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***Flying Operations***

***F-16--AIRCREW EVALUATION CRITERIA***



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This volume implements AFPD 11-2, *Aircraft Rules and Procedures*; AFPD 11-4, *Aviation Service*; and AFI 11-202V2, *Aircraft Standardization/Evaluation Program*. It applies to all F-16 units. This instruction does 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/A3OT, 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/A3OT, 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 33-360V1, *Air Force Content Management Program—Publications*. See paragraph 1.2. of this volume for guidance on submitting comments and suggesting improvements to this publication.

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Recommendations for improvements to this volume will be submitted on AF IMT 847, **Recommendation for Change of Publication**, through channels, to the parent MAJCOM Stan/Eval. Parent MAJCOM Stan/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 is the approval authority for interim changes to this instruction.

### ***SUMMARY OF CHANGES***

The opening paragraph to this instruction has been reworded for clarity and updated. AF Form 8 has been changed to AF IMT 8, **Certificate of Aircrew Qualification** throughout the document. Para **1.2.**: Recommendation for Change of Publication moved to opening paragraph. Para **1.3.1.**: added reference to new **Chapter 4** for emergency procedure evaluations. Para **1.3.2.**: added “video tape recorder” and Air Combat Maneuvering Instrumentation“, deleted corresponding abbreviation (all abbreviations of terms which show up just one time have been deleted in the document). Para **1.3.5.**: deleted (merged into para **2.1.2.**), following paragraph renumbered. Para **1.4.2.**: added term “angle of attack”. **Table 1.1.**: new layout, added grading criteria. Para **1.5.**: reworded for clarity. Para **1.5.1.1.** to **1.5.1.4.** (and sub-paragraphs): rearranged, reworded for clarity. Added explanation for “XX”. Added requirement for Engine Failure/Airstart and Out Of Control Recovery CAPs for all EPEs. Para **1.5.2.** and **1.5.2.1.**: reworded for clarity. Para **1.5.2.3.**: deleted; “Recovery Procedures” now incorporated in para **1.5.1.1.3.** Para **1.5.3.**: reworded. **1.5.3.3.**: added “threat reaction”. Para **1.5.3.5.**: added term “terrain following radar”. Para **1.5.4.**: reworded for clarity. Para **1.5.5.**: added paragraph on combined MSN/INSTM/QUAL EPEs. Para **1.5.6.**: renumbered. Para **1.6.**: renumbered; paragraph on publications moved to **2.1.3.** Para **1.6.1.**: reworded, added MAJCOM Ready Aircrew Program tasking message events as reference. Para **1.6.2.**: added term “Forward Air Controller”. Para **1.6.3.**: added sentence about shot validity. **Table 1.2.**: updated to match corresponding text and actual requirements. Para **1.6.4.**: text added for clarification. Para **1.8.**: deleted text on record disposition. Para **2.1.1.**: deleted sentence on applicability (already covered in foreword). Para **2.1.2.** to **2.1.2.3.**: text reworded and added to reflect more differentiated evaluation requirements. Para **2.1.3.**: former paragraph **1.6.** Deleted explanation for “XX”; added procedures for ANG. Para **2.1.3.1.**: added. Para **2.1.3.5.**: added. Para **2.1.4.**: text amended – aspects of Cockpit/Crew Resource Management are now embedded in other grading criteria. **NOTE** deleted. Para **2.1.5.**: added paragraph on combined MSN/INSTM/QUAL evaluations. Para **2.2.**: text added, deleted requirement for approval to administer an INSTM/QUAL evaluation on a compatible training mission. Para **2.2.1.** to **2.2.1.4.**: renumbered, “Instrument Refresher Course” deleted. Para **2.3.**: deleted requirement for written mission evaluation profiles; paragraph reworded for clarity; evaluations during exercises or exercise deployments are encouraged now. **NOTE** on BMC-aircrew added. Para **2.3.2.**: reworded. Para **2.3.2.1.**: deleted. Para **2.3.2.2.**: deleted. Para **2.3.3.**: added AFTTP 3-1 as reference. Para **2.3.3.3.**: reworded for clarity. Para **2.3.5.**: added “(A)”. **2.3.6.**: text on FTU Instructor Pilots relocated in para **2.5.**: following paragraphs renumbered. Para **2.3.6.**: Reworded to make RESCORT mandatory. Para **2.3.7. (old)**: deleted. Para **2.4.**: added reference **Chapter 4** Para **2.5.** and following sub-paragraphs: reworded for clarity; text supplemented to better describe Instructor evaluation requirements. Para **2.6.1.2.**: reworded. Para **2.6.2.**: deleted term “Emergency Procedure Evaluation”. **Table 2.1.**: newly formatted, completely revised. Deleted SEAD as mission evaluation profile. Several grading areas have been reevaluated as mandatory items on specific mission profiles. **NOTE 1.**: amended and reworded for clarity. **NOTE 3.**: added “Simulated Flame Out”; amended to give more precise guidance on SFO requirements. Added PACAF to the exception. **NOTE 4.**: reworded. **NOTE 7.**: added. **NOTE 8.**: added. **Table 2.2.**: added criteria for EPE. Para **3.2.1.1.1.** to **3.2.1.1.3.**: text added to better reflect all relevant aspects of mission planning and crew coordination. Para **3.2.1.2.** and sub-para-

graphs: criteria for publications added. Para 3.2.2.1.1. to 3.2.2.1.3.: text added. Para 3.2.2.2.1. to 3.2.2.2.3.: text added and amended. Para 3.2.2.3.1. to 3.2.2.3.3.: text added and amended. Para 3.2.2.4.1. and 3.2.2.4.2.: reworded. Para 3.2.4.2. and 3.2.4.3.: reworded. Para 3.2.5.1.3.: reworded. Para 3.2.6.1.: added term “Visual Flight Rules”. Para 3.2.6.2. and sub-paragraphs: replaced “rendezvous” with “rejoin”. Para 3.2.8.1.: deleted examples for “assigned airspace”. Para 3.2.9.1.1. to 3.2.9.1.3.: text added. Para 3.2.9.2.1. to 3.2.9.2.3.: text amended/added. Para 3.2.10.3.: text added for clarification. Para 3.2.11.1.: reworded. Para 3.2.11.3.: text added. Para 3.2.12. and para 3.2.12.1.: deleted “SIF”. Para 3.2.13.: deleted (publication check is now in para 3.2.1.2.). Para 3.2.14.: deleted terms “Advanced Handling/Tactical Maneuvering”. Para 3.2.16.: added term “Built In Test”. Para 3.2.17.1.1.: added term “Emission Control”. Para 3.2.17.2.2.: deleted last sentence. Para 3.2.17.2.3.: reworded. Para 3.2.20.: deleted “trail”. Para 3.2.20.1. to 3.2.20.3.: replaced “approach” with “recovery”. Para 3.2.22.1.: reworded. Para 3.2.22.2.1. and 3.2.22.2.2.: deleted, text included in para 3.2.22.2. Para 3.2.25.: text added to emphasis applicability of the listed criteria for VFR-approaches. Para 3.2.27.1. to 3.2.27.3.: text added to allow for aspects of Cockpit/Crew Resource Management. Para 3.2.28.1. to 3.2.28.3.: text added to allow for aspects of Cockpit/Crew Resource Management. Para 3.2.29.2.1. to 3.2.29.2.3.: deleted term “Critical Action Procedure”. Para 3.2.30.: added “Situational Awareness”. Para 3.2.30.1. to 3.2.30.2.: text added to reflect aspects of situational awareness. Para 3.2.31.2.: added “aircraft flight path”. Para 3.2.32.1. and 3.2.32.2.: reworded. Para 3.2.33.: text added to match para 2.5.3. Para 3.2.33.1.1. to 3.2.33.1.3.: text added to allow for aspects of Cockpit/Crew Resource Management. Para 3.2.33.2. text on chase requirements deleted 2.5.3. Para 3.2.34. and sub-paragraphs: deleted “Cockpit/Crew Resource Management”. Para 3.2.35.: corrected typographical error. Para 3.2.35.1.: text added to describe “Q” criteria. Para 3.2.36. and sub-paragraphs: added item “Task Prioritization” and corresponding criteria. Para 3.3.1.1. to 3.3.1.2.: added “leg timing” as parameter. Para 3.3.2. to 3.3.2.3.: added “enroute descent”. Para 3.3.4.1.: added terms “Minimum Descent Altitude”, “Visual Descent Point”, “Missed Approach Point”. Para 3.3.5.: split criteria for PAR and ILS-approaches into 2 areas. Para 3.3.5. and sub-paragraphs: PAR only. Para 3.3.6. and sub-paragraphs: added text on ILS-approaches. Para 3.4.1.1.1.: reworded. Para 3.4.1.2.2.: changed “poor” to “low”. Para 3.4.1.3.: reworded, deleted “GCI” and “AWACS”. Para 3.4.1.5. and sub-paragraphs: changed “Radar lookout” to “Radar Mechanization” or “Radar search”. Para 3.4.1.6.1. and 3.4.1.6.3.: text added. Para 3.4.1.7.2.: High altitude and Medium Altitude grading criteria merged. Para 3.4.1.7.3. and sub-paragraphs: renumbered, reworded. Para 3.4.1.8.1. to 3.4.1.8.3.: added term “evasive maneuvers”. Para 3.4.1.11.: text added. Para 3.4.1.11.2.1.: added PET shot parameter. Para 3.4.1.12.: added term “Rules of Engagement”. Para 3.4.1.14.: deleted term “Terrain Following Radar”. Para 3.4.1.15.: added “not applicable for FTU”. Para 3.4.1.16. and sub-paragraphs: reworded for clarity. Para 3.4.1.18. and sub-paragraphs: added area “Sensor management”. Para 3.4.1.19.: added. Para 3.4.2.1.: changed “Radar Search” to “Radar Mechanization”. Para 3.4.2.3.: added “Combat Air” and “(CAP)”. 3.4.2.3.1. to 3.4.2.3.3.: reworded for clarity. Para 3.4.2.5.1.: reworded/text added to better cover all aspects of offensive maneuvering. Para 3.4.2.5.2.: reworded. Para 3.4.2.6.1.: text added. Para 3.4.2.7.1. to 3.4.2.7.3.: reworded for clarity. Para 3.4.2.8. and sub-paragraphs: added area “Air-to-Air Systems Employment”. Para 3.4.2.9.: added area “Command and Control Integration”. Para 3.4.3.1.1. and 3.4.3.1.2.: added “with radar and/or TGT IR and/or visual acquisition”. Para 3.4.3.2., NOTE 3 and NOTE 4.: text added. Para 3.4.3.2.2.1. to 3.4.3.2.2.3.: examples for single event weapon scores deleted. Para 3.4.3.2.3.1. to 3.4.3.2.3.3.: tables newly formatted. Para 3.4.3.4.: and sub-paragraphs: text added. Para 3.4.3.5. and sub-paragraphs: criteria for Precision Guided Munitions Delivery Procedures added. Para 3.4.3.7. and sub-paragraphs: criteria for System Weapons Delivery Procedures (GPS Aided Weapons) added. Para 3.4.3.8. and sub-paragraphs: criteria for System Weapons Delivery Procedures (General Purpose Munitions) added. Para 3.4.3.9. and sub-paragraphs: criteria for Close Air Support/Time Sensitive Targeting added. Para 3.4.3.10.: added. Para 3.4.4.:

added term “Destruction of Enemy Air Defenses”. NOTE added. Para 3.4.4.1.1.: reworded for clarity. Para 3.4.4.1.2.: deleted text. Para 3.4.4.1.3.: reworded. Para 3.4.5.2. and sub-paragraphs: changed “Photo Quality” to “Imagery Quality”; combined former areas 112 “Photo Quality” and 113 “EEI” into one area. Para 3.4.5.3.: deleted area “EEI”, added administrative text. Para 3.4.5.4.: deleted. Para 3.4.6.3.1.: changed “fighters” to read “strikers”. Para 3.4.6.4.1. to 3.4.6.4.3.: changed “fighters” to “strikers”. Para 3.4.6.5.: added text “(Type 1 control only)”. Para 3.4.6.5.1. to 3.4.6.5.3.: reworded for clarity. Para 3.4.6.6.1.: changed “fighters” to “strikers”. Para 3.4.6.6.2.: changed “fighters” to “strikers”, added text. Para 3.4.6.7.1.: changed “fighters” to “strikers”. **Chapter 4** added to specify grading criteria for Emergency Procedures Evaluations. Para 4.3. and 4.4.: added to comply with administrative requirements. **Attachment 1** references, abbreviations and acronyms updated to match corresponding text of the instruction.

A bar ( | ) indicates revisions from the previous edition.

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## Chapter 1

### GENERAL INFORMATION

#### 1.1. General.

All evaluations will be conducted IAW the provisions of AFI 11-202V2 and this volume.

#### 1.2. Waivers.

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

#### 1.3. Procedures.

1.3.1. Flight examiners (FEs) will use the evaluation criteria contained in **Chapter 3** for conducting flight evaluations and **Chapter 4** for emergency procedure evaluations (EPE). To ensure standard and objective evaluations, flight examiners will be thoroughly familiar with the prescribed evaluation criteria.

1.3.2. Recording devices (video tape recorders (VTR), air combat maneuvering instrumentation, etc.) should be used, when available, to reconstruct/evaluate the mission.

