

**U-2--AIRCREW STANDARDIZATION/EVALUATION CRITERIA**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY!** This volume, in conjunction with applicable sections of AFI 11-408, implements AFPD 11-2, *Flight Rules and Procedures*, and AFPD 11-4, *Aviation Service*. It contains detailed procedures and criteria for evaluation of all pilots flying U-2 aircraft. This publication does not apply to Air National Guard (ANG) or US Air Force Reserve (USAFR) units and members. Supplements to this publication must be approved by HQ ACC/DOYR. Forward draft supplements through channels to HQ ACC/DOYR, 205 Dodd Blvd, Suite 101, Langley AFB, VA 23665-2789. Also, forward a copy of all published supplements to HQ ACC/DOYR for post-publication review. Send comments and suggested improvements to this volume on AF Form 847, **Recommendation for Change of Publication**, through channels, to HQ ACC/DOYR. See paragraph 1.2 of this publication.

**SUMMARY OF REVISIONS**

Allows option of completing both qualification and mission evaluation requirements on a single sortie. Allows mission evaluations in conjunction with operational missions. Completely new format to conform to other ACC 11-MDS volumes 2.

**Supersedes:** ACCR 60-2, Volume 11, 7 May 1993

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## Chapter 1

### GENERAL INFORMATION

**1.1. General.** Conduct all evaluations in accordance with (IAW) the provisions of AFI 11-401, AFI 11-408, ACC SUP 1, BAFB SUP 1, and this volume.

**1.2. Recommended Changes/Waivers.** Recommendations for improvements to this volume will be submitted on AF Form 847, **Recommendation for Change of Publication** (Flight Publication), IAW AFI 11-215. Waiver requests should be sent to ACC/DOYR. The Numbered Air Force (NAF) will be sent a copy for information. All waiver requests must include the following, as applicable:

- Name, rank, crew position, type aircraft, type of evaluation, expiration date, and applicable paragraph.
- Justification for waiver.
- Unit plan of action.

### 1.3. Procedures:

1.3.1. Stan/Eval Flight Examiners (SEFEs) will use the evaluation criteria contained in Chapter 3 for conducting all flight and emergency procedure evaluations.

1.3.2. An individual with an expired Qualification Evaluation may not perform Qualification or Mission activities unsupervised. An individual with an expired Mission Evaluation may accomplish Qualification areas inflight and unsupervised if the Qualification Evaluation remains current and in effect. Qualification, Mission, and Instrument evaluations establish an expiration date. There is the possibility of one expiring before the other. If this occurs, complete required activity as necessary.

1.3.3. Pilots normally take their instrument evaluations in the Companion Trainer Program (CTP) T-38. Pilots not participating in the CTP will take instrument evaluations in the front seat of the U-2RT/ST. Required items for U-2 instrument evaluations are listed in paragraph 2.6, Table of Required Areas.

1.3.4. To complete Qualification and Mission evaluations all required areas must be successfully accomplished. Required areas are shown in paragraph 2.6. When conditions such as equipment malfunction, operational requirements, or weather preclude evaluation of a particular event inflight, it may be evaluated by an alternate method and will be documented in the Additional Comments portion of the AF Form 8.

1.3.5. Given the unique demands of the pressure suit and high altitude environment, the Mission evaluation is normally flown separately from the Qualification evaluation. The evaluatee does have the option of attempting completion of Qualification items during the Mission evaluation. If the evaluatee wishes to take this option, it must be briefed in advance (before takeoff) with the SEFE, and approved by OGV. To receive credit, all required items must be accomplished. At any point in the flight, the evaluatee may elect not to complete the Qualification portion; however, all items already accomplished must be graded by the SEFE.

1.3.6. The SEFE will brief the examinee on the purpose of the evaluation and how it will be conducted prior to flight. The evaluatee will accomplish all mission planning for Qualification evaluations. For Mission evals, the mission planner will provide a mission kit for study and review. Do not grade the individual for those products computed by others. The individual is responsible to ensure the data used in the aircraft is accurate and effective for mission accomplishment. Higher Headquarters (HQ) flight examiners (and unit flight examiners as determined locally) will be furnished a copy of necessary charts, flight logs, and any additional items they deem necessary.

1.3.7. For non-instructor evaluations in the U-2RT/ST, the SEFE will occupy the rear cockpit. For IP evaluations, the SEFE will occupy the front cockpit.

1.3.8. Ground based video recorders and aircraft tracker camera film may be used to reconstruct and evaluate the mission.

