. Used improper procedures which caused the weapon to miss the target. Major errors in execution of weapon delivery procedures.

3.4.3.8. Area 89 -- Close Air Support (CAS)/Time Sensitive Targeting (TST):

3.4.3.8.1. **Q.** Effective coordination with outside agencies and contract execution within the flight resulted in prompt employment IAW the ROE, given restrictions or tactical situation.

3.4.3.8.2. **Q-.** Minor errors during contract execution or slow/confused coordination with outside agencies resulted in delayed employment IAW the ROE, given restrictions or tactical situation.

3.4.3.8.3. **U.** Major errors during contract execution or ineffective coordination with outside agencies resulted in employment outside the ROE, given restrictions or tactical situation.

3.4.3.9. **Area 90.** Not used.

Chapter 4

EMERGENCY PROCEDURES EVALUATION CRITERIA

4.1. General Grading Standards: The grading criteria in this chapter are divided into four sections: General, Critical Action Procedures, Aircraft Malfunctions, and Instrument Procedures. Use all sections for criteria applicable to the events performed on the evaluation. For malfunctions or procedures not listed in **Table 2.2.**, use the appropriate "Other" area. (e.g. for an unlisted Ground Emergency use area 218)

4.1.1. **Boldface:** FE will evaluate at least one boldface per phase of flight. All remaining Bold Face procedures will be evaluated verbally or during the independent portion of the EPE.

4.2. General

4.2.1. Area 201 – Aircraft General Knowledge:

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

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

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

4.2.2. Area 202 – Unusual Attitude Recoveries:

4.2.2.1. **Q. (P)** Proper recovery to level flight with correct recovery procedures. **(W)** Recognized unusual attitude and accomplished correct action.

4.2.2.2. **Q-.** **(P)** Slow to recognize and/or recover to level flight with minor errors. **(W)** Slow to recognize unusual attitude and/or accomplish correct action.

4.2.2.3. **U. (P)** Unable to determine attitude. Used improper recovery procedures. **(W)** Unable to determine attitude and/or did not accomplish correct action.

4.2.3. Area 203 – Crew Coordination/Checklist Usage:

4.2.3.1. **Q.** Effectively coordinated with other crewmembers without misunderstanding. Effectively used checklist.

4.2.3.2. **Q-.** Coordinated with other crewmembers with minor exceptions. Intra-crew communications were not clear or concise. Slow to use proper checklist.

4.2.3.3. **U.** Crewmember coordination precluded mission accomplishment or jeopardized safety. Failed to follow checklist procedures or used incorrect checklist.

4.2.4. Area 204 – TF Procedures:

4.2.4.1. **Q.** Followed all prescribed procedures and performed all TF system checks correctly prior to beginning TF operations. TF procedures were IAW applicable directives.

4.2.4.2. **Q-**. Performed required checks of the TF system with only minor deviations which would not affect terrain following performance. Minor procedural deviations which did not detract from mission accomplishment.

4.2.4.3. **U**. Major deviations in required TF system checks. Significant procedural errors which could cause inadequate terrain clearance during TF operations.

4.2.5. Area 205 – Airmanship:

4.2.5.1. **Q**. Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension. Aware of performance of self and other flight members. Recognized, verbalized and acted on unexpected events.

4.2.5.2. **U**. Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment or situational awareness to the extent safety could have been compromised. Resources were not always effectively used to the extent specific mission objectives were not achieved.

4.2.6. Area 206 – Safety:

4.2.6.1. **Q**. Aware of and complied with all safety factors required for safe aircraft operations and conduct of the mission.

4.2.6.2. **U**. Was not aware of or did not comply with all safety factors required for safe operations or conduct of the mission. Failed to correctly accomplish Boldface procedures. Operated the aircraft or equipment in a dangerous manner.

4.2.7. Area 207—Aircrew Discipline:

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

4.2.7.2. **U**. Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations.

4.3. Areas 208-215 – Critical Action Procedures:

4.3.1. **Q**. Correct procedure applied IAW all applicable directives.

4.3.2. **U**. Incorrect procedure applied or correct procedure not applied.

4.4. Areas 216-223 – Aircraft Malfunctions:

4.4.1. **Q**. Immediately recognized and analyzed malfunction. Displayed correct, immediate response to emergency situations. Effectively used checklist.

4.4.2. **Q-**. Slow to recognize and or analyze malfunction. Response to certain required steps in emergency procedures was slow/confused. Used the checklist when appropriate, but slow to locate required data and implement guidance.