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

1.3.4. The FE will brief the examinee on the purpose of the evaluation and how it will be conducted prior to flight. The examinee will accomplish required flight planning in accordance with the flight position during the evaluation. Higher Headquarters FEs (and unit FEs as determined locally) may assist in mission planning/briefing as tasked and will be furnished a copy of necessary mission data, mission materials, and data transfer cartridge loads.

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

#### 1.4. Grading Instructions.

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

1.4.1. The 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 flying safety. The FE will consider cumulative deviations when determining the overall grade.

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

1.4.3. The FE will compare examinee performance for each area accomplished during the evaluation with the standards provided in this volume and assign an appropriate grade for the area. Derive the

overall flight evaluation grade from the area grades based on a composite for the observed events and tasks IAW this instruction.

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

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

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

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

**Table 1.1. General Criteria.**

<b>Q</b>	Altitude	+/- 200 feet
	Airspeed	+/- 5%
	Course	+/- 5 degrees/3 NM (whichever is greater)
	TACAN Arc	+/- 2 NM
	Fix-to-Fix	+/- 2 NM
	Landing	150' to 1000'
<b>Q-</b>	Altitude	+/- 300 feet
	Airspeed	+/- 10%
	Course	+/- 10 degrees/5 NM (whichever is greater)
	TACAN Arc	+/- 3 NM
	Fix-to-Fix	+/- 3 NM
	Landing	0-149'; 1001' to 1500'
<b>U</b>		Exceeded Q- limits

### 1.5. Emergency Procedures Evaluation.

In order of preference, the EPE will be conducted in a flight simulator/unit training device (UTD), cockpit procedure trainer (CPT), or verbally. Only conduct a verbal EPE if a flight simulator/UTD or CPT is not available or not configured appropriately for the evaluation. Grading criteria for each required item are listed in [Chapter 4](#). This evaluation will include areas commensurate with examinee's Ready Aircrew Program (RAP) training level and event qualifications.

1.5.1. The following items are required on all emergency procedure evaluations:

1.5.1.1. Emergency Procedures. All Critical Action Procedures (CAP) should be evaluated.

1.5.1.1.1. Evaluate a minimum of two emergency procedures, one of which is a CAP, from the Ground Emergencies Section of [Chapter 3](#) of the T.O. 1F-16XX-1 (XX denotes model - A/C/CG/CJ).

- 1.5.1.1.2. Evaluate a minimum of two emergency procedures, one of which is a CAP, from the Takeoff Emergencies Section of Chapter 3 of the T.O. 1F-16XX-1.
  - 1.5.1.1.3. Evaluate both the Engine Failure/Airstart and Out Of Control Recovery CAPs and an additional emergency procedure from the In-Flight Emergencies Section of Chapter 3 of the T.O. 1F-16XX-1.
  - 1.5.1.1.4. Evaluate a minimum of two emergency procedures from Landing Emergencies Section of Chapter 3 of the T.O. 1F-16XX-1.
  - 1.5.1.1.5. All CAPs will be evaluated by completion of a written CAPs sheet at the beginning of the EPE. This will complete the CAPs requisite for the evaluation. Any incorrectly completed CAP will result in a "U" for the CAPs requisite. The EPE will not be started until successful completion of the CAPs requisite.
- 1.5.1.2. Aircraft General Knowledge.
  - 1.5.1.3. Cockpit/Crew Resource Management (CRM).
  - 1.5.1.4. Unusual Attitude Recoveries. This also fulfills the Area 15 (Unusual Attitude Recoveries) requirement for Instrument/Qualification (INSTM/QUAL) evaluations.
- 1.5.2. All INSTM/QUAL EPEs will include the following additional items:
- 1.5.2.1. AFMAN 11-217, *Instrument Flight Procedures*. Evaluate a minimum of one heads-up display (HUD) -out approach and use of standby/emergency instruments. Emphasis should be on whether the approach would permit a safe landing.
  - 1.5.2.2. Alternate/divert airfields. Evaluate a minimum of one approach at other than home base.
- 1.5.3. All Mission (MSN) EPEs will include the following items (tailor MSN evaluation scenarios to unit tasking/mission).
- 1.5.3.1. Weapons system operation.
  - 1.5.3.2. Electronic attack (EA)/Electronic Protection (EP)/All Aspect Missile Defense (AAMD).
  - 1.5.3.3. Evasive action/Threat Reaction.
  - 1.5.3.4. Weapons employment and switchology.
  - 1.5.3.5. Terrain Following Radar (TFR) procedures (if applicable).
- 1.5.4. Examinees receiving an overall unqualified grade will be placed in supervised status until recommended additional training is completed and/or a reevaluation is successfully accomplished. Examinees receiving an overall unqualified grade because of an unsatisfactory CAP accomplishment will not be permitted to fly until a successful reevaluation is accomplished. For EPEs in which the examinee is qualified, but requires additional training, the FE will indicate whether the additional training will be accomplished before the next flight. Additional training and reevaluations will be accomplished IAW AFI 11-202V2.
- 1.5.5. Normally, an EPE will be conducted separately for the pilot INSTM/QUAL and MSN evaluations. In situations where INSTM/QUAL and MSN evaluation eligibility zones coincide, a single EPE may be administered to fulfill the requisites for the combined MSN/INSTM/QUAL evaluations. The combined EPE must be of sufficient scope and length to ensure all required areas for each evaluation are accomplished.



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

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

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

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

## 1.6. Documentation of Weapons Employment Results.

Weapons employment results will be documented in the Mission Description Section of the AF IMT 8 for MSN evaluations. Include entries for each type of actual and simulated ordnance that was employed.

1.6.1. Air-to-Surface. Results will be recorded as Hit or Miss for each air-to-surface record delivery. Flight examiners may use either AFI 11-2F-16V1, *F-16--Aircrew Training*, individual weapons events or current MAJCOM Block XX RAP tasking message events (e.g. combined events, etc.) when determining grading or assigning additional training. For air scored events and/or for VTR assessed deliveries, FEs will determine weapons employment results. Air scored and/or VTR assessed deliveries will be annotated with an asterisk (or asterisks as required). Document results as in **Table 1.2.** or as by PEX format.

1.6.2. Forward Air Controller (FAC) Target Marks. For the purpose of FAC target mark, marks will be scored as a Hit or a Miss by the FE in either FAC or fighter aircraft. Marks will be scored as a "Hit" if they are considered usable for marking the designated target, delivered in a timely manner and delivery used is tactically sound. They will be scored as a "Miss" if they are unusable for target marking, untimely or the deliveries are tactically unsound (i.e., excessive altitude loss, unnecessary exposure to the threat, excessive tracking time, etc.).

1.6.3. Air-to-Air. Record the number of simulated missile/gun firing attempts and the number that were valid as in **Table 1.2.** Shot validity will be evaluated at pickle with all parameters IAW AFTTP 3-1.1.

1.6.4. FE Judgment. FE judgment will be the determining factor in deciding the weapons employment grade. If the examinee fails to qualify in any event(s), the FE may elect to award a higher area grade than warranted by the score(s). The FE will include justification for such an award in the Comments Section of the AF IMT 8. Include entries for each type of simulated ordnance that was employed.

| Table 1.2. Weapons Employment Scores.

<b>Weapons employment scores were: (examples)</b> (for abbreviations and acronyms see <a href="#">Attachment 1</a> )					
<b>HARB</b>	<b>HADB</b>	<b>LALD</b>	<b>LAT</b>	<b>HARM</b>	<b>LGB</b>
*Hit	**Hit	Hit/Miss	Hit/Hit	*Hit	*Hit
		<b>ATTEMPTED</b>		<b>VALID</b>	
A/A Gun		2		1	
AIM 120		2		2	
*VTR /simulator/UTD assessed /**Air Scored					
<b>NOTE:</b> Flight examiners may use either AFI 11-2F-16V1 individual weapons events or current MAJCOM Block XX RAP tasking message events (e.g. combined events, MAD, etc.) when completing Weapons Employment Scores.					

## Chapter 2

### EVALUATION REQUIREMENTS

#### 2.1. General.

2.1.1. All evaluations will follow the guidelines set in AFI 11-202V2.

2.1.2. Required areas for flight evaluations are shown in **Table 2.1.** and for EPEs in **Table 2.2.** When it is impractical or not possible to accomplish a required flight evaluation area inflight, it may be evaluated by an alternate method (i.e., simulator/UTD, CPT, or by verbal examination) in order to complete the evaluation. Document the reason and type of alternate method used in the Comments portion of the AF IMT 8, **Certificate of Aircrew Qualification.** If the FE determines the required item cannot be adequately evaluated by an alternate method, the examinee will require an additional flight to complete the evaluation.

2.1.2.1. Areas annotated with an "R" are required items for that evaluation.

2.1.2.2. Areas annotated with an "R1" require evaluation of at least one of the items under the associated section and category for that evaluation (e.g., for the Critical Action Procedures category under the Ground Emergencies Section listed in **Table 2.2.**, at least one CAP is required for both the INSTM/QUAL and MSN evaluations).

2.1.2.3. Areas indicated with an "R2" require evaluation of at least two of the items under the associated section for that evaluation (e.g., for the emergency procedures under Landing Emergencies Section listed in **Table 2.2.**, at least two emergency procedures are required for both the INSTM/QUAL and MSN evaluations).

#### 2.1.3. Publications Check.

(N/A ANG/AFRC) Publications that will be checked are:

2.1.3.1. T.O. 1F-16XX-1 (ACC/PACAF)

2.1.3.2. T.O. 1F-16XX-1CL-1

2.1.3.3. T.O. 1F-16XX-34-1-1CL-1

2.1.3.4. Local In-flight Guide

2.1.3.5. Any additional publications issued to aircrews and specified in the unit addendum to AFI 11-202V2.

ANG/AFRC: Currency of Flight Publications. Evaluate all issued checklists for currency and accuracy on all flight evaluations. Units may specify additional publications to be evaluated in the unit supplement to AFI 11-202V2.

#### 2.1.4. Cockpit/Crew Resource Management (CRM)

In accordance with AFI 11-290, *Cockpit/Crew Resource Management*, CRM skills will be evaluated during all evaluations. CRM skills are integral to all phases of flight and are embedded within specific grading criteria. Therefore, no specific evaluation criteria area titled CRM exists. As all the CRM skills listed on the AF IMT 4031 are included/embedded, use of the IMT 4031 is unnecessary for evaluations in the F-16. The Stan/Eval trend program can be used to measure the effectiveness of CRM training.

2.1.5. With the approval of the Operations Group Commander, the INSTM/QUAL evaluation and the MSN evaluation may be combined as a single evaluation. Unit Commanders, with coordination through the unit Chief of Stan/Eval, may designate experienced pilots for this combined evaluation option. Evaluations flown in this manner must fulfill all current INSTM/QUAL and MSN evaluation requirements, including ground phase requisites. For combined MSN/INSTM/QUAL evaluations, one EPE may be accomplished that encompasses requirements of both EPEs. Additional simulator time may be required to complete these items.

## 2.2. Instrument/Qualification Evaluation.

A mission flown according to instrument flight rules (to the maximum extent practical) best fulfills the objective of the INSTM/QUAL evaluation. To the maximum extent possible, this evaluation will include approaches at airfields other than home or deployed locations (USAFE: Preferably non-US locations). Approaches may be flown to fields which have a non-published, practice approach available (e.g. Visual Flight Rules (VFR) conditions only approach), but not a published FLIP approach. The intent is to grade instrument procedures which are independent of an approach's certification (to use a non-published approach, the approach plate must be built using the standards applied to published approach plates, local OGV must approve use of the approach, and approval for the approach to must be documented in the local unit supplement to AFI 11-202V2). This evaluation may be administered on any compatible training mission. When B/D model aircraft are available, pilots may complete their INSTM/QUAL evaluation with an FE occupying the rear cockpit.

2.2.1. Minimum ground phase requisites are:

2.2.1.1. Instrument examination.

2.2.1.2. Closed and open book qualification examinations.

2.2.1.3. EPE.

2.2.1.4. CAPs Written Exam. Answers must contain all critical action items in proper sequence. Abbreviations are allowed.

## 2.3. Mission Evaluation.

MSN evaluation will be flown IAW current tactics, unit tasking and theater Area of Responsibility scenarios and will incorporate all appropriate evaluation requirements from **Table 2.1.** Scenarios that represent unit Designed Operational Capability (DOC) tasking satisfy the requirements of this evaluation. The profiles will be designed to evaluate the training/flight position/special qualifications as well as basic airmanship of the examinee. Initial MSN evaluations will be given in the primary DOC of the unit unless directed otherwise by the squadron commander for assigned contingency tasking. MSN evaluations will normally be flown using established tactics, techniques, and procedures, and in accordance with published unit standards. Examinees will be evaluated in the position of their highest qualification. At the FEs discretion, portions may be flown in another position, but the emphasis is to have examinees evaluated at their highest qualification level. Wingman may be required to brief (to include tactics) and/or lead certain phases of the mission, but will not be evaluated using flight lead grading criteria. Evaluations during exercises or exercise deployments are encouraged. Evaluations during contingency/combat deployments will be given as a last resort in order to maintain mission qualification status.

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

2.3.1. Minimum ground phase requisites are:

2.3.1.1. EPE.

2.3.1.2. CAPs Written Exam. Answers must contain all critical action items in proper sequence. Abbreviations are allowed.