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

#### **1.4. Grading Instructions:**

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

1.4.2. Standards and performance parameters are contained in AFI 11-408 and this instruction. The following criteria will be applied during all phases of flight except instrument finals and as noted for specific events:

Q: Altitude +/- 200 feet  
Airspeed +/- 10 knots  
Course +/- 5 degrees/3 NM  
TACAN Arc +/- 2 NM

Q-: Altitude +/- 300 feet  
Airspeed +/- 15 knots  
Course +/- 10 degrees/5 NM  
TACAN Arc +/- 3 NM

U: Exceeded Q limits

1.4.3. The flight examiner will compare the evaluatee's performance for each area with the standards provided and assign an appropriate grade for each area. The overall flight evaluation grade is derived from the area grades and is based on a composite of the observed events and tasks IAW AFI 11-408 and this instruction. If the examinee receives an unqualified area grade in any of the critical areas identified by this volume, an overall unqualified grade will be assigned.

**1.5. Emergency Procedures Evaluation (EPE).** The EPE will be conducted as a Ground Phase requisite of the Qualification Evaluation, Mission Evaluation, and Instrument Evaluation. The EPE for the Qualification Evaluation should be conducted in the Aircrew Training Device (ATD) when possible. If the ATD is unavailable, the EPE may be oral. Only flight examiners may conduct EPEs.

1.5.1. The following items will be included on all EPEs:

1.5.1.1. Aircraft General Knowledge.

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

1.5.1.3. Instrument unusual attitude recoveries. Inflight unusual attitude recoveries will not be evaluated in the U-2. Unusual attitude recoveries will be evaluated during the EPE. This "alternate" means of evaluation need not be documented on the AF Form 8.

1.5.2. The following additional items should be included on the emergency procedures evaluation given as a requisite to the mission evaluation. Mission evaluation scenarios should be tailored to unit tasking and include areas not normally evaluated in flight.

1.5.2.1. Sensor system operation.

1.5.2.2. Electronic Counter Measures (ECM) / Radar Warning Receiver (RWR).

1.5.3. Examinees receiving an overall unqualified grade will be placed in supervised status until recommended additional training is completed and/or a reevaluation is successfully accomplished. Examinees receiving an overall unqualified grade because of an unsatisfactory Bold Face Emergency/Critical Action Procedure accomplishment will not be permitted to fly in their aircrew position until a successful reevaluation is accomplished. On EPEs graded as qualified with additional training, the SEFE will indicate whether the additional training need be accomplished before the next flight. Additional training and reevaluations will be accomplished IAW AFI 11-408.

**1.6. Documentation of Sensor Employment Results.** Sensor employment results, to the extent that they are unclassified, should be documented in the Mission Description section of the AF Form 8 for mission evaluations when possible. When classification or other circumstances prevent such documentation, a statement describing overall mission effectiveness should be included.

**1.7. Records Disposition.** Records will be disposed of IAW AFMAN 37-139.

## Chapter 2

### EVALUATION REQUIREMENTS

#### 2.1. General:

2.1.1. Evaluation requirements for qualification, instrument, and mission evaluations listed in this chapter are generic. Specific areas required are listed in paragraph 2.6., Table of Required Areas. Prior to the mission, the flight examiner will ensure the evaluatee understands which areas will be evaluated. The criteria in Chapter 3 will be used to evaluate the mission.

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

**2.2. Qualification Evaluation.** Because the majority of U-2 pilots participate in the T-38 CTP program, Instrument requisites and the Instrument Evaluation are normally completed in conjunction with the T-38 Qual /Instrument evaluation and the U-2 Qualification Evaluation is administered as a separate event. The following items are requisites for initial and recurring evaluations. On an Initial U-2 RT/ST Instructor Evaluation, the evaluatee may update the Qualification expiration date if requisites have been accomplished IAW AFI 11-408.

2.2.3. Qualification Exam (Closed Book).

2.2.4. Bold Face Exam

2.2.5. Qualification Exam (Open Book).

2.2.6. EPE.

**2.3. Instrument/Qualification Evaluation.** For those pilots taking a combined Instrument/Qualification Evaluation in the U-2RT/ST, a mission flown according to instrument flight rules (to the maximum extent practical) best fulfills the objective of the evaluation. To the maximum extent possible, this evaluation will include approaches at airfields other than home or deployed locations. The following additional Instrument requisites apply.

2.3.1. Instrument Refresher Course (IRC) Training IAW AFI 11-401.

2.3.2. Instrument (IRC) examination.

**2.4. Mission Evaluation.** Scenarios that represent unit Designed Operational Capability (DOC) statement tasking satisfy the requirements of this evaluation. Evaluations during exercises or deployments are permitted.

