BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE MANUAL 11-2T-38, Volume 2

14 MAY 2020

Flying Operations

T-38 AIRCREW EVALUATION CRITERIA

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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

RELEASABILITY: There are no releasability restrictions on this publication

---

OPR: 19 AF/DOV

Certified by: AF/A3T
(Maj Gen James A. Jacobson)

Supersedes: AFI11-2T-38V2, 5 August 2014

Pages: 65

This publication implements Air Force Instruction (AFI) 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, AFI 11-290, *Cockpit/Crew Resource Management Program*, and AFI 11-202, V2, *Aircrew Standardization* and *Evaluation Program*. This manual prescribes standard procedures used by all pilots operating an Air Force T-38 aircraft and applies to all Regular Air Force, Air Force Reserve, and The Air National Guard instructor pilots flying the T-38. Refer recommended changes and questions about this manual to the Office of Primary Responsibility (OPR) listed above using the Air Force Form 847, *Recommendation for Change of Publication*; route AF Form 847 from the field through the appropriate Standardization and Evaluation functional chain. The authorities to waive wing/unit level requirements in this manual 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. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the OPR for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this manual are maintained in accordance with AFI 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with the Air Force Records Disposition Schedule located in the Air Force Records Information Management System. This manual requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by Title 10 United States Code, Section 9013, Secretary of the Air Force. The applicable SORN F011 AF XO A, *Aviation Resource Management System (ARMS)* is available at: **http://dpclo.defense.gov/Privacy/SORNs.aspx**. This publication may be supplemented at any

level. Per AFI 11-200, major commands (MAJCOM) will coordinate proposed MAJCOM-level supplements to this volume through 19 AF/DOV to AF/A3T prior to publication. Field units below MAJCOM level will coordinate copies of their supplements with their parent MAJCOM OPR prior to publication.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed.

Chapter 1

GENERAL INFORMATION

1.1. Conducting Evaluations. Conduct all T-38 aircrew evaluations according to the provisions of AFI this publication. **(T-1)**. General guidance on conducting T-38 aircrew evaluations is found in AFI 11-202, V2.

1.2. Roles and Responsibilities.

1.2.1. MAJCOM Director of Operations. The MAJCOM Director of Operations is responsible for establishing and managing the MAJCOM Standardization and Evaluation program, in accordance with AFI 11-202, V2.

1.2.2. Operations Group Commander. The Operations Group Commander is responsible for establishing and maintaining the unit-level Standardization and Evaluation program and ensuring flight examiners administer evaluations in accordance with AFI 11-202, V2, and this publication.

1.2.3. Flight examiners (FEs) are responsible for administering Standardization and Evaluation programs in accordance with AFI 11-202, V2, and this publication.

1.3. Procedures:

1.3.1. FEs will use the evaluation criteria contained in this publication for conducting flight and emergency procedure evaluations (EPE). **(T-2)**. To ensure standard and objective evaluations, FEs must become thoroughly familiar with the prescribed evaluation criteria.

1.3.2. When available, video tape or Data Transfer System information will be used to reconstruct or evaluate the mission. **(T-2)**.

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

1.3.4. Prior to the flight, the FE will brief the examinee on the purpose of the evaluation and how it will be conducted. **(T-2)**. The examinee will accomplish required flight planning according to the flight position during the evaluation. **(T-2)**. Higher headquarters FEs (and unit FEs as determined locally) will be furnished a copy of necessary mission data, mission materials, and maps, if required. **(T-2)**.

1.3.5. The FE will debrief the mission objectives and properly assess and debrief focus points. **(T-2)**. The FE will also debrief the examinee's overall rating, specific deviations, area grades assigned (if other than qualified), and any required additional training. **(T-2)**. A squadron supervisor must be debriefed on all evaluations. **(T-2)**. Additionally, a squadron supervisor must attend the debrief, if the overall grade is Q-2 or Q-3. **(T-2)**.

1.4. Grading Instructions:

1.4.1. The general evaluation criteria in **Table 1.1** for basic aircraft control apply during all phases of flight (except as noted for specific events and instrument final approaches).

Table 1.1. General Criteria.

General Area	Q	Q-	U
Altitude	±200 feet	±300 feet	Exceeded Q- limits
Airspeed	±5 percent	±10 percent	
VOR or TACAN Course	±5 degrees or 3 NM (whichever is less)	±10 degrees or 5 NM (whichever is less)	
Area Navigation (RNAV) Course	Within half-scale deflection or ±2 NM (whichever is less)	Within full-scale deflection or ±3 NM (whichever is less)	
Visual Navigation Course	±5 NM	±10 NM	
VOR/DME or TACAN Arc	±2 NM	±3 NM	
Nautical Mile (NM) VHF Omnidirectional Radio Range (VOR) Tactical Air Navigation System (TACAN) Terminal Area Navigation (RNAV) Distance Measuring Equipment (DME)			

1.4.2. If the examinee receives an unqualified area grade in any of the critical areas identified in this publication, an overall grade of Q-3 will be assigned. **(T-2)**.

1.4.3. When grading criteria specify that the airspeed or angle of attack (AOA) be evaluated, and the flight manual lists only a minimum, maximum, recommended airspeed or AOA for that area, the examinee will brief the desired airspeed or AOA. **(T-2)**.

1.4.4. When grading criteria specify "knots," the performance is based on the appropriate airspeed for the aircraft model: knots indicated airspeed for the T-38A or knots calibrated airspeed for the T-38C.

1.4.5. When grading criteria includes references to a "procedures manual," FEs will refer to the appropriate manual: AETCMAN 11-251, V1, *T-38C Flying Fundamentals*, AETCTTP 11-1, *Employment Fundamentals T-38C/Introduction to Fighter Fundamentals (IFF)*. **(T-2)**.

1.4.6. When grading criteria includes an evaluation of the aircrew's interface with ground controlled intercept (GCI), airborne warning and control system (AWACS), or other assets, performance parameters are based on mission-qualified controllers or aircrew members. FEs may make allowances for the controllers' or other assets' training requirements.

1.4.7. When grading criteria includes an evaluation of timing, base the evaluation on an ordinance impact for a preplanned time on target (TOT) or TOT for target over flight, as agreed to in the briefing. The FE may substitute time at another preplanned point if a delayed range clearance affects timing and may widen the timing criteria for extensive threat reactions or route weather.

1.5. Emergency Procedures Evaluation (EPE). In order of preference, the EPE will be conducted in a simulator, cockpit procedure trainer (CPT), or verbally. **(T-2)**. Only conduct a verbal EPE if a simulator or CPT is not available or not configured appropriately for the evaluation. Pilot instructor training (PIT) and Euro-NATO Joint Jet Pilot Training (ENJJPT) PIT trainees will accomplish EPEs in accordance with the syllabus. **(T-2)**.

1.5.1. The FE will include an evaluation of the following items on the EPE:

1.5.1.1. General knowledge to include aircraft systems and operating procedures, as well as use of the National Airspace System. **(T-2)**.

1.5.1.2. All BOLDFACE procedures. **(T-2)**.

1.5.1.3. Unusual attitude recoveries. **(T-2)**.

1.5.1.4. A minimum of one approach and use of standby or emergency instruments. **(T-2)**.

1.5.1.5. A minimum of one approach at other than home base (alternate or divert airfields). **(T-2)**.

1.5.2. Units will not permit examinees receiving an overall unqualified grade (Q-3) because of an unsatisfactory EPE to fly in any aircrew position until the examinee completes a successful reevaluation. **(T-2)**.

1.6. Completion of AF Form 8/8a, *Certificate of Aircrew Qualification*.

1.6.1. When a MSN evaluation in any model of the T-38 aircraft satisfies the evaluation requirements in any other T-38 aircraft model, include a remark in the additional comments section of the AF Form 8/8a. **(T-2)**.

1.6.2. Weapons employment results will be documented in the Examiner's Remarks of the AF Form 8/8a under Mission Description as follows:

1.6.2.1. Air-to-Surface Results will be documented "hit" or "miss." **(T-2)**. FEs will evaluate weapons employment results based upon the examinee's ability to achieve valid release parameters for the event flown and the type of range. **(T-2)**. FEs will refer to applicable training standards for event parameter tolerances. **(T-2)**.

1.6.2.2. Record the number of simulated missile or gun firing "attempted" and the number that were "valid." **(T-2)**. Include entries for each type of simulated ordnance employed. **(T-2)**. FEs will refer to applicable training syllabus to determine valid employment criteria. **(T-2)**.

Chapter 2

EVALUATION REQUIREMENTS

2.1. General. There are six types of evaluations in T-38 aircraft: qualification (QUAL), instrument (INSTM), mission (MSN), instructor (INSTR), rear cockpit (RCP) landing qualification, and SPOT. Evaluations include requisites and required areas. **Table 2.1** indicates when a requisite will be required for an evaluation. **(T-2)**. **Table 2.2** prescribes the required areas that will be included in the flight evaluation profile. **(T-2)**. Required areas are aligned under the type of evaluation.

2.1.1. Alternate Methods of Evaluation. If it is impossible to accomplish a required area in flight, the FE may elect to evaluate the areas by an alternate method (for example, simulator, CPT, orally, etc.) in order to complete the evaluation. The alternate evaluation will be documented in the Examiner's Remarks section of the AF Form 8 under Additional Comments. **(T-2)**. If the FE determines the required area cannot be adequately evaluated by an alternate method, the examinee must complete an additional flight to complete the evaluation. **(T-2)**.

2.1.2. Publications Check. The FE will check the examinee's in-flight guide and the appropriate flight manual checklist during all QUAL checks. **(T-2)**. Units may require a check of additional publications.

2.2. Requisites. Table 2.1 indicates the minimum requisites for each type of evaluation. When periodic evaluations are combined, accomplish all requisites for each evaluation and document in the corresponding phase of the AF Form 8. **(T-2)**. Completed requisites may be used for more than one evaluation in accordance with AFI 11-202, V2.