2.3.2. Air-to-Surface. This evaluation will include, as a minimum, navigation to the initial point (IP), an IP to target run, planned weapons employment and threat reactions. First-look navigation and look-alike targets are encouraged. For those examinees who are certified Combat Mission Ready/BMC in nuclear and conventional tasking, the evaluation will emphasize only one scenario. Mission profiles should include actual delivery of practice or live ordnance. Suppression of Enemy Air Defenses (SEAD) scenarios should include simulated HARM employment against emitters. Ordnance deliveries may be dry if they can be validated.

2.3.3. Air-to-Air. This evaluation will include, as a minimum, one intercept, offensive maneuvering and planned weapons employment. When practical, adversaries should simulate enemy aircraft, tactics and ordnance IAW AFTTP 3-1. Dissimilar aircraft are preferred. Additionally, pilots:

2.3.3.1. Must have an operable radar.

2.3.3.2. When weather or other restrictions prohibit D/ACBT, or Low Altitude Training, may fly multiple intercepts.

2.3.3.3. Normally perform one Air Sovereignty Tasking (if applicable to unit DOC statement).

2.3.4. Reconnaissance. A day visual sortie will be used to the maximum extent possible. A minimum of three targets will be assigned and more than 50 percent acquired for successful completion of the mission. Exceptions to the minimum number of targets are permitted for enhanced profiles and specialized missions. Successful acquisition of targets will be based on the requested elements of essential information and/or FE judgment. In-flight targets may be assigned by the FE. Targets not acquired due to adverse weather, verified sensor malfunction or threat reaction will not be charged against the pilot.

2.3.5. FAC(A). Air-to-surface evaluation requirements/grading criteria will be used when determined applicable by the FE.

2.3.6. Combat Search and Rescue (CSAR). Use of ground party personnel, airborne rescue assets and support strikers are encouraged. CSAR scenarios should include on-scene commander takeover/hand-off, simulated weapons employment against ground threats and authentication procedures. Scenario will include Rescue Escort (RESCORT).

## 2.4. Formal Course Evaluation.

Syllabus evaluations will be flown IAW syllabus mission profile guidelines if stated, or on a mission profile developed from syllabus training objectives. Formal course guidelines may be modified, based on local operating considerations or FE judgment, to complete the evaluation. Training objectives and related areas will be graded using the performance criteria in [Chapter 3](#) and [Chapter 4](#).

## 2.5. Instructor Evaluation.

Instructor evaluations will be conducted IAW AFI 11-202V2.

2.5.1. Initial Flight Evaluation. To initially qualify as an instructor in the F-16, the pilot must successfully complete an initial instructor evaluation. This is a one-time evaluation in which the examinee must demonstrate ability to instruct in some phase of the unit's mission. Except for requirements delineated under Area 33, Instructor Performance, in **Chapter 3**, specific profiles and/or events will be determined by the flight examiner.

2.5.2. Subsequent aircrew evaluations (i.e. INSTM/QUAL and MSN) will include instructor portions during the evaluations.

2.5.3. Chase Procedures. Initial instructor evaluations and requalification instructor evaluations will include chase procedures. Formal Training Unit (FTU) Instructor Pilots (IPs) will be evaluated on chase procedures during INSTM/QUAL evaluations.

2.5.4. FTU and Weapons Instructor Course (WIC) Mission Evaluations. USAF Weapon School (USAFWS) and FTU Instructor Pilot mission evaluation profiles will normally be IAW the formal course syllabus for any MSN which the IP is qualified to instruct. The only required items for an FTU or WIC IP mission check are those items required by the syllabus, for the specific sortie being flown.

## **2.6. Instructor Pilot Rear Cockpit Landing Evaluations.**

An evaluation of rear cockpit landings will be completed prior to performing rear cockpit landing instructor duties. These duties include instruction for and demonstration of landings during initial qualification training, requalification training, or additional training.

2.6.1. Examinees will complete the evaluation as follows:

2.6.1.1. All rear cockpit landing qualification evaluations will include satisfactory demonstration of overhead and emergency patterns, and a landing performed from the rear cockpit.

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

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

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

**Table 2.1. FLIGHT Evaluations.**

1--INSTRUMENT/QUALIFICATION EVALUATION								
2--AIR-TO-SURFACE MISSION EVALUATION								
3--AIR-TO-AIR MISSION EVALUATION								
4--RECONNAISSANCE MISSION EVALUATION								
5--FORWARD AIR CONTROLLER MISSION EVALUATION								
6--COMBAT SEARCH AND RESCUE EVALUATION								
AREA	NOTE	AREA TITLE	1	2	3	4	5	6
<b>GENERAL</b>								
1		MISSION PLANNING	R	R	R	R	R	R
2		BRIEFING (if applicable)	R	R	R	R	R	R
3		PRETAKEOFF	R	R	R	R	R	R
4		TAKEOFF	R					
5		FORMATION TAKEOFF						
6		DEPARTURE	R	R	R	R	R	R
7		LEVEL OFF	R					
8		CRUISE/NAVIGATION	R	R	R	R	R	R
9		FORMATION		R	R			
10		IN-FLIGHT CHECKS	R	R	R	R	R	R
11		FUEL MANAGEMENT	R	R	R	R	R	R
12		COMM/IFF	R	R	R	R	R	R
13		NOT USED						
14	1	AIRWORK	R					
15	2	UNUSUAL ATTITUDE RECOVERIES	R					
16		WEAPONS SYSTEM/BIT CHECKS		R	R	R	R	R
17		AIR REFUELING						
18		DESCENT	R					
19		GO-AROUND						
20		RECOVERY	R	R	R	R	R	R
21	3	SFO TRAFFIC PATTERNS	R					
22	3	SFO APP/LANDING	R					
23		VFR PATTERN/APPROACH	R					
24		FORMATION APP/LANDING						
25		LANDING	R					
26		AFTER LANDING	R					
27		FLIGHT LEADERSHIP (if applicable)	R	R	R	R	R	R

<b>1--INSTRUMENT/QUALIFICATION EVALUATION</b>								
<b>2--AIR-TO-SURFACE MISSION EVALUATION</b>								
<b>3--AIR-TO-AIR MISSION EVALUATION</b>								
<b>4--RECONNAISSANCE MISSION EVALUATION</b>								
<b>5--FORWARD AIR CONTROLLER MISSION EVALUATION</b>								
<b>6--COMBAT SEARCH AND RESCUE EVALUATION</b>								
<b>AREA</b>	<b>NOTE</b>	<b>AREA TITLE</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
28		DEBRIEFING/CRITIQUE	R	R	R	R	R	R
29		KNOWLEDGE	R	R	R	R	R	R
30	Critical	AIRMANSHIP/SITUATIONAL AWARENESS	R	R	R	R	R	R
31	Critical	SAFETY	R	R	R	R	R	R
32	Critical	FLIGHT DISCIPLINE	R	R	R	R	R	R
33		INSTRUCTOR PERFORMANCE (if applicable)	R	R	R	R	R	R
34		NOT USED						
35		RADAR SCOPE/SENSOR INTERPRETATION	R	R	R	R	R	R
36		TASK PRIORITIZATION	R	R	R	R	R	R
37-40		NOT USED						
<b>INSTRUMENT</b>								
41		HOLDING						
42	8	INSTRUMENT PENETRATION/ENROUTE DESCENT	R					
43		INSTRUMENT PATTERNS	R					
44		NONPRECISION APPROACH	R					
45	4	PRECISION APPROACH (PAR)	R					
46	4	PRECISION APPROACH (ILS)	R					
47		MISSED APPROACH/CLIMB OUT	R					
48		CIRCLING/SIDESTEP APPROACH						
49		INSTRUMENT CROSS-CHECK	R					
50		NOT USED						
<b>TACTICAL EMPLOYMENT</b>								
<b>A. GENERAL</b>								
51		TACTICAL PLAN		R	R	R	R	R
52		TACTICAL EXECUTION		R	R	R	R	R



1--INSTRUMENT/QUALIFICATION EVALUATION								
2--AIR-TO-SURFACE MISSION EVALUATION								
3--AIR-TO-AIR MISSION EVALUATION								
4--RECONNAISSANCE MISSION EVALUATION								
5--FORWARD AIR CONTROLLER MISSION EVALUATION								
6--COMBAT SEARCH AND RESCUE EVALUATION								
AREA	NOTE	AREA TITLE	1	2	3	4	5	6
53		COMPOSITE FORCE INTERFACE						
54		RADIO USE/TACTICAL COMM		R	R	R	R	R
55		VISUAL LOOKOUT/RADAR MECHANIZATION		R	R	R	R	R
56		MUTUAL SUPPORT (if applicable)		R	R	R	R	R
57		TACTICAL NAVIGATION		R	R	R	R	R
58		INGRESS		R		R	R	R
59		EGRESS		R		R	R	R
60		COMBAT SEPARATION						
61		TIMING		R		R	R	
62		TRAINING RULES/ROE		R	R	R	R	R
63	5, 7	THREAT REACTIONS		R	R	R	R	R
64		TFR PROCEDURES (if applicable)		R				
65		IN-FLIGHT REPORT		R	R	R	R	R
66		EA/EP/AAMD		R	R	R	R	R
67		WEAPONS SYSTEM UTILIZATION		R	R	R	R	R
68		SENSOR MANAGEMENT		R	R	R	R	R
69-70		NOT USED						
B. AIR-TO-AIR								
71	5,7	RADAR MECHANIZATION/ SORTING			R			
72		AIR SOVEREIGNTY TASKING (Air Defense Units)			R			
73	5,7	TACTICAL INTERCEPT/CAP			R			
74		NOT USED						
75	5,7	OFFENSIVE MANEUVERING			R			
76		DEFENSIVE/ COUNTER-OFFENSIVE MANEUVERING						
77	5,7	AIR-TO-AIR WEAPONS EMPLOYMENT			R			

1--INSTRUMENT/QUALIFICATION EVALUATION								
2--AIR-TO-SURFACE MISSION EVALUATION								
3--AIR-TO-AIR MISSION EVALUATION								
4--RECONNAISSANCE MISSION EVALUATION								
5--FORWARD AIR CONTROLLER MISSION EVALUATION								
6--COMBAT SEARCH AND RESCUE EVALUATION								
AREA	NOTE	AREA TITLE	1	2	3	4	5	6
78		AIR-TO-AIR SYSTEMS EMPLOYMENT						
79		COMMAND AND CONTROL INTEGRATION						
80		NOT USED						
C. AIR-TO-SURFACE								
81		TARGET/THREAT ACQUISITION		R				
82	6	AIR-TO-GROUND WEAPONS EMPLOYMENT		R				
83		RANGE PROCEDURES						
84		IR/ELECTRO-OPTICAL SENSOR OPERATION						
85		PRECISION GUIDED MUNITIONS DELIVERY PROCEDURES						
86		LGB DELIVERY PROCEDURES						
87		SYSTEM WEAPONS DELIVERY PROCEDURES (GPS AIDED WEAPONS)						
88		SYSTEM WEAPONS DELIVERY PROCEDURES (GENERAL PURPOSE MUNITION)						
89		CLOSE AIR SUPPORT (CAS)/ TIME SENSITIVE TARGETING (TST)						
90		NOT USED						
D. SUPPRESSION/DESTRUCTION OF ENEMY AIR DEFENSES								
91		ELECTRONIC THREAT/ORDER OF BATTLE MANAGEMENT		R				
92		HARM EMPLOYMENT		R				
93-110		NOT USED						
E. RECONNAISSANCE								
111		TARGET ACQUISITION				R		

<b>1--INSTRUMENT/QUALIFICATION EVALUATION</b>								
<b>2--AIR-TO-SURFACE MISSION EVALUATION</b>								
<b>3--AIR-TO-AIR MISSION EVALUATION</b>								
<b>4--RECONNAISSANCE MISSION EVALUATION</b>								
<b>5--FORWARD AIR CONTROLLER MISSION EVALUATION</b>								
<b>6--COMBAT SEARCH AND RESCUE EVALUATION</b>								
<b>AREA</b>	<b>NOTE</b>	<b>AREA TITLE</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
112		IMAGERY QUALITY				<b>R</b>		
113-120		NOT USED						
<b>F. FORWARD AIR CONTROL</b>								
121		TARGET AREA IDENTIFICATION					<b>R</b>	
122		TACS COORDINATION					<b>R</b>	
123		ATTACK PREPARATION AND BRIEFING					<b>R</b>	
124		TARGET MARKING/ DESCRIPTION					<b>R</b>	
125		OBSERVATION POSITION (TYPE 1 CONTROL ONLY)					<b>R</b>	
126		ATTACK CONTROL					<b>R</b>	
127		POST ATTACK					<b>R</b>	
128		VISUAL RECONNAISSANCE					<b>R</b>	
129		RENDEZVOUS					<b>R</b>	
130		NOT USED						
<b>H. COMBAT SEARCH AND RESCUE</b>								
131		SURVIVOR LOCATION/ IDENTIFICATION						<b>R</b>
132		SURVIVOR PROTECTION						<b>R</b>
133		HELICOPTER RENDEZVOUS AND ESCORT						<b>R</b>
134		PICK-UP BRIEFING						<b>R</b>
135		PICK-UP EXECUTION						<b>R</b>
136		NOT USED						

