

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



**AIR FORCE MANUAL 11-2F-16,
VOLUME 2**

8 FEBRUARY 2019

**AIR EDUCATION AND TRAINING
COMMAND
Supplement**

8 OCTOBER 2019

Certified current, 1 September 2022

Flying Operations

**F-16-AIRCREW EVALUATION
CRITERIA**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing web site at www.epublishing.af.mil for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: ACC/A3TV

Certified by: HQ USAF/A3T
(Major General Scott F. Smith)

Supersedes: AFI11-2F-16V2, 10
December 2009

Pages: 69

(AETC)

OPR: 19 AF/DOV

Certified by: 19 AF/DO
(Mr. Kurt Anders)

Supersedes: AFI11-2F-16V2_AETCSUP,
17 January 2018

Pages: 10

This volume establishes criteria and procedures for F-16 flight evaluations, implements AFPD 11-2, Aircrew Operations, and references AFI 11-200, Aircrew Training, Standardizations, and General Operations Procedures, and AFI 11-202V2, Aircrew Standardization/Evaluation Program. It applies to all F-16 units, including those in the Air Force Reserve Command (AFR) and the Air National Guard (ANG). This publication requires the collection and or maintenance of information protected by the Privacy Act (PA) of 1974. The authorities to collect and or maintain the records prescribed in this publication are Title 10 United States Code, Chapter 857 and Executive Order 9397, Numbering System for Federal Accounts Relating to Individual Persons, 30 Nov 1943.

Forms affected by the PA have an appropriate PA statement. System of Records Notice F011 AF XO A, Aviation Resource Management System (ARMS) covers required information. The authority for maintenance of ARMS is Title 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 93-294 (Aviation Career Incentive Act of 1974), and Executive Order 9397 as amended by Executive Order 13478, Amendments to Executive Order 9397 Relating to Federal Agency Use of Social Security Numbers, November 18, 2008. Major Commands (MAJCOM), Direct Reporting Units (DRU), and Field Operating Agencies (FOA) will forward proposed supplements to this volume through ACC/A3TV to AF/A3O-AI for coordination prior to publication. NOTE: The terms DRU and FOA as used in this paragraph refer only to those DRUs/FOAs that report directly to USAF. Submit suggested improvements to this volume on AF Form 847, Recommendation for Change of Publication, through standardization/evaluation (Stan/Eval) 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, JBLE, VA 23665-2789). The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See Table 1.1 of AFI 33-360, Publications and Forms Management, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the MAJCOM Stan/Eval office for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

(AETC) This supplement implements and extends the guidance of AFMAN 11-2F-16V2, as follows: This supplement applies to all AETC units. With the exception of personnel participating in an AETC Associate Instructor program, this supplement does not apply to Air Force Reserve Command (AFRC) or Air National Guard (ANG) units unless specified by MAJCOM Memorandum of Understanding. Units may supplement this instruction. Each unit will coordinate its supplement with 19 AF/DO before publication and forward one copy to 19 AF/DO after publication. Submit suggested improvements to this supplement via AF Form 847, Recommendation for Change of Publication, through command Stan/Eval channels to the 19 AF/DOV workflow email. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, Publications and Forms Management, for a description of the authorities associated with the Tier numbers. Unless otherwise specified, 19 AF/DO is the waiver authority for this supplement. Send waiver requests through Stan/Eval channels to 19AF/DO using the AF Form 679, Air Force Publication Compliance Item Waiver Request/Approval. The operations group commander (OG/CC), or equivalent, of the unit that generated their supplement will handle waivers to supplemental guidance. References to forms within this instruction also equate to electronic products when authorized. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

SUMMARY OF CHANGES

This publication has been substantially revised and must be thoroughly reviewed. Major changes include the authorization to use the simulator for large portions of the evaluation, re-organization, and re-formatting for clarity. This document has been reformatted and revised to match the new standard ACC/A3 master grading criteria list. All paragraphs that are redundant with AFI 11-202V2 were deleted.

(AETC) This document is substantially revised and must be completely reviewed. This revision changes the instruction to a manual and updates office symbols. Waiver/approval authorities have been added IAW AFI 33-360, Publications and Forms Management.

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Chapter 1

ROLES AND RESPONSIBILITIES

1.1. Flight Examiners (FEs). FEs:

1.1. (AETC) Flight Examiners (FEs). FEs: Normally, FEs will evaluate within their aircrew specialties during flight evaluations. Any FE may evaluate any type of mission or qualification evaluation for either crew position, with the exception of the pilot Instrument/Qualification (INSTM/QUAL) evaluations which must be evaluated by a pilot FE. Any FE can administer an emergency procedures evaluation (EPE).

1.1.1. should exercise judgment when assigning subjective area grades and when evaluating in situations not covered explicitly by this document.

1.1.2. will brief the examinee on the purpose, conduct, and extent of each evaluation. **(T-2)**.

1.1.3. may assist in evaluation mission planning/briefing as tasked by the examinee.

1.1.4. may evaluate from any flight or formation position (to include chase and sensor trail) necessary to conduct a thorough evaluation.

1.1.5. will apply the grading criteria contained in **Chapter 3**, as applicable. **(T-2)**.

1.1.6. will debrief the examinee's overall rating, specific deviations, area grades assigned (if other than qualified), and any required additional training, at a minimum. **(T-2)**.

1.1.7. should use all electronic means available, to reconstruct, evaluate, and debrief the mission adequately.

1.2. Examinees. Examinees:

1.2.1. will accomplish required flight planning in accordance with the flight position assigned during the evaluation, and furnish FEs a copy of necessary mission data and mission materials, as appropriate. **(T-3)**.

1.2.2. will brief the mission if qualified as a flight lead or instructor pilot. Wingmen may conduct the briefing during INSTM/QUAL evaluations. **(T-3)**.

Chapter 2

EVALUATION REQUIREMENTS

2.1. General.

2.1.1. Publications Check/Currency of Flight Publications. All QUAL evaluations include a currency and accuracy check on all flight-required publications/checklists/FLIP/in-flight guides. (T-3).

2.1.2. Cockpit/Crew Resource Management (CRM). In accordance with AFI 11-290, *Cockpit/Crew Resource Management*, all evaluations include assessment of CRM skills.

2.1.3. Combined Evaluations. With the approval of the FS/CC, the INSTM/QUAL and MSN evaluations may be combined as a single evaluation. This option is intended only for experienced pilots. Document approval on the AF Form 8, *Certificate of Aircrew Qualification*, by stating in the additional comments “FS/CC has approved a combined evaluation.” (T-3).

2.1.4. Required Areas. Required areas are annotated in [Tables 2.1](#) and [2.2](#), respectively. Alternate Evaluation Method. When it is impractical or impossible to accomplish a required evaluation area in-flight, an alternate method (i.e., Mission Training Center (MTC), WTT, or verbal examination) may be used in order to complete the evaluation. FEs document the reason and type of alternate method used in the “Additional Comments” portion of the Form 8. If the FE determines the required item cannot be adequately evaluated by an alternate method, an additional flight is required to complete the evaluation. In [Tables 2.1](#) and [2.2](#):

2.1.4.1. Areas annotated with an "R" are necessary items for that event. (T-2).

2.1.4.2. Areas Annotated with an “R1” require evaluation of at least one area under the associated section. (T-2).

2.1.4.3. Areas annotated with an “R2” require evaluation of at least two of the items under the associated section. (T-2).

2.1.4.4. The verbiage of the mission description, at a minimum, should be one statement verifying that the evaluation was conducted in accordance with AFMAN 11-2F-16 Vol 2. (e.g. This evaluation was conducted IAW AFMAN 11-2F-16 Vol 2. All required areas were evaluated). Additional comments addressing specific areas of mission conduct are allowed, but not required.

2.2. Instrument/Qualification (INSTM/QUAL) Evaluations.

2.2. (AETC) Instrument/Qualification Evaluations. See paragraph [2.2.3](#) for Weapon Systems Officer (WSO) QUAL evaluations and [Table 2.1](#) for WSO Evaluation Grading Areas.

2.2.1. Procedures.

2.2.1.1. A mission flown according to instrument flight rules (IFR), to the maximum extent practical, best fulfills the objective of the INSTM/QUAL evaluation.

2.2.1.2. For inexperienced pilots, to the maximum extent practical, this evaluation should include approaches at airfields other than the home airfield.

2.2.1.3. FEs may use non-published, practice approaches (e.g. Visual Flight Rules (VFR) conditions only approach) for evaluations if approved by OGV. For these approaches, Operations Group Stan/Eval (OGV) shops will ensure that:

2.2.1.3.1. non-published approaches are built using the standards applied to published approach plates. **(T-3)**.

2.2.1.3.2. approval for use of such an approach on evaluation missions is documented in the local unit supplement to AFI 11-202V2. **(T-3)**.

2.2.1.4. INSTM/QUAL evaluations may be administered on any compatible training mission and should be flown with the FE as the wingman for the instrument portions of the flight.

2.2.1.5. When B/D model aircraft are available, pilots may complete their INSTM/QUAL evaluation with an FE occupying the rear cockpit.

2.2.1.6. With the approval of the OG/CC (can be delegated to OGV or CCV), experienced pilots may accomplish many graded areas of periodic INSTM/QUAL evaluations in the certified simulator. Those items are annotated in **Table 2.1** Document approval on the AF Form 8, by stating in the additional comments “OG/CC has approved a SIM evaluation” and having the OG/CC initial in the additional reviewer remarks, if his/her signature is not elsewhere on the Form 8. **(T-3)**.

2.2.1.6.1. This portion of the evaluation should be labeled “SIM INSTM/QUAL” on the Form 8 in the Flight Phase with an EPE documented as a requisite, even if the EPE is accomplished concurrently with the evaluation.

2.2.1.6.2. An in-flight evaluation is required for inexperienced pilots, INIT or RQ evaluations. **(T-3)**.

2.2.1.6.3. The graded areas that are not accomplished in the simulator must be evaluated in-flight or verbally. **(T-2)**. Document the evaluation of these items as an additional line entry on the Form 8 under Flight Phase as “INSTM/QUAL”.

2.2.2. Minimum Requisites. The minimum ground phase requisites for an INSTM/QUAL evaluation are:

2.2.2.1. an instrument examination (INSTM evaluation),

2.2.2.2. a closed book examination (QUAL evaluation),

2.2.2.3. an open book examination (QUAL evaluation), and an

2.2.2.4. EPE (both).

2.2.3. **(Added-AETC)** WSO QUAL Evaluations.

2.2.3.1. **(Added-AETC)** Procedures.

2.2.3.1.1. **(Added-AETC)** This evaluation is normally combined with the WSO mission evaluation for basic mission capable (BMC) and combat mission ready (CMR) WSOs.

2.2.3.1.2. **(Added-AETC)** A separate qualification evaluation will normally be administered to basic aircraft qualified (BAQ) WSOs who do not maintain qualification in the unit's tactical mission and WSOs going through initial qualification.

2.2.3.1.3. **(Added-AETC)** This evaluation may be administered on any compatible training mission with the approval of the unit Chief of Stan/Eval and the Squadron Commander or Operations Officer's (SQ/DO) concurrence.