2.4.1. The tracker camera will be used for all initial Mission Evaluations.

2.4.2. For Mission Evaluations flown from the home station, profiles resembling operational missions, e.g. domestic imagery collections, are encouraged when available. If such a mission is unavailable, a minimum of one hour of Photo Flight Line (PFL) and approximately one hour of Dead Reckoning (DR) navigation will be scheduled. Thirty minutes of scorable PFL is required to complete all initial Mission Evals. On recurring evals the PFL can be verbally debriefed if unscorable due to weather or tracker camera malfunction. Do not delay completion of recurring evaluations due to weather or equipment problems for this grading area. For the PFL, pilots are not charged with deviations exceeding 3NM when the undercast is 4/10 or more for a distance of 20 NM before or during a PFL. If undercast is 4/10 or more, pilots should continue to navigate along the route using all means available. If weather conditions

improve to less than 4/10 undercast, three minutes is allowed to establish position and correct back to PFL centerline using approximately a 30 degree correction.

2.4.3. For Mission Evaluations flown on operational reconnaissance missions overseas, successful accomplishment will be based on the requested intelligence information and/or SEFE judgment. SEFEs will consider mission effectiveness reports and/or consult ground station or plot board operators for feedback on evaluatee performance. Targets not acquired due to adverse weather, verified sensor malfunction or threat reaction will not be charged against the pilot.

## **2.5. Instructor Evaluations:**

2.5.1. All pilots selected for instructor duty must be evaluated to determine their judgment, technical knowledge, instructor ability (including error analysis of student activity), and use of grading documents as well as flying proficiency.

2.5.2. Instructors must demonstrate proficiency by instructing a student (or qualified individual acting as a student). The evaluator may require the evaluatee to present verbal explanations of equipment operations, procedures, and techniques. Evaluators must exercise sound judgment to ensure oral questions and instructions are clear, concise, pertinent to the individual's crew duties, and do not interfere with normal mission accomplishment. The evaluator may forego additional demonstration or instruction based on time available and other factors.

2.5.3. For scheduled instructor evaluations, an evaluator who desires a critique of areas not covered in the evaluatee's prebrief will allow the evaluatee sufficient time to prepare the critique. For HHQ Stan/Eval administered evaluations, the evaluator will provide the evaluatee a performance critique as soon as possible following the evaluatee's critique.

2.5.4. The initial evaluation for single-seat U-2R/S (Phase II) instructors is administered in the mobile vehicle. Recurring evaluations in the mobile are not required as long as IP duties are sampled on recurring Qualification and Mission evaluations.

2.5.5. The initial evaluation for two-seat U-2RT/ST (Phase III) instructors is administered in the U-2 RT/ST. This evaluation will include satisfactory demonstration of overhead, straight-in, and emergency patterns and landings performed from the rear cockpit. IP duties will be sampled on recurring Qualification evaluations in the U-2RT/ST (to include rear-cockpit patterns and landings) and on Mission evaluations (normally flown in the U-2R/S).

2.5.6. An instructor receiving an area grade of U or Q- with additional training in any instructor area will receive an overall Qual level 3 for the instructor evaluation.

2.5.7. An instructor receiving an area grade of U or Q- with additional training in any grading area may not perform instructor duties until additional training and/or a successful re-evaluation is complete. This restriction is placed in the comments and YES is marked in the "restrictions" block.

## **2.6. Table of Required Areas:**

- Indicates areas required for all evaluations as identified below.
- "IP" indicates additional areas required for all instructors.
- "IPT" indicates additional areas required for U-2RT/ST instructors.
- "Non-CTP" indicates instrument items required for non CTP participants.
- Grade only those areas observed or recorded.

AREA	NOTES	TITLE	QUALIFICATION EVALUATION	MISSION EVALUATION
<b>GENERAL</b>				
1		Mission Planning	R	R
2		Briefing	R	R
3		Ground Operations	R	R
4	(CRITICAL)	Takeoff	R	R
5		Departure	R	R
6		Level-off	R	R
7		Cruise		R
8		Inflight Checks	R	R
9		Equipment Operation	R	R
10		Comm/IFF/SIF	R	R
11		Crew Coordination	R	R
12		Normal VFR Pattern/Approach	R	
13	(CRITICAL) 1	Landings	R	R
14		Go-around		
15	(CRITICAL)	Emergency Patterns	R	
16		Knowledge	R	R
17	(CRITICAL)	Airmanship	R	R
18	(CRITICAL)	Safety	R	R
19	(CRITICAL)	Aircrew Discipline	R	R
20	2	Flight Characteristics Demonstration	IPT	
21	2	Approach to Stall	IPT	
22	2	High Speed Taxi Demo	IPT	
23		Instructor Performance	IP	IP
<b>NOTES:</b>				
1. For Qualification Evaluations, landings are required from both normal and no-flap patterns. One of these landings must be made no-voice.				
2. Required on initial IPT evaluations only.				