Table 2.1. Evaluation Requisites.

Requisite	QUAL	INSTM	MSN/INSTR	RCP	SPOT
Open Book Exam	R				
Closed Book Exam	R				
BOLDFACE Exam	R		R		
INSTM Exam		R			
EPE	R	R	R		
LEGEND: R = Required					

2.3. Pilot Evaluations:

2.3.1. Pilot INSTM and QUAL Evaluations. The pilot INSTM and QUAL evaluations are normally combined. A mission flown according to instrument flight rules fulfills the objective of the combined INSTM/QUAL evaluation.

2.3.1.1. To the maximum extent possible, this evaluation will include an approach at an airfield other than the examinee's home field. **(T-2)**.

2.3.1.2. The initial (INIT) or requalification (RQ) evaluation will be flown in the front cockpit unless conducted under the pilot instructor training (PIT) syllabus or during a unit-level requalification program for an undergraduate pilot training (UPT) instructor. **(T-2)**.

Pilots who maintain basic aircraft qualification will occupy the front cockpit during periodic evaluations. **(T-2)**.

2.3.1.3. Multiple qualification pilots who complete an INSTM evaluation in another aircraft are not required to complete an INSTM evaluation in the T-38 aircraft. **Note:** Unit commanders may require pilots to complete this additional INSTM evaluation.

2.3.2. Pilot MSN Evaluations. Mission-qualified pilots will complete an INIT or RQ MSN evaluation for each mission for which they maintain qualification: undergraduate pilot training (UPT), IFF, companion trainer program (CTP), or T-38A adversary pilot (ADAIR). **(T-2)**. The INIT or RQ INSTR/MSN evaluation at pilot instructor training (PIT) meets the requirement for mission qualification in the UPT, PIT, and CTP missions. The INIT or RQ INSTR/MSN evaluation in IFF IP upgrade meets the requirement for mission qualification in the IFF and CTP missions. The INIT or RQ MSN/INSTR evaluation in ADAIR meets the requirement for mission qualification in ADAIR.

2.3.2.1. UPT and PIT MSN Evaluations. Mission-qualified UPT and PIT IPs will complete a contact, formation, instrument/navigation, or low-level mission evaluation. **(T-2)**. The examinee will occupy the RCP on INIT or RQ MSN evaluations during PIT. **(T-2)**.

2.3.2.2. IFF MSN Evaluations. Mission-qualified IFF pilots will complete either an air-to-surface or air-to-air MSN evaluation. **(T-2)**.

2.3.2.2.1. Air-to-Surface Evaluation. The examinee will normally lead a four-ship surface attack sortie. However, any air-to-surface profile the examinee is qualified to fly may be flown.

2.3.2.2.2. Air-to-air Evaluation. The examinee will normally lead a basic fighter maneuver (BFM) sortie. However, any air-to-air profile the examinee is qualified to fly may be flown.

2.3.2.3. CTP MSN Evaluations. Multiple (aircraft) qualification pilots who complete a MSN evaluation in their primary aircraft are not required to complete the MSN evaluation in the T-38 aircraft. All other mission-qualified CTP pilots will complete a contact, formation, low-level, or instrument/navigation MSN evaluation. **(T-2)**.

2.3.2.4. ADAIR MSN Evaluations. ADAIR pilots will complete an air-to-air MSN evaluation. **(T-2)**.

2.3.3. Pilot INSTR Evaluations. All instructor evaluations will evaluate INSTR required areas and the examinee's instructor knowledge and ability. **(T-2)**. Instructor pilots must complete an INIT INSTR or RQ INSTR evaluation, which is normally combined with the INIT or RQ MSN evaluation. **(T-2)**. The examinee will occupy the crew position normally occupied when performing instructor duties. **(T-2)**. INIT INSTR evaluations must be completed as a dedicated INIT INSTR evaluation with an FE acting as a student for the purpose of evaluating the examinee's instructional ability. **(T-2)**.

2.3.4. Pilot RCP Evaluations. All pilots qualified to land in the RCP will complete an INIT RCP landing qualification evaluation. **(T-2)**. Periodic RCP evaluations will be combined with another evaluation flown in the RCP. **(T-2)**. RCP landing qualification is mandatory for IPs. **(T-2)**. The examinee will occupy the RCP. **(T-2)**.

2.3.4.1. FEs will include "Rear Cockpit Landing Qualification" in the Examiner's Remarks section of the AF Form 8/8a under Mission Description. **(T-2)**.

2.3.4.2. When the RCP landing qualification is evaluated as a flight requisite for an evaluation, record "SPOT" in the flight phase block on the AF Form 8.

2.3.4.3. All RCP landing qualification evaluations will include in-flight evaluation of overhead and straight-in patterns, and simulated single-engine (SE), no-flap (NF), and normal landings flown in the RCP. **(T-2)**.

2.3.5. Instructor Pilot Loss of Qualification. Instructor pilots who lose their QUAL, INSTM and/or MSN qualification will not perform instructional duties. **(T-2)**.

2.4. Weapons System Officer (WSO) Evaluations. All WSO evaluations are combined QUAL/MSN evaluations.

2.4.1. WSOs will complete the combined QUAL/MSN evaluation using mission profiles that support the unit's mission, for example IFF. **(T-2)**.

2.4.2. Instructor WSOs will complete an INIT QUAL/MSN/INSTR evaluation. **(T-2)**. Subsequently, all periodic evaluations will evaluate INSTR required areas and the examinee's instructor knowledge and ability. **(T-2)**. Accomplish periodic instructor evaluations on actual instructional missions whenever possible. When students are not available or mission requirements or crew composition requirements prevent inclusion of students, the FE may serve as the student for the purpose of evaluating the examinee's instructional ability. Unusual attitude recognition and instrument interpretation will be demonstrated during the EPE. **(T-2)**.

2.4.3. Minimum ground phase requisites are:

2.4.3.1. Closed and open book qualification examinations. **(T-2)**.

2.4.3.2. EPE. **(T-2)**.

2.4.3.3. Instrument examination. **(T-2)**.

Table 2.2. Pilot and WSO Evaluation Grading Areas.

ITEM	Evaluation Area	Evaluation Type								
		Q	I	A/S	A/A	C	F	I/N	LL	W
	GENERAL									
1	Mission Planning	R	R	R	R	R	R	R	R	R
2	Publications	R								R
3	Flight Briefing	R	R	R	R	R	R	R	R	R
4	Ground Operations	R	R	R	R	R	R	R	R	R
5	Takeoff	R								
6	Formation Takeoff									
7	Departure	R	R							
8	Level Off	R	R							
9	Cruise/Navigation	R	R					R		
10	In-flight Checks	R	R	R	R	R	R	R	R	R
11	Fuel Management	R	R	R	R	R	R	R	R	R

ITEM	Evaluation Area	Evaluation Type								
		Q	I	A/S	A/A	C	F	I/N	LL	W
12	Communication	R	R	R	R	R	R	R	R	R
13	Weapons System Checks			R	R					R
14	Visual Lookout	R	R	R	R	R	R	R	R	R
15	Airwork	R			R	R	R			
16	Safety (Critical)	R	R	R	R	R	R	R	R	R
17	Airmanship/Situational Awareness (Critical)	R	R	R	R	R	R	R	R	R
18	Flight Discipline (Critical)	R	R	R	R	R	R	R	R	R
19	Crew/Flight Coordination	R	R	R	R	R	R	R	R	R
20	Flight Leadership									
21	Risk Management/Decision Making	R	R	R	R	R	R	R	R	R
22	Task Management	R	R	R	R	R	R	R	R	R
23	Debriefing and Critique	R	R	R	R	R	R	R	R	R
24	Emergency Procedures	R	R	R	R	R	R	R	R	R
25	General Knowledge	R	R	R	R	R	R	R	R	R
26	Instrument Interpretation	R	R	R	R	R	R	R	R	R
27	In-flight Computations	R	R	R	R	R	R	R	R	R
28	Instruction (if applicable)	R	R	R	R	R	R	R	R	R
29	Traffic Pattern Stalls					R				
30	Nose-Low Recovery	R				R				
31	Nose-High Recovery	R				R				
32	Aircraft Handling	R				R				
33	Aerobatics					R				
34	Letdown and Traffic Entry		R							
35	Normal Pattern and Landing (Overhead) (Note 1)	R								
36	Normal Approach and Landing (Straight-in) (Notes 1 and 2)	R				R				
37	Emergency Traffic Pattern	R				R				
38	SE Approach and Landing (Note 2)	R				R				
39	NF Pattern and Landing (Overhead) (Note1)	R				R				
40	NF Approach and Landing (Straight-in) (Notes 1 and 2)	R				R				
41	Go-Around									

ITEM	Evaluation Area	Evaluation Type								
		Q	I	A/S	A/A	C	F	I/N	LL	W
42	Closed Traffic									
43	Breakout and Reentry									
44	Instrument Climb or Descent		R							
45	Vertical S									
46	Steep Turns									
47	Unusual Attitudes (Note 3)		R							R
48	Confidence Maneuvers									
49	Fix-to-Fix									
50	Holding									
51	Published Approach Procedure (Note 4)		R					R		
52	En Route Descent (Note 4)		R					R		
53	Course or Arc Interception									
54	Maintaining Course or Arc									
55	Precision Approach		R					R		
56	Non-precision Approach		R					R		
57	Circling Approach									
58	Missed Approach									
59	Transition to Landing		R							
60	Position Change									
61	Visual Signals									
62	Fingertip (Lead)						R			
63	Echelon (Lead)									
64	Close Trail (Lead)									
65	Extended Trail (Lead)						R			
66	Fluid Maneuvering (Lead)									
67	Tactical (Lead)						R			
68	Pitchout (Lead)									
69	Rejoin (Lead)									
70	Formation Approach and Landing (Lead)									
71	Formation Takeoff (Wing)									
72	Fingertip (Wing)						R			
73	Echelon (Wing)									
74	Route (Wing)									
75	Crossunder (Wing)									
76	Close Trail (Wing)									
77	Extended Trail (Wing)						R			
78	Pitchout (Wing)									