2.2.3.1.4. **(Added-AETC)** The minimum requisites for a QUAL evaluation are:

2.2.3.1.4.1. **(Added-AETC)** an instrument examination **(T-2)**.

2.2.3.1.4.2. **(Added-AETC)** a closed book examination **(T-2)**.

2.2.3.1.4.3. **(Added-AETC)** an open book examination **(T-2)**.

2.2.3.1.4.4. **(Added-AETC)** an EPE **(T-2)**.

2.3. Mission (MSN) Evaluations.

2.3. **(AETC) Mission (MSN) Evaluations.** See [Table 2.1](#) for WSO Evaluation Grading Areas.

2.3.1. Procedures.

2.3.1.1. Squadron Commanders:

2.3.1.1.1. ensure that FEs administer initial MSN evaluations in the primary Designated Operational Capability (DOC) of the unit, unless that unit has a different assigned mission or contingency for which to prepare. **(T-3)**.

2.3.1.1.2. ensure that FEs administer a sampling of other mission types, (i.e. Aerospace Control Alert (ACA), Forward Air Control (Airborne) (FAC (A)), and Combat Search and Rescue (CSAR)), if squadron pilots are tasked to such missions. **(T-3)**.

2.3.1.2. FEs:

2.3.1.2.1. should tailor MSN evaluations IAW current tactics, unit DOC statement, theater Area of Responsibility (AOR) scenarios, and will incorporate all appropriate evaluation requirements from [Table 2.1](#) **(T-2)**. The profiles should be designed to evaluate the training/flight position/special qualifications as well as basic airmanship of the examinee.

2.3.1.2.2. will evaluate examinees in the position of their highest certification (i.e. wingman, flight lead, instructor pilot.), even if a portion of the evaluation is flown in another position. **(T-3)**.

2.3.1.2.3. may allow wingmen to brief and/or lead certain phases of the mission, but should not evaluate flight leadership.

2.3.1.3. Evaluations during exercises are encouraged.

2.3.1.4. Evaluations during contingency/combat deployments should be given as a last resort in order to maintain mission qualification status.

2.3.1.5. Basic Mission Capable (BMC) aircrew should only be evaluated on those missions routinely performed.

2.3.1.6. With the approval of the OG/CC (can be delegated to OGV or CCV), experienced pilots may accomplish many graded areas of periodic MSN evaluations in the simulator. Those items are annotated in [Table 2.1](#) Document approval on the AF Form 8, by stating in the additional comments “OG/CC has approved a SIM evaluation” and having the OG/CC initial in the additional reviewer remarks, if his/her signature is not elsewhere on the Form 8. **(T-3)**.

2.3.1.6.1. This portion of the evaluation should be labeled “SIM MSN” on the Form 8 in the Flight Phase with an EPE documented as a requisite, even if the EPE is accomplished concurrently with the evaluation.

2.3.1.6.2. An in-flight evaluation is required for inexperienced pilots, INIT or RQ evaluations. **(T-3)**.

2.3.1.6.3. The graded areas that are not accomplished in the simulator must be completed in-flight or evaluated verbally. Document the evaluation of these items as an additional line entry on the Form 8 under Flight Phase as “MSN”.

2.3.2. Minimum Requisites. The MSN EPE is the only MSN evaluation requisite.

2.4. Formal Course Evaluations. Syllabus evaluations should be flown IAW syllabus mission profile guidelines, if stated, or on a mission profile developed from syllabus training objectives. FE’s may modify the mission profile based on other factors, such as local operating considerations, weather, etc. in order to complete the evaluation.

2.5. Instructor Evaluations. Except for Area 33, Instructor Performance, FEs determine specific profiles and events for instructor evaluations. **(T-3)**. Instructor pilots will brief and lead the mission. **(T-2)**. Subsequent periodic evaluations (for example, INSTM/QUAL, MSN) include instructor portions during the evaluations. If an instructional ride allows completion of all requirements for a periodic check, the evaluation may be used to update periodic evaluation providing all other requisites are completed.

2.5. (AETC) Instructor Evaluations. To initially qualify as an instructor in the F-16, the WSO must successfully complete an initial instructor evaluation **(T-2)**. This is a one-time evaluation in which the examinee must demonstrate ability to instruct in some phase of the unit's mission **(T-2)**. Except for requirements in paragraph [3.3.32](#), specific profiles and/or events will be determined by the flight examiner **(T-3)**.

2.6. FTU Instructor and Weapons Instructor Course (WIC) Instructor, and Operational Test Mission Evaluations.

2.6.1. Profiles. FTU IP, WIC IP and Operational Test Mission Evaluations periodic mission evaluation profiles should normally be IAW the formal course syllabus for any mission that the IP is qualified to instruct. All required items from [Table 2.1](#) must be accomplished within the FTU/WIC mission profile, unless excluded by note 4.

2.6.2. Operational test aircrew MSN evaluation profiles may be conducted on any test mission.

2.7. Instructor Pilot Rear Cockpit Landing Evaluations. An evaluation of rear cockpit landings will be completed prior to performing rear cockpit landing instructor duties. **(T-1)**. These duties include instruction for and demonstration of landings during initial qualification training, requalification training, or additional training.

2.7.1. Examinees will complete the evaluation as follows:

2.7.1.1. All rear cockpit landing qualification evaluations will include satisfactory demonstration of overhead and emergency patterns, and a landing performed from the rear cockpit. (T-2).

2.7.1.2. IPs will accomplish the initial rear cockpit landing qualification during either the INSTM/QUAL evaluation sortie, the MSN evaluation sortie, or during another sortie as a requisite.

2.7.1.3. (Added-AETC) Overhead patterns, emergency patterns, and landings accomplished from the RCP can fulfill requirements towards INST/QUAL evaluation items 21-23 and item 25 and therefore would not need to be duplicated during the remaining portion an INSTM/QUAL evaluation.

2.7.2. When the rear cockpit landing qualification is evaluated during a separate sortie as a requisite for a flight evaluation, record "SPOT" in the Flight Phase block on the AF Form 8. Describe the purpose of the evaluation as "Rear Cockpit Landing Qualification" in the Mission Description section of the Comments block. In addition, FEs will document all discrepancies on the AF Form 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 Form 8. Additional training will be documented IAW AFI 11-202V2.

2.7.3. When an initial rear cockpit landing qualification is conducted independently of another evaluation, FEs will document completion of this Rear Cockpit Landing Qualification as a "SPOT" evaluation on an AF Form 8. If the entire INSTM/QUAL evaluation sortie is flown from the RCP and RCP landing requirements IAW paragraph 2.6.1.1 are met, annotate the AF Form 8 with an INSTM/QUAL flight only, and add rear cockpit landing qualification in the mission description on the back of the AF Form 8.

Table 2.1. Aircrew Evaluation Grading Areas (T-2).

AREA	NOTE	AREA TITLE	I/Q	AS/ MSN	AA/ MSN	REC/ MSN	FAC/ MSN
AIRCREW EVALUATION CRITERIA - GENERAL							
1		MISSION PLANNING	R	R	R	R	R
2		BRIEFING (if applicable)	R	R	R	R	R
3		PRE-TAKEOFF	R	R	R	R	R
4		TAKEOFF	R				

5		FORMATION TAKEOFF					
6		DEPARTURE	R	R	R	R	R
7		LEVEL OFF	R				
8		CRUISE/NAVIGATION	R	R	R	R	R
9		FORMATION		R	R		
10		IN-FLIGHT CHECKS	R	R	R	R	R
11		FUEL MANAGEMENT	R	R	R	R	R
12		COMMUNICATION/NAVIGATION/IFF (CNI)	R	R	R	R	R
14	1	AIRWORK/AHC/TACTICAL MANEUVERING	R				
15	2	UNUSUAL ATTITUDE RECOVERIES	R				
16	7	WEAPONS SYSTEM/BIT CHECKS		R	R	R	R
17		AIR REFUELING					
18	7	DESCENT	R				
19	7	GO-AROUND					
20	7	RECOVERY	R	R	R	R	R
21	3	SFO TRAFFIC PATTERNS	R				
22	3	SFO APP/LANDING	R				
23		VFR PATTERN/APPROACH	R				
24		FORMATION APPROACH /LANDING					
25		LANDING	R				

26		AFTER LANDING	R				
27		FLIGHT LEADERSHIP (if applicable)	R	R	R	R	R
28		DEBRIEFING/CRITIQUE	R	R	R	R	R
29		KNOWLEDGE	R	R	R	R	R
30	Critical	AIRMANSHIP/ SITUATIONAL AWARENESS	R	R	R	R	R
31	Critical	SAFETY	R	R	R	R	R
32	Critical	FLIGHT DISCIPLINE	R	R	R	R	R
33		INSTRUCTOR PERFORMANCE (if applicable)	R	R	R	R	R
35	7	RADAR SCOPE/SENSOR INTERPRETATION	R	R	R	R	R
36	7	TASK PRIORITIZATION	R	R	R	R	R
37		COCKPIT RESOURCE MANAGEMENT					
INSTRUMENTS							
61	7	HOLDING	R				
62	7	INSTRUMENT PENETRATION/ENROUTE DESCENT	R				
63	7	INSTRUMENT PATTERNS	R				
64	7	NONPRECISION APPROACH	R				
65	7	PRECISION APPROACH	R				
66	7	MISSED APPROACH/CLIMB OUT	R				
67		CIRCLING/SIDESTEP APPROACH	R				

68	7	INSTRUMENT CROSS-CHECK	R				
TACTICAL EMPLOYMENT							
GENERAL							
81	7	TACTICAL/MISSION PLAN		R	R	R	R
82		AEROSPACE CONTROL ALERT (ACA) TASKING (ACA Units Only)		R	R	R	R
83	7	TACTICAL/MISSION EXECUTION		R	R	R	R
84		COMPOSITE FORCE INTERFACE					
85	7	RADIO USE/TACTICAL COMMUNICATION		R	R	R	R
86	7	VISUAL/SENSOR LOOKOUT /RADAR MECHANIZATION		R	R	R	R
87	7	MUTUAL SUPPORT		R	R	R	R
88	4, 7	TACTICAL NAVIGATION		R	R	R	R
89	7	INGRESS		R		R	R
90	7	EGRESS		R		R	R
91		COMBAT SEPARATION					
92	7	TIMING		R		R	R
93	7	TRAINING RULES/ROE		R	R	R	R
94	4, 7	EVASIVE ACTION/ THREAT REACTIONS		R	R	R	R
95	7	IN-FLIGHT REPORT		R	R	R	R
96	7	EW/EXCM/AAMD		R	R	R	R

97		WEAPONS SYSTEM UTILIZATION		R	R	R	R
98	7	SENSOR MANAGEMENT		R	R	R	R
AIR-TO-AIR							
111	4	SENSOR SEARCH/SORTING			R		
112	4	TACTICAL INTERCEPT /COMBAT AIR PATROL (CAP)			R		
113	4	OFFENSIVE MANEUVERING			R		
114	7	DEFENSIVE/COUNTER- OFFENSIVE MANEUVERING			R		
115	4, 7	AIR-TO-AIR WEAPONS EMPLOYMENT			R		
116		AIR-TO-AIR SYSTEMS INTEGRATION					
117		COMMAND AND CONTROL INTEGRATION					
AIR-TO-SURFACE							
131	7	TARGET/THREAT ACQUISITION/VALIDATION		R			
132	5, 7	AIR-TO-SURFACE WEAPONS EMPLOYMENT		R			
133		RANGE/AIRSPACE PROCEDURES					
134	7	AIR-TO-SURFACE SENSOR OPERATIONS					
135	7	LGB DELIVERY PROCEDURES					
136		PRECISION GUIDED MUNITIONS DELIVERY PROCEDURES					