AREA	NOTES	TITLE	QUALIFICATION EVALUATION	MISSION EVALUATION
<b>INSTRUMENT</b>				
24	3	Holding	Non-CTP	
25	3	Instrument Penetration or Enroute Descent	Non-CTP	
26	3	Non-precision Approach	Non-CTP	
27	3, 4	Precision Approach	Non-CTP	
28	3	Missed Approach/Climbout	Non-CTP	
29	3	Circling/Side-step Approach		
30		Instrument Cross Check	Non-CTP	
<b>NOTES:</b>				
3. For U-2RT/ST instructor evaluations, a sampling of instrument approaches and procedures is desired.				
4. Both a PAR and an ILS must be evaluated if equipment and facilities are available. However, if facilities or equipment are not available, the flight evaluation may be completed as long as one precision approach is flown. Document on the AF Form 8 if only one precision approach is				

flown. See AFI 11-408 for specific guidance.

AREA	NOTES	TITLE	QUALIFICATION EVALUATION	MISSION EVALUATION
<b>MISSION</b>				
31	5	Photo Flight Line (PFL)		R
32	5	DR Navigation		R
33		INS Orbit Exercise		
34	6	Sensor Operation		R
<b>NOTES:</b>				
5. Required for Mission evaluations flown with tracker camera only. See paragraph 2.4.2 for details on scheduling and scoring PFL and DR Nav.				
6. Required for Mission evaluations flown with sensors other than the tracker camera.				

### Chapter 3

#### PILOT EVALUATION CRITERIA

**3.1. General.** This chapter consists of criteria established by experience, policies, and procedures set forth in the flight manuals and other governing directives. These criteria ensure the most objective and standardized evaluations. Evaluators must realize these grading criteria cannot cover every situation. Overall performance ratings combine inflight and ground requisite performances tempered by sound evaluator judgment.

#### 3.2. Table of Evaluation Criteria:

<b>AREA 1. MISSION PLANNING.</b>	
<b>1A. Publications.</b>	
<b>Q</b>	Assigned flight manual publications were current, and contained only minor deviations, omissions, and/or errors, and usable for any of the unit's combat taskings.
<b>Q-</b>	Assigned flight manual publications contained deviations, omissions, and/or errors; however, contained everything necessary to effectively accomplish the mission and did not compromise safety of flight.
<b>U</b>	Not up to "Q-" standards.
<b>1B. Mission Preparation.</b>	
<b>Q</b>	Developed a sound plan to accomplish the mission. Checked all factors applicable to flight--for example, weather, NOTAMS, alternate airfields, flight logs, performance data, fuel requirements, maps, etc.--in accordance with applicable directives. Aware of alternatives available if flight could not be completed as planned.
<b>Q-</b>	Same as above, except minor deviations, errors or omissions that did not detract from mission effectiveness. Knowledge of performance capabilities or approved operating procedures and rules marginal in some areas.
<b>U</b>	Major errors, omissions or deviations that would preclude safe and effective mission accomplishment. Faulty knowledge of operating data or procedures. Did not sign off FCIF prior to flight.
<b>AREA 2. BRIEFING.</b>	
<b>2A. Organization.</b>	
<b>Q</b>	Well organized and presented in a logical sequence. Concluded briefing in time to allow for preflight of personal equipment and aircraft.
<b>Q-</b>	Events out of sequence, hard to follow, some redundancy.
<b>U</b>	Disorganized. Illogical sequence during presentation caused confusion. Did not allow time for preflight of personal equipment and aircraft.
<b>2B. Presentation.</b>	
<b>Q</b>	Presented briefing in a professional manner. Effectively used training aids. Crew member and/or mobile officer clearly understood mission requirements.
<b>Q-</b>	Did not make effective use of available training aids. Dwelled on non-essential mission items.
<b>U</b>	Did not use training aids. Presentation created doubts or confusion.