ITEM	Evaluation Area	Evaluation Type								
		Q	I	A/S	A/A	C	F	I/N	LL	W
79	Rejoin (Wing)									
80	Overshoot (Wing)									
81	Tactical (Wing)						R			
82	Tactical Rejoin (Wing)						R			
83	Fluid Maneuvering (Wing)									
84	Fighting Wing (Wing)									
85	Breakout (Wing)									
86	Formation Approach and Landing (Wing)									
87	Route Entry								R	
88	Altitude Control								R	
89	Time Control								R	
90	Course Control								R	
91	Route Exit								R	
92	Tactical Plan			R	R					R
93	Tactical Execution			R	R					R
94	Command and Control (C2) Integration			R	R					R
95	Composite Force (CF) Interface									
96	Mutual Support									R
97	Tactical Navigation			R	R					R
98	Ingress									
99	Egress									
100	Combat Separation									
101	Training Rules/ Rules of Engagement (ROE)			R	R					R
102	Threat Reactions									
103	In-flight Report									
104	Weapons System Utilization			R	R					R
105	Offensive Maneuvering									
106	Defensive Maneuvering									
107	Weapons Employment									
108	Target Acquisition			R						
109	Weapons Employment			R						
110	Range Procedures									
111	Air-to-air Training Exercise									

NOTES:

1. Evaluate the normal and NF landing out of either a straight-in or an overhead pattern. Evaluate at least one pattern and landing from an overhead (i.e., normal or NF).

ITEM	Evaluation Area	Evaluation Type								
		Q	I	A/S	A/A	C	F	I/N	LL	W
2. The straight-in may be evaluated via a visual, precision, or non-precision approach. 3. If the evaluator flies in the chase position, evaluate during the EPE. If evaluated during an EPE doesn't need to be accomplished in flight. 4. Evaluate either the published approach procedure or en route descent on the pilot instrument evaluation. LEGEND: Q – Pilot Qualification Evaluation I – Pilot Instrument Evaluation A/S – Pilot Air-to-Surface Mission Evaluation A/A – Pilot Air-to-Air Mission Evaluation C – Pilot Contact Mission Evaluation F – Pilot Formation Mission Evaluation I/N – Pilot Instrument/Navigation Mission Evaluation LL – Pilot Low-level Mission Evaluation/Formation Low-level W – Instructor WSO and Upgrading Instructor WSO Evaluation R – Required Area **NOTE:** Use the Comments block of AF Form 8 to further describe the evaluation types.										

Chapter 3

EVALUATION CRITERIA

3.1. Evaluation Criteria. To ensure standard and objective evaluations, use grading criteria in **Table 3.1** and **Table 3.2** for determining individual area grades. **(T-2)**.

Table 3.1. Flight Evaluation Criteria. (T-2).

ITEM	Area	Grading Criteria		
		Q	Q-	U
1	Mission Planning: a. Mission Preparation	Developed a sound plan to accomplish the mission. Checked all factors applicable to flight according to applicable directives. Aware of alternatives available, if flight could not be completed as planned. Required flight crew information file and read file items reviewed and signed-off prior to flight. Prepared at briefing time.	Made minor errors or omissions that did not detract from mission effectiveness. Demonstrated limited knowledge of performance capabilities or approved operating procedures or rules in some areas.	Made major error(s) or omission(s) that would have prevented a safe or effective mission. Displayed faulty knowledge of operating data or procedures. Did not review and sign-off required flight crew information file and read files prior to flight. Not prepared at briefing time.
	b. Chart Preparation (when required)	Prepared chart according to directives.	Made minor chart errors or omissions that did not detract from mission effectiveness.	Made major chart errors or omissions that would have prevented a safe or effective mission.

ITEM	Area	Grading Criteria		
		Q	Q-	U
2	Publications	Publications were current, contained all supplements/ changes, and were properly posted.	Publications contained deficiencies which would not impact flight safety or mission accomplishment.	Publications were outdated and (or) contained deficiencies that would impact flight safety or mission accomplishment.
3	Flight Briefing: a. Organization	Well organized and presented in a logical sequence. Concluded briefing in time to allow for element or crew briefing (if applicable) and preflight of personal equipment, aircraft, and ordnance.	Events out of sequence, hard to follow, some redundancy.	Confusing presentation. Did not allow time for element or crew briefing (if applicable) and preflight of personal equipment, aircraft, and ordnance.
	b. Presentation	Presented briefing in a professional manner. Effective use of training aids. Flight members clearly understood mission objectives and requirements.	Did not make effective use of available training aids. Dwelled on non-essential mission items.	Failed to define mission objectives. Presentation created doubts or confusion. Briefing was inefficient.

ITEM	Area	Grading Criteria		
		Q	Q-	U
	c. Mission Coverage	Established objectives for the mission. Presented all events and technique discussion for accomplishing the mission.	Omitted some minor training events. Limited discussion of techniques.	Did not establish objectives for the mission. Omitted major training events or did not discuss techniques.
	d. Flight Member Consideration	Properly assessed the abilities of all flight members. Briefed corrective action from previous mission and probable problem areas when appropriate.	Did not correctly assess all flight members' abilities. Did not identify probable problem areas.	Ignored flight members' abilities and past problem areas.
4	Ground Operations	Established and adhered to station, start engine, taxi and takeoff times to assure thorough preflight, check of personal equipment, crew briefing, etc. Accurately determined readiness of aircraft for flight. Performed all checks and procedures prior to takeoff in accordance with approved checklists and applicable directives.	Performed under Q criteria with minor procedural deviations that did not detract from mission effectiveness.	Omitted major items of the appropriate checklist. Major deviations in procedure that would prevent safe mission accomplishment. Failed to accurately determine readiness of aircraft for flight. Crew errors directly contributed to a late takeoff, which degraded the mission or made it non-effective.

ITEM	Area	Grading Criteria		
		Q	Q-	U
5	Takeoff	Maintained smooth aircraft control throughout takeoff. Performed takeoff in accordance with flight manual procedures.	Minor flight manual procedural deviations. Control was rough or erratic.	Takeoff potentially dangerous. Exceeded aircraft or systems limitations. Raised gear too early. Failed to establish proper climb attitude. Over-controlled aircraft resulted in excessive deviations from intended flightpath.
6	Formation Takeoff: a. Lead	Smooth on controls. Excellent wingman consideration.	Occasionally rough on controls. Not unsafe, but lack of wingman consideration made it difficult for wingman to maintain position.	Rough on the controls. Did not consider wingman.
	b. Wingman	Maintained position; momentary deviations. Maintained safe separation and complied with lead's instructions.	Over-controlled aircraft to the extent that formation position varied considerably.	Made abrupt position corrections. Did not maintain safe separation or formation position throughout the takeoff.

ITEM	Area	Grading Criteria		
		Q	Q-	U
7	Departure: a. Instrument/Visual Flight Rules	Performed departure as published or directed and complied with all restrictions.	Minor deviations in airspeed and navigation occurred during completion of departure.	Failed to comply with published or directed departure instructions.
	b. Trail Departure/Rendezvous	Trail departure or rendezvous accomplished using proper procedures. Provided efficient commentary throughout departure and (or) rendezvous.	Minor deviations from established or appropriate procedures.	Unable to accomplish trail departure or rendezvous. Gross overshoot or excessively slow rendezvous caused by poor technique or procedure. Missed rendezvous.
8	Level Off	Level off was smooth. Promptly established proper cruise airspeed.	Level off was erratic. Slow in establishing proper cruise airspeed.	Level off was erratic. Exceeded Q- limits. Excessive delay or failed to establish proper cruise airspeed. Failed to reset altimeter, as required.

ITEM	Area	Grading Criteria		
		Q	Q-	U
9	Cruise/Navigation	Maintained smooth positive aircraft control at all times. Demonstrated satisfactory capability to navigate, using all available means. Used appropriate navigation procedures. Ensured navigational aids were properly tuned, identified, and monitored. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.	Late control inputs resulted in occasional deviations. Minor errors in procedures or use of navigation equipment. Some deviations in tuning, identifying, and monitoring navigational aids. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course.	Consistently deviated from heading altitude, airspeed, or course. Major errors in procedures or use of navigation equipment. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace. Exceeded parameters for Q-.
10	In-flight Checks	Performed all in-flight checks as required.	Same as Q, except for minor deviations or omissions during checks. Did not detract from mission accomplishment.	Did not perform in-flight checks or monitor systems to the degree that an emergency condition would have developed if allowed to continue uncorrected.

ITEM	Area	Grading Criteria		
		Q	Q-	U
11	Fuel Management	Actively monitored fuel throughout the mission and updated fuel planning as required. Complied with all established fuel requirements. Adhered to briefed Joker or Bingo calls.	Errors in fuel management procedures that did not prevent mission accomplishment. Slow to update fuel planning.	Failed to monitor fuel status or comply with established fuel requirements. Poor fuel management prevented mission accomplishment. Did not adhere to briefed fuel requirements.
12	Communication	Complete knowledge of and compliance with correct communications and transponder procedures. Transmissions concise, accurate, and utilized proper terminology. Complied with and acknowledged all required instructions.	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.	Radio communications over primary or secondary radios were inadequate or excessive. Inaccurate or con-fusing terminology significantly detracted from mutual support, situational awareness, or mission accomplishment.
13	Weapons System Checks	Completed all checks. Thorough knowledge and performance of weapons system checks.	Completed most weapons system checks. Limited knowledge of checks. Unsure of systems degradation due to check failure.	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.