**NOTES:**

1. **Airwork/Advanced Handling/Tactical Maneuvering.** This area is required for pilots receiving INSTM/QUAL evaluations. Maneuvers can be:
  - a. Aerobatics
  - b. Confidence maneuvers
  - c. Horn Awareness and Recovery Training Series
  - d. Air-to-air maneuvering (Basic Fighter Maneuvers (BFM), Air Combat Maneuvering, Air Combat Training, adversary training aid)
  - e. Advanced handling characteristics
  - f. Formation (fingertip, tactical, trail)
2. **Unusual Attitude Recoveries.** Do not perform unusual attitude recoveries in single seat aircraft. They will be evaluated during EPEs or if evaluated in dual-seat aircraft inflight, will be performed with an FE in the aircraft.
3. **Simulated Flame Out (SFO) Traffic Patterns/Approach/Landing.** Pilots unable to accomplish an SFO during their INSTM/QUAL evaluation may delay this emergency traffic pattern/approach requirement until their next periodic evaluation, provided an SFO was accomplished on the evaluation that immediately preceded this evaluation. If delayed until the next periodic evaluation, the evaluation will be incomplete until this requirement is completed. Pilots not requiring a MSN evaluation must accomplish an SFO during their INSTM/QUAL evaluation. Simulator/UTD or verbal evaluation of an SFO does not fulfill this requirement. **Exception:** Due to adverse weather conditions in USAFE and PACAF, a simulator/UTD evaluation of an SFO may be used to fulfill this requirement only after an attempt has been made to evaluate the SFO on the next periodic evaluation. Pilots not requiring a MSN evaluation may use a simulator/UTD evaluated SFO to fulfill this requirement only after an attempt has been made to evaluate the SFO during the INSTM/QUAL evaluation. Any simulator/UTD evaluated SFO used to complete the evaluation requires USAFE/A3T approval (PACAF/DOT respectively) on a case-by-case basis. Verbal evaluation of an SFO does not fulfill this requirement for any pilot.
4. **Precision Approach.** Both a Precision Approach Radar (PAR) and an ILS must be evaluated if equipment and facilities are available. However, if facilities or equipment are not available, the flight evaluation may be completed as long as one precision approach is flown.
5. **AETC.** These items are not required on FTU Instructor evaluations when syllabus profiles make accomplishment impractical (e.g. BFM mission checks). Document the omissions in the Comments portion of the AF IMT 8.
6. **Air-to-Ground Weapons Employment.** Grade Hit/Miss IAW paragraph [3.4.3.2](#).
7. **USAFWS.** These items are not required on USAFWS Instructor evaluations when syllabus profiles make accomplishment impractical. Document the omissions in the Comments portion of the AF IMT 8.
8. Every attempt will be made to evaluate the full instrument penetration and approach. If not available due to ATC constraints (i.e. vectored off the approach), an enroute descent/vectors to final may be substituted for this requirement at the discretion of the FE.

Table 2.2. Emergency Procedure Evaluations

1--INSTRUMENT/QUALIFICATION EMERGENCY PROCEDURES EVALUATION				
2--MISSION EMERGENCY PROCEDURES EVALUATION				
AREA	NOTE	AREA TITLE	1	2
<b>CRITICAL ACTION PROCEDURES</b>				
<b>GROUND EMERGENCIES</b>			<b>R1</b>	<b>R1</b>
201	1	FIRE/OVERHEAT/FUEL LEAK (GROUND)		
202	1	GROUND EGRESS		
<b>TAKEOFF EMERGENCIES</b>			<b>R1</b>	<b>R1</b>
203	1	ABORT		
204	1	AB MALFUNCTION ON TAKEOFF (TAKEOFF CONTINUED)		
205	1	ENGINE FAILURE ON TAKEOFF (TAKEOFF CONTINUED)		
206	1	ENGINE FIRE ON TAKEOFF (TAKEOFF CONTINUED)		
207	1	LOW THRUST ON TAKEOFF/AT LOW ALTITUDE (NON-AB)		
<b>IN-FLIGHT EMERGENCIES</b>				
208		ENGINE FAILURE/AIRSTART	<b>R</b>	<b>R</b>
209		OUT-OF-CONTROL RECOVERY	<b>R</b>	<b>R</b>
210		NOT USED		
<b>NON-CAP MALFUNCTIONS</b>				
<b>GROUND EMERGENCIES</b>				
ELECTRICAL SYSTEM FAILURES				
211		MAIN GENERATOR FAILURE (GROUND)		
212		MAIN AND STANDBY GENERATOR FAILURE (GROUND)		
ENGINE				
213		HOT START (GROUND)		
214		HUNG START/NO START		
215		ENGINE AUTOACCELERATION (GROUND)		
MISCELLANEOUS				
216		EMERGENCY GROUND JETTISON		
217		ACTIVATED EPU/HYDRAZINE LEAK		
218		NWS FAILURE/HARDOVER		
BRAKE SYSTEM				
219		ANTISKID MALFUNCTION (GROUND)		
220		BRAKE FAILURE		
221		HOT BRAKES		
222-225		NOT USED		

<b>1--INSTRUMENT/QUALIFICATION EMERGENCY PROCEDURES EVALUATION</b>				
<b>2--MISSION EMERGENCY PROCEDURES EVALUATION</b>				
<b>AREA</b>	<b>NOTE</b>	<b>AREA TITLE</b>	<b>1</b>	<b>2</b>
<b>TAKEOFF EMERGENCIES</b>				
		LANDING GEAR MALFUNCTIONS		
226		LG FAILS TO RETRACT		
227		LG HANDLE WILL NOT RAISE		
228		BLOWN TIRE ON TAKEOFF		
229-230		NOT USED		
<b>IN-FLIGHT EMERGENCIES</b>			<b>R 1</b>	<b>R1</b>
		ELECTRICAL SYSTEM FAILURES		
231	1	FLCS PMG FAILURE		
232	1	SINGLE GENERATOR FAILURES (IN FLIGHT)		
233	1	MAIN AND STANDBY FAILURE (IN FLIGHT)		
234	1	MAIN, STANDBY AND EPU GENERATOR FAILURE		
235	1	FLCS BATTERY DISCHARGE		
236	1	PARTIAL ELECTRICAL POWER LOSS		
237	1	ELECTRICAL POWER CYCLING		
238	1	AIRCRAFT BATTERY FAILURE		
239	1	EMERGENCY POWER DISTRIBUTION		
240-243		NOT USED		
244	1	UNCOMMANDED EPU OPERATION		
245	1	ABNORMAL EPU OPERATION		
		FLIGHT CONTROL FAILURES		
246	1	ADC/AIR DATA MALFUNCTIONS		
247	1	AOA PROBE ICING		
248	1	CADC MALFUNCTION		
249	1	P, R AND/OR Y MALFUNCTIONS		
250	1	SERVO MALFUNTION		
251	1	LEF MALFUNTION (SYMMETRIC)		
252	1	LEF MALFUNTION (ASYMMETRIC)		
253	1	TRIM MALFUNCTION		
254	1	CONTROLLABILITY CHECK		
255		NOT USED		
		ENGINE MALFUNCTIONS		
256	1	ENGINE FIRE		
257	1	OVERHEAT CAUTION LIGHT		
258	1	ENGINE VIBRATIONS [PW220]		

<b>1--INSTRUMENT/QUALIFICATION EMERGENCY PROCEDURES EVALUATION</b>				
<b>2--MISSION EMERGENCY PROCEDURES EVALUATION</b>				
<b>AREA</b>	<b>NOTE</b>	<b>AREA TITLE</b>	<b>1</b>	<b>2</b>
259	1	OIL SYSTEM MALFUNCTION		
260	1	ENGINE FAULT CAUTION LIGHT		
261	1	SEC CAUTION LIGHT		
262	1	FTIT INDICATOR FAILURE		
263	1	ZERO RPM/ERRONEOUS RPM INDICATION		
264	1	ABNORMAL ENGINE RESPONSE		
265	1	NOZZLE FAILURE [PW220]		
266	1	AB BLOWOUT/FAILURE TO LIGHT		
267	1	ENGINE STALL RECOVERY		
268	1	FLAMEOUT LANDING		
269-270		NOT USED		
		FUEL MALFUNCTIONS		
271	1	FUEL MANAGEMENT SYSTEM PFL		
272	1	FUEL LEAK		
273	1	FUEL LOW		
274	1	HOT FUEL/OIL OR GRAVITY FEED		
275	1	FUEL IMBALANCE		
276	1	TRAPPED EXTERNAL FUEL		
		HYDRALIC MALFUNCTIONS		
277	1	SINGLE HYDRALIC (SYSTEM A) FAILURE		
278	1	SINGLE HYDRALIC (SYSTEM B) FAILURE		
279	1	DUAL HYDRALIC FAILURE		
280	1	HYDRALIC OVERPRESSURE		
281	1	SYSTEM B AND GENERATOR FAILURE (PTO SHAFT)		
282-285		NOT USED		
		MISCELLANEOUS		
286	1	EGI FAILURE		
287	1	INS COMPUTER FAILURE		
288	1	TOTAL INS FAILURE		
289	1	OXYGEN MALFUNCTION		
290	1	PBG MALFUNCTION		
291	1	SMOKE AND FUMES		
292-295		NOT USED		

<b>1--INSTRUMENT/QUALIFICATION EMERGENCY PROCEDURES EVALUATION</b>				
<b>2--MISSION EMERGENCY PROCEDURES EVALUATION</b>				
<b>AREA</b>	<b>NOTE</b>	<b>AREA TITLE</b>	<b>1</b>	<b>2</b>
		CANOPY MALFUNCTIONS		
296	1	CANOPY WARNING LIGHT ON		
297	1	CANOPY LOSS/PENETRATION IN FLIGHT		
		ENVIRONMENTAL CONTROL SYSTEM		
298	1	COCKPIT PRESSURE/TEMPERATURE MALFUNCTION		
299	1	EQUIP HOT CAUTION LIGHT		
300		NOT USED		
		EJECTION		
301	1	EJECTION IMMEDIATE		
302	1	EJECTION TIME PERMITTING		
303	1	FAILURE OF CANOPY TO SEPARATE		
304	1	EJECTION SEAT FAILURE		
305	1	MANUAL SEAT SEPARATION		
		JETTISON		
306	1	SELECTIVE JETTISON		
307	1	EMERGENCY JETTISON		
308-310		NOT USED		
<b>LANDING EMERGENCIES</b>			<b>R2</b>	<b>R2</b>
		LG MALFUNCTIONS		
311	2	LG HANDLE WILL NOT LOWER		
312	2	LG FAILS TO EXTEND		
313	2	ALTERNATE LG EXTENSION		
314	2	LANDING WITH LG UNSAFE/UP		
315	2	LANDING WITH A BLOWN MAIN GEAR TIRE		
316	2	LANDING WITH A BLOWN NOSE GEAR TIRE		
		MISCELLANEOUS		
217	2	ACTIVATED EPU/HYDRAZINE LEAK		
317	2	ASYMMETRIC STORES (LANDING)		
318	2	NLG WOW SWITCH FAILURE		
218	2	NWS FAILURE/HARDOVER		
254	2	CONTROLLABILITY CHECK		
268	2	FLAMEOUT LANDING		
		ARRESTMENTS		
319	2	CABLE ARRESTMENT		
320	2	NET ARRESTMENT		



<b>1--INSTRUMENT/QUALIFICATION EMERGENCY PROCEDURES EVALUATION</b>				
<b>2--MISSION EMERGENCY PROCEDURES EVALUATION</b>				
<b>AREA</b>	<b>NOTE</b>	<b>AREA TITLE</b>	<b>1</b>	<b>2</b>
		BRAKE SYSTEM		
321	2	ANTISKID MALFUNCTION (LANDING)		
220	2	BRAKE FAILURE		
221	2	HOT BRAKES		
322-325		NOT USED		
<b>GENERAL</b>				
326		AIRCRAFT GENERAL KNOWLEDGE	<b>R</b>	<b>R</b>
327		UNUSUAL ATTITUDE RECOVERIES	<b>R</b>	<b>R</b>
328		AFMAN 11-217, INSTRUMENT FLIGHT PROCEDURES	<b>R</b>	
329		HUD OUT APPROACH	<b>R</b>	
330		STANDBY/EMERGENCY INSTRUMENTS	<b>R</b>	
331		ALTERNATE/DIVERT AIRFIELDS	<b>R</b>	
332		WEAPONS SYSTEM OPERATION		<b>R</b>
333		EA/EP/AAMD		<b>R</b>
334		EVASIVE ACTION		<b>R</b>
335		WEAPONS EMPLOYMENT AND SWITCHOLOGY		<b>R</b>
336		TFR PROCEDURES (IF APPLICABLE)		<b>R</b>
<b>NOTES:</b>				
1. Areas annotated with an "R1" require evaluation of at least one of the items under the associated Section and category for that evaluation. See paragraph 1.5.1. for detailed information.				
2. Areas indicated with an "R2" require evaluation of at least two of the items under the associated Section for that evaluation. See paragraph 1.5.1. for detailed information.				

## Chapter 3

### FLIGHT 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, grades will be assigned to each subarea for which grading criteria is provided. Discrepancies will be annotated on the back of the AF IMT 8 by subarea.

#### 3.2. General.

3.2.1. Area 1--Mission Planning:

3.2.1.1. Mission Preparation:

3.2.1.1.1. **Q.** Clearly defined the mission overview and mission goals. Developed a sound plan to accomplish the mission. Provided specific information on what needed to be done. Solicited feedback from other crewmembers to ensure understanding of mission requirements. Thoroughly critiqued plans to identify potential problem areas and ensured all flight members understood possible contingencies. Checked all factors applicable to flight in accordance with applicable directives. When required, extracted necessary information from air tasking order/frag. Aware of alternatives available if flight cannot be completed as planned. Read and initialed for all items in the flight crew information file and read files. Prepared at briefing time.