137	7	SYSTEM WEAPONS DELIVERY PROCEDURES (GPS AIDED WEAPONS)					
138		SYSTEM WEAPONS DELIVERY PROCEDURES (GENERAL PURPOSE MUNITION)					
139	7	CLOSE AIR SUPPORT (CAS)/TIME SENSITIVE TARGETING (TST)					
SUPPRESSION/DESTRUCTION OF ENEMY AIR DEFENSES							
151	7	ELECTRONIC THREAT/ORDER OF BATTLE MANAGEMENT		R			
152	7	HARM EMPLOYMENT		R			
161		DEGRADED/DENIED GPS					
162		DEGRADED/DENIED COMMUNICATIONS					
163		DEGRADED/DENIED DATALINK					
RECONNAISSANCE							
171		TARGET ACQUISITION				R	
172		IMAGERY QUALITY				R	
FORWARD AIR CONTROL							
181	7	TARGET AREA IDENTIFICATION					R
182	7	TACS/AAGS COORDINATION					R
183	7	ATTACK PREPARATION AND BRIEFING					R

184	7	TARGET MARKING/DESCRIPTION					R
185		OBSERVATION POSITION (TYPE 1 CONTROL ONLY)					
186	7	ATTACK CONTROL					R
187	7	POST ATTACK					R
188	7	VISUAL RECONNAISSANCE					
189	7	RENDEZVOUS					

Notes:

1. Airwork/Advanced Handling/Tactical Maneuvering. Maneuvers can be:

a. Aerobatics, to include a G-awareness exercise

b. Advanced handling characteristics/Confidence maneuvers

c. Any Air-to-air mission (e.g., Basic Fighter Maneuvers (BFM), Air Combat Maneuvering, Air Combat Training, adversary training aid etc.)

d. Threat reaction.

2. Unusual attitude recoveries are not performed in single seat aircraft. For single seat aircraft they are evaluated in the simulator. For the purpose of evaluating a pilot's ability to accurately assess control and performance instruments during unusual attitude recoveries, activating the Pilot Activated Recovery System (PARS) does not constitute a desired recovery from an unusual attitude during the evaluation.

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 (usually a MSN evaluation). When delayed until the next periodic evaluation, that evaluation will be incomplete until the SFO is accomplished. Exception: Should adverse weather conditions impede accomplishment of an SFO, a simulator/UTD evaluation may be used only after every attempt has been made to evaluate the SFO in the eligibility window of the subsequent evaluation. For all cases, if an SFO is evaluated via simulator/UTD the subsequent INST/QUAL evaluation must include in-flight evaluation of the SFO. Verbal evaluation of an SFO is never approved.

4. These items are not required on FTU/WIC Instructor evaluations when syllabus profiles make accomplishment impractical (e.g. BFM mission checks). Document the omissions in the Comments Portion of the AF Form 8.
5. Air-to-Surface Weapons Employment. Grade Attempted/Valid IAW Table 3.2 and paragraph 3.8.3.2.
6. ACA Units. ACA units are waived and authorized to evaluate Air-to-Air Weapons Employment during EPE profiles.
7. May be evaluated in the Simulator IAW paragraph 2.2.1.6 and 2.3.1.6.

Table 2.1. (AETC) Aircrew Evaluation Grading Areas (T-2).

AREA	NOTE	AREA TITLE	I/Q	AS/MSN	AA/MSN	REC/MSN	FAC/MSN	WSO QUAL	WSO AS/MSN	WSO AA/MSN
AIRCREW EVALUATION CRITERIA - GENERAL										
1		MISSION PLANNING	R	R	R	R	R	R	R	R
2		BRIEFING (if applicable)	R	R	R	R	R	R	R	R
3		PRE-TAKEOFF	R	R	R	R	R	R	R	R
4		TAKEOFF	R							
5		FORMATION TAKEOFF								
6		DEPARTURE	R	R	R	R	R			
7		LEVEL OFF	R							
8		CRUISE/NAVIGATION	R	R	R	R	R	R	R	R
9		FORMATION		R	R					
10		IN-FLIGHT CHECKS	R	R	R	R	R	R	R	R
11		FUEL MANAGEMENT	R	R	R	R	R			
12		COMMUNICATION/NAVIGATION/IFF (CNI)	R	R	R	R	R	R	R	R
14	1	AIRWORK/AHC/TACTICAL MANEUVERING	R							
15	2	UNUSUAL ATTITUDE RECOVERIES	R					R		

AREA	NOTE	AREA TITLE	I/Q	AS/MSN	AA/MSN	REC/MSN	FAC/MSN	WSO QUAL	WSO AS/MSN	WSO AA/MSN
35	7	RADAR SCOPE/SENSOR INTERPRETATION	R	R	R	R	R	R	R	R
36	7	TASK PRIORITIZATION	R	R	R	R	R	R	R	R
37		COCKPIT RESOURCE MANAGEMENT						R	R	R
INSTRUMENTS										
61	7	HOLDING	R							
62	7	INSTRUMENT PENETRATION/ENROUTE DESCENT	R							
63	7	INSTRUMENT PATTERNS	R							
64	7	NONPRECISION APPROACH	R							
65	7	PRECISION APPROACH	R							
66	7	MISSED APPROACH/CLIMB OUT	R							
67	7	CIRCLING/SIDESTEP APPROACH								
68	7	INSTRUMENT CROSS-CHECK	R							
TACTICAL EMPLOYMENT										
GENERAL										
81	7	TACTICAL/MISSION PLAN		R	R	R	R		R	R
82	7	AEROSPACE CONTROL ALERT (ACA) TASKING (ACA Units Only)		R	R	R	R		R	R
83	7	TACTICAL/MISSION EXECUTION		R	R	R	R		R	R

AREA	NOTE	AREA TITLE	I/Q	AS/MSN	AA/MSN	REC/MSN	FAC/MSN	WSO QUAL	WSO AS/MSN	WSO AA/MSN
84		COMPOSITE FORCE INTERFACE								
85	7	RADIO USE/TACTICAL COMMUNICATION		R	R	R	R		R	R
86	7	VISUAL/SENSOR LOOKOUT /RADAR MECHANIZATION		R	R	R	R		R	R
87	7	MUTUAL SUPPORT		R	R	R	R		R	R
88	4, 7	TACTICAL NAVIGATION		R	R	R	R		R	R
89	7	INGRESS		R		R	R		R	
90	7	EGRESS		R		R	R		R	
91		COMBAT SEPARATION								
92	7	TIMING		R		R	R		R	
93	7	TRAINING RULES/ROE		R	R	R	R		R	R
94	4, 7	EVASIVE ACTION/ THREAT REACTIONS		R	R	R	R		R	R
95	7	IN-FLIGHT REPORT		R	R	R	R		R	R
96	7	EW/EXCM/AAMD		R	R	R	R		R	R
97		WEAPONS SYSTEM UTILIZATION		R	R	R	R		R	R
98	7	SENSOR MANAGEMENT		R	R	R	R		R	R
AIR-TO-AIR										
11 1	4	SENSOR SEARCH/SORTING			R					R
11 2	4	TACTICAL INTERCEPT /COMBAT AIR PATROL (CAP)			R					R
11 3	4	OFFENSIVE MANEUVERING			R					

AREA	NOTE	AREA TITLE	I/Q	AS/MSN	AA/MSN	REC/MSN	FAC/MSN	WSO QUAL	WSO AS/MSN	WSO AA/MSN
139	7	CLOSE AIR SUPPORT (CAS)/TIME SENSITIVE TARGETING (TST)								
SUPPRESSION/DESTRUCTION OF ENEMY AIR DEFENSES										
151	7	ELECTRONIC THREAT/ORDER OF BATTLE MANAGEMENT		R						
152	7	HARM EMPLOYMENT		R						
161		DEGRADED/DENIED GPS								
162		DEGRADED/DENIED COMMUNICATIONS								
163		DEGRADED/DENIED DATALINK								
RECONNAISSANCE										
171		TARGET ACQUISITION				R				
172		IMAGERY QUALITY				R				
FORWARD AIR CONTROL										
181	7	TARGET AREA IDENTIFICATION					R			
182	7	TACS/AAGS COORDINATION					R			
183	7	ATTACK PREPARATION AND BRIEFING					R			
184	7	TARGET MARKING/DESCRIPTION					R			

AREA	NOTE	AREA TITLE	I/Q	AS/ MSN	AA/ MSN	REC/ MSN	FAC/ MSN	WSO QUAL	WSO AS/ MSN	WSO AA/ MSN
18 5		OBSERVATION POSITION (TYPE 1 CONTROL ONLY)								
18 6	7	ATTACK CONTROL					R			
18 7	7	POST ATTACK					R			
18 8	7	VISUAL RECONNAISSANCE								
18 9	7	RENDEZVOUS								

Notes:

1. Airwork/Advanced Handling/Tactical Maneuvering. Maneuvers can be:
 - a. Aerobatics, to include a G-awareness exercise
 - b. Advanced handling characteristics/Confidence maneuvers
 - c. Any Air-to-air mission (e.g., Basic Fighter Maneuvers (BFM), Air Combat Maneuvering, Air Combat Training, adversary training aid etc.)
 - d. Threat reaction.
2. Unusual attitude recoveries are not performed in single seat aircraft. For single seat aircraft they are evaluated in the simulator. For the purpose of evaluating a pilot's ability to accurately assess control and performance instruments during unusual attitude recoveries, activating the Pilot Activated Recovery System (PARS) does not constitute a desired recovery from an unusual attitude during the evaluation.
 2. **(Added)** WSO unusual attitude recoveries can be evaluated in a FCP training device or in the aircraft with a pilot FE.
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 (usually a MSN evaluation). When delayed until the next periodic evaluation, that evaluation will be incomplete until the SFO is accomplished. Exception: Should adverse weather conditions impede accomplishment of an SFO, a simulator/UTD evaluation may be used only after every attempt has been made to evaluate the SFO in the eligibility window of the subsequent evaluation. For all cases, if an

AREA	NOTE	AREA TITLE	I/Q	AS/ MSN	AA/ MSN	REC/ MSN	FAC/ MSN	WSO QUAL	WSO AS/ MSN	WSO AA/ MSN
<p>SFO is evaluated via simulator/UTD the subsequent INST/QUAL evaluation must include in-flight evaluation of the SFO. Verbal evaluation of an SFO is never approved.</p> <p>4. These items are not required on FTU/WIC Instructor evaluations when syllabus profiles make accomplishment impractical (e.g. BFM mission checks). Document the omissions in the Comments Portion of the AF Form 8.</p> <p>5. Air-to-Surface Weapons Employment. Grade Attempted/Valid IAW Table 3.2 and paragraph 3.8.3.2.</p> <p>6. ACA Units. ACA units are waived and authorized to evaluate Air-to-Air Weapons Employment during EPE profiles.</p> <p>7. May be evaluated in the Simulator IAW paragraph 2.2.1.6 and 2.3.1.6.</p>										

2.8. Emergency Procedures Evaluations (EPEs).

2.8.1. The EPE should be conducted in the highest fidelity training device available, or via table-top verbal evaluation if necessary. Grading criteria for each required item are listed in [Chapter 3](#).