<b>2C. Mission Objectives.</b>	
Q	Established objectives for the mission. Presented all training events and effectively addressed techniques for accomplishing the mission.
Q-	Objectives undefined and poorly quantified. Omitted minor training events. Limited discussion of techniques.
U	Did not establish objectives for the mission. Omitted major training events or did not discuss techniques.
<b>AREA 3. GROUND OPERATIONS.</b>	
<b>3A. Pre-Takeoff</b>	
Q	Established and adhered to station, start engine, taxi, and take-off times to assure thorough preflight, check of personal equipment, briefing, etc. Performed all checks and procedures prior to takeoff in accordance with approved checklists and applicable directives.
Q-	Same as above except for minor procedural deviations that did not detract from mission effectiveness.
U	Omitted major items of the appropriate checklist. Major deviations in procedure that would preclude safe mission accomplishment. Failed to accurately determine readiness of aircraft for flight. Errors directly contributed to a late takeoff that degraded the mission or made it non-effective.
<b>3B. After Landing</b>	
Q	Appropriate after-landing checks and aircraft taxi procedures accomplished in accordance with the flight manual and applicable directives. Completed all required forms accurately.
Q-	Same as qualified except some deviations or omissions noted in performance of after-landing check and/or aircraft taxi procedures. Safety was not jeopardized. Required forms completed with minor deviations, omissions, or errors.
U	Major deviations, omissions, or errors were made in performance of after-landing check or aircraft taxi procedures that could have jeopardized safety. Data recorded inaccurately or omitted
<b>AREA 4. TAKEOFF (CRITICAL).</b>	
Q	Smooth aircraft control throughout takeoff. Performed takeoff in accordance with flight manual procedures.
Q-	Minor flight manual procedural or technique deviations. Some under or over control at liftoff.
U	Lift-off potentially dangerous. Exceeded aircraft or systems limitations. Failed to establish proper climb attitude. Over-controlled aircraft resulting in excessive deviations from intended flight path.
<b>AREA 5. DEPARTURE.</b>	
Q	Performed departure as published or directed and complied with all restrictions.
Q-	Minor deviations in airspeed and navigation occurred during completion of departure
U	Failed to comply with published or directed departure instructions.
<b>AREA 6. LEVEL-OFF.</b>	
Q	Leveled off smoothly. Promptly established proper cruise airspeed.
Q-	Level-off was erratic. Slow in establishing proper cruise airspeed.
U	Level-off was erratic. Exceeded Q- limits. Excessive delay or failed to establish proper cruise airspeed. Failed to reset altimeter, if required.
<b>AREA 7. CRUISE.</b>	
Q	Demonstrated satisfactory capability to navigate using all available means. Properly recorded all flight data on the "green card." Ensured nav aids were properly tuned, identified, and monitored. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace. Fix- to-Fix +/- 2NM.
Q-	Minor errors in procedures or use of navigation equipment. Minor omissions or errors on "green card." Some deviation in tuning, identifying, and monitoring nav aids. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Fix- to- Fix +/-4NM.
U	Major errors in procedures or use of navigation equipment. Could not establish position. Did not remain within the confines of assigned airspace. Major omissions or errors on "green card."

<b>AREA 8. INFLIGHT CHECKS.</b>	
<b>Q</b>	Performed all inflight checks as required.
<b>Q-</b>	Same as qualified, except for minor deviations, errors, or omissions during checks. Did not detract from mission accomplishment.
<b>U</b>	Major deviations, errors, or omissions that detracted from mission accomplishment. Did not perform inflight checks or monitor systems to the degree that an emergency condition would have developed if allowed to continue uncorrected.
<b>AREA 9. EQUIPMENT OPERATION.</b>	
This area includes applicable aircraft systems operation as prescribed in all flight manuals and other governing directives. Also include the individual's system knowledge and proper operating procedures, analysis of equipment malfunctions, and use of proper corrective action.	
<b>Q</b>	Operated equipment according to procedures and checklists contained in the flight manuals and governing directives. Accurately and efficiently analyzed equipment malfunctions with consistent mission results. No damage or significant system degradation resulted from operator inputs or lack of knowledge.
<b>Q-</b>	Operated equipment with deviations, omissions, or errors from procedures required by the flight manual or governing directives. Equipment malfunctions were consistently ignored, analyzed in error, or caused by erroneous data insertion or faulty operator techniques. The level of performance or knowledge was the minimum acceptable and warrants assigned study and/or additional training. Did not damage equipment.
<b>U</b>	Not up to "Q-" standards. Damaged equipment. Could not obtain acceptable results due to poor operational techniques or procedures.
<b>AREA 10. COMM/IFF/SIF.</b>	
<b>Q</b>	Complete knowledge of and compliance with correct Comm/IFF/SIF procedures. Transmissions concise with proper terminology. Complied with and acknowledged all required instructions.
<b>Q-</b>	Occasional deviations from correct procedures that required retransmissions or resetting codes. Slow in initiating required actions. Transmissions contained extraneous matter, were not in proper sequence, or used nonstandard terminology.
<b>U</b>	Incorrect procedures or poor performance precluded mission accomplishment or jeopardized safety.
<b>AREA 11. CREW COORDINATION. (U2RT/ST or with mobile)</b>	
<b>Q</b>	Effectively coordinated with other crewmember or mobile without misunderstanding.
<b>Q-</b>	Coordinated with other crewmember or mobile with minor exceptions. Intra-crew communications were not clear or concise.
<b>U</b>	Breakdown in coordination with other crewmember or mobile precluded mission accomplishment or jeopardized safety.
<b>AREA 12. NORMAL VFR PATTERN or APPROACH.</b>	
Normal VFR patterns and approaches begin when the aircraft arrives at Initial, initiates a closed pattern, or begins a visual final approach. They are graded up to the point that power would normally be reduced for landing, or a go-around is begun.	
<b>Q</b>	Performed patterns and approaches IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Aircraft control was smooth and positive. Accurate runway alignment. Maintained proper airspeed +10/-3 knots
<b>Q-</b>	Performed patterns or approaches with minor deviations to procedures and techniques outlined in the flight manual, operational procedures and local directives. Aircraft control was not consistently smooth, but safe. Variations in runway alignment. Slow to correct to proper airspeed. Airspeed +15/-5 knots
<b>U</b>	Approaches not performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Erratic aircraft control. Used bank angles greater than 30 degrees to fly pattern. Large deviations in runway alignment. Exceeded Q parameters