3.2.1.1.2. **Q-.** Did not adequately define the mission overview and mission goals. Did not adequately address potential problem areas. Did not adequately solicit feedback or critique the plans to ensure understanding of possible contingencies. Minor error(s) or omission(s) detracted from mission effectiveness, but did not affect mission accomplishment. Demonstrated limited knowledge of performance capabilities or approved operating procedures/rules in some areas.

3.2.1.1.3. **U.** Did not define the mission overview and goals. Lack of specific information on required items. Did not solicit feedback from other crewmembers to ensure understanding. Did not critique plans to identify potential problem areas. Major error(s) or omission(s) would have prevented a safe or effective mission. Displayed unsatisfactory knowledge of operating data or procedures. Did not review or initial Go/No Go items. Not prepared at briefing time.

3.2.1.2. Publications:

3.2.1.2.1. **Q.** 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-.** Publications contained deviations, omissions, and/or errors; however, contained everything necessary to effectively accomplish the mission and did not compromise safety of flight.

3.2.1.2.3. **U.** Not up to "Q-" standards. Contained major deviations, omissions, and/or errors.

3.2.2. Area 2--Briefing (if applicable):

### 3.2.2.1. Organization:

3.2.2.1.1. **Q.** Well organized, included all applicable information and presented in a logical sequence. Briefed flight member responsibilities, deconfliction contracts, combat mission priorities and sensor management. Concluded briefing in time to allow for element briefing (if applicable) and preflight of personal equipment, aircraft and ordnance.

3.2.2.1.2. **Q-.** Events out of sequence, hard to follow, some redundancy. Not fully prepared for briefing.

3.2.2.1.3. **U.** Confusing presentation, poorly organized and not presented in a logical sequence. Did not allow time for element briefing (if applicable) and preflight of personal equipment, aircraft and ordnance. Failed to brief required areas.

### 3.2.2.2. Presentation:

3.2.2.2.1. **Q.** Presented briefing in a professional manner covering all pertinent items. Effectively used available briefing aids. Flight members clearly understood mission requirements.

3.2.2.2.2. **Q-.** Some difficulty communicating clearly. Did not make effective use of available briefing aids. Dwelt on nonessential mission items.

3.2.2.2.3. **U.** Failed to conduct/attend required briefings. Failed to use available briefing aids. Redundant with lack of continuity. Lost interest of flight members. Demonstrated lack of knowledge of subject. 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 special interest items. Included effective technique discussion for accomplishing the mission.

3.2.2.3.2. **Q-.** Omitted items pertinent, but not critical, to the mission. Limited discussion of training events or special interest items. Dwelt on non-essential items. Limited discussion of valid techniques.

3.2.2.3.3. **U.** Did not establish relevant objectives for the mission. Omitted essential items. Failed to discuss training events or special interest items. Presented erroneous information and/or did not correct erroneous information that would affect safe/effective mission accomplishment. Omitted major training events. Did not discuss valid techniques.

### 3.2.2.4. Flight Member Consideration:

3.2.2.4.1. **Q.** Properly assessed 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 correctly assess all flight members' abilities. Did not identify probable problem areas.

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

### 3.2.3. Area 3--Pretakeoff:

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

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

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

#### 3.2.4. Area 4--Takeoff:

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

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

3.2.4.3. **U**. Takeoff potentially dangerous. Exceeded aircraft/systems limitations and/or violated applicable flight rules. Over-controlled aircraft resulting in excessive deviations from intended flight path.

#### 3.2.5. Area 5--Formation Takeoff:

##### 3.2.5.1. Lead:

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

3.2.5.1.2. **Q-**. Occasionally rough on controls. Lack of wingman consideration made it difficult for the wingman to maintain position.

3.2.5.1.3. **U**. Erratic control. Did not consider the wingman.

##### 3.2.5.2. Wingman:

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

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

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

#### 3.2.6. Area 6--Departure:

##### 3.2.6.1. Instrument/Visual Flight Rules:

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

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

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

##### 3.2.6.2. --Trail Departure/Rejoin:

3.2.6.2.1. **Q**. Effective use of radar. Trail departure/rejoin accomplished using proper procedures and techniques. Provided efficient commentary throughout departure and/or rejoin.

3.2.6.2.2. **Q-** Minor deviations from established or appropriate procedures. Slow to obtain radar lock-on and/or contact due to poor technique. Delayed rejoin due to poor radar technique or inefficient commentary.

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

3.2.7. Area 7--Level Off:

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

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

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

3.2.8. Area 8--Cruise/Navigation:

3.2.8.1. **Q.** Demonstrated satisfactory capability to navigate using all available means. Used appropriate navigation procedures. Ensured navaids were properly tuned, identified, and monitored. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace. Fix-to-Fix within +/- 2 NM.

3.2.8.2. **Q-** Minor errors in procedures/use of navigation equipment. Some deviations in tuning, identifying, and monitoring navaids. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Fix-to-Fix within +/- 3 NM.

3.2.8.3. **U.** Major errors in procedures/use of navigation equipment. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace. Exceeded parameters for **Q-**.

3.2.9. Area 9--Formation:

3.2.9.1. Flight Lead:

3.2.9.1.1. **Q.** Established and maintained appropriate formations utilizing published and briefed procedures. Maintained positive control of flight/element. Smooth control and considered the wingman appropriately. Planned ahead and made timely decisions. Ensured wingman position and adherence to deconfliction contracts. Effectively coordinated with other flight members throughout the mission. Ensured smooth and efficient flight operation.

3.2.9.1.2. **Q-** Made minor deviations from published and/or briefed procedures. Demonstrated limited flight management. Occasionally rough on the controls. Maneuvered excessively, making it difficult for wingman to maintain position. Did not always plan ahead and/or hesitant in making decisions. Flight coordination was adequate to accomplish the mission. Deficiencies in communication or interaction resulted in degraded flight or mission efficiency.

3.2.9.1.3. **U.** Formation flight not accomplished in accordance with published and/or briefed procedures. Did not establish appropriate formations. Continually rough on the controls. Maneuvered erratically causing wingman to break out or overshoot formation. Provided little consideration for wingman. Indecisive. Failed to ensure wingman maintained proper position. Failed to maintain deconfliction contracts. Poor flight coordination seriously degraded mission accomplishment or safety of flight.

### 3.2.9.2. Wingman:

3.2.9.2.1. **Q.** Maintained position in accordance with published and briefed procedures with only momentary deviations. Demonstrated smooth and immediate position corrections. Maintained appropriate separation and complied with leader's instructions. Rejoin was smooth and timely. Contributed to the smooth and efficient operation of the flight. Maintained mutual support during the entire sortie.

3.2.9.2.2. **Q-.** Made minor deviations to published procedures. Slow to comply with leader's instructions. Varied position considerably. Overcontrolled. Slow to rejoin. Made minor mistakes reducing mutual support. Minor errors in performing assigned flight tasks.

3.2.9.2.3. **U.** Formation flight not accomplished in accordance with published and/or briefed procedures. Did not comply with leader's instructions. Unable to maintain a formation position. Failed to maintain deconfliction contracts. Made abrupt position corrections. Did not maintain appropriate separation. Rejoin was unsafe. Poor flight coordination seriously degraded mission accomplishment or safety of flight.

### 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 that an emergency condition would have developed if allowed to continue uncorrected or would have severely degraded mission accomplishment.

### 3.2.11. Area 11--Fuel Management:

3.2.11.1. **Q.** Properly managed 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 or required intervention for safety. Did not adhere to briefed fuel requirements.

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

3.2.12.1. **Q.** Complete knowledge of and compliance with correct Comm/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 matter, were not in proper sequence or used nonstandard terminology. Demonstrated limited knowledge of communications security requirements, HAVE QUICK and secure voice equipment (if applicable).

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

3.2.13. Area 13--Not used.

3.2.14. Area 14--Airwork:

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

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

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

3.2.15. Area 15--Unusual Attitude Recoveries:

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

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

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

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

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

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

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

3.2.17. Area 17--Air Refueling:

3.2.17.1. Air Refueling Rendezvous:

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

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

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

3.2.17.2. --Air Refueling Procedures/Techniques:

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

3.2.17.2.2. **Q-.** Slow to recognize and apply needed corrections to establish and maintain proper position. Aircraft control was not always positive and smooth, but adequate. Accomplished published/directed procedures with deviations or omissions that did not affect the successful completion of air refueling.

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

3.2.18. Area 18--Descent:

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

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

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

3.2.19. Area 19--Go-Around:

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

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

3.2.19.3. **U.** Did not self-initiate go-around when appropriate or directed. Applied incorrect procedures.

3.2.20. Area 20--Recovery:

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

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

3.2.20.3. **U.** Recovery not performed IAW applicable procedures. Unable to accomplish radar assisted trail recovery (if applicable) due to poor technique.

3.2.21. Area 21--SFO Traffic Pattern (Prior to configuration):

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--SFO Approach/Landing (Configuration through rollout):

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

3.2.22.2. **Q-.** Safety not compromised. Configured at a position and altitude which allowed for a safe approach. Could have landed safely with the following deviations: Minor deviations from recommended procedures, airspeed/AOA and altitudes. Unnecessary maneuvering due to minor errors in planning or judgment.

3.2.22.3. **U.** Major deviations from recommended procedures, airspeed/AOA and altitudes. Required excessive maneuvering due to inadequate planning or judgment. Could not have landed safely. Touchdown point was not IAW applicable guidance and did not or would not allow for safe stopping on available runway. Arrestment gear could not have been used. Did not set parameters for ejection if approach was unsuccessful.

3.2.23. Area 23--VFR Pattern/Approach:

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

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

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

3.2.24. Area 24--Formation Approach/Landing:

3.2.24.1. Flight Lead:

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

3.2.24.1.2. **Q-.** Occasionally rough on the controls. Made it difficult for wingman to maintain position. Some procedural deviations. Slow to comply with published procedures.

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

3.2.24.2. Wingman:

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

3.2.24.2.2. **Q-.** Varied position considerably. Overcontrolled.

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

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

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

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

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

3.2.26. Area 26--After Landing:

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

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

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

3.2.27. Area 27--Flight Leadership (if applicable):

3.2.27.1. **Q.** Positively and effectively led the flight and made timely comments to correct discrepancies when required. Made sound and timely in-flight decisions. Provided direction/information when needed. Adapted effectively to meet new situational demands. Knew assigned tasks of other flight members. Asked for inputs and made positive statements to motivate flight members/other agencies. Coordinated effectively with other flight members/other agencies without misunderstanding, confusion, or undue delay.

3.2.27.2. **Q-.** In-flight decisions delayed mission accomplishment or degraded training benefit. Flight coordination was limited though adequate to accomplish the mission. Provided limited direction/information when needed. Slow to adapt to meet new situational demands. Demonstrated only limited knowledge of assigned tasks of other flight members. Did not consistently

seek inputs from other flight members/other agencies. Limited effort to motivate flight members/other agencies through positive statements.

3.2.27.3. **U.** Did not accomplish the mission or failed to correct in-flight discrepancies. In-flight decisions were unsafe and/or jeopardized mission accomplishment. Failed to maintain briefed formation roles and responsibilities. Did not provide direction/information when needed. Did not adapt to meet new situational demands. Did not know the assigned tasks of other flight members. Did not ask for inputs. Made no effort to make positive statements to motivate flight members/other agencies. Lack of flight/other agency coordination resulted in significant degradation of mission accomplishment.

3.2.28. Area 28--Debriefing/Critique:

3.2.28.1. **Q.** Thoroughly debriefed the mission (or applicable portions) in a timely manner. Correctly analyzed mission results with respect to established objectives. Provided specific, objective, non-threatening positive and negative feedback on team and individual performance. Debriefed deviations. Offered corrective guidance as appropriate. Thoroughly debriefed any breakdowns in deconfliction contracts, roles and responsibilities. Asked for reactions/inputs from other mission participants. Re-capped key points and compared mission results with mission objectives.

3.2.28.2. **Q-.** Limited debriefing. Did not thoroughly discuss performance relative to mission objectives. Minor time management problems. Debriefed mission without specific, non-threatening positive and negative feedback on individual and team performance. Did not debrief significant deviations to an acceptable level. Did not consistently seek input from other mission participants. Incomplete or inadequate re-cap of key points and comparison of mission results to mission objectives.

3.2.28.3. **U.** Did not correctly debrief mission deviations or offer corrective guidance. Used excessive time to debrief. Failed to debrief breakdowns in deconfliction contracts, roles and responsibilities. Did not provide non-threatening positive and negative feedback during debriefing. Did not seek input from other mission participants. Did not re-cap key mission points nor compare mission results to mission objectives.

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. Emergency Procedures:

3.2.29.2.1. **Q.** Displayed 100% correct, immediate response to CAPs and non-CAP emergency situations. Effectively used checklist.

3.2.29.2.2. **Q-** Response to CAP emergencies 100% correct. Response to certain areas of non-CAP emergencies or follow on steps to CAPs was slow/confused. Used the checklist when appropriate, but slow to locate required data.

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

3.2.29.3. Flight Rules/Procedures:

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

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

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

3.2.29.4. Weapon/Tactics/Threat:

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

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

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

3.2.29.5. Local Area Procedures:

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

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

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

3.2.29.6. Plans/Alert Procedures:

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

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

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

3.2.29.7. Authentication Procedures:

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

3.2.29.7.2. **Q-** Minor errors in authentication. Required numerous attempts to complete authentication.