ITEM	Area	Grading Criteria		
		Q	Q-	U
14	Visual Lookout	Demonstrated thorough knowledge and effective application of visual lookout techniques for all phases of flight. Timely actions taken to reduce potential conflicts.	Demonstrated limited knowledge of visual lookout techniques. Did not establish lookout responsibilities for all phases of flight. Slow to take actions to reduce possible conflicts. Slow to acquire threats to flight or targets to be attacked (if applicable).	Demonstrated unsatisfactory knowledge or application of visual lookout responsibilities. Actions were not taken to reduce possible conflicts.
15	Airwork	Aircraft control during maneuvers was positive and smooth. Maneuvers performed according to directives and appropriate to the situation or environment. Adhered to established procedures.	Aircraft control during maneuvers not always smooth and positive, but adequate. Minor procedure deviations or lack of full consideration for the tactical situation.	Aircraft control erratic. Aircraft handling caused unsatisfactory accomplishment of maneuvers. Exceeded Q- criteria. Failed to consider the tactical situation. Temporary loss of aircraft control.

ITEM	Area	Grading Criteria		
		Q	Q-	U
16	Safety (Critical)	Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.	(**Note:** Because this area is critical, Q- is not applicable.)	Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Did not adequately clear. Operated the aircraft in a dangerous manner. Knowingly violated established procedures or flight restrictions.

ITEM	Area	Grading Criteria		
		Q	Q-	U
17	Airmanship/ Situational Awareness (Critical)	Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension. Made appropriate decisions based on available information. Recognized the need for action. Aware of performance of self and other flight members. Aware of on-going mission status. Recognized, verbalized, and correctly acted on unexpected events.	(**Note:** Because this area is critical, Q- is not applicable.)	Decisions or lack thereof resulted in failure to accomplish the assigned mission. Misanalyzed 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.
18	Flight Discipline (Critical)	Provided required direction/informati on. Correctly adapted to meet new situational demands. Demonstrated strict professional flight and crew discipline throughout all phases of the mission.	(**Note:** Because this area is critical, Q- is not applicable.)	Did not provide direction/informati on 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.

ITEM	Area	Grading Criteria		
		Q	Q-	U
19	Crew Coordination	Effectively coordinated with other crewmember(s) throughout the mission. Contributed to the smooth and efficient operation of the aircrew.	Crew coordination adequate to accomplish the mission. Deficiencies in crew communication or interaction resulted in degraded crew efficiency.	Poor crew coordination seriously degraded mission accomplishment or safety of flight.
20	Flight Leadership	Positively directed the flight during accomplishment of the mission and made timely comments to correct discrepancies when required. Made sound and timely in-flight decisions.	In-flight decisions delayed mission accomplishment or degraded training benefit.	Did not accomplish the mission or failed to correct in-flight discrepancies. In-flight decisions jeopardized mission accomplishment.
21	Risk Management/ Decision Making	Accurately identified all contingencies and alternatives. Gathered and cross-checked available data before deciding. Clearly stated decisions and ensured they were understood.	Made minor errors in identifying contingencies, gathering data, or communicating a decision that did not affect safe or effective mission accomplishment.	Improperly or ineffectively identified contingencies, gathered data, or communicated a decision that seriously degraded mission accomplishment or safety of flight.

ITEM	Area	Grading Criteria		
		Q	Q-	U
22	Task Management	Correctly prioritized and managed multiple tasks based on existing and new information that assured mission success.	Made minor errors in prioritization or management of tasks that did not affect safe or effective mission accomplishment.	Incorrectly prioritized or managed tasks that seriously degraded mission accomplishment or safety of flight.
23	Debriefing and Critique	Thoroughly debriefed applicable portions of the mission. Compared mission results with briefed objectives and debriefed deviations. Offered corrective guidance as appropriate.	Performed a limited debriefing. Did not thoroughly discuss performance in relationship to mission objectives. Did not debrief all deviations.	Did not debrief mission deviations or offer corrective guidance.
24	Emergency Procedures	Displayed correct, immediate response to BOLDFACE and non-BOLDFACE emergency situations. Effectively used checklist.	Response to BOLDFACE emergencies was correct. Response to certain areas of non-BOLDFACE emergencies or follow-on steps to BOLDFACE procedures was slow or confused. Used the checklist, but slow to locate required data.	Incorrect response for BOLDFACE emergency. Unable to analyze problems or take corrective action. Did not use checklist or lacked acceptable familiarity with its arrangement or contents.

ITEM	Area	Grading Criteria		
		Q	Q-	U
25	General Knowledge: a. Aircraft General	Demonstrated thorough knowledge of aircraft systems, limitations, and performance characteristics.	Knowledge of aircraft systems, limitations, and performance characteristics sufficient to perform the mission safely. Demonstrated deficiencies either in depth of knowledge or comprehension.	Demonstrated unsatisfactory knowledge of aircraft systems, limitations, or performance characteristics.
	b. Flight Rules and Procedures	Thorough knowledge of flight rules and procedures.	Deficiencies in depth of knowledge.	Inadequate knowledge of flight rules and procedures.
	c. Weapons, Tactics, and Threats (if applicable)	Thorough knowledge of all aircraft weapons systems, weapons effects, tactics, and threats applicable to the unit mission.	Deficiencies in depth of knowledge or comprehension of weapons systems, weapons effects, tactics, and threat knowledge that would not prevent successful mission accomplishment.	Insufficient knowledge of weapons, tactics, and threat contributed to ineffective mission accomplishment.
	d. Local Area Procedures	Thorough knowledge of local procedures.	Limited knowledge of local procedures.	Inadequate knowledge of local procedures.

ITEM	Area	Grading Criteria		
		Q	Q-	U
26	Instrument Interpretation	Demonstrated satisfactory knowledge of basic instrument procedures, in-flight penetration, and approach procedures. Quickly analyzed flight instruments, determined aircraft attitude, and was knowledgeable of required action to correct the aircraft to level flight. Effectively monitored energy levels to ensure parameters were not exceeded.	Demonstrated limited knowledge of instrument procedures. Slow to recognize aircraft attitudes and corrective actions required, but able to determine proper corrections.	Displayed faulty or insufficient knowledge of instrument procedures. Unable to properly interpret instruments or recognize aircraft attitude.
27	In-flight Computations	Timely and accurate based on flight conditions.	Slow to compute necessary in-flight computations. Only minor errors were made.	In-flight computations omitted where necessary for the safe conduct of the mission. Large errors made.

ITEM	Area	Grading Criteria		
		Q	Q-	U
28	Instruction a. Briefing and Debriefing	Presented a comprehensive prebriefing to include mission and training objectives and sortie overview. Properly debriefed the mission and all training objectives. Properly assessed and debriefed sortie focus points while appropriately managing student's time. Made appropriate use of training aids.	Minor errors or omissions in briefing, debriefing, or mission critique. Was occasionally unclear in analysis of events or maneuvers.	Made major errors or omissions in briefing or debriefing. Analysis of events or maneuvers was incomplete, inaccurate, or confusing and did not lend to effectively identify or correct the root cause(s) of the student's errors. Poor use of training aids or reference material. Debrief failed to effectively manage student's time.
	b. Demonstration of Maneuvers	Performed required maneuvers within prescribed parameters. Provided concise, meaningful in-flight commentary. Demonstrated excellent instructor proficiency.	Performed required maneuvers with minor deviations from prescribed parameters. In-flight commentary was sometimes unclear.	Was unable to properly perform required maneuvers. Made major procedural errors. Did not provide in-flight commentary. Demonstrated below average instructor proficiency.

ITEM	Area	Grading Criteria		
		Q	Q-	U
	c. Instructor Knowledge	Demonstrated in depth knowledge of procedures, requirements, aircraft systems or performance characteristics, mission, and tactics.	Deficiencies in depth of knowledge, comprehension of procedures, requirements, aircraft systems or performance characteristics, mission, or tactics.	Unfamiliar with procedures, requirements, aircraft systems or performance characteristics, mission, or tactics. Lack of knowledge in certain areas seriously detracted from instructor effectiveness.
	d. Ability to Instruct	Demonstrated excellent instructor or evaluator ability. Clearly defined all mission requirements and any required additional training or corrective action. Instruction or evaluation was accurate, effective, and timely. Was completely aware of aircraft or mission situation at all times.	Problems in communication or analysis degraded effectiveness of instruction or evaluation.	Demonstrated inadequate ability to instruct or evaluate. Unable to perform, teach, or assess techniques, procedures, systems use, or tactics. Did not remain aware of aircraft or mission situation at all times.

ITEM	Area	Grading Criteria		
		Q	Q-	U
	e. Grading Practices	Completed appropriate training or evaluation records accurately. Adequately assessed and recorded performance. Comments were clear and pertinent.	Minor errors or omissions in training or evaluation records. Comments were incomplete or slightly unclear.	Did not complete required forms or records. Comments were invalid, unclear, or did not accurately document performance.
29	Traffic Pattern Stalls	Recognized approach-to-stall indications and recovered properly. Recovered to level flight without excessive altitude loss. Recognized secondary stall, if entered, and recovered properly.	Delayed recovery beyond the definite increase in buffet intensity. Late to recognize secondary stall or recover from secondary stall.	Failed to recognize approach-to-stall indications. Misapplied flight control and throttle inputs in a manner that aggravated the stalled condition and resulted in excessive altitude loss. Exceeded aircraft limits.
30	Nose-Low Recovery	Used correct flight references and procedures to recover to level flight expeditiously in accordance with the procedures manual.	Slow to analyze attitude or erratic in recovery to level flight. Slow to recognize or use the proper power setting.	Exceeded Q-criteria. Exceeded aircraft limits.
31	Nose-High Recovery	Used correct flight references and procedures to recover to level flight expeditiously in accordance with the procedures manual.	Slow to analyze attitude or erratic in recovery to level flight. Slow to recognize or use the proper power setting and configuration.	Exceeded Q-criteria. Exceeded aircraft limits.