<b>AREA 13. LANDINGS (CRITICAL).</b>	
The following evaluation criteria apply to minimum-run landings as well.	
<b>13A. Landings with altitude calls (sorties of 6.5 hours duration or less).</b>	
Q	Performed landings IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Touchdown point -- first third of the runway.
Q-	Performed landings with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Touchdown attitude slightly main-gear first. Small amount of drift or crab that did not affect aircraft control. Skips and bounces did not exceed 2 ft. Touchdown point would have been beyond the first third of the runway if go-around not initiated.
U	Landing not performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Drift, crab, skips and bounces exceeded Q- criteria.
<b>13B. Landings without altitude calls (no voice) or with altitude calls on sorties &gt; 6.5 hours.</b>	
Q	Performed landings IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Skips did not exceed 2 ft. Touchdown point--first third of the runway.
Q-	Performed landings with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Small amount of drift or crab that did not affect aircraft control. Skips and bounces did not exceed 2 ft. Touchdown point would have been beyond the first third of the runway if go-around not initiated.
U	Landing not performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Aircraft landed main-gear first and entered a PIO. Drift, crab, skips and bounces exceeded Q- criteria.
<b>AREA 14. GO-AROUND.</b>	
Q	Initiated and performed go-around promptly in accordance with flight manual and operational procedures and directives.
Q-	Slow to initiate go-around. Made minor procedural errors.
U	Did not self-initiate go-around when appropriate or directed. Techniques unsafe or applied incorrect procedures. Erratic aircraft control. Large deviations in runway alignment.
<b>AREA 15. EMERGENCY PATTERNS &amp; APPROACHES (CRITICAL).</b>	
Ensure that all subareas are evaluated to include SFOs with and without flaps. Additional parameters associated with specific emergency patterns are listed in their subareas.	
Q	Used sound judgment. Configured at the appropriate position and altitude. Flew final based on recommended procedures, airspeed, and glidepath. Smooth, positive control of aircraft. Could have landed safely. Set parameters for ejection if necessary.
Q-	Safety not compromised. Configured at a position and altitude that allowed for a safe approach. Could have landed safely with the following deviations: (1) Minor deviations from recommended procedures, airspeed, and altitudes. (2) Unnecessary maneuvering due to minor errors in planning or judgment.
U	Judgment unsafe. Major deviations from recommended procedures, airspeed, and altitudes. Required excessive maneuvering due to inadequate planning or judgment. Could not have landed safely.
<b>15A. SIMULATED FLAMEOUT (SFO)</b>	
SFOs are graded from high key down to 10 feet. For the purpose of evaluating energy management, do not plan on using the spoilers until reaching 10 ft. Use of spoilers is authorized to ensure arrival at 10 ft within parameters. The evaluator may request to see the maneuver repeated without the use of spoilers.	
Q	Airspeed +10/-2 kts. Arrived at 10 feet between the threshold and the first 1/3 of runway available. Smoothly maneuvered to target zone and in a safe position to land upon reaching 10 ft.
Q-	Airspeed +10/-5 knots. Crossed threshold below 10 feet. Arrived at 10 feet between 1/3 and 1/2 of runway available. Unable to successfully perform the maneuver to Q standards without relying on the use of spoilers.
U	Failure to meet Q- parameters or excessive maneuvering required to hit target zone, due to misjudgment of wind or energy state.