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

3.2.30. Area 30--Airmanship/Situational Awareness (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. Made appropriate decisions based on available information. Recognized the need for action. Aware of performance of self and other flight members. Aware of on-going mission status. Recognized, verbalized and correctly acted on unexpected events.

3.2.30.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Mis-analyzed flight conditions and/or failed to recognize/understand mission developments, or demonstrated poor judgment to the extent that flight safety could have been compromised. Did not recognize the need for action. Not aware of performance of self and other flight members. Not aware of on-going mission status. Failed to recognize, verbalize and act on unexpected events.

3.2.31. Area 31--Safety (Critical):

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

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

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

3.2.32.1. **Q.** Provided required direction/information. Correctly adapted to meet new situational demands. Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

3.2.32.2. **U.** Did not provide direction/information when needed. Did not correctly adapt to meet new situational demands. Failed to exhibit strict flight or pilot discipline. Violated or ignored rules or instructions.

3.2.33. Area 33--Instructor Performance (if applicable). FTU IPs will be evaluated on chase procedures during INSTM/QUAL evaluations. Evaluate chase procedures for initial instructor and requalification instructor evaluations.

3.2.33.1. Briefing/Debriefing:

3.2.33.1.1. **Q.** Presented a comprehensive, instructional briefing/debriefing which encompassed all mission events. Made excellent use of training aids. Excellent analysis of all events/maneuvers. Clearly defined objectives. Gave positive and negative performance feedback at appropriate times—feedback was specific, objective, based on observable behavior, and given constructively. Re-capped key points/compared mission's results with objectives. When appropriate, took the initiative and time to share operational knowledge and experience.

3.2.33.1.2. **Q-** Minor errors or omissions in briefing/debriefing or mission critique. Occasionally unclear in analysis of events or maneuvers. Some feedback given, but was not always given at appropriate times and not always a positive learning experience for the entire formation. Debrief covered the mission highlights but was not specific enough.

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

define mission objectives. Feedback not given or given poorly. Attempted to hide mistakes. Elected not to conduct flight debrief.

#### 3.2.33.2. Demonstration of Maneuvers.

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

3.2.33.2.2. **Q-.** Performed required maneuvers 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. 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/performance characteristics, mission and tactics beyond that expected of non-instructors.

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

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

#### 3.2.33.4. Ability to Instruct:

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

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

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

#### 3.2.33.5. Training/Evaluation Forms Preparation:

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

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

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

3.2.34. Area 34--Not used.

3.2.35. Area 35--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 that assured mission success. Used available resources to manage workload, communicated task priorities to other flight members. Asked for assistance when required. Displayed sound knowledge of systems. Effectively identified contingencies and alternatives. Gathered and cross-checked available data before acting. Clearly stated decisions and ensured they were understood. Investigated doubts and concerns of other flight 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 flight 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 that seriously degraded mission accomplishment or safety of flight. Failed to communicate task priorities to other flight members. Failed to ask for assistance when overloaded. Improperly or ineffectively identified contingencies, gathered data, or communicated a decision that seriously degraded mission accomplishment or safety of flight.

3.2.37. Areas 37-40.--Not used.

### 3.3. Instrument.

3.3.1. Area 41--Holding:

3.3.1.1. **Q.** Performed entry and holding IAW published procedures and directives. Holding pattern limit exceeded by not more than: Leg Timing  $\pm$  15 seconds, TACAN  $\pm$  2 NM.

3.3.1.2. **Q-.** Minor deviations to procedures or directives. Holding pattern limit exceeded by not more than: Leg Timing  $\pm$  20 seconds, TACAN  $\pm$  3 NM.

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

3.3.2. Area 42--Instrument Penetration (Initial Approach Fix to Final Approach Fix/Descent Point)/Enroute Descent (radar vectors to final approach):

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--Instrument Patterns (Downwind/Base Leg):

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

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

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

3.3.4. Area 44--Nonprecision 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 Visual Descent Point (VDP)/Missed Approach Point (MAP). Position would have permitted a safe landing. Maintained proper/briefed AOA.

3.3.4.1.1. Airspeed +10/-5 kts.

3.3.4.1.2. Heading  $\pm 5$  degrees (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 kts.

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--Precision Approach (Precision Approach Radar [PAR]) (See Note 4, [Table 2.1.](#)):

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

3.3.5.1.1. Airspeed +10/-5 kts.



3.3.5.1.2. Heading within 5 degrees of controller's instructions.

3.3.5.1.3. Initiated missed approach (if applicable) at decision height.

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

3.3.5.2.1. Airspeed +15/-5 kts.

3.3.5.2.2. Heading within 10 degrees of controller's instructions.

3.3.5.2.3. Initiated missed approach (if applicable) at decision height, +50/-0 ft.

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

3.3.6. Area 46--Precision Approach (Instrument Landing System [ILS]) (See Note 4, [Table 2.1.](#)):

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

3.3.6.1.1. Airspeed +10/-5 kts.

3.3.6.1.2. Glide Slope/Azimuth within one dot.

3.3.6.1.3. Initiated missed approach (if applicable) at decision height.

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 AOA.

3.3.6.2.1. Airspeed +15/-5 kts.

3.3.6.2.2. Glide Slope within one dot low/two dots high.

3.3.6.2.3. Azimuth within two dots.

3.3.6.2.4. Initiated missed approach (if applicable) at decision height, +50/-0 ft.

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

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

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

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

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

3.3.8. Area 48--Circling/Sidestep Approach:

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

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

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

#### 3.3.9. Area 49--Instrument Cross-Check:

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

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

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

#### 3.3.10. Area 50.--Not used.

### 3.4. Tactical Employment.

#### 3.4.1. General:

##### 3.4.1.1. Area 51--Tactical Plan:

3.4.1.1.1. **Q.** Realistic, well-developed plan that encompassed mission objectives, threats and capabilities of all flight members. Addressed contingencies in development of plan.

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

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

##### 3.4.1.2. Area 52--Tactical Execution:

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

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

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

##### 3.4.1.3. Area 53--Composite Force (CF) Interface:

3.4.1.3.1. **Q.** Effectively planned for and used CF assets to enhance mission and achieve objectives.

3.4.1.3.2. **Q-** Minor confusion between CF assets and fighters. Less than optimum use of Composite Force Assets which did not affect the fighter's offensive advantage.

3.4.1.3.3. **U.** Inadequate or incorrect use of CF assets resulted in loss of offensive potential.

3.4.1.4. Area 54--Radio Use/Tactical Communications:

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

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

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

3.4.1.5. Area 55--Visual Lookout/Radar Mechanization:

3.4.1.5.1. **Q.** Demonstrated thorough knowledge and effective application of visual lookout/radar search techniques for all phases of flight. Maintained deconfliction contracts.

3.4.1.5.2. **Q-** Demonstrated limited knowledge of visual lookout/radar search techniques. Did not establish lookout responsibilities for all phases of flight. Slow to acquire threats to flight or targets to be attacked. Made minor deviations in deconfliction contract adherence.

3.4.1.5.3. **U.** Demonstrated unsatisfactory knowledge and/or application of visual lookout/radar search responsibilities. Allowed threat to penetrate to short range undetected. Failed to maintain deconfliction contracts.

3.4.1.6. Area 56--Mutual Support (if applicable):

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

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 supporting 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 supporting responsibilities and formation contracts.

3.4.1.7. Area 57--Tactical Navigation:

3.4.1.7.1. General:

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

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

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

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

3.4.1.7.2. High/Medium Altitude:

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

3.4.1.7.2.2. **Q-** 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.** 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.** Demonstrated satisfactory ability to adjust for deviations in time and course; only minor corrections required. Remained oriented within planned route and took into consideration simulated/actual threats, weather, air space restrictions, and ATC for all course adjustments to accomplish the mission. Used terrain masking as circumstances allowed.

3.4.1.7.3.2. **Q-** Low-level altitude and airspeed control resulted in large corrections.

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

3.4.1.8. Area 58--Ingress:

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

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

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

3.4.1.9. Area 59--Egress:

3.4.1.9.1. **Q.** Effectively used evasive maneuvers and terrain masking to complete an expeditious egress from the target area. Flight/element joinup 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 joinup and departure from target area.

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

3.4.1.10. Area 60--Combat Separation:

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

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

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

3.4.1.11. Area 61--Timing. Time will be based on preplanned time on target (TOT), time to target (TTT) for ordnance impact or vulnerability period (SEAD/Defensive Counter Air) or push time (Offensive Counter Air Sweep). CAS missions may use either TOT or vulnerability period (VUL) criteria, depending on tasking. This area may be evaluated as a First Run Attack or with FAC coordination. Adjustments in TOT will be made for non-pilot caused delays. In the case of "no spot," timing will be adjusted to a bomb release or "off" call. If range clearance is delayed, time at a pre-planned IP may be substituted for TOT. The FE may widen this timing criterion if the examinee was forced to maneuver extensively along the ingress route due to simulated enemy air or ground defense reactions, ATC instructions, and/or weather.

3.4.1.11.1. Nuclear:

3.4.1.11.1.1. **Q.**  $\pm 30$  seconds

3.4.1.11.1.2. **Q-.**  $\pm 1$  minute

3.4.1.11.1.3. **U.** Exceeded Q- parameters.

3.4.1.11.2. Conventional/SEAD/Recce:

3.4.1.11.2.1. **Q.**  $\pm 1$  minute ( $\pm 40$  seconds for preemptive target [PET] shots). Covered TOT.

3.4.1.11.2.2. **Q-.**  $\pm 2$  minutes. Covered TOT.

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

3.4.1.11.3. Air-to-Air Escort/Sweep/CAP:

3.4.1.11.3.1. **Q.** Arrived on station not more than 1 minute late. Covered TOT.

3.4.1.11.3.2. **Q-.** Arrived on station not more than 2 minutes late. Covered TOT.

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

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

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

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

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

3.4.1.13. Area 63--Threat Reactions:

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

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

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

3.4.1.14. Area 64--TFR Procedures (if applicable):

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

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

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

3.4.1.15. Area 65--In-flight Report (not applicable for FTU):

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

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

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

3.4.1.16. Area 66-- EA/EP/AAMD

3.4.1.16.1. **Q.** Displayed thorough knowledge and operation of EA/EP systems.

3.4.1.16.2. **Q-.** Displayed limited knowledge and/or minor errors in operation of EA/EP systems.

3.4.1.16.3. **U.** Displayed unsatisfactory knowledge and/or minor errors in operation of EA/EP systems.

3.4.1.17. Area 67--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.

3.4.1.17.2. **Q-** Late to prepare the weapon system to deliver the desired ordnance. Minor procedural errors degraded weapons employment.

**NOTE:** A successful reattack following a dry pass caused by minor procedural errors during the delivery is an example of degraded weapons employment.

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.

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 prioritized or managed sensor tasks in a manner which seriously degraded mission accomplishment or safety of flight. Overtasked other flight members or failed to communicate task overload. Displayed lack of knowledge of sensor systems.

3.4.1.19. Areas 69.-70.--Not used.

3.4.2. Air-to-Air:

3.4.2.1. Area 71--Radar Mechanization/Sorting:

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

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

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

3.4.2.2. Area 72--Air Sovereignty Tasking:

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

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

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

3.4.2.3. Area 73--Tactical Intercept/Combat Air Patrol (CAP):

3.4.2.3.1. **Q.** Thorough knowledge and correct employment of tactical intercept procedures. Effective CAP of designated airspace resulting in successful threat identification and intercept, if applicable. Successfully engaged all factor threats.

3.4.2.3.2. **Q-.** Limited knowledge of tactical intercept procedures. Intercept resulted in a successful threat identification; however, excessive corrections were required to complete the intercept and/or threat engagement. CAP could have been more effective.

3.4.2.3.3. **U.** CAP did not adequately cover designated airspace. Threat identification and/or intercept unsuccessful due to poor techniques and/or improper procedures. Engagement terminated in a defensive position.

3.4.2.4. Area 74.--Not used.

3.4.2.5. Area 75--Offensive Maneuvering:

3.4.2.5.1. **Q.** Effective use of basic fighter maneuvering and air combat maneuvering or Beyond Visual Range weapons employment IAW the ROE to successfully engage opposing aircraft. Effectively managed energy level during engagements. Maintained offensive advantage.

3.4.2.5.2. **Q-.** Limited maneuvering proficiency. Did not effectively counter opposing aircraft. Occasionally mismanaged energy levels, jeopardizing offensive advantage.

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

3.4.2.6. Area 76--Defensive/Counteroffensive Maneuvering:

3.4.2.6.1. **Q.** Performed correct initial move to counter attack of opposing aircraft. Used correct maneuvers to negate the threat. Effectively gained counteroffensive advantage.

3.4.2.6.2. **Q-.** Some hesitation or confusion/defensive situation. Minor errors in energy management or maneuvering delayed negating the attack of opposing aircraft.

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

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

3.4.2.7.1. **Q.** Demonstrated proper knowledge of weapons employment procedures and attack parameters. Simulated weapons employment was accomplished at each opportunity and within designated parameters. Successfully completed 75 percent (or two of three or one of two) of all attempted shots.

3.4.2.7.2. **Q-.** Demonstrated limited knowledge of weapons employment or attack parameters. Simulated weapons employment of weapons was successful but slow to recognize appro-



priate parameters. Did not meet Q criteria for attempted shots, but minor errors did not affect overall result.

3.4.2.7.3. U. Demonstrated inadequate knowledge of weapons employment procedures or attack parameters. All attempts to simulate weapons employment were unsuccessful due to pilot error.