ITEM	Area	Grading Criteria		
		Q	Q-	U
32	Aircraft Handling (in accordance with the procedures manual)	Aircraft control during maneuvers was positive and smooth. Maneuvers performed according to directives and appropriate to the situation or environment. Adhered to established procedures. Slow flight: Airspeed -3 to +5 knots of desired airspeed.	Aircraft control during maneuvers not always smooth and positive, but adequate. Minor procedure deviations or lack of full consideration for the tactical situation. Slow flight: Airspeed ±10 knots of desired airspeed.	Aircraft control erratic. Aircraft handling caused unsatisfactory accomplishment of maneuvers. Exceeded Q- criteria. Failed to consider the tactical situation. Temporary loss of aircraft control.
33	Aerobatics (in accordance with the procedures manual)	Attained briefed entry parameters prior to beginning the maneuver. Aircraft control during maneuvers was positive and smooth. Maneuvers were flown according to procedures manual descriptions.	Entry parameters not met and energy levels not adequate to properly accomplish maneuver. Aircraft control during maneuvers adequate, but not smooth and positive. Minor procedural deviations occurred.	Significantly missed entry parameters. Maneuvers not flown according to procedure manual descriptions. Maneuver aircraft control erratic. Aircraft handling caused unsatisfactory accomplishment of maneuvers.
34	Letdown and Traffic Entry	Performed letdown as published or directed and complied with all restrictions.	Minor deviations in airspeed and navigation occurred during completion of letdown.	Failed to comply with published directed letdown instructions or directives.

ITEM	Area	Grading Criteria		
		Q	Q-	U
35	Normal Pattern and Landing (Overhead)	Performed patterns and landings in accordance with procedures and techniques outlined in the flight manual, operational procedures, and local directives. Aircraft control was smooth and positive. Accurately aligned with runway. Airspeed on final: -0 to +10 knots, and no slower than on speed AOA. Touchdown point: 150 feet to 1,000 feet from the runway threshold.	Performed patterns and landings with minor deviations to procedures and techniques outlined in the flight manual, operational procedures and local directives. Aircraft control was not consistently smooth, but safe. Alignment with runway varied. Touchdown point: 0 feet to 149 feet or 1,001 feet to 1500 feet from the runway threshold but safely allowed for stopping on available runway.	Approaches not performed in accordance with procedures and techniques outlined in the flight manual, operational procedures and local directives. Erratic aircraft control. Large deviations in runway alignment. Touchdown point exceeded Q- criteria and did not or would not allow for stopping on available runway.

ITEM	Area	Grading Criteria		
		Q	Q-	U
36	Normal Approach and Landing (Straight-in)	Performed patterns and landings in accordance with procedures and techniques outlined in the flight manual, operational procedures, and local directives. Aircraft control was smooth and positive. Accurately aligned with runway. Airspeed on final: -0 to +10 knots, and no slower than on speed AOA. Touchdown point: 150 feet to 1,000 feet from the runway threshold.	Performed patterns and landings with minor deviations to procedures and techniques outlined in the flight manual, operational procedures and local directives. Aircraft control was not consistently smooth, but safe. Alignment with runway varied. Touchdown point: 0 feet to 149 feet or 1,001 feet to 1500 feet from the runway threshold but safely allowed for stopping on available runway.	Approaches not performed in accordance with procedures and techniques outlined in the flight manual, operational procedures and local directives. Erratic aircraft control. Large deviations in runway alignment. Touchdown point exceeded Q- criteria and did not or would not allow for stopping on available runway.

ITEM	Area	Grading Criteria		
		Q	Q-	U
37	Emergency Traffic Pattern (Prior to configuration. Includes simulated SE, varied flap settings, as appropriate.)	Complied with all flight manual and operational procedures. Maintained safe maneuvering airspeed or AOA. Flew approach compatible with the situation. Adjusted approach for type of emergency simulated.	Minor procedural errors. Erratic airspeed or AOA control. Errors did not detract from safe handling of the situation.	Did not comply with applicable procedures. Erratic airspeed or AOA control compounded problems associated with the emergency. Flew an approach that was incompatible with the simulated emergency. Did not adjust approach for simulated emergency.
38	SE Approach and Landing	Used sound judgment. Configured at the appropriate position or altitude. Flew final based on recommended procedures, airspeed or AOA, and glidepath. Smooth, positive control of aircraft. Touchdown point and speed was according to applicable guidance and permitted safe stopping in available runway.	Safety not compromised. Configured at a position and altitude that allowed for a safe approach. Could have landed safely with the following deviations: Minor deviations from recommended procedures, airspeed or AOA, and altitudes. Unnecessary maneuvering due to minor errors in planning or judgment.	Judgment unsafe. Major deviations from recommended procedures, airspeed or AOA, and altitudes. Required excessive maneuvering. Could not have landed safely. Touchdown point and speed was not according to applicable guidance and would not allow for safe stopping on available runway.

ITEM	Area	Grading Criteria		
		Q	Q-	U
39	NF Pattern and Landing (Overhead)	Used sound judgment. Configured at the appropriate position or altitude. Flew final based on recommended procedures, airspeed, or AOA, and glidepath. Smooth, positive control of aircraft. Touchdown point and speed was according to applicable guidance.	Safety not compromised. Configured at a position and altitude that allowed for a safe approach. Could have landed safely with the following deviations: Minor deviations from recommended procedures, airspeed, or AOA, and altitudes. Unnecessary maneuvering due to minor errors in planning or judgment.	Judgment unsafe. Major deviations from recommended procedures, airspeed or AOA, and altitudes. Required excessive maneuvering. Could not have landed safely. Touchdown point and speed was not according to applicable guidance and would not allow for safe stopping on available runway.
40	NF Approach and Landing (Straight-in)	Used sound judgment. Configured at the appropriate position or altitude. Flew final based on recommended procedures, airspeed, or AOA, and glide path. Smooth, positive control of aircraft. Touchdown point and speed was according to applicable guidance.	Safety not compromised. Configured at a position and altitude that allowed for a safe approach. Could have landed safely with the following deviations: Minor deviations from recommended procedures, airspeed, or AOA, and altitudes. Unnecessary maneuvering due to minor errors in planning or judgment.	Judgment unsafe. Major deviations from recommended procedures, airspeed or AOA, and altitudes. Required excessive maneuvering. Could not have landed safely. Touchdown point and speed was not according to applicable guidance and would not allow for safe stopping on available runway.

ITEM	Area	Grading Criteria		
		Q	Q-	U
41	Go-Around (From a Normal or Emergency Approach)	Initiated in a timely manner and performed go-around in accordance with procedures and techniques outlined in the flight manual, operational procedures, and local directives.	Slow to self-initiate go-around or performed go-around with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives.	Did not self-initiate go-around when appropriate or directed. Techniques unsafe or applied incorrect procedures.
42	Closed Traffic	Minimum of 240 knots for start of pull up. Minimum of 200 knots during pull up. Inside down-wind gear limiting airspeed to computed final turn airspeed. Rolled out at overhead pattern altitude ±100 feet. Complied with published directives.	Airspeed: Pattern and initial same as Q- basic aircraft control. Altitude: pattern and closed pullup ±200 feet.	Exceeded Q- criteria.
43	Breakout and Reentry	Complied with all flight manual and operational procedures. Maintained safe maneuvering airspeed or AOA and altitude.	Minor procedural errors. Erratic airspeed or AOA and altitude control. Errors did not detract from safe handling of the situation.	Did not comply with applicable procedures. Erratic airspeed or AOA and altitude control compromised safety.

ITEM	Area	Grading Criteria		
		Q	Q-	U
44	Instrument Climb or Descent	Aircraft control during instrument climb or descent was positive and smooth. Performed according to directives and appropriate to the situation or environment.	Aircraft control during instrument climb or descent not always smooth and positive, but adequate. Minor procedure deviations.	Aircraft control erratic during instrument climb or descent. Exceeded Q- criteria. Temporary loss of aircraft control.
45	Vertical S	Vertical velocity: ±400 feet, airspeed: ±20 knots, level off or change of direction: ±200 feet.	Vertical velocity: ±500 feet, airspeed: ±30 knots, level off or change of direction: ±300 feet.	Exceeded Q- criteria.
46	Steep Turns	Altitude: ±200 feet, airspeed: ±20 knots, rollout heading within 10 degrees.	Altitude: ±300 feet, airspeed: ±30 knots, rollout heading within 20 degrees.	Exceeded Q- criteria.
47	Unusual Attitudes: a. Recovery (Pilot)	Smooth, positive recovery to level flight with correct recovery procedures in accordance with AFMAN 11-217, *Flight Operations*.	Slow to analyze attitude, or erratic in recovery to level flight. Correct recovery procedures used.	Unable to determine attitude. Improper recovery procedures used.

ITEM	Area	Grading Criteria		
		Q	Q-	U
	b. Recognition (WSO)	Demonstrated satisfactory knowledge of basic instrument procedures, in-flight penetration and approach procedures. Quickly analyzed flight instruments, determined aircraft attitude, and was knowledgeable of required action to correct the aircraft to level flight. Effectively monitored energy levels to ensure parameters were not exceeded.	Demonstrated limited knowledge of instrument procedures. Slow to recognize aircraft attitudes and corrective actions required, but able to determine proper corrections.	Displayed faulty or insufficient knowledge of instrument procedures. Unable to properly interpret instruments or recognize aircraft attitude.
48	Confidence Maneuvers (in accordance with Procedures Manual)	Aircraft control during maneuvers was positive and smooth. Maneuvers performed according to directives.	Aircraft control during maneuvers not always smooth and positive, but adequate. Minor procedure deviations.	Aircraft control erratic. Aircraft handling caused unsatisfactory accomplishment of maneuver. Exceeded Q- criteria.
49	Fix-to-Fix (Simulator)	Small infrequent heading changes, positioned aircraft within 3 miles of desired fix.	Frequent or large heading changes, reached fix within 5 miles.	Exceeded Q- criteria.