2.8.1. (AETC) In the absence of a suitable rear cockpit (RCP) training device, FEs should use a combination of front cockpit (FCP) training devices, “over-the-shoulder” training devices, and table-top verbal evaluations to conduct WSO EPEs.

2.8.2. The following graded areas are required on all EPEs. (T-2):

2.8.2.1. Aircraft General Knowledge,

2.8.2.2. Cockpit/Crew Resource Management (CRM),

2.8.2.3. Emergency Procedures/Aircraft Malfunctions

2.8.2.3.1. All Critical Action Procedures (CAPs)

2.8.2.3.2. In addition to all CAPs, the FE will evaluate at least one emergency procedure in the ground (pre-takeoff) phase and two emergency procedures in each of the takeoff, inflight, and landing phases of flight. (T-3). One of the takeoff emergencies shall be at/around takeoff speed. (T-3).

2.8.2.4. Checklist Usage.

2.8.3. The following additional graded areas are required on all INSTM and/or QUAL EPEs:

2.8.3.1. Instrument Flight Procedures, IAW AFMAN 11-217, *Instrument Flight Procedures*. This area includes a minimum of one HUD-Out Approach, where the FE

should focus on whether or not the approach permits landing, and the use of standby/emergency instruments.

2.8.3.1. (AETC) Not applicable to WSO QUAL evaluations.

2.8.3.2. Unusual Attitude Recoveries.

2.8.3.2. (AETC) WSO unusual attitude recoveries can be evaluated in a FCP training device or in the aircraft with a pilot FE.

2.8.3.3. Alternate/Divert Airfields. This area includes a minimum of one approach at a divert/alternate airfield, other than home base.

2.8.3.3. (AETC) Not applicable to WSO QUAL evaluations.

2.8.4. The following items are required on all MSN EPEs, as the FE tailors the MSN evaluation scenario to the unit tasking/mission:

2.8.4.1. Aerospace Control Alert (ACA) Tasking (ACA qualified pilots in wings that support a full-time ACA detachment (or home-station alert) are required to complete at least one ACA intercept during every MSN EPE),

2.8.4.2. Weapon System Operation, and

2.8.4.3. Weapons Employment and Switchology (correct use of switches in cockpit).

Table 2.2. EPE Grading Areas (T-2).

AREA	NOTES	AREA TITLE	I/Q	MSN
CRITICAL ACTION PROCEDURES				
GROUND EMERGENCIES				
362		FIRE/OVERHEAT/FUEL LEAK (GROUND)	R	R
412		GROUND EGRESS	R	R
TAKEOFF EMERGENCIES				
463		ABORT	R	R
464		AB MALFUNCTION ON TAKEOFF (TAKEOFF CONTINUED)	R	R
465		ENGINE FAILURE ON TAKEOFF (TAKEOFF CONTINUED)	R	R
466		ENGINE FIRE ON TAKEOFF (TAKEOFF CONTINUED)	R	R

467		LOW THRUST ON TAKEOFF/AT LOW ALTITUDE (NON-AB)		
IN-FLIGHT EMERGENCIES				
563		ENGINE FAILURE/AIRSTART	R	R
613		OUT-OF-CONTROL RECOVERY	R	R
NON-CAP MALFUNCTIONS				
GENERAL				
301		EMERGENCY PROCEDURES/AIRCRAFT MALFUNCTIONS (GENERAL)		
302		CHECKLIST USAGE	R	R
305		WEAPON SYSTEM OPERATION		R
306		WEAPONS EMPLOYMENT AND SWITCHOLOGY		R
GROUND EMERGENCIES			R1	R1
ELECTRICAL SYSTEM FAILURES				
332		MAIN / STANDBY GENERATOR FAILURE		
333		MAIN AND STANDBY FAILURE (GROUND)		
ENGINE				
364		AUTO ACCELERATION		
366		HUNG START		
373		HOT START/NO START		
MISCELLANEOUS				
322		ACTIVATED EPU / HYDRAZINE LEAK		
382		EMERGENCY GROUND JETTISON		

402		NWS DEGRADED/FAILURE		
BRAKE SYSTEM				
403		ANTISKID MALFUNCTION		
404		BRAKE FAILURE		
405		HOT BRAKES		
TAKEOFF EMERGENCIES			R2	R2
LANDING GEAR MALFUNCTIONS				
504		GEAR FAILS TO RETRACT/ LG HANDLE WILL NOT RAISE		
505		BLOWN TIRE ON TAKEOFF		
IN-FLIGHT EMERGENCIES			R2	R2
ELECTRICAL SYSTEM FAILURES				
432		ELECTRICAL CYCLING		
433		EMERGENCY POWER DISTRIBUTION		
434		UNCOMMANDED/ABNORMAL EPU OPERATION		
532		LOSS OF ELECTRICAL POWER		
534		ABNORMAL EPU OPERATION		
535		MAIN, AND/OR STANDBY AND/OR EPU GENERATOR FAILURE		
536		BATTERY FAILURE/DISCHARGE		
591		FLCS EMERGENCY PROCEDURES/AIRCRAFT MALFUNCTIONS (IN-FLIGHT)		
FLIGHT CONTROL FAILURES				
435		ADC/AIR DATA MALFUNCTIONS		

453		AOA PROBE ICING		
495		LEF MALFUNTION (SYMMETRIC/ASYMETRIC)		
499		CADC MALFUNCTION		
500		P, R AND/OR Y MALFUNCTIONS		
591		DUAL/SINGLE FLCS FAIL		
592		CONTROLLABILITY CHECK		
704		SERVO MALFUNTION		
705		TRIM MALFUNCTION		
ENGINE MALFUNCTIONS				
303		ENGINE FIRE		
567		OVERHEAT CAUTION LIGHT		
675		ENGINE VIBRATIONS		
569		OIL SYSTEM MALFUNCTION		
367		ENGINE FAULT CAUTION LIGHT		
368		SEC CAUTION LIGHT		
369		FTIT INDICATOR FAILURE		
674		ZERO RPM/ERRONEOUS RPM INDICATION		
370		ABNORMAL OR NO ENGINE RESPONSE		
676		NOZZLE FAILURE [PW220]		
464		AB BLOWOUT/FAILURE TO LIGHT		
677		ENGINE STALL RECOVERY		
678		FLAMEOUT LANDING		
673		STUCK THROTTLE		

FUEL MALFUNCTIONS				
652		FUEL MANAGEMENT SYSTEM PFL		
362		FUEL LEAK		
653		FUEL LOW		
645		HOT FUEL/OIL OR GRAVITY FEED		
549		FUEL IMBALANCE		
548		TRAPPED EXTERNAL FUEL		
HYDRAULIC MALFUNCTIONS				
523		SINGLE HYDRAULIC (SYSTEM A/B) FAILURE, DUAL HYDRAULIC FAILURE, HYDRAULIC OVERPRESSURE		
535		SYSTEM B AND GENERATOR FAILURE (PTO SHAFT)		
MISCELLANEOUS				
472		EGI FAILURE, INS COMPUTER FAILURE, TOTAL INS FAILURE		
551		OXYGEN MALFUNCTION, PBG MALFUNCTION		
553		SMOKE AND FUMES		
CANOPY MALFUNCTIONS				
556		CANOPY WARNING LIGHT ON, CANOPY LOSS/PENETRATION IN FLIGHT		
ENVIRONMENTAL CONTROL SYSTEM				
557		COCKPIT PRESSURE/TEMPERATURE MALFUNCTION		

623		EQUIP HOT CAUTION LIGHT		
EJECTION				
617		EJECTION IMMEDIATE		
618		EJECTION TIME PERMITTING		
621		FAILURE OF CANOPY TO SEPARATE		
619		EJECTION SEAT FAILURE		
622		MANUAL SEAT SEPARATION		
JETTISON				
588		SELECTIVE JETTISON		
584		EMERGENCY JETTISON		
LANDING EMERGENCIES			R2	R2
LG MALFUNCTIONS				
714		LG HANDLE WILL NOT LOWER, LG FAILS TO EXTEND, LANDING WITH LG UNSAFE/UP, LANDING WITH A BLOWN MAIN GEAR TIRE, LANDING WITH A BLOWN NOSE GEAR TIRE		
603		ALTERNATE LG EXTENSION		
MISCELLANEOUS				
322		ACTIVATED EPU/HYDRAZINE LEAK		
692		ASYMMETRIC STORES (LANDING)		
714		NLG WOW SWITCH FAILURE		
402		NWS FAILURE/HARDOVER		
592		CONTROLLABILITY CHECK		

678		FLAMEOUT LANDING		
ARRESTMENTS				
715		CABLE ARRESTMENT, NET ARRESTMENT		
BRAKE SYSTEM				
720		ANTISKID MALFUNCTION (LANDING)		
404		BRAKE FAILURE		
405		HOT BRAKES		
GENERAL				
29		AIRCRAFT GENERAL KNOWLEDGE	R	R
614		UNUSUAL ATTITUDE RECOVERIES	R	R
615		AFMAN 11-217, INSTRUMENT FLIGHT PROCEDURES / HUD OUT APPROACH / USE OF STBY INSTRUMENTS	R	
616		ALTERNATE/DIVERT AIRFIELDS	R	
306		WEAPONS SYSTEM OPERATION		R
96		EA/EP/AAMD		R
94		EVASIVE ACTION		R
306		WEAPONS EMPLOYMENT AND SWITCHOLOGY		R
82	3	AIR SOVEREIGNTY TASKING		R
<p>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.</p> <p>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.</p> <p>3. Air Defense qualified pilots in wings which support a full-time ACA detachment (or home-</p>				

station alert) will complete at least one ACA intercept during every Mission EPE.

Chapter 3

EVALUATION CRITERIA.

3.1. General Grading Standards.

3.1.1. FEs assign appropriate area grades by comparing examinee performance against standards per descriptions in this chapter. The overall flight evaluation grade should be derived from individual area grades based on a composite for the observed events and tasks.

3.1.1. (AETC) Q. Flew chase position during a dynamic phase of flight (area maneuvering, VFR pattern, etc.) IAW AFI 11-2F-16V3 so as to be able to adequately observe and instruct an FTU student.

3.1.2. The grading criteria in this chapter are divided into three sections: General, Instrument, and Tactical Employment.

3.1.2. (AETC) Q-. Chase position is safe, but deviates from AFI 11-2F-16V3 parameters and/or does not allow for adequate ability to observe and instruct an FTU student.

3.1.3. If the examinee receives an unqualified area grade in any of the areas identified as "critical" by this volume, the overall qualification level must be a "Q3."

3.1.3. (AETC) U. Chase position is not flown in accordance with AFI 11-2F-16V3 and is potentially unsafe.

3.1.4. If an FE assigns a qualification level of unqualified (Q3), or if the FE assigns a qualification level of qualified (Q1 or Q2) but assigns additional training:

3.1.4.1. FEs recommend whether or not such an examinee is allowed to fly before the additional training or re-evaluation is successfully completed.