3.4.2.8. Area 78--Air-to-Air Systems Employment:

3.4.2.8.1. Q. Effective use and integration of Sensors, Fighter Data Link (FDL), Tactical Situation Display, Target Pod. Optimized information flow to other flight members.

3.4.2.8.2. Q-. Slow to integrate use of Sensors, FDL, Tactical Situation Display, Target Pod. Slow to pass information to other flight members.

3.4.2.8.3. U. Failed to effectively integrate Sensors, FDL, Tactical Situation Display, Target Pod. Failed to pass appropriate information to other flight members.

3.4.2.9. Area 79--Command and Control (C2) Integration:

3.4.2.9.1. Q. Effectively integrated AWACS/GCI information into tactical plan when necessary. Requested threat declarations when required. Communicated changes in the tactical situation, weather and threats to C2 agencies.

3.4.2.9.2. Q-. Slow to integrate AWACS/GCI information into tactical plan when necessary. Slow to request threat declarations. Incomplete communication of changes in the tactical situation, weather and threats to C2 agencies.

3.4.2.9.3. U. Failed to integrate AWACS/GCI information into tactical plan when necessary. Failed to request or did not abide by threat declarations. Inadequate communication of changes in the tactical situation, weather and threats to C2 agencies.

3.4.2.10. Area 80.--Not used.

3.4.3. Air-to-Surface:

3.4.3.1. Area 81--Target (TGT)/Threat Acquisition:

3.4.3.1.1. Q. Target acquired on the first attack with radar, TGT IR and/or visual acquisition or, if missed due to safety, clearance to expend, or 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 with radar and/or TGT IR and/or visual acquisition, 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 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--Air-to-Ground Weapons Employment:

**NOTES:**

1. **Scoreable Ranges.** When weapons deliveries are performed on different ranges during the same mission, or like deliveries constituting separate events are performed on the same range, all events will be evaluated and the area grade will be predicated upon the criteria below.
  2. **Unscoreable Ranges.** Hit/Miss will be determined by the FE based on impact of the simulated ordnance and desired weapons effects for the pass flown.
  3. **Simulated Releases.** Hit/Miss may be determined by the FE based on VTR, etc.
  4. The FE will determine Hit/Miss by reference to VTR film in cases where unexplained weapons delivery misses occur (e.g., wind shears, weapons malfunctions, etc).
- 3.4.3.2.1. Single Pass (Tactical Attack):
- 3.4.3.2.1.1. **Q.** Demonstrated complete knowledge of weapons delivery procedures, attack parameters, and weapons computations for the events performed. Weapon score was within hit criteria.
  - 3.4.3.2.1.2. **Q-.** Minor errors in knowledge of weapons delivery procedures, attack parameters, or weapons computations for the events performed. Weapon score less than or equal to 150% of hit criteria.
  - 3.4.3.2.1.3. **U.** Demonstrated inadequate knowledge of weapons delivery procedures, attack parameters, or weapons computations for the events flown. Failed to deliver ordnance on original attack or reattack due to pilot error (switch error, navigation error, etc.). Weapon score exceeded 150% of hit criteria.
- 3.4.3.2.2. Single Weapon Event:
- 3.4.3.2.2.1. **Q.** Demonstrated complete knowledge of weapons delivery procedures, attack parameters, weapons computations and error analysis for the events performed. At least 50% of all weapons were within hit criteria.
  - 3.4.3.2.2.2. **Q-.** Minor errors in knowledge of weapons delivery procedures, attack parameters, weapons computations, or error analysis for the events performed. At least 50% of all weapons were within hit criteria.
  - 3.4.3.2.2.3. **U.** Demonstrated inadequate knowledge of weapons delivery procedures, attack parameters, weapons computations or error analysis for the events flown. Less than 50% of all weapons were within hit criteria.
- 3.4.3.2.3. Multiple Weapon Events:
- 3.4.3.2.3.1. **Q.** Qualified within the applicable criteria in all events attempted. At least 50% of all bombs in each event were within hit criteria.

DB  
Miss/Hit

LALD  
Miss/Hit

LGB  
Miss/Hit

3.4.3.2.3.2. **Q-** Minor errors in knowledge of weapons delivery procedures, attack parameters, weapons computations, or error analysis for the events performed. Less than Q criteria.

<u>DB</u>	<u>LALD</u>	<u>LGB</u>
Miss/Miss	Miss/Hit	Miss/Hit

3.4.3.2.3.3. **U.** Demonstrated inadequate knowledge of weapons delivery procedures, attack parameters, weapons computations, or error analysis for the events flown. Unqualified in greater than 50% of all events attempted.

<u>DB</u>	<u>LALD</u>	<u>LGB</u>
Miss/Miss	Miss/Miss	Hit/Hit

#### 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--IR/Electro-Optical Sensor Operation:

3.4.3.4.1. **Q.** Correctly operated the sensor to acquire the target. Was able to properly search and set up the sensor display to permit weapons delivery.

3.4.3.4.2. **Q-** Poor tuning of sensor hindered target identification degrading weapons delivery. Did not thoroughly understand system set-up procedures.

3.4.3.4.3. **U.** Improper search technique resulted in late or no target acquisition. Improper set-up of sensor created an unusable picture and prevented target identification or weapons delivery.

#### 3.4.3.5. Area 85--Precision Guided Munitions (PGM) Delivery Procedures:

3.4.3.5.1. **Q.** Correctly released the PGM at the planned delivery parameters. Used proper guidance procedures to optimally guide the PGM. Followed all current procedures and guidance during the PGM delivery and recovery.

3.4.3.5.2. **Q-** Minor errors resulting in release outside the planned PGM delivery parameters degraded weapons effectiveness. Guidance procedures degraded weapon effectiveness. Minor errors in PGM delivery and recovery procedures degraded weapons effectiveness.

3.4.3.5.3. **U.** Improper release parameters resulted in the PGM being delivered outside weapon/seeker limits. Used improper guidance procedures which caused the weapon to miss the target. Major errors in execution of PGM delivery and/or recovery procedures.

#### 3.4.3.6. Area 86--Laser Guided Bomb (LGB) Delivery Procedures:

3.4.3.6.1. **Q.** Correctly released the LGB at the planned delivery parameters. Used proper lasing procedures to optimally guide the LGB. Followed all current procedures and guidance during the LGB delivery and recovery.

3.4.3.6.2. **Q-** Minor errors resulting in release outside the planned LGB delivery parameters degraded weapons effectiveness. Lasing procedures degraded weapon effectiveness. Minor errors in LGB delivery and recovery procedures degraded weapons effectiveness.

3.4.3.6.3. **U.** Improper release parameters resulted in the LGB being delivered outside weapon/seeker limits. Used improper lasing procedures which caused the weapon to miss the target. Major errors in execution of LGB delivery and/or recovery procedures.

3.4.3.7. Area 87--System Weapons Delivery Procedures (GPS Aided Weapons):

3.4.3.7.1. **Q.** Correctly released the weapon at the planned delivery parameters. Followed all current procedures and guidance during the weapon delivery and recovery. Performed proper BIT checks and weapon crypto key loading. Weapon time of flight adequate for maximum GPS accuracy.

3.4.3.7.2. **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 BIT check or crypto key errors. Minor errors in weapon delivery and recovery procedures degraded weapons effectiveness. GPS accuracy degraded due to inadequate time of flight.

3.4.3.7.3. **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 and/or recovery procedures. Unable to BIT check or key weapon.

3.4.3.8. Area 88--Systems Weapons Delivery Procedures (General Purpose Munitions):

3.4.3.8.1. **Q.** Correctly released the weapon at the planned delivery parameters. Airspeed, altitude and roll rate steady prior to release. Followed all current procedures and guidance during the weapon delivery and recovery. Correct target coordinates entered. System accuracy valid IAW theatre ROE. Flight path marker on steering line at pickle.

3.4.3.8.2. **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 and recovery procedures degraded weapons effectiveness.

3.4.3.8.3. **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 and/or recovery procedures.

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

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

3.4.3.9.2. **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.

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

3.4.3.10. Area 90.--Not used.

3.4.4. Suppression of Enemy Air Defenses/Destruction of Enemy Air Defenses:

**NOTE:** Air-to-surface Weapons Employment: All non HARM weapons employment criteria will be IAW Section 3.4.3., areas 81 - 88.

3.4.4.1. Area 91--Electronic Threat/Order of Battle Management:

3.4.4.1.1. **Q.** Effective detection, analysis, and prioritization of factor threats. Efficient and timely use of available on or offboard systems to effectively detect, engage, and/or suppress threat emitters. Identified factor threats IAW prebriefed tactical plan. Effectively reacted to pop-up threats or unplanned threats.

3.4.4.1.2. **Q-** Slow to detect, prioritize, target, or suppress briefed or pop-up factor threat emitters. Inefficient use of on or offboard systems.

3.4.4.1.3. **U.** Failed to detect, prioritize, or target to effectively suppress factor threats. Incorrect identification of threats. Ineffective reactions to pop-up threats.

3.4.4.2. Area 92--HARM Employment:

3.4.4.2.1. **Q.** Employment parameters and armament switch settings were correct.

3.4.4.2.2. **Q-** Minor deviations noted in employment parameters.

3.4.4.2.3. **U.** Excessive deviations noted in employment parameters. Armament switch settings were incorrect.

3.4.4.3. Area 93-110.--Not used.

3.4.5. Reconnaissance:

3.4.5.1. Area 111--Target Acquisition:

3.4.5.1.1. **Q.** Successfully acquired all assigned/attempted targets IAW mission requirements.

3.4.5.1.2. **Q-** Acquired greater than 50 percent of the assigned/attempted targets.

3.4.5.1.3. **U.** Acquired 50 percent or less of assigned/attempted targets.

3.4.5.2. Area 112--Imagery Quality:

3.4.5.2.1. **Q.** Effective confirmation of Essential Element of Information (EEI) with acceptable threat exposure.

3.4.5.2.2. **Q-** Inefficient procedures or actions, but EEI could still be confirmed. Unnecessary threat exposure.

3.4.5.2.3. **U.** EEI could not be confirmed due to pilot induced errors.

3.4.5.3. Areas 113-120.--Not used.

### 3.4.6. Forward Air Control:

#### 3.4.6.1. Area 121--Target Area Identification:

3.4.6.1.1. **Q.** Acquired the target and positively confirmed target and friendly location expeditiously.

3.4.6.1.2. **Q-** Minor delays in acquiring target, but positively confirmed location. Mission effectiveness was not compromised.

3.4.6.1.3. **U.** Failed to locate or did not positively confirm target location.

#### 3.4.6.2. Area 122--Tactical Air Control System (TACS) Coordination:

3.4.6.2.1. **Q.** Effected timely coordination with all appropriate agencies to include strike clearance.

3.4.6.2.2. **Q-** Effected coordination with all appropriate agencies. Delays caused by untimely coordination did not affect mission accomplishment. Strike clearance was received prior to initiating the attack.

3.4.6.2.3. **U.** Did not coordinate with all appropriate agencies. Commenced attack without strike clearance. Delays caused by untimely coordination rendered the mission ineffective.

#### 3.4.6.3. Area 123--Attack Preparation and Briefing:

3.4.6.3.1. **Q.** Provided the strikers with a clear briefing in accordance with the appropriate directives. Tactics and weapons selection commensurate with situation.

3.4.6.3.2. **Q-** Briefing had minor errors/omissions which did not affect mission effectiveness.

3.4.6.3.3. **U.** Briefing was not clearly and concisely delivered. Provided erroneous or omitted information which compromised mission effectiveness.

#### 3.4.6.4. Area 124--Target Marking/Description:

3.4.6.4.1. **Q.** Accomplished accurate and timely marking. Strikers understood location of the specific target.

3.4.6.4.2. **Q-** Marks were adequate for the strikers to identify the target, but remarking or excessive verbal description was required to identify the target.

3.4.6.4.3. **U.** Strikers could not locate the target due to ineffective description/markings.

#### 3.4.6.5. Area 125--Observation Position (Type 1 control only):

3.4.6.5.1. **Q.** Maneuvered to clearly observe the target and strikers during all phases of the attack. Exercised positive and efficient aircraft control. Maintained within sound maneuvering parameters.

3.4.6.5.2. **Q-** Observation position afforded an adequate view of the target and strikers. Minor deviations from maneuvering parameters but exercised safe aircraft control.

3.4.6.5.3. **U.** Observation position did not allow an adequate view of the target and strikers. Aircraft flown outside of maneuvering parameters.

#### 3.4.6.6. Area 126--Attack Control:

3.4.6.6.1. **Q.** Exercised positive control of strikers throughout mission. Provided clear, timely, accurate ordnance adjustment instructions and attack clearance to each aircraft.

3.4.6.6.2. **Q-.** Control of strikers and ordnance adjustment were adequate and safe. Attack clearance provided to each aircraft. Control and clearances could have been more positive and expeditious but mission was effective.

3.4.6.6.3. **U.** Control and instructions were not timely, clear or accurate, causing a severely degraded or ineffective mission.

3.4.6.7. Area 127--Post Attack:

3.4.6.7.1. **Q.** Accomplished a complete and accurate assessment. Provided the strikers and appropriate agencies a concise report in accordance with the governing directives.

3.4.6.7.2. **Q-.** Assessment was not consistent with delivery accuracy or ordnance effects and/or made minor errors/omissions in rendering the report.