<b>15B. NO-FLAP PATTERN.</b>	
The evaluator may request to sample another no-flap pattern if spoilers are required to correct for a poorly planned or flown no-flap pattern.	
<b>Q</b>	Cross the threshold with airspeed +5/-0 knots & an altitude of 3 ft to 10 ft
<b>Q-</b>	Cross the threshold with airspeed +10/-1 knots & an altitude of 1 ft to 3 ft, or 11 ft to 20 ft. Unable to successfully perform the maneuver to Q standards without relying on the use of spoilers.
<b>U</b>	Failure to meet Q- parameters
<b>AREA 16. KNOWLEDGE.</b> (Ensure that all applicable subareas are evaluated.)	
<b>16A. Aircraft General.</b>	
<b>Q</b>	Thorough knowledge of aircraft systems, limitations, and performance characteristics.
<b>Q-</b>	Knowledge of aircraft systems, limitations, and performance characteristics sufficient to perform the mission safely. Deficiencies either in depth of knowledge or comprehension.
<b>U</b>	Unsatisfactory knowledge of aircraft systems, limitations, or performance characteristics.
<b>16B. Emergency Procedures.</b>	
<b>Q</b>	Correct, immediate response to Bold Face and non-Bold Face emergency situations. Effectively used checklist or flight manual.
<b>Q-</b>	Response to Bold Face emergencies 100% correct. Response to certain areas of non-Bold Face emergencies or follow-on steps to Bold Face procedures was slow or confused. Used the checklist or flight manual when appropriate, but slow to locate required data.
<b>U</b>	Incorrect response for Bold Face emergency. Unable to analyze problems or take corrective action. Did not use checklist or flight manual, or lacks acceptable familiarity with their arrangement or contents.
<b>16C. Flight Rules and Procedures.</b>	
<b>Q</b>	Thorough knowledge of flight rules and procedures. Thorough knowledge of local area procedures.
<b>Q-</b>	Deficiencies in depth of knowledge. Limited knowledge of local area procedures.
<b>U</b>	Inadequate knowledge of flight rules and procedures. Inadequate knowledge of local area procedures.
<b>AREA 17. AIRMANSHIP (CRITICAL).</b>	
<b>Q</b>	Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.
<b>U</b>	Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.
<b>AREA 18. SAFETY (CRITICAL).</b>	
<b>Q</b>	Aware of and complied with all safety factors required for safe aircraft operations and conduct of the mission.
<b>U</b>	Was not aware of or did not comply with all safety factors required for safe operations or conduct of the mission. Did not adequately clear. Operated the aircraft in a dangerous manner. Failed to correctly accomplish Bold Face procedures.
<b>AREA 19. AIRCREW DISCIPLINE (CRITICAL).</b>	
<b>Q</b>	Demonstrated strict professional flight and crew discipline throughout all phases of the mission.
<b>U</b>	Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations.
<b>AREA 20. FLIGHT CHARACTERISTICS DEMONSTRATION.</b>	
<b>Q</b>	Aircraft control during maneuvering was positive and smooth. Maneuvering performed IAW techniques and procedures outlined in the flight manual, operational procedures, and local directives.
<b>Q-</b>	Aircraft control during maneuvers not always smooth and positive, but adequate. Minor procedural deviations.
<b>U</b>	Aircraft control erratic. Aircraft handling caused unsatisfactory accomplishment of maneuvers. Temporary loss of aircraft control. Exceeded Q- criteria.

<b>AREA 21. APPROACH TO STALL.</b>	
Q	Accurate recognition of approach to stall indications. Smooth, positive recovery to level flight with minimal altitude loss. Used correct procedures.
Q-	Slow to recognize and recover from stall indications. Correct recovery procedures used.
U	Unable to recognize approach to stall indications. Incorrect recovery procedures used or allowed aircraft to enter a fully stalled condition. Excessive altitude lost during recovery.
<b>AREA 22. HIGH SPEED TAXI DEMONSTRATION.</b>	
Q	Performed demonstration IAW procedures and techniques outlined in the flight manual, operational procedures, local directives, and the appropriate syllabus.
Q-	Performed demonstration with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, local directives, and the appropriate syllabus.
U	Does not meet Q- criteria.
<b>AREA 23. INSTRUCTOR PERFORMANCE.</b>	
<b>23A. Briefing &amp; Debriefing.</b>	
Q	Presented a comprehensive, instructional briefing and debriefing that encompassed all mission events. Made use of available training aids. Analyzed all events and maneuvers. Clearly defined objectives.
Q-	Minor errors or omissions in briefing, debriefing, or mission critique. Occasionally unclear in analysis of events or maneuvers.
U	Major errors or omissions in briefing or debriefing. Analysis of events or maneuvers was incomplete, inaccurate, or confusing. Did not use available training aids or reference material effectively. Briefing or debriefing below the caliber of that expected of instructors. Failed to define mission objectives.
<b>23B. Demonstration of Maneuvers.</b>	
Q	Performed required maneuvers within prescribed parameters. Provided concise, meaningful inflight commentary. Demonstrated sound instructor proficiency.
Q-	Performed required maneuvers with minor deviations from prescribed parameters. Inflight commentary was sometimes unclear.
U	Was unable to properly perform required maneuvers. Made major procedural errors. Did not provide inflight commentary. Demonstrated below-average instructor proficiency.
<b>23C. Instructor Knowledge.</b>	
Q	Demonstrated in-depth knowledge of procedures, requirements, aircraft systems & performance characteristics, mission, and tactics beyond that expected of non-instructors.
Q-	Deficiencies noted in the depth of knowledge, comprehension of procedures, requirements, aircraft systems & performance characteristics, mission, or tactics.
U	Unfamiliar with procedures, requirements, aircraft systems & performance characteristics, mission, or tactics. Lack of knowledge in certain areas seriously detracted from instructor effectiveness.
<b>23D. Training &amp; Evaluation Forms Preparation (if applicable).</b>	
Q	Completed appropriate training records accurately. Adequately assessed and recorded performance. Comments were clear and pertinent.
Q-	Minor errors or omissions in training & evaluation records. Comments were incomplete or slightly unclear.
U	Did not complete required forms or records. Comments were invalid, unclear, or did not accurately document performance.
<b>23E. Ability to Instruct.</b>	
U	Demonstrated sound instructor ability. Clearly defined all mission requirements and any required additional training or corrective action. Instruction and evaluation was accurate, effective, and timely. Was completely aware of aircraft and mission situation at all times.
Q-	Problems in communication or analysis degraded effectiveness of instruction or evaluation.
U	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 and mission situation at all times.