4.4.3. **U**. Unable to analyze problems or take corrective action. Did not use checklist and or lacked acceptable familiarity with its arrangement or contents.

4.5. Areas 224-228 – Instrument Procedures: EPE instrument procedures follow all flight instrument procedures with an increase in airspeed and altitude tolerances by 50%.

4.6. **Forms Prescribed.** None.

4.7. **Forms Adopted.** AF Form 847, *Recommendation for Change of Publication*. AF Form 8, *Certificate of Aircrew Qualification*. AF Form 942, *Record of Evaluation*, AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*, AFTO Form 781A, *Maintenance Discrepancy and Work Document*, AF Form 4031, *CRM Skills Training/ Evaluation Form*.

DANIEL J. DARNELL, Lt Gen, USAF
DCS, Operations, Plans & Requirements

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

AFPD 11-2, *Aircraft Rules and Procedures*, 14 Jan 2005

AFPD 11-4, *Aviation Service*, 01 Sep 2004

AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, 08 Dec 2006

AFI 11-215, *USAF Flight Manuals Program*, 06 Apr 2005

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

AFI 33-360, *Publications and Forms Management*, 18 May 2006

AFMAN 33-363, *Management of Records*, 01 Mar 2008

AFI 33-364, *Records Disposition—Procedures and Responsibilities*, 22 Dec 2006

AF Records Disposition Schedule (RDS)

AFI 11-2B-1V1, *B-1 Aircrew Training*, 16 Dec 2006

AFI 11-2B-1V3, *B-1--Operations Procedures*, 20 Jul 2005

Abbreviations and Acronyms

ACC—Air Combat Command

ACMI—Air Combat Maneuvering Instrumentation

AFI—Air Force Instruction

AI—Airborne Interceptors

AILA—Airborne Instrument Landing Approach

ANG—Air National Guard

AOA—Angle of Attack

ARCP—Air Refueling Control Point

ARIP—Air Refueling Initial Point

ASR—Airport Surveillance Radar

ATD—Aircrew Training Device

ATO—Air Tasking Order

AWACS—Airborne Warning and Control System

BMC—Basic Mission Capable

CF—Composite Force

CFIC—Central Flight Instructor Course

CMR—Combat Mission Ready
CRM—Crew Resource Management
DD—Degraded Delivery
DH—Decision Height
DOC—Designed Operational Capability
DSO—Defensive Systems Officer
EA—Electronic Attack
EP—Emergency Procedures
EPE—Emergency Procedures Evaluation
FE—Flight Examiner
FLIP—Flight Information Publications
FTU—Formal Training Unit
GCI—Ground Control Intercept
GD—Guided Delivery
HASD—High Altitude System Delivery
HQ—Headquarters
IAW—In Accordance With
IFF—Identification Friend or Foe
IFR—Instrument Flight Rules
ILS—Instrument Landing System
IMC—Instrument Meteorological Conditions
IRC—Instrument Refresher Course
LLHD—Low Level High Drag
LLLD—Low Level Low Drag
MAJCOM—Major Command
MASD—Medium Altitude System Delivery
MAP—Missed Approach Point
MDA—Minimum Descent Altitude
MOA—Military Operations Area
MSA—Minimum Safe Altitude
MUTES—Multiple Threat Emissions Systems
NAF—Numbered Air Force

NVG—Night Vision Goggle
OAP—Offset Aim Point
OPR—Office of Primary Responsibility
OSO—Offensive Systems Officer
P—Pilot
PAR—Precision Approach Radar
QUAL—Qualification
Q—Qualified
R—Required
RDS—Records Disposition Schedule
RIIS—Range Integration Instrumentation System
ROE—Rules of Engagement
SIF—Selective Identification Feature
SIMCERT—Simulator Certified
SPINS—Special Instructions
STAN/EVAL—Standardization/Evaluation
TACAN—Tactical Air Navigation
TF—Terrain Following
U—Unqualified
VDP—Visual Descent Point
VFR—Visual Flight Rules
VTR—Video Tape Recorders
WSO—Weapon Systems Officer
WST—Weapons System Trainer

Terms

Deviation—Performing an action not in sequence with current procedures, directives, or regulations. Performing action(s) out of sequence due to unusual or extenuating circumstances is not considered a deviation. In some cases, momentary deviations may be acceptable; however, cumulative momentary deviations will be considered in determining the overall qualification level.

Error—Departure from standard procedures. Performing incorrect actions or recording incorrect information.

Major—Detracted from mission accomplishment. Adversely affected use of equipment, or violated safety.

Minor—Did not detract from mission accomplishment.

Omission—To leave out a required action or annotation.