ITEM	Area	Grading Criteria		
		Q	Q-	U
50	Holding	Performed entry and holding as cleared. Holding pattern limit exceeded by not more than ±15 seconds or ±2 NM. Met expected approach clearance ±2 minutes (if assigned).	Holding pattern limit exceeded by not more than ±20 seconds or ±3 NM. Met expected approach clearance ±3 minutes (if assigned).	Holding entry or pattern was not as cleared. Exceeded criteria for Q- or holding pattern limits.
51	Published Approach Procedure (Initial Approach Fix to Final Approach Fix/Descent Point)	Performed the procedure as published or directed and according to applicable flight manuals. Complied with all restrictions. Made smooth and timely corrections.	Performed the procedure with minor deviations. Complied with all restrictions. Slow to make corrections.	Performed the procedure with major deviations. Erratic corrections.
52	En Route Descent (Including Standard Terminal Arrivals)	Performed descent as directed, complied with all restrictions.	Performed descent as directed with minor deviations.	Performed descent with major deviations.
53	Course or Arc Interception	Established a valid arc or radial intercept. Performed course or arc interceptions in accordance with clearance.	Slow to establish a valid intercept. Performed course or arc interceptions in accordance with clearance with minor deviations.	Did not establish a valid intercept. Would have deviated from clearance.
54	Maintaining Course or Arc	See **Table 1.1.**	See **Table 1.1.**	See **Table 1.1.**

ITEM	Area	Grading Criteria		
		Q	Q-	U
55	Precision Approach (Instrument landing system (ILS) or precision approach radar (PAR) (**Note:** Localizer type directional aid (LDA) With Glide Slope and LVAV/VNAV will use ILS criteria)	Performed procedures as published and according to flight manual. Made smooth and timely corrections to azimuth and glide slope. Complied with decision altitude and position would have permitted a safe landing. Maintained proper or briefed AOA. Airspeed: 0 to +10 knots. ILS: Glideslope and azimuth within one dot. PAR: Maintained glidepath with only minor deviations. Heading within 5 degrees of controller instruction.	Performed procedures with minor deviations. Slow to make corrections or initiate procedures. Position would have permitted a safe landing. Slow to correct to proper/briefed AOA. Airspeed: -5 to +15 knots. Initiated missed approach (if applicable) at decision altitude, -0 to +50 feet. ILS: Glideslope within one dot low or two dots high. Azimuth within two dots. PAR: Heading within 10 degrees of controller instruction.	Performed procedures with major deviations. Erratic corrections. Exceeded Q- limits. Did not comply with decision height or position at decision height would not have permitted a safe landing.

ITEM	Area	Grading Criteria		
		Q	Q-	U
56	Non-precision Approach (VOR, Localizer (LOC), LDA, TACAN, Approach surveillance radar (ASR), or Global positioning system (GPS)	Adhered to all published or directed procedures and restrictions. Used appropriate descent rate to arrive at minimum descent altitude (MDA) (+100 to -0 feet) at or before visual descent point or missed approach point (MAP). Position would have permitted a safe landing. Maintained proper or briefed AOA. Airspeed: 0 to +10 knots. VOR/TACAN: Course ±5 degrees at MAP. LOC/LDA/LNAV: Course Deviation Indicator less than one dot deflection. ASR: Heading ±5 degrees of controller instruction.	Performed approach with minor deviations. Arrived at MDA (+150 to -50 feet) at or before the MAP, but past the visual descent point. Position would have permitted a safe landing. Slow to correct to proper or briefed AOA. Airspeed - 5 to + 15 knots. VOR/TACAN: Course ±10 degrees at MAP. LOC/LDA/LNAV: Course Deviation Indicator within two dots deflection. ASR: Heading ±10 degrees of controller instruction.	Did not comply with published or directed procedures or restrictions. Exceeded Q- limits. Maintained steady-state flight below the MDA, even though the 50-foot below MDA limit was not exceeded. Could not land safely from the approach. (**Note:** The 50-foot below MDA tolerance applies only to momentary excursions.)

ITEM	Area	Grading Criteria		
		Q	Q-	U
57	Circling Approach	Performed circling approach according to procedures and techniques outlined in the flight manual and AFMAN 11-217. Aircraft control was positive and smooth. Proper runway alignment.	Performed circling approach with minor deviations to procedures and techniques outlined in the flight manual and AFMAN 11-217. Aircraft control was not consistently smooth, but safe. Runway alignment varied, but go-around not required.	Circling approach not performed according to procedures and techniques outlined in the flight manual and AFMAN 11-217. Erratic aircraft control. Large deviations in runway alignment required go-around.
58	Missed Approach	Executed missed approach as published directed. Completed all procedures according to flight manual.	Executed missed approach with minor deviations. Slow to comply with published procedures, controller's instructions, or flight manual procedures.	Executed missed approach with major deviations or did not comply with applicable directives.
59	Transition to Landing	Timely and appropriate transition based on altitude and distance that the runway environment was visually acquired. Smoothly transitioned to the landing phase.	Slow transition to the landing phase. Excessive power and pitch inputs resulted in a long or short landing.	Late transition to the landing phase. Excessive power and pitch inputs resulted in an excessively long or short landing. Unable to land out of the approach.

ITEM	Area	Grading Criteria		
		Q	Q-	U
60	Position Change	Lead change was decisive and correctly completed according to directives.	Lead change was inefficient or resulted in confusion over flight leadership responsibilities.	Excessive time was taken to accomplish lead change. Procedure was not conducted according to directives.
61	Visual Signals	Were according to AFPAM 11-205, *Aircrew Quick Reference to Aircraft Cockpit and Formation Flight Signals* and the procedures manual. Clearly visible to wingman.	Were according to AFPAM 11-205 and the procedures manual, but not clearly visible to wingman.	Not according to AFPAM 11-205 and the procedures manual, or not recognizable to wingman.
62	Fingertip (Lead)	Smoothly led fingertip formation maneuvering up to 3 Gs and 90 degrees of bank. Complied with maneuvers manual descriptions.	Occasionally rough on controls. Not unsafe, but resulted in difficulty for wingman to maintain position. Did not always plan ahead and (or) hesitated in making decisions. Complied with maneuvers manual descriptions.	Aircraft control resulted in a wingman not able to maintain position. Exceeded maneuver limitations.

ITEM	Area	Grading Criteria		
		Q	Q-	U
63	Echelon (Lead)	Smoothly led echelon formation. Complied with maneuvers manual descriptions.	Aircraft control resulted in difficulty for wingman to maintain position. Complied with maneuvers manual descriptions.	Aircraft control resulted in a wingman not able to maintain position.
64	Close Trail (Lead)	Smoothly led close trail formation. Complied with maneuvers manual descriptions.	Aircraft control resulted in difficulty for wingman to maintain position. Complied with maneuvers manual descriptions.	Aircraft control resulted in a wingman not able to maintain position. Exceeded maneuver limitations.
65	Extended Trail (Lead)	Smoothly led extended trail formation. Complied with maneuvers manual descriptions.	Aircraft control resulted in difficulty for wingman to maintain position. Complied with maneuvers manual descriptions.	Aircraft control resulted in a wingman not able to maintain position. Exceeded maneuver limitations.

ITEM	Area	Grading Criteria		
		Q	Q-	U
66	Fluid Maneuvering (Lead)	Smoothly accomplished to Level 3 profile according to the maneuvers manual. Monitored wingman's position.	Limited flight management. In-flight decisions delayed mission accomplishment or degraded training. Occasionally rough on controls. Not unsafe, but resulted in difficulty for wingman to maintain position. Did not always plan ahead and (or) hesitated in making decisions. Some minor deviations occurred.	Exceeded Q- criteria.
67	Tactical (Lead)	Efficiently led formation to accomplish tactical objectives. Optimized tactical advantage. Complied with deconfliction responsibilities.	Required extended maneuvering to accomplish tactical objectives. Made minor errors in deconfliction responsibilities, but did not compromise safety.	Unable to accomplish tactical objectives or required wingman to maneuver excessively to maintain position. Made major errors in deconfliction responsibilities.

ITEM	Area	Grading Criteria		
		Q	Q-	U
68	Pitchout (Lead)	Correctly positioned wingmen prior to maneuver. Smoothly controlled aircraft. Complied with maneuvers manual descriptions.	Aircraft control resulted in difficulty for wingmen to establish spacing. Complied with maneuvers manual descriptions.	Aircraft control resulted in a wingman not able to establish spacing.
69	Rejoin (Turning or Straight) (Lead)	Complied with maneuvers manual descriptions. Directed an overshoot or breakout, if required, in a timely manner.	Complied with maneuvers manual descriptions. Slow to direct an overshoot or breakout, if required.	Erratic aircraft control significantly delayed the rejoin. Did not direct an overshoot or breakout, when required.
70	Formation Approach and Landing (Lead)	Smooth on controls and considered wingman. Complied with formation landing procedures. Flew approach as published or directed.	Occasionally rough on the controls. Not unsafe, but made it difficult for wingman to maintain position. Some procedural deviations. Slow to comply with published procedures.	Did not monitor wingman's position or configuration. Rough on the controls. No consideration for wingman. Placed wingman in unsafe situation. Major deviations in procedures. Did not fly approach as published or directed. Flight could not land from approach.

ITEM	Area	Grading Criteria		
		Q	Q-	U
71	Formation Takeoff (Wing)	Lined up with adequate wingtip clearance and nose-tail separation, when required. Smoothly maintained formation takeoff position through gear retraction. Applied power within the afterburner range.	Lined up with adequate wingtip clearance and nose-tail separation, when required. Maintained formation takeoff position through gear retraction with minor deviations. Applied power within the afterburner range.	Lined up with wingtip clearance less than 10 feet (50 feet for solo) or too wide for a safe takeoff, or less than nose-tail separation, when required. Erratic control resulted in unsafe position or early termination of afterburner.
72	Fingertip (Wing)	Maintained wingtip separation within + 7 feet, within ±4 feet vertically, and within ±4 feet longitudinally with smooth positive control inputs.	Occasionally exceeded Q criteria. Varied position considerably or occasionally over-controlled the aircraft. Some procedural deviations.	Consistently exceeded Q criteria. Did not maintain safe separation or made abrupt position corrections.
73	Echelon (Wing)	Maintained wingtip separation within +7 feet, within ±4 feet vertically, and within ±4 feet longitudinally with smooth positive control inputs.	Occasionally exceeded Q criteria. Varied position considerably or occasionally over-controlled the aircraft.	Did not maintain safe separation or made only abrupt position corrections.