3.1.4.2. Squadron commanders determine whether or not such an examinee is allowed to fly before the additional training or re-evaluation is successfully completed.

Table 3.1. General Aircraft Control Criteria (T-2).

Aircraft Control Criteria. The following general criteria apply at all times unless more specific criteria from Table 2.1 or Table 2.2 apply.		
Q	Altitude	+/- 200 feet
	Airspeed	+/- 5%
	Course	+/- 5 degrees/3 NM (whichever is greater)
	TACAN Arc	<u>&lt;</u> 2 NM
Q-	Altitude	+/- 300 feet

	Airspeed	+/- 10%
	Course	+/- 10 degrees/5 NM (whichever is greater)
	TACAN Arc	≤ 3 NM > 2 NM
U		Exceeded Q- limits

3.2. Documentation of Weapons Employment Results.

3.2.1. FEs document weapons employment results in the Mission Description Section of the AF Form 8 for MSN evaluations. **(T-2)**. Include entries for each type of actual and simulated ordnance employed.

3.2.2. Air-to-surface results should be recorded as Attempted/Valid for each air-to-surface record delivery. Document results as in [Table 3.2](#)

3.2.3. The number of simulated air-to-air missile/gun firing attempts and valid attempts are recorded as in [Table 3.3](#).

3.2.4. Forward Air Control-Airborne (FAC-A) Target Marks. For the purpose of FAC target mark, marks are scored as an Attempted/Valid by the FE in either FAC or fighter aircraft. Marks are scored as a "Valid" if they are considered usable for marking the designated target, delivered in a timely manner and delivery used is tactically sound. Marks are scored as a "Attempted" 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 track time, etc.). Document results as in [Table 3.2](#).

3.2.5. FE judgment should be the determining factor in deciding the weapons employment grade. The FE may elect to award a higher area grade than warranted by the score(s), and include the justification in the Comments Section of the AF Form 8.

Table 3.2. Air-Surface Weapons Employment Scores.

Air-Surface (A/S) Scoring	
Precision Guided Munition (PGM)	Laser Guided Bomb (LGB)
*Attempted/Valid	**Attempted/Valid
Video recording assessment is considered normal operations, otherwise *Simulator assessed/ **Range Scored.	

Table 3.3. Air-Air Weapons Employment Scores.

Air-Air (A/A) Scoring		
	ATTEMPTED	VALID

A/A Gun	2	1
Air Intercept Missile (AIM) 120	2	2
AIM 9	1	1
Video recording assessment is considered normal operations, otherwise *Simulator assessed/ **Range Scored.		

3.3. General Aircrew Evaluation Criteria.

3.3.1. Area 1--Mission Planning:

3.3.1.1. Mission Preparation:

3.3.1.1.1. **Q.** Clearly defined the mission overview and mission goals. Effectively accomplished directed mission planning tasks. Developed a sound plan to accomplish the mission. Provided specific information on what needed to be done. Solicited feedback from others 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.

3.3.1.1.2. **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.

3.3.1.1.3. **U.** Did not define the mission overview and goals. Did not accomplish directed mission planning tasks. 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.

3.3.1.2. Publications:

3.3.1.2.1. **Q.** Publications were current and usable for any of the unit's combat taskings. Contained only minor deviations, omissions, and/or errors.

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

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

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

3.3.2.1. Organization:

3.3.2.1.1. Q. Well organized, included all applicable information and presented in a logical sequence. Briefed flight member responsibilities, de-confliction 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.

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

3.3.2.1.3. 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.

3.3.2.2. Presentation:

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

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

3.3.2.2.3. 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.

3.3.2.3. Mission Coverage:

3.3.2.3.1. Q. Established objectives for the mission. Presented all training events and special interest items. Included effective technique discussion for accomplishing the mission.

3.3.2.3.2. 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.

3.3.2.3.3. 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.

3.3.2.4. Flight Member Consideration:

3.3.2.4.1. Q. Properly assessed the abilities of all flight members. Briefed corrective action from previous mission and probable problem areas when appropriate.

- 3.3.2.4.2. **Q-**. Did not correctly assess all flight members' abilities. Did not identify probable problem areas.
- 3.3.2.4.3. **U**. Ignored flight members' abilities and past problem areas.
- 3.3.3. Area 3--Pre-Takeoff:
- 3.3.3.1. **Q**. Established and adhered to step, start, taxi and take-off times to assure thorough preflight, check of personal equipment, etc. Accurately determined readiness of aircraft for flight. Performed all checks and procedures prior to takeoff in accordance with approved checklists and applicable directives.
- 3.3.3.2. **Q-**. Same as above except for minor procedural deviations which did not detract from mission effectiveness.
- 3.3.3.3. **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.
- 3.3.4. Area 4--Takeoff:
- 3.3.4.1. **Q**. Maintained smooth aircraft control throughout takeoff. Performed takeoff in accordance with T.O. 1F-16-1 and AFTTP 3-3.F-16 procedures.
- 3.3.4.2. **Q-**. Minor procedural deviations. Control was inconsistent, rough or erratic.
- 3.3.4.3. **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.
- 3.3.5. Area 5--Formation Takeoff:
- 3.3.5.1. Lead:
- 3.3.5.1.1. **Q**. Smooth on controls. Excellent wingman consideration.
- 3.3.5.1.2. **Q-**. Occasionally rough on controls. Not unsafe; however, lack of wingman consideration made it difficult for the wingman to maintain position.
- 3.3.5.1.3. **U**. Rough on the controls. Did not consider the wingman.
- 3.3.5.2. Wingman:
- 3.3.5.2.1. **Q**. Maintained position with only momentary deviations. Maintained appropriate separation and complied with procedures and leader's instructions.
- 3.3.5.2.2. **Q-**. Over-controlled the aircraft to the extent that formation position varied considerably.
- 3.3.5.3. **U**. Abrupt position corrections. Did not maintain appropriate separation or formation position throughout the takeoff.
- 3.3.6. Area 6--Departure:
- 3.3.6.1. Instrument/Visual Flight Rules:

3.3.6.1.1. **Q.** Performed departures as published/directed and complied with all restrictions.

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

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

3.3.6.2. Trail Departure/Rejoin:

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

3.3.6.2.2. **Q-.** Minor deviations from established or appropriate procedures. Slow to obtain sensor acquisition and/or contact due to poor technique. Delayed rejoin due to poor sensor technique or inefficient commentary.

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

3.3.7. Area 7--Level Off:

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

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

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

3.3.8. Area 8--Cruise/Navigation:

3.3.8.1. **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.

3.3.8.2. **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.

3.3.8.3. **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-.**

3.3.9. Area 9--Formation:

3.3.9.1. Flight Lead:

3.3.9.1.1. **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 de-confliction contracts. Effectively coordinated with other flight members throughout the mission. Ensured smooth and efficient flight operation.

3.3.9.1.2. **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.

3.3.9.1.3. **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 de-confliction contracts. Poor flight coordination seriously degraded mission accomplishment or safety of flight.

3.3.9.2. Wingman:

3.3.9.2.1. **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.

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

3.3.9.2.3. **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 de-confliction contracts. Made abrupt position corrections. Did not maintain appropriate separation. Rejoin was unsafe. Poor flight coordination seriously degraded mission accomplishment or safety of flight.

3.3.10. Area 10--In-Flight Checks:

3.3.10.1. **Q**. Performed all in-flight checks as required.

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

3.3.10.3. **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.

3.3.11. Area 11--Fuel Management:

3.3.11.1. **Q**. Properly managed fuel throughout the mission. Complied with all established fuel requirements. Adhered to briefed Joker/Bingo (IAW Multi-Service Tactics, Techniques, and Procedures (MTTP) for Multi-Service Brevity Codes, June 2018) calls.

3.3.11.2. **Q-**. Errors in fuel management procedures that did not preclude mission accomplishment.

3.3.11.3. **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.

3.3.12. Area 12--Communications, Navigation, and IFF (CNI) Usage:

3.3.12.1. **Q.** Complete knowledge of and compliance with correct communication and 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).

3.3.12.2. **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).

3.3.12.3. **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).

3.3.13. Area 14--Airwork/AHC/Tactical Maneuvering:

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

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

3.3.13.3. **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.

3.3.14. Area 15--Unusual Attitude Recoveries:

3.3.14.1. **Q.** Smooth, positive recovery to level flight with correct recovery procedures without the use of Pilot Activated Recovery System (PARS).

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

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

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

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

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

3.3.15.3. **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.

3.3.16. Area 17--Air Refueling:

3.3.16.1. Air Refueling Rendezvous:

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

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

3.3.16.1.3. **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.

3.3.16.2. Air Refueling Procedures/Techniques:

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

3.3.16.2.2. **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.

3.3.16.2.3. **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.

3.3.17. Area 18--Descent:

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

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

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

3.3.18. Area 19--Go-Around:

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

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

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

3.3.19. Area 20--Recovery:

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

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

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

3.3.20. Area 21--Emergency Traffic Pattern (Prior to configuration):

3.3.20.1. **Q.** Complied with all TO, AFTTP 3-3.F-16, and other applicable procedures. Maintained safe maneuvering airspeed/AOA. Flew approach compatible with the situation. Adjusted approach for type of emergency.

3.3.20.2. **Q-.** Minor procedural errors. Erratic airspeed/AOA control. Errors did not detract from safe handling of the situation but were inappropriate for the situation/emergency.

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

3.3.21. Area 22--Emergency Approach/Landing (Configuration through rollout):

3.3.21.1. **Q.** Used sound judgment and safely landed. Configured at the appropriate position/altitude for the situation and emergency. Flew final, based on recommended procedures, airspeed/AOA and glide path, that was appropriate for the situation and emergency. Smooth, positive control of aircraft. Touchdown point was IAW TO and other guidance and/or permitted safe stopping on available runway. Arrestment gear was safely used (if applicable).

3.3.21.2. **Q-.** Safety not compromised. Configured at a position and altitude which allowed for a safe approach. Could have landed safely, however deviations from recommended procedures, airspeed/AOA and altitudes were not appropriate for the situation or emergency. Unnecessary maneuvering due to minor errors in planning or judgment.

3.3.21.3. **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 attempt go-around if approach was unsuccessful.

3.3.22. Area 23--VFR Pattern/Approach:

3.3.22.1. **Q.** Performed patterns/approaches IAW TO and AFTTP 3-3.F-16 procedures, techniques, and local directives. Aircraft control was smooth and positive. Accurately aligned with runway. Maintained proper/briefed airspeed/AOA. Airspeed -5/+10 knots.

3.3.22.2. **Q-**. Performed patterns/approaches with minor deviations to TO and AFTTP 3-3.F-16 procedures, techniques, 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.

3.3.22.3. **U**. Approaches not performed IAW TO and AFTTP 3-3.F-16 procedures, techniques, and local directives. Erratic aircraft control. Large deviations in runway alignment. Exceeded Q- parameters.

3.3.23. Area 24--Formation Approach:

3.3.23.1. Flight Lead:

3.3.23.1.1. **Q**. Smooth on controls and considered wingman. Flew approach as published/directed.

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

3.3.23.1.3. **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.