3.4.6.7.3. **U.** Did not accomplish a realistic assessment of the attack. Results were grossly exaggerated/underestimated. Report contained major errors.

3.4.6.8. Area 128--Visual Reconnaissance:

3.4.6.8.1. **Q.** Effectively identified appropriate elements of information. Minimized threat exposure. Preserved operational security.

3.4.6.8.2. **Q-.** Minor errors or omissions in identification of aircraft. Degraded operational security.

3.4.6.8.3. **U.** Elements of information were not identified or confirmed. Unnecessarily jeopardized aircraft. Operational security compromised.

3.4.6.9. Area 129--Rendezvous:

3.4.6.9.1. **Q.** Expeditiously effected rendezvous where threat permitted or provided timely and accurate holding instructions.

3.4.6.9.2. **Q-.** Minor delays or confusion in rendezvous or holding instructions. Holding instructions or attempt to rendezvous possibly jeopardized own or attack aircraft unnecessarily.

3.4.6.9.3. **U.** Provided erroneous or inaccurate instructions. Unnecessarily jeopardized own or attack aircraft.

3.4.6.10. Area 130.--Not used.

3.4.7. Combat Search and Rescue:

3.4.7.1. Area 131--Survivor Location/Identification:

3.4.7.1.1. **Q.** Well organized search using all available assets. Found the survivor in a timely manner. Did not highlight or endanger the survivor. Used proper authentication procedures and did not compromise any vital information.

3.4.7.1.2. **Q-.** Did not make effective use of available assets. Slow to recognize best search technique for the given situation. Accomplished authentication procedures with deviations or omissions that did not affect successful completion of the mission.

- 3.4.7.1.3. **U.** Unsatisfactory search procedures.
- 3.4.7.2. Area 132--Survivor Protection:
  - 3.4.7.2.1. **Q.** Managed effective protection of the survivor. Efficiently neutralized any threats to the survivor.
  - 3.4.7.2.2. **Q-**. Slow to initiate actions to protect the survivor from threats.
  - 3.4.7.2.3. **U.** Did not provide survivor protection.
- 3.4.7.3. Area 133--Helicopter Rendezvous and Escort:
  - 3.4.7.3.1. **Q.** Managed efficient and timely helicopter rendezvous. Employed effective escort procedures to protect the helicopters.
  - 3.4.7.3.2. **Q-**. Slow to manage rendezvous. Escort procedures allowed lapses in helicopter protection.
  - 3.4.7.3.3. **U.** Unable to rendezvous with helicopter. Escort procedures did not protect the helicopters.
- 3.4.7.4. Area 134--Pick-up Briefing:
  - 3.4.7.4.1. **Q.** Efficient and timely pick-up brief. Contained all required information, was clear, concise and well coordinated.
  - 3.4.7.4.2. **Q-**. Slow to organize and coordinate pick-up brief. Minor deviations in the briefing.
  - 3.4.7.4.3. **U.** Unable to effectively coordinate and complete the pick-up brief.
- 3.4.7.5. Area 135--Pick-up Execution:
  - 3.4.7.5.1. **Q.** Efficient and timely execution. All available support assets were coordinated to provide a maximum effort. Proper pick-up procedures and protection procedures were employed.
  - 3.4.7.5.2. **Q-**. Slow at executing the pick-up. Minor deviations, which did not effect the successful completion of the pick-up.
  - 3.4.7.5.3. **U.** Unable to execute the pick-up. Major deviations in procedures.
- 3.4.7.6. Area 136.--Not used.



## Chapter 4

### EMERGENCY PROCEDURES EVALUATION CRITERIA

**4.1. General Grading Standards:** The grading criteria in this chapter are divided into three sections: CAP, Non-CAP Malfunctions and General. Use all sections for criteria applicable to the events performed on the evaluation.

#### 4.2. General:

4.2.1. Areas 201-209--Critical Action Procedures:

4.2.1.1. **Q.** Displayed correct, immediate response to CAPs.

4.2.1.2. **U.** Incorrect response for CAPs.

4.2.2. Area 210.--Not used.

4.2.3. Areas 211-321--Non-CAP Malfunctions:

4.2.3.1. **Q.** Recognized and analyzed malfunction in a timely manner. Displayed correct, immediate response to emergency situations. Effectively used checklist.

4.2.3.2. **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.

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

4.2.4. Areas 222-225, 229-230, 240-243, 255, 269-270, 282-285, 292-295, 300, 308-310 and 322-325.--Not used.

4.2.5. Area 326--Aircraft General Knowledge:

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

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

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

4.2.6. Area 327--Unusual Attitude Recoveries:

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

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

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

4.2.7. Area 328--AFMAN 11-217, *Instrument Flight Procedures*:

4.2.7.1. **Q.** Procedures performed in accordance with directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Complied with decision height and/or MDA; used appropriate descent rate to arrive at MDA at or before VDP/MAP. Displayed effective instrument cross-check and smooth and positive aircraft control throughout.

4.2.7.2. **Q-.** Procedures performed with minor deviations to directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Slow to make corrections or initiate procedures; arrived at MDA at or before the MAP, but past the VDP. Displayed slow instrument cross-check and aircraft control occasionally abrupt to compensate for recognition of errors.

4.2.7.3. **U.** Procedures not performed in accordance with directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Did not comply with decision height and/or MDA. Displayed inadequate instrument cross-check and erratic aircraft control..

4.2.8. Area 329--HUD-Out Approach:

4.2.8.1. **Q.** Performed approach in accordance with directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Maintained proper/briefed AOA. Maintained desired glide path with only minor deviations.

4.2.8.2. **Q-.** Performed approach with minor deviations to directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Slow to correct to proper/briefed AOA. Did not always maintain desired glide path control..

4.2.8.3. **U.** Performed procedures with major deviations to directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Failed to attain and/or maintain proper/briefed AOA. Displayed erratic glide slope control.

4.2.9. Area 330--Standby/Emergency Instruments:

4.2.9.1. **Q.** Performed approach in accordance with directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Maintained proper/briefed AOA. Maintained desired glide path with only minor deviations.

4.2.9.2. **Q-.** Performed approach with minor deviations to directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Slow to correct to proper/briefed AOA. Did not always maintain desired glide path control..

4.2.9.3. **U.** Performed procedures with major deviations to directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Failed to attain and/or maintain proper/briefed AOA. Displayed erratic glide slope control.

4.2.10. Area 331--Alternate/Divert Airfields:

4.2.10.1. **Q.** Made proper divert decision and correctly performed initial divert execution actions.

4.2.10.2. **Q-.** Slow to make divert decision and/or slow to correctly perform initial divert execution actions.

4.2.10.3. **U.** Failed to make proper divert decision and/or correctly perform initial divert execution actions.

4.2.11. Area 332--Weapons System Operation:

- 4.2.11.1. **Q.** Displayed thorough knowledge of aircraft weapons systems capabilities, limitations and backups/workarounds in event of malfunctions.
- 4.2.11.2. **Q-.** Displayed deficiencies in depth of knowledge or comprehension of aircraft weapons systems capabilities, limitations and backups/workarounds in event of malfunctions which would not preclude successful mission accomplishment.
- 4.2.11.3. **U.** Displayed insufficient knowledge or comprehension of aircraft weapons systems capabilities, limitations and backups/workarounds in event of malfunctions which could preclude successful mission accomplishment.
- 4.2.12. Area 333--EA/EP/AAMD:
- 4.2.12.1. **Q.** Interpretation of threat scope aural tones, warning lights and operation of chaff/flare/EA/EP systems, indicated thorough knowledge.
- 4.2.12.2. **Q-.** Interpretation of threat scope, aural tones, warning lights and operation of chaff/flare/EA/EP systems indicated limited knowledge.
- 4.2.12.3. **U.** Displayed unsatisfactory interpretation of threat scope, aural tones, warning lights or operation of chaff/flare/EA/EP system.
- 4.2.13. Area 334--Evasive Action:
- 4.2.13.1. **Q.** Threat reactions were timely and correct. Appropriately employed countermeasures and performed maneuvers to counter threat.
- 4.2.13.2. **Q-.** Threat reactions were slow or inconsistent. Slow to employ appropriate countermeasures or perform maneuvers to counter threat.
- 4.2.13.3. **U.** Numerous threat reactions were omitted or incorrect. Failed to employ appropriate countermeasures or perform maneuvers to counter threat.
- 4.2.14. Area 335--Weapons Employment and Switchology:
- 4.2.14.1. **Q.** Displayed thorough knowledge of aircraft weapons systems effects, tactics and switchology.
- 4.2.14.2. **Q-.** Displayed deficiencies in depth of knowledge or comprehension of aircraft weapons systems effects, tactics and switchology which would not preclude successful mission accomplishment.
- 4.2.14.3. **U.** Displayed insufficient knowledge or comprehension of aircraft weapons systems effects, tactics and switchology which could preclude successful mission accomplishment.
- 4.2.15. Area 336--Terrain Following Radar (TFR) Procedures (if applicable):
- 4.2.15.1. **Q.** Followed all prescribed procedures and performed all TFR system checks correctly prior to beginning TFR operations. TFR procedures were IAW applicable directives.
- 4.2.15.2. **Q-.** Performed required checks of the TFR system with only minor deviations which would not affect terrain following performance. Minor procedural deviations which did not detract from mission accomplishment.
- 4.2.15.3. **U.** Major deviations in required TFR system checks. Significant procedural errors which could cause inadequate terrain clearance during TFR operations.

**4.3. Forms Prescribed.** None.

**4.4. Forms Adopted.** IMT 8, **Certificate of Aircrew Qualification**; AFTO IMT 781, **ARMS Aircrew/Mission Flight Data Document**; IMT 847, **Recommendation for Change of Publication**.

CARROL H. CHANDLER, Lt Gen, USAF  
DCS, Air, Space & Information Operations, Plans & Requirements

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

AFI 11-2F-16 Volume 1, *F-16--Aircrew Training*

AFI 11-202 Volume 2, *Aircrew Standardization/Evaluation Program*

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

AFI 33-360 Volume 1, *The Air Force Publications Management Program*

AFMAN 11-217, *Instrument Flight Procedures*

AFMAN 37-123, *Management of Records*

AFPD 11-2, *Aircraft Rules and Procedures*

AFPD 11-4, *Aviation Service*

AFTTP 3-1.1, *General Planning and Employment Considerations*

Title 10, *United States Code*, Chapter 857

Executive Order 9397, *Numbering System for Federal Accounts Relating to Individual Persons*

***Abbreviations and Acronyms***

**AAMD**—all aspect missile defense

**ACC**—Air Combat Command

**AF**—Air Force

**AFRC**—Air Force Reserve Command

**AFTTP**—Air Force Tactics, Techniques, and Procedures

**ANG**—Air National Guard

**AOA**—angle of attack

**ARMS**—Aviation Resource Management System

**ASR**—airport surveillance radar

**ATC**—air traffic control

**AWACS**—Airborne Warning and Control System

**BFM**—basic fighter maneuver

**BIT**—built-in test

**BMC**—basic mission capable

**C2**—command and control

**CAP**—critical action procedure

**xxx**—combat air patrol  
**CAS**—close air support  
**CF**—composite force  
**CPT**—cockpit procedure trainer  
**CRM**—cockpit/crew resource management  
**CSAR**—combat search and rescue  
**DB**—dive bomb  
**DOC**—designed operational capability  
**DRU**—Direct Reporting Unit  
**EA**—electronic attack  
**EI**—essential element of information  
**EP**—electronic protection  
**EPE**—emergency procedures evaluation  
**FAC**—forward air controller  
**FDL**—fighter data link  
**FE**—flight examiner  
**FOA**—Field Operating Agency  
**FTU**—Formal Training Unit  
**GCI**—ground control intercept  
**GPS**—global positioning system  
**HADB**—high altitude dive bomb  
**HARB**—high altitude release bomb  
**HARM**—high-speed anti radiation missile  
**HUD**—heads-up display  
**IAW**—in accordance with  
**IFF**—identification, friend or foe  
**ILS**—instrument landing system  
**INS**—inertia navigation system  
**INSTM**—Instrument  
**IP**—instructor pilot  
**IR**—infrared  
**LALD**—low angle low drag

**LAT**—low altitude toss  
**LGB**—laser-guided bomb  
**MAD**—medium altitude delivery  
**MAJCOM**—major command  
**MAP**—missed approach point  
**MDA**—minimum descent altitude  
**MSN**—mission  
**NM**—nautical mile  
**OGV**—Operations Group Standardization/Evaluation  
**PA**—Privacy Act  
**PACAF**—Pacific Air Forces  
**PAR**—precision approach radar  
**PET**—preemptive target  
**PGM**—precision-guided munition  
**QUAL**—qualification  
**RAP**—ready aircrew program  
**RESCORT**—rescue escort  
**RDS**—records disposition schedule  
**ROE**—rules of engagement  
**SEAD**—suppression of enemy air defenses  
**SFO**—simulated flame out  
**TACAN**—tactical air navigation  
**TACS**—tactical air control system  
**TFR**—terrain-following radar  
**TGT**—target  
**TOT**—time on target  
**TST**—time sensitive targeting  
**TTT**—time to target  
**UTD**—unit training device  
**USAF**—United States Air Force  
**USAFE**—United States Air Force Europe  
**USAFWS**—United States Air Force Weapons School

**VDP**—visual descent point

**VFR**—visual flight rules

**VTR**—video tape recorder

**VUL**—vulnerability period

**WIC**—Weapons Instructor Course