ITEM	Area	Grading Criteria		
		Q	Q-	U
74	Route (Wing)	Maintained appropriate position according to other duties and in accordance with the procedures manual with smooth positive control inputs.	Varied position considerably or occasionally over-controlled the aircraft. Position did not accommodate all other duties.	Did not maintain safe separation or made only abrupt position corrections. Erratic or poor position did not allow for other duties.
75	Crossunder (Wing)	Expeditiously moved to the new position with at least nose-tail separation. Smoothly made allowances for other aircraft to change position.	Moved to the new position with at least nose-tail separation, but slow to accomplish maneuver or make allowances for other aircraft to change position.	Did not maintain safe separation or consider movement of other aircraft.
76	Close Trail (Wing)	Maintained position in accordance with the procedures manual with smooth positive control inputs.	Varied position considerably or occasionally over-controlled the aircraft.	Did not maintain safe separation or made only abrupt position corrections.
77	Extended Trail (Wing)	Maintained position in accordance with the procedures manual with smooth positive control inputs. Expeditiously accomplished other duties and responsibilities while maneuvering.	Varied position considerably or occasionally over-controlled the aircraft. Was slow to accomplish other duties and responsibilities while maneuvering.	Did not maintain safe separation or made only abrupt position corrections. Could not accomplish other duties and responsibilities while maneuvering.

ITEM	Area	Grading Criteria		
		Q	Q-	U
78	Pitchout (Wing)	Smoothly controlled aircraft to establish briefed spacing in accordance with the procedures manual.	Established briefed spacing with minor procedural errors.	Was unable to establish briefed spacing or made major procedural errors.
79	Rejoin (Wing) (Includes Turning or Straight, and Rejoins to the Number 2, 3, or 4 Position)	Safely and efficiently controlled overtake and geometry. Maintained appropriate closure and required spacing from other formation members.	Safely controlled overtake and geometry with unnecessary stagnation. Maintained required spacing from other formation members.	Erratic aircraft control or major procedural errors excessively delayed rejoin or resulted in less than safe separation with other formation members.
80	Overshoot (Wing)	Safely and efficiently dissipated excessive airspeed and overtake while maintaining required spacing from other formation members. Completed overshoot in a timely manner.	Safely dissipated excessive airspeed and overtake while maintaining required spacing from other formation members. Minor procedural errors delayed completion of overshoot.	Did not maintain safe separation with other formation members. Flew higher than route echelon. Major procedural errors excessively delayed completion of overshoot.

ITEM	Area	Grading Criteria		
		Q	Q-	U
81	Tactical (Wing)	Maintained position in accordance with the procedures manual. Expeditiously accomplished other duties and responsibilities while maneuvering.	Varied position considerably and was slow to initiate corrections to proper position. Was slow to accomplish other duties and responsibilities while maneuvering.	Major procedural errors resulted in excessive deviations from position. Could not accomplish other duties and responsibilities while maneuvering.
82	Tactical Rejoin (Wing) (Includes Turning or Straight, and Rejoins to the Number 2, 3, or 4 Position)	Smoothly and efficiently rejoined to correct position.	Slow to rejoin.	Excessive maneuvering or major procedural errors delayed rejoin.
83	Fluid Maneuvering (Wing)	Smoothly and efficiently solved problems of range, closure, aspect, angle-off, and turning room with a maneuvering lead aircraft. Corrected position in a timely manner while maintaining sight of the lead aircraft. Expeditiously accomplished other duties and responsibilities while maneuvering.	Was slow to solve problems of range, closure, aspect, angle-off, and turning room with a maneuvering lead aircraft. Over-controlled some corrections. Was slow to accomplish other duties and responsibilities while maneuvering.	Major procedural errors resulted in excessive deviations from position. Could not accomplish other duties and responsibilities while maneuvering.

ITEM	Area	Grading Criteria		
		Q	Q-	U
84	Fighting Wing (Wing)	Maintained position in accordance with the procedures manual with smooth positive control inputs. Expeditiously accomplished other duties and responsibilities while maneuvering.	Varied position considerably and was slow to initiate corrections to proper position. Was slow to accomplish other duties and responsibilities while maneuvering.	Major procedural errors resulted in excessive deviations from position. Could not accomplish other duties and responsibilities while maneuvering.
85	Breakout (Wing)	Broke out in a timely manner and expeditiously established safe separation.	Slow to break out and established safe separation.	Did not recognize the requirement to break out or effectively establish safe separation.
86	Formation Approach and Landing (Wing)	Maintained position with only momentary deviations. Smooth and immediate corrections. Maintained safe separation and complied with procedures and lead's instructions.	Varied position considerably. Over-controlled.	Abrupt position corrections. Did not maintain safe separation. Unsafe wing position and (or) procedural deviations.

ITEM	Area	Grading Criteria		
		Q	Q-	U
87	Route Entry	Identified the defined route start point, established aircraft or formation within the defined route or area, and smoothly adjusted airspeed for low-level operations. Started the route within published timing constraints or local procedures.	Was slow to identify the route start point, or established aircraft or formation within the defined route or area. Had minor deviations in adjusting airspeed for low-level operations. Started the route within published timing constraints or local procedures.	Exceeded Q-criteria.
88	Altitude Control	Maintained safe or authorized minimum altitude to +500 feet and within defined route altitudes. Smoothly adjusted altitude when required.	Maintained safe or authorized minimum altitude to +1000 feet except and within defined route altitudes unless obstacles or safety dictated. Was slow to adjust altitude when required.	Exceeded Q-criteria.
89	Time Control	Arrived within $\pm$1 minute of TOT.	Arrived within $\pm$2 minutes of TOT.	Exceeded Q-criteria.
90	Course Control (RNAV or Visual)	Remained within the established route corridor or area. See **Table 1.1.**	Remained within the established route corridor or area. See **Table 1.1.**	Exceeded Q-criteria.

ITEM	Area	Grading Criteria		
		Q	Q-	U
91	Route Exit	Efficiently coordinated the low-level exit and recovery with outside agencies. Identified the correct route exit point and smoothly adjusted airspeed for route exit.	Slow to coordinate an efficient and expeditious recovery. Slow to identify the route exit point or adjust airspeed for route exit.	Did not successfully coordinate with outside agencies for an efficient and expeditious recovery. Exceeded Q- criteria.
92	Tactical Plan	Well-developed plan included consideration of mission objectives, threat, and capabilities of flight members. Addressed contingencies in development of plan.	Minor omissions in the plan resulted in less-than-optimum achievement of objectives and detracted from mission effectiveness. Planned tactics resulted in unnecessary difficulty.	Major errors in the plan prevented accomplishment of stated objectives.
93	Tactical Execution	Applied tactics consistent with threat, current directives, and good judgment. Executed plan and achieved mission goals. Quickly adapted to changing environment.	Minor deviations from tactical plan that did not result in an ineffective mission. Slow to adapt to changing environment.	Unable to accomplish the mission due to major errors of commission or omission during execution of the plan.

ITEM	Area	Grading Criteria		
		Q	Q-	U
94	Command and Control (C2) Integration	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.	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.	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.
95	Composite Force (CF) Interface	Effectively planned for and used CF assets to enhance mission and achieve objectives.	Minor confusion between CF assets and fighters. Less than optimum use of CF assets which did not affect the fighter's offensive advantage.	Inadequate or incorrect use of CF assets resulted in loss of offensive potential.
96	Mutual Support	Maintained mutual support during entire engagement, thus sustaining an offensive posture and (or) negating all attacks. Adhered to all engaged and support responsibilities.	Mutual support occasionally broke down, resulting in temporary confusion or the loss of an offensive advantage. Demonstrated limited knowledge of engaged and support responsibilities.	Mutual support broke down, resulting in the flight being put in a defensive position from which all attacks were not negated. Demonstrated inadequate knowledge of engaged and support responsibilities.

ITEM	Area	Grading Criteria		
		Q	Q-	U
97	Tactical Navigation a. General	Navigated to desired destination and remained geographically oriented during the tactical portion of the mission along the desired route. Altitude and route of flight reflected consideration for enemy threats. Maintained terrain awareness. Complied with established altitude minimums. Adhered to airspace restrictions.	Deviations from planned route of flight were recognized and corrected. Maintained terrain awareness. Altitude control contributed to exposure to threats for brief periods. Did not optimize terrain masking (if applicable).	Failed to locate desired destination. Deviations from planned route of flight exposed flight to threats. Violated airspace restrictions or altitude minimums. Poor airspeed or altitude control contributed to disorientation. Inadequate terrain awareness. Did not use terrain masking (if applicable).
	b. Medium Altitude	Demonstrated satisfactory capability to adjust for deviations in time and course; only minor corrections required.	Medium level course and airspeed control resulted in large corrections. Minor error in procedures or use of navigation equipment.	Failed to recognize checkpoints or adjust for deviations in course. Major errors in procedures or use of navigation equipment.

ITEM	Area	Grading Criteria		
		Q	Q-	U
	c. Low Altitude	Demonstrated satisfactory capability to adjust for deviations in time and course; only minor corrections required. Used terrain masking as circumstances allowed. See **Table 1.1.**	Low-level altitude and airspeed control resulted in large corrections. See **Table 1.1.**	Failed to recognize checkpoints or adjust for deviations in time and course. Exceeded low-level route boundaries. Did not use terrain masking if available and tactically required. Exceeded Q- parameters. Major errors in procedures or use of navigation equipment. Violated low level regulations or restricted airspace.
98	Ingress	Aware of all known or simulated threats and defenses. Employed effective use of terrain masking and (or) route and altitude selection.	Ignored some of the known or simulated threats and defenses. Improper use of terrain masking and (or) route and altitude selection resulted in unnecessary exposure.	Failed to honor known or simulated threats and defenses, significantly reducing survivability. Failed to employ effective terrain masking and (or) route or altitude threat deconfliction.