3.3.23.2. Wingman:

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

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

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

3.3.24. Area 25--Landing. Listed criteria only applicable to normal VFR approaches. Where runway configuration, arresting cable placement or applicable guidance requires an adjustment to the desired touchdown point, a simulated runway threshold should 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.

3.3.24.1. **Q**. Performed landings IAW TO and AFTTP 3-3.F-16 procedures, techniques, and local directives. Touchdown Point 150' to 1000' from the runway threshold (VFR pattern/non-precision approach) or runway glideslope intercept point (precision approach).

3.3.24.2. **Q-**. Performed landings with minor deviations to TO and AFTTP 3-3.F-16 procedures, techniques, and local directives. Touchdown Point 0-149' or 1000-1500' from the runway threshold (VFR pattern/non-precision approach) or runway glideslope intercept point (precision approach).

3.3.24.3. **U**. Landing not performed IAW TO and AFTTP 3-3.F-16 procedures, techniques, and local directives. Touchdown Point exceeded Q- criteria or departed the prepared surface.

3.3.25. Area 26--After Landing:

3.3.25.1. **Q.** Appropriate after landing checks and aircraft taxi procedures accomplished in accordance with TO and applicable directives. Completed all required forms accurately.

3.3.25.2. **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.

3.3.25.3. **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.

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

3.3.26.1. **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 when appropriate. Coordinated effectively with other flight members/other agencies without misunderstanding, confusion, or undue delay.

3.3.26.2. **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 when appropriate. Limited effort to motivate flight members/other agencies through positive statements.

3.3.26.3. **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 when appropriate. 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.

3.3.27. Area 28--Debriefing/Critique:

3.3.27.1. **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 de-confliction contracts, roles and responsibilities. Asked for reactions/inputs from other mission participants. Re-capped key points and compared mission results with mission objectives.

3.3.27.2. **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.

3.3.27.3. **U.** Did not correctly debrief mission deviations or offer corrective guidance. Used excessive time to debrief. Failed to debrief breakdowns in de-confliction 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.

3.3.28. Area 29--Knowledge. Evaluate all applicable subareas.

3.3.28.1. Aircraft General:

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

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

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

3.3.28.2. Emergency Procedures:

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

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

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

3.3.28.3. Flight Rules/Procedures:

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

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

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

3.3.28.4. Weapon/Tactics/Threat:

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

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

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

3.3.28.5. Local Area Procedures:

- 3.3.28.5.1. **Q.** Thorough knowledge of local procedures.
- 3.3.28.5.2. **Q-.** Limited knowledge of local procedures.
- 3.3.28.5.3. **U.** Inadequate knowledge of local procedures.
- 3.3.28.6. Plans/Alert Procedures:
 - 3.3.28.6.1. **Q.** Adequate knowledge of plans applicable to the unit mission. Thoroughly familiar with alert procedures and contingencies.
 - 3.3.28.6.2. **Q-.** Deficiencies in depth of knowledge or comprehension of plans or alert procedures applicable to the unit.
 - 3.3.28.6.3. **U.** Knowledge of plans/alert procedures insufficient to ensure effective mission accomplishment.
- 3.3.28.7. Authentication Procedures:
 - 3.3.28.7.1. **Q.** Performed authentication with no errors.
 - 3.3.28.7.2. **Q-.** Minor errors in authentication. Required numerous attempts to complete authentication.
 - 3.3.28.7.3. **U.** Unable to authenticate or authenticated incorrectly.
- 3.3.29. Area 30--Airmanship/Situational Awareness (Critical):
 - 3.3.29.1. **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 ongoing mission status. Recognized, verbalized and correctly acted on unexpected events.
 - 3.3.29.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Misanalysed 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 ongoing mission status. Failed to recognize, verbalize and act on unexpected events.
- 3.3.30. Area 31--Safety (Critical):
 - 3.3.30.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
 - 3.3.30.2. **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.
- 3.3.31. Area 32--Flight Discipline (Critical):
 - 3.3.31.1. **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.

3.3.31.2. **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.

3.3.32. Area 33--Instructor Performance (if applicable).

3.3.32.1. Briefing/Debriefing:

3.3.32.1.1. **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.

3.3.32.1.2. **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.

3.3.32.1.3. **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.

3.3.32.2. Instructor Knowledge:

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

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

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

3.3.32.3. Ability to Instruct:

3.3.32.3.1. **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.

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

3.3.32.3.3. **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.

3.3.32.4. Training/Evaluation Forms Preparation:

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

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

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

3.3.33. Area 35--Sensor Interpretation:

3.3.33.1. **Q.** Correctly interpreted sensor display. Had no difficulties compensating for errors or unanticipated developments.

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

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

3.3.34. Area 36--Task Prioritization:

3.3.34.1. **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 crosschecked available data before acting. Clearly stated decisions and ensured they were understood. Investigated doubts and concerns of other flight members when necessary.

3.3.34.2. **Q-.** Made minor errors in prioritization, management of tasks, system knowledge which did not affect 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 affect safe or effective mission accomplishment.

3.3.34.3. **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.

3.3.35. Area 37--Cockpit Resource Management:

3.3.35.1. **Q.** Effectively employed available resources to mitigate identified and/or emerging risks during the mission.

3.3.35.2. **Q-.** Adequately employed available resources to mitigate identified and/or emerging risks during the mission.

3.3.35.3. **U.** Failed to employ available resources to mitigate identified and/or emerging risks during the mission.

3.3.36. **(Added-AETC)** Area 34--Chase. Upgrading Formal Training Unit (FTU) instructor pilots (IP) will be evaluated on chase procedures during the Initial Instructor (INIT INSTR), Mission (MSN) or SPOT evaluation during their formal course. At a minimum, FTU IPs will be graded on chase procedures prior to performing FTU duties for the first time.

3.4. Aircrew Evaluation Criteria—Instruments.

3.4.1. Area 61--Holding:

3.4.1.1. **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.

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

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

3.4.2. Area 62--Instrument Penetration (Initial Approach Fix to Final Approach Fix/Descent Point)/Enroute Descent (Radar Vectors To Final Approach):

3.4.2.1. **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.

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

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

3.4.3. Area 63--Instrument Patterns (Downwind/Base Leg):

3.4.3.1. **Q.** Performed procedures as published or directed and IAW TO procedures. Smooth and timely response to controller instruction.

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

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

3.4.4. Area 64--Non-Precision Approach:

3.4.4.1. **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.

3.4.4.1.1. Airspeed +10/-5 knots.

3.4.4.1.2. Heading +/-5 degrees (ASR).

3.4.4.1.3. Course +/-5 degrees at MAP.

3.4.4.1.4. Localizer less than one dot deflection.

3.4.4.1.5. Minimum Descent Altitude +100/-0 feet.

3.4.4.2. **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.

3.4.4.2.1. Airspeed +15/-5 knots.

3.4.4.2.2. Heading +/-10 degrees (ASR).

3.4.4.2.3. Course +/-10 degrees at MAP.

3.4.4.2.4. Localizer within two dots deflection.

3.4.4.2.5. Minimum Descent Altitude +150/-50 feet.

3.4.4.3. **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.

3.4.5. Area 65--Precision Approach

3.4.5.1. **Q**. Performed procedures as directed and IAW TO procedures. 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.

3.4.5.1.1. Airspeed +10/-5 knots.

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

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

3.4.5.2. **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.

3.4.5.2.1. Airspeed +15/-5 knots.

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

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

3.4.5.3. **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.

3.4.6. Area 66--Missed Approach/Climb Out:

3.4.6.1. **Q**. Executed missed approach/climbout as published/directed. Completed all actions IAW TO procedures.

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

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

3.4.7. Area 67--Circling/Sidestep Approach:

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

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

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

3.4.8. Area 68--Instrument Cross-Check:

3.4.8.1. **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.

3.4.8.2. **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.

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

3.5. Aircrew Evaluation Criteria—Tactical Employment.

3.5.1. General:

3.5.1.1. Area 81--Tactical/Mission Plan:

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

3.5.1.1.2. **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.

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

3.5.1.2. Area 82--Aerospace Control Alert (ACA) Tasking (Air Defense Units):

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

3.5.1.2.2. **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.

- 3.5.1.2.3. **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.
- 3.5.1.3. Area 83--Tactical/Mission Execution:
- 3.5.1.3.1. **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.
- 3.5.1.3.2. **Q-.** Minor deviations from tactical plan which did not result in an ineffective mission. Slow to adapt to changing environment. Low situational awareness.
- 3.5.1.3.3. **U.** Unable to accomplish the mission due to major errors of commission or omission during execution of the plan. Situational awareness lost.
- 3.5.1.4. Area 84--Composite Force (CF) Interface:
- 3.5.1.4.1. **Q.** Effectively planned for and used CF assets to enhance mission and achieve objectives.
- 3.5.1.4.2. **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.
- 3.5.1.4.3. **U.** Inadequate or incorrect use of CF assets resulted in loss of offensive potential.
- 3.5.1.5. Area 85--Radio Use/Tactical Communications:
- 3.5.1.5.1. **Q.** Radio communications were concise, accurate and effectively used to direct maneuvers or describe the tactical situation.
- 3.5.1.5.2. **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.
- 3.5.1.5.3. **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.
- 3.5.1.6. Area 86—Visual/Sensor Lookout:
- 3.5.1.6.1. **Q.** Demonstrated thorough knowledge and effective application of visual lookout techniques and integration of sensor information throughout all phases of flight. Maintained de-confliction contracts.
- 3.5.1.6.2. **Q-.** Demonstrated limited knowledge of visual lookout techniques. Slow to establish lookout responsibilities for all phases of flight. Slow to integrate visual lookout and sensor information to acquire threats to flight or targets to be attacked. Made minor deviations in de-confliction contract adherence.

- 3.5.1.6.3. **U.** Demonstrated unsatisfactory knowledge and/or application of visual lookout and sensor integration. Allowed threat to penetrate to short range undetected. Failed to maintain de-confliction contracts.
- 3.5.1.7. Area 87--Mutual Support:
- 3.5.1.7.1. **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 de-confliction contracts.
- 3.5.1.7.2. **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 or de-confliction contracts.
- 3.5.1.7.3. **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 de-confliction contracts. Caused an unsafe de-confliction issue.
- 3.5.1.8. Area 88--Tactical Navigation:
- 3.5.1.8.1. **Q.** Navigated to desired destination and remained geographically oriented during the tactical portion of the mission. Altitude and route of flight reflected consideration for enemy threats. Maintained terrain awareness. Complied with established altitude minimums. Adhered to airspace restrictions.
- 3.5.1.8.2. **Q-.** Deviations from planned route of flight were recognized and corrected. Maintained terrain awareness. Altitude control contributed to exposure to threats for brief periods.
- 3.5.1.8.3. **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.
- 3.5.1.9. Area 89--Ingress:
- 3.5.1.9.1. **Q.** Aware of all known/simulated threats and defenses. Employed effective use of evasive maneuvers, and/or route and altitude selection.
- 3.5.1.9.2. **Q-.** Ignored some of the known/simulated threats and defenses. Improper use of evasive maneuvers, and/or route and altitude selection resulted in unnecessary exposure.
- 3.5.1.9.3. **U.** Failed to honor known/simulated threats and defenses significantly reducing survivability. Failed to employ effective evasive maneuvers, and/or route or altitude threat de-confliction.
- 3.5.1.10. Area 90--Egress:
- 3.5.1.10.1. **Q.** Effectively used evasive maneuvers to complete an expeditious egress from the target area. Formation was reestablished as soon as possible without undue exposure to enemy defenses.

3.5.1.10.2. **Q-**. Egress contributed to unnecessary exposure to threats and delayed return to formation and departure from target area.

3.5.1.10.3. **U**. Egress caused excessive exposure to threats. Return to formation was not accomplished or resulted in excessive exposure to threats.

3.5.1.11. Area 91--Combat Separation:

3.5.1.11.1. **Q**. Adhered to briefed/directed separation procedures. Positive control of flight/element during separation. Adversary was unable to achieve valid simulated missile/gun firing parameters.

3.5.1.11.2. **Q-**. Minor deviations from briefed/directed separation procedures. Allowed mutual support to break down intermittently.

3.5.1.11.3. **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.

3.5.1.12. Area 92--Timing. Time should 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). Adjustments in TOT should be made for non-pilot caused delays. The FE may widen this timing criterion if the examinee was forced to maneuver extensively along the ingress route due to simulated enemy air or ground defense reactions, ATC instructions, and/or weather.

3.5.1.12.1. Conventional attack:

3.5.1.12.1.1. **Q**. ± 1 minute.

3.5.1.12.1.2. **Q-**. ± 2 minutes.

3.5.1.12.1.3. **U**. Exceeded Q- parameters.

3.5.1.12.2. Air-to-Air Escort/Sweep/DCA:

3.5.1.12.2.1. **Q**. Arrived on station not more than 1 minute late. Covered Vul.

3.5.1.12.2.2. **Q-**. Arrived on station not more than 2 minutes late. Covered Vul.

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

3.5.1.13. Area 93--Training Rules/Rules of Engagement (ROE):

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

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

3.5.1.13.3. **U**. Significant deviations indicating a lack of knowledge of training rules/ROE. Jeopardized safety of flight.

3.5.1.14. Area 94--Threat Reactions:

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

- 3.5.1.14.2. **Q-** Threat reactions were slow or inconsistent. Slow to accomplish appropriate countermeasures or perform maneuvers to counter threat.
- 3.5.1.14.3. **U.** Numerous threat reactions were omitted or incorrect. Failed to accomplish countermeasures or perform maneuvers to counter threat.
- 3.5.1.15. Area 95--In-Flight Report:
- 3.5.1.15.1. **Q.** Gave accurate, precise in-flight reports in correct format.
- 3.5.1.15.2. **Q-** Deviated from established procedures/format. Completed reports.
- 3.5.1.15.3. **U.** Failed to make in-flight reports. Unfamiliar with in-flight reporting procedures.
- 3.5.1.16. Area 96--Electronic Warfare (EW) / Expendable Countermeasures (EXCM) / All Aspect Missile Defense (AAMD)
- 3.5.1.16.1. **Q.** Displayed thorough knowledge and operation of Electronic Attack (EA)/Electronic Protection (EP) systems.
- 3.5.1.16.2. **Q-** Displayed limited knowledge and/or minor errors in operation of EA/EP systems.
- 3.5.1.16.3. **U.** Displayed unsatisfactory knowledge and/or major errors in operation of EA/EP systems.
- 3.5.1.17. Area 97--Weapons System Utilization:
- 3.5.1.17.1. **Q.** Correctly utilized the weapon system to deliver the desired ordnance (actual or simulated). Executed all required procedures to successfully employ the weapon.
- 3.5.1.17.2. **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.
- 3.5.1.17.3. **U.** Did not correctly prepare the weapon system to deliver the desired ordnance. Improper procedures during the attack resulted in unsuccessful weapons delivery.
- 3.5.1.18. Area 98--Sensor Management:
- 3.5.1.18.1. **Q.** Correctly planned, briefed, prioritized and executed a sound sensor management plan IAW applicable guidance. 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.
- 3.5.1.18.2. **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.

3.5.1.18.3. **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.

3.5.2. Air-to-Air:

3.5.2.1. Area 111--Sensor Search/Sorting:

3.5.2.1.1. **Q.** Correctly planned, briefed, prioritized and executed a sound sensor management plan. Adhered to sensor timeline. 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.

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

3.5.2.1.3. **U.** Incorrectly prioritized or managed sensor tasks in a manner which seriously degraded mission accomplishment or safety of flight. Inadequate adherence to sensor timeline that led/could have led to mission failure. Overtasked other flight members or failed to communicate task overload. Displayed lack of knowledge of sensor systems.

3.5.2.2. Area 112--Tactical Intercept/Combat Air Patrol:

3.5.2.2.1. **Q.** Thorough knowledge and correct employment of tactical intercept procedures. Effective aircraft positioning and sensor use resulting in successful threat identification and intercept, if applicable. Successfully engaged all factor threats.

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

3.5.2.2.3. **U.** 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.

3.5.2.3. Area 113--Offensive Maneuvering:

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

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

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

3.5.2.4. Area 114--Defensive/Counteroffensive Maneuvering:

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

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

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

3.5.2.5. Area 115--Air-to-Air Weapons Employment. Snapshots assessed as misses may be discounted from computations if attacks were tactically sound and attempted within designated parameters.

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

3.5.2.5.2. **Q-.** Demonstrated limited knowledge of weapons employment or attack parameters. Simulated weapons employment was successful but slow to recognize appropriate parameters. Did not meet Q criteria for attempted shots, but minor errors did not affect mission accomplishment.

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

3.5.2.6. Area 116--Air-to-Air Systems Integration:

3.5.2.6.1. **Q.** Effective use and integration of sensors. Optimized information flow to other flight members and MDSs.

3.5.2.6.2. **Q-.** Slow to integrate use of sensors. Passed sub-optimal information to other flight members and MDSs.

3.5.2.6.3. **U.** Failed to effectively integrate sensors. Failed to pass appropriate information to other flight members and MDSs.

3.5.2.7. Area 117--Command and Control (C2) Integration:

3.5.2.7.1. **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.

3.5.2.7.2. **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.

3.5.2.7.3. **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.

3.5.3. Air-to-Surface:

3.5.3.1. Area 131--Target (TGT)/Threat Acquisition:

3.5.3.1.1. **Q.** Target acquired on the first attack with radar, 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.

3.5.3.1.2. **Q-.** Late to acquire the target with radar, 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.

3.5.3.1.3. **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.

3.5.3.2. Area 132--Air-to-Surface Weapons Employment:

3.5.3.2.1. **Note 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 count for evaluation, and the area grade should be predicated upon the criteria below.

3.5.3.2.2. **Note 2.** Unscoreable Ranges. The FE should determine Attempted/Valid based on impact of the ordnance and/or desired weapons effects for the attack IAW AFTTP 3-1.Shot/Kill for the pass flown.

3.5.3.2.3. **Note 3.** Simulated Releases. FEs determine Attempted/Valid based on video debrief review IAW AFTTP 3-1.Shot/Kill.

3.5.3.2.4. **Note 4.** FEs determine Attempted/Valid by reference to video debrief in cases where unexplained weapons delivery misses occur (e.g., wind shears, weapons malfunctions, etc.) IAW AFTTP 3-1.Shot/Kill.

3.5.3.2.5. Single Weapon Event:

3.5.3.2.5.1. **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.

3.5.3.2.5.2. **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.

3.5.3.2.5.3. **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.

3.5.3.2.6. Multiple Weapon Events:

3.5.3.2.6.1. **Q.** Qualified within the applicable criteria in all events attempted. At least 50% of all bombs in each event were within hit criteria.

3.5.3.2.6.2. **Q-.** Minor errors in knowledge of weapons delivery procedures, attack parameters, weapons computations, or error analysis for the events

performed. Less than Q criteria.

3.5.3.2.6.3. **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.

3.5.3.3. Area 133--Range/Airspace Procedures:

3.5.3.3.1. **Q.** Used proper procedures for entering and exiting the range. Range operations followed established procedures.

3.5.3.3.2. **Q-.** Minor deviations from established procedures for range entry, exit or operations.

3.5.3.3.3. **U.** Major deviations from established procedures for range entry, exit or operations.

3.5.3.4. Area 134--Air-to-Surface Sensor Operation:

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

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

3.5.3.4.3. **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.

3.5.3.5. Area 135-138--Weapons Delivery Procedures

3.5.3.5.1. **Q.** Correct pre-delivery steps accomplished (ex, BIT checks, crypto). Correctly released the weapon at the planned delivery parameters. Followed all current procedures and guidance during the weapon delivery and recovery.

3.5.3.5.2. **Q-.** Minor errors in pre-delivery checks, weapon delivery, and/or recovery procedures degraded weapons effectiveness.

3.5.3.5.3. **U.** Major errors in pre-delivery, delivery parameters, and/or recovery procedures caused the weapon to miss the target.

3.5.3.6. Area 139--Close Air Support/Time Sensitive Targeting

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

3.5.3.6.2. **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.

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

3.5.4. Suppression/Destruction of Enemy Air Defenses (S/DEAD):

3.5.4.1. Area 151--Electronic Threat/Order of Battle Management:

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

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

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

3.5.4.2. Area 152--HARM Employment

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

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

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

3.5.4.3. Area 161--Degraded/Denied GPS:

3.5.4.3.1. **Q.** Properly adapted to degradation/loss of GPS. Mission accomplishment not affected.

3.5.4.3.2. **Q-** Slow to adapt to or recognize degradation/loss of GPS systems. Mission accomplishment not affected.

3.5.4.3.3. **U.** Unable to adapt to degradation/loss of GPS systems. Mission accomplishment affected.

3.5.4.4. Area 162--Degraded/Denied Communications:

3.5.4.4.1. **Q.** Properly adapted to degradation/loss of Comm. Mission accomplishment not affected.

3.5.4.4.2. **Q-** Slow to adapt to or recognize degradation/loss of Comm systems. Mission accomplishment not affected.

3.5.4.4.3. **U.** Unable to adapt to degradation/loss of Comm systems. Mission accomplishment affected.

3.5.4.5. Area 163--Degraded/Denied Datalink:

3.5.4.5.1. **Q.** Properly adapted to degradation/loss of Datalink. Mission accomplishment not affected.

3.5.4.5.2. **Q-** Slow to adapt to or recognize degradation/loss of Datalink systems. Mission accomplishment not affected.

3.5.4.5.3. **U.** Unable to adapt to degradation/loss of Datalink systems. Mission accomplishment affected.