ITEM	Area	Grading Criteria		
		Q	Q-	U
99	Egress	Effectively used evasive maneuvers and terrain masking to complete an expeditious egress from the target area. Flight or element join-up was accomplished as soon as possible without undue exposure to enemy defenses.	Egress contributed to unnecessary exposure to threats and delayed flight join-up and departure from target area.	Egress caused excessive exposure to threats. Flight or element join-up was not accomplished or resulted in excessive exposure to threats.
100	Combat Separation	Adhered to briefed or directed separation procedures. Positive control of flight or element during separation. Maintained mutual support with adversary unable to achieve valid simulated missile/gunfiring parameters.	Minor deviations from briefed or directed separation procedures. Limited control of flight or element during separation. Allowed mutual support to break down intermittently.	Did not adhere to briefed or 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.
101	Training Rules/ROE	Adhered to and knowledgeable of all training rules or ROE.	Minor deviations. Made timely and positive corrections. Did not jeopardize safety of flight.	Significant deviations indicating a lack of knowledge of training rules or ROE.

ITEM	Area	Grading Criteria		
		Q	Q-	U
102	Threat Reactions	Threat reactions were timely and correct.	Threat reactions were slow or inconsistent.	Numerous threat reactions were omitted or incorrect. Failed to perform maneuvers to counter threat.
103	In-flight Report	Gave accurate, precise in-flight reports in correct format.	Deviated from established procedures/format. Completed reports.	Failed to make in-flight reports. Unfamiliar with in-flight reporting procedures.
104	Weapons System Utilization	Correctly utilized the weapon system to deliver the desired ordnance (actual or simulated). Executed all required procedures to successfully employ the weapon.	Late to prepare the weapon system to deliver the desired ordnance. Minor procedural errors degraded weapons employment.	Did not correctly prepare the weapon system to deliver the desired ordnance. Improper procedures during the attack resulted in unsuccessful weapons delivery.
105	Offensive Maneuvering	Effectively used BFM and air combat maneuvers to attack and counter opposing aircraft. Good aircraft control. Effectively managed energy level during engagements.	Limited proficiency; did not effectively counter opposing aircraft. Occasionally mismanaged energy levels, jeopardizing offensive advantage.	Unsatisfactory knowledge or performance of maneuvers, aircraft handling, or energy management. Lost offensive advantage.

ITEM	Area	Grading Criteria		
		Q	Q-	U
106	Defensive Maneuvering	Performed or directed correct initial move to counter attack of opposing aircraft. Used correct maneuvers to negate the threat.	Some hesitation or confusion during initial stages of counteroffensive or defensive situation. Minor errors in energy management or BFM delayed negating the attack of an opposing aircraft.	Unable to negate or direct maneuvers to negate attack of opposing aircraft.
107	Weapons Employment (Air-to-Air)	Demonstrated proper knowledge of missile or gun firing procedures and attack parameters. Simulated missile or gun firings were accomplished at each opportunity and within designated parameters.	Demonstrated limited knowledge of missile or attack parameters. Simulated employment of weapons was successful, but made minor errors that did not affect overall result. Slow to recognize appropriate parameters.	Demonstrated inadequate knowledge of missile, or gun firing procedures, or attack parameters. Attempts to simulate weapons employment were unsuccessful due to aircrew error. Did not meet Q-criteria.

ITEM	Area	Grading Criteria		
		Q	Q-	U
108	Target Acquisition (Air-to-Surface)	Target acquired on the first attack or, if missed due to difficult target identification features, a successful reattack was accomplished. For multiple target scenarios, all targets were acquired on the first attack or with a successful reattack. (A successful reattack is defined as being within parameters to effectively employ the planned weapons against the target.)	Late to acquire the target, 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.	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.

ITEM	Area	Grading Criteria		
		Q	Q-	U
109	Weapons Employment (Air-to-Surface)	Demonstrated complete knowledge of weapons delivery procedures, attack parameters, and weapons computations for the events performed. Able to achieve valid release parameters on 50 percent of all events attempted.	Demonstrated minor errors in knowledge of weapons delivery procedures, attack parameters, or weapons computations for the events performed. Able to achieve valid release parameters on less than 50 percent of all events attempted.	Demonstrated inadequate knowledge of weapons delivery procedures, attack parameters, or weapons computations for the events flown. Failed to deliver ordnance on original attack or reattack due to aircrew error (switch error, navigation error, etc.). Unable to achieve valid release parameters.
110	Range Procedures	Used proper procedures for entering and exiting the range. Range operations followed established procedures.	Minor deviations from established procedures for range entry, exit, or operations.	Major deviations from established procedures for range entry, exit, or operations.
111	Air-to-air Training Exercise	Effectively conducted Air-to-Air Training Exercises in accordance with the procedures manual.	Limited proficiency; did not effectively conduct Air-to-Air Training Exercises in accordance with the procedures manual.	Unsatisfactory knowledge or performance of Air-to-Air Training Exercises in accordance with the procedures manual.

Table 3.2. EPE Criteria. (T-2).

ITEM	Area	Grading Criteria		
		Q	Q-	U
201	Boldface (Critical)	Displayed correct, immediate response.	N/A – critical item	Incorrect or delayed response.
202	Non-Boldface EPs	Recognized and analyzed malfunction in a timely manner. Displayed correct, immediate response to emergency situation. Effectively used checklist.	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.	Unable to analyze problems or take corrective action. Did not use checklist and/or lacked acceptable familiarity with its arrangement or contents.
203	Unusual attitude recoveries	Smooth, positive recovery to level flight with correct recovery procedures.	Slow to analyze attitude, or erratic in recovery to level flight. Correct recovery procedures used.	Unable to determine attitude. Improper recovery procedures were used.

ITEM	Area	Grading Criteria		
		Q	Q-	U
204	Approach and use of standby instruments	Performed approach in accordance with directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Maintained proper/briefed AOA. Maintained desired glide path with only minor deviations.	Performed approach with minor deviations to directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Slow to correct to proper/briefed AOA. Did not always maintain desired glide path control.	Performed procedures with major deviations to directives, published procedures and techniques outlined in the flight manual and AFMAN 11-217. Failed to attain and/or maintain proper/briefed AOA. Displayed erratic glide slope control.
205	Approach at other than home field (alternate or divert airfields)	Made proper divert decision and correctly performed initial divert execution actions.	Slow to make divert decision and/or slow to correctly perform initial divert execution actions.	Failed to make proper divert decision and/or correctly perform initial divert execution actions.
206	General knowledge	Demonstrated thorough knowledge of the National Airspace System aircraft systems, limitations and performance characteristics.	Knowledge of the National Airspace System, aircraft systems, limitations, and performance characteristics sufficient to perform the mission safely. Demonstrated deficiencies either in depth of knowledge or comprehension.	Demonstrated unsatisfactory knowledge of the National Airspace System, aircraft systems, limitations or performance characteristics.

MARK D. KELLY, Lt Gen, USAF
Deputy Chief of Staff, Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 11-202, V2, *Aircrew Standardization* and *Evaluation Program*, 6 December 2018

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

AFPAM 11-205, *Aircrew Quick Reference to Aircraft Cockpit and Formation Flight Signals*, 9 August 2018

AFMAN 11-217, *Flight Operations*, 10 June 2019

AETCTTP 11-1, *Employment Fundamentals T-38C/Introduction to Fighter Fundamentals (IFF)*, 4 September 2009

AETCMAN 11-251, V1, *T-38C Flying Fundamentals*, 4 April 2017

AFI 33-360, *Publications and Forms Management*, 1 December 2015

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

Adopted Forms

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 8a, *Certificate of Aircrew Qualification (Multiple Aircraft)*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ADAIR—Adversary Pilot

AFI—Air Force instruction

AFMAN—Air Force manual

AOA—angle of attack

ASR—approach surveillance radar

AWACS—airborne warning and control system

BFM—basic fighter maneuver

C2—command and control

CF—composite force

CTP—companion trainer program

CPT—cockpit procedures trainer

DME—distance Measuring Equipment

ENJJPT—Euro-NATO Joint Jet Pilot Training

EPE—emergency procedures evaluation

FE—flight examiner

GCI—ground controlled intercept

GPS—Global positioning system

IFF—introduction to fighter fundamentals

ILS—instrument Landing System

INIT—initial

INSTM—instrument

INSTR—instructor

LDA—localizer type directional aid

LOC—localizer

MAJCOM—major command

MAP—missed approach point

MDA—minimum descent altitude

MSN—mission

NF—no-flap

NM—nautical mile

OPR—office of primary responsibility

PAR—precision approach radar

PIT—pilot instructor training

QUAL—qualification

RCP—rear cockpit

RNAV—terminal area navigation

ROE—rules of engagement

RQ—requalification

SE—single engine

TACAN—tactical air navigation system

TOT—time on target

UPT—undergraduate pilot training

VOR—vhf omnidirectional radio range

WSO—Weapon System Officer

Terms

Airwork—basic proficiency maneuvers including aerobatics, confidence maneuvers, approaches to stalls, BFM, formation maneuvering (fingertip, tactical, trail), and aircraft handling characteristics.

Pilot instructor training—Instructor pilot training conducted under an AETC T-38 PIT or Euro-NATO Joint Jet Pilot Training (ENJJPT) pilot instructor training syllabus.

Undergraduate pilot training—Pilot training conducted under a USAF specialized undergraduate pilot training, ENJJPT, and USAF fixed-wing qualification training syllabus.