3.5.5. Reconnaissance:

3.5.5.1. Area 171--Target Acquisition

- 3.5.5.1.1. **Q.** Successfully acquired all assigned/attempted targets IAW mission requirements.
- 3.5.5.1.2. **Q-.** Acquired greater than 50 percent of the assigned/attempted targets.
- 3.5.5.1.3. **U.** Acquired 50 percent or less of assigned/attempted targets.
- 3.5.5.2. Area 172--Imagery Quality
 - 3.5.5.2.1. **Q.** Effective confirmation of Essential Element of Information (EEI) with acceptable threat exposure.
 - 3.5.5.2.2. **Q-.** Inefficient procedures or actions, but EEI could still be confirmed. Unnecessary threat exposure.
 - 3.5.5.2.3. **U.** EEI could not be confirmed due to pilot induced errors.
- 3.5.6. Forward Air Control:
 - 3.5.6.1. Area 181--Target Area Identification:
 - 3.5.6.1.1. **Q.** Acquired the target and positively confirmed target and friendly location expeditiously.
 - 3.5.6.1.2. **Q-.** Minor delays in acquiring target, but positively confirmed location. Mission effectiveness was not compromised.
 - 3.5.6.1.3. **U.** Failed to locate or did not positively confirm target location.
 - 3.5.6.2. Area 182--Tactical Air Control System (TACS) Coordination:
 - 3.5.6.2.1. **Q.** Effected timely coordination with all appropriate agencies to include strike clearance.
 - 3.5.6.2.2. **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.
 - 3.5.6.2.3. **U.** Did not coordinate with all appropriate agencies. Commenced attack without strike clearance. Delays caused by untimely coordination rendered the mission ineffective.
 - 3.5.6.3. Area 183--Attack Preparation and Briefing:
 - 3.5.6.3.1. **Q.** Provided the strikers with a clear briefing in accordance with the appropriate directives. Tactics and weapons selection commensurate with situation.
 - 3.5.6.3.2. **Q-.** Briefing had minor errors/omissions which did not affect mission effectiveness.
 - 3.5.6.3.3. **U.** Briefing was not clearly and concisely delivered. Provided erroneous or omitted information which compromised mission effectiveness.
 - 3.5.6.4. Area 184--Target Marking/Description:
 - 3.5.6.4.1. **Q.** Accomplished accurate and timely marking/talk-ons (IAW J3-09.3, *Close Air Support*). Strikers understood location of the specific target.

- 3.5.6.4.2. **Q-** Marks/talk-ons (IAW J3-09.3, *Close Air Support*) were adequate for the strikers to identify the target, but remarking or excessive verbal description was required to identify the target.
- 3.5.6.4.3. **U.** Strikers could not locate the target due to ineffective description/markings.
- 3.5.6.5. Area 185--Observation Position (Type 1 control only):
- 3.5.6.5.1. **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.
- 3.5.6.5.2. **Q-** Observation position afforded an adequate view of the target and strikers. Minor deviations from maneuvering parameters but exercised safe aircraft control.
- 3.5.6.5.3. **U.** Observation position did not allow an adequate view of the target and strikers. Aircraft flown outside of maneuvering parameters.
- 3.5.6.6. Area 186--Attack Control:
- 3.5.6.6.1. **Q.** Exercised positive control of strikers throughout mission. Provided clear, timely, accurate ordnance adjustment instructions and attack clearance to each aircraft.
- 3.5.6.6.2. **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.
- 3.5.6.6.3. **U.** Control and instructions were not timely, clear or accurate, causing a severely degraded or ineffective mission.
- 3.5.6.7. Area 187--Post Attack:
- 3.5.6.7.1. **Q.** Accomplished a complete and accurate assessment. Provided the strikers and appropriate agencies a concise report in accordance with the governing directives.
- 3.5.6.7.2. **Q-** Assessment was not consistent with delivery accuracy or ordnance effects and/or made minor errors/omissions in rendering the report.
- 3.5.6.7.3. **U.** Did not accomplish a realistic assessment of the attack. Results were grossly exaggerated/underestimated. Report contained major errors.
- 3.5.6.8. Area 188--Visual Reconnaissance:
- 3.5.6.8.1. **Q.** Effectively identified appropriate elements of information. Minimized threat exposure. Preserved operational security.
- 3.5.6.8.2. **Q-** Minor errors or omissions in identification of aircraft. Degraded operational security.
- 3.5.6.8.3. **U.** Elements of information were not identified or confirmed. Unnecessarily jeopardized aircraft. Operational security compromised.
- 3.5.6.9. Area 189--Rendezvous:

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

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

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

3.6. EPE Criteria.

3.6.1. General:

3.6.1.1. Areas 362-613--Critical Action Procedures:

3.6.1.1.1. **Q.** Displayed correct, immediate response to CAP.

3.6.1.1.2. **U.** Incorrect response for CAP

3.6.1.2. Areas 301-405--Non Critical Action Procedures:

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

3.6.1.2.2. **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.

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

3.6.1.3. Area 29--Aircraft General Knowledge:

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

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

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

3.6.1.4. Area 614--Unusual Attitude Recoveries:

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

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

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

3.6.1.5. Area 615--AFMAN 11-217 Procedures/Heads-Up Display (HUD)-Out Approach/Use of Standby Instruments:

- 3.6.1.5.1. **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.
- 3.6.1.5.2. **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.
- 3.6.1.5.3. **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.
- 3.6.1.6. Area 616--Alternate/Divert Airfields:
- 3.6.1.6.1. **Q.** Made proper divert decision and correctly performed initial divert execution actions.
- 3.6.1.6.2. **Q-.** Slow to make divert decision and/or slow to correctly perform initial divert execution actions.
- 3.6.1.6.3. **U.** Failed to make proper divert decision and/or correctly perform initial divert execution actions.
- 3.6.1.7. Area 306--Weapons System Operation:
- 3.6.1.7.1. **Q.** Displayed thorough knowledge of aircraft weapons systems capabilities, limitations and backups/workarounds in event of malfunctions.
- 3.6.1.7.2. **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.
- 3.6.1.7.3. **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.
- 3.6.1.8. Area 96--EA/EP/AAMD:
- 3.6.1.8.1. **Q.** Interpretation of threat scope aural tones, warning lights and operation of chaff/flare/EA/EP systems, indicated thorough knowledge.
- 3.6.1.8.2. **Q-.** Interpretation of threat scope, aural tones, warning lights and operation of chaff/flare/EA/EP systems indicated limited knowledge.
- 3.6.1.8.3. **U.** Displayed unsatisfactory interpretation of threat scope, aural tones, warning lights or operation of chaff/flare/EA/EP system.
- 3.6.1.9. Area 94--Evasive Action:

- 3.6.1.9.1. **Q.** Threat reactions were timely and correct. Appropriately employed countermeasures and performed maneuvers to counter threat.
- 3.6.1.9.2. **Q-.** Threat reactions were slow or inconsistent. Slow to employ appropriate countermeasures or perform maneuvers to counter threat.
- 3.6.1.9.3. **U.** Numerous threat reactions were omitted or incorrect. Failed to employ appropriate countermeasures or perform maneuvers to counter threat.
- 3.6.1.10. Area 306--Weapons Employment and Switchology:
- 3.6.1.10.1. **Q.** Displayed thorough knowledge of aircraft weapons systems effects, tactics and switchology.
- 3.6.1.10.2. **Q-.** Displayed deficiencies in depth of knowledge or comprehension of aircraft weapons systems effects, tactics and switchology which would not preclude successful mission accomplishment.
- 3.6.1.10.3. **U.** Displayed insufficient knowledge or comprehension of aircraft weapons systems effects, tactics and switchology which could preclude successful mission accomplishment.
- 3.6.1.11. Area 82--Air Sovereignty Tasking:
- 3.6.1.11.1. **Q.** Responded properly to directive commentary. Completed all required armament/safety checks. Successfully completed visual identification pass. Properly performed procedures for air defense operations.
- 3.6.1.11.2. **Q-.** Slow response to directive commentary contributed to delay 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.
- 3.6.1.11.3. **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.

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(AETC)

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

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

AFI 11-202, Volume 2, Aircrew Standardization/Evaluation Program, 13 Sep 2010

(Added-AETC) AFI 11-215_AETCSUP, *Flight Manuals Program*, 22 August 2011

AFI 11-290, *Cockpit/Crew Resource Management*, 15 Oct 2012

AFI 33-360, *Publications and Forms Management*, 1 Dec 15

AFMAN 11-217, Volume 1, *Instrument Flight Procedures*, 22 Oct 2010

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

AFPD 11-2, *Aircrew Operations*, 19 Jan 2012

AFPD 11-4, *Aviation Service*, 1 Sep 2004

AFTTP 3-1.1, *General Planning and Employment Considerations*, 5 May 2008

J3-09.3, *Close Air Support*, 25 November 2014

MTTP for Multi-Service Brevity Codes, *June 2018*

Prescribed Forms

(Added-AETC) No Forms Prescribed

Adopted Forms

(Added-AETC) AF Form 679, *Air Force Publication Compliance Item Waiver Request/Approval*

Form 8, *Certificate of Aircrew Qualification*

AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*

AF Form 847, *Recommendation for Change of Publication*

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

Abbreviations and Acronyms

AAGS—Army Air-Ground System

AAMD—All Aspect Missile Defense

ACA—Aerospace Control Alert

ACC—Air Combat Command

ACBT—Air Combat Training

AF—Air Force

AFRC—Air Force Reserve Command
AFTTP—Air Force Tactics, Techniques, and Procedures
AIM—Air Intercept Missile
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—Combat Air Patrol
CF—Composite Force
(Added-AETC) CMR—Combat Mission Ready
CNI—Communication, Navigation, and IFF
CRM—Cockpit Resource Management
DACBT—Dissimilar Air Combat Training
DOC—Designed Operational Capability
DRU—Direct Reporting Unit
EA—Electronic Attack
EI—Essential Element of Information
EP—Electronic Protection
EPE—Emergency Procedures Evaluation
EW—Electronic Warfare
EXCM—Expendable Countermeasures
(Added-AETC) FCP—Front Cockpit
FE—Flight Examiner
FLIP—Flight Information Publications
FOA—Field Operating Agency
FTU—Formal Training Unit

GCI—Ground Control Intercept
GPS—Global Positioning System
HUD—Heads Up Display
IAM—Inertia Aided Munition
IAW—In Accordance With
IFF—Identification, Friend or Foe
ILS—Instrument Landing System
(Added-AETC) INIT—Initial
INS—Inertial Navigation System
INSTM—Instrument
IP—Instructor Pilot
IR—Infrared
LGB—Laser-Guided Bomb
MAJCOM—Major Command
MAP—Missed Approach Point
MDA—Minimum Descent Altitude
MSN—Mission
MTC—Mission Training Center
MTTP—Multi-Service Tactics, Techniques, and Procedures
NM—Nautical Mile
OGV—Operations Group Standardization/Evaluation
PA—Privacy Act
PACAF—Pacific Air Forces
PAR—Precision Approach Radar
PGM—Precision-Guided Munition
QUAL—Qualification
RAP—Ready Aircrew Program
(Added-AETC) RCP—Rear Cockpit
RDS—Records Disposition Schedule
ROE—Rules of Engagement
SEAD—Suppression of Enemy Air Defenses
TACAN—Tactical Air Navigation

TGT—Target

TOT—Time on Target

TTT—Time to Target

USAF—United States Air Force

USAFE—United States Air Force in Europe

VDP—Visual Descent Point

VFR—Visual Flight Rules

VUL—Vulnerability Period

WIC—Weapons Instructor Course

(Added-AETC) WSO—Weapon Systems Officer

WTT—Weapons and Tactics Trainer

WVR—Within Visual Range

Terms

Switchology—the understanding and use of aircraft switches.

Talk-On—the use of words over a radio frequency to confirm a target or other ground reference point.