<b>AREA 24. HOLDING</b>	
<b>Q</b>	Entry and holding procedures IAW applicable directives. Pattern limit exceeded by not more than: --TACAN +/- 2 NM --EFC +/- 2 minutes (if assigned).
<b>Q-</b>	Pattern limit exceeded by not more than: --TACAN +/- 3 NM --EFC +/- 3 minutes (if assigned).
<b>U</b>	Exceeded criteria for Q- or holding pattern limits.
<b>AREA 25. INSTRUMENT PENETRATION or ENROUTE DESCENT.</b>	
<b>Q</b>	Performed the penetration or enroute descent and approach as published or directed and IAW applicable flight manuals. Complied with all restrictions. Made smooth and timely corrections.
<b>Q-</b>	Performed the penetration or enroute descent and approach with minor deviations. Complied with all restrictions. Slow to make corrections.
<b>U</b>	Performed the penetration or enroute descent and approach with major deviations. Erratic corrections.
<b>AREA 26. NON-PRECISION APPROACH.</b>	
<b>Q</b>	Adhered to all published or directed procedures and restrictions. Used appropriate descent rate to arrive at MDA at or before VDP/MAP. Position would have permitted a safe landing. --Airspeed +10/-5 kts --Heading $\pm 5$ degrees (ASR) --Course $\pm 5$ degrees at MAP --Localizer less than one dot deflection --Minimum Descent Altitude +100/-25 feet
<b>Q-</b>	Performed approach with minor deviations. Arrived at MDA at or before the MAP, but past the VDP. Position would have permitted a safe landing. --Airspeed +15/-10 kts --Heading $\pm 10$ degrees (ASR) --Course $\pm 10$ degrees at MAP --Localizer within two dot deflection --Minimum Descent Altitude +150/-50 feet <b>NOTE:</b> The -50 foot tolerance applies only to momentary deviations. --Timing +/- 20 secs
<b>U</b>	Did not comply with published or directed procedures or restrictions. Exceeded Q- limits. Maintained steady-state flight below the MDA. Could not land safely from the approach.
<b>AREA 27. PRECISION APPROACH.</b>	
<b>Q</b>	Performed procedures as directed and IAW applicable flight manual. Smooth and timely response to controller's instructions. Complied with decision height. Position would have permitted a safe landing. Maintained glide path with only minor deviations. --Airspeed +10/-5 kts -- <b>PAR:</b> Heading within 5 degrees of controller's instructions -- <b>ILS:</b> Glide Slope/Azimuth within one dot
<b>Q-</b>	Performed procedures with minor deviations. Slow to respond to controller's instructions. Position would have permitted a safe landing. Improper glide path control. Initiated appropriate action at Decision Height +/- 50 feet. --Airspeed +15/-10 kts -- <b>PAR:</b> Heading within 10 degrees of controller's instructions. -- <b>ILS:</b> Glide Slope within one dot low to two dots high Azimuth within two dots.
<b>U</b>	Performed procedures with major deviations. Erratic corrections. Did not respond to controller's instructions. Erratic glide path control. Did not comply with decision height or position would not have permitted a safe landing.

<b>AREA 28. MISSED APPROACH or CLIMB-OUT.</b>	
<b>Q</b>	Executed missed-approach or climb-out as published or directed. Completed all procedures IAW applicable flight manual.
<b>Q-</b>	Executed missed approach or climb-out with minor deviations. Slow to comply with published procedures, controller's instructions, or flight manual procedures.
<b>U</b>	Executed missed approach or climb-out with major deviations, or did not comply with applicable directives.
<b>AREA 29. CIRCLING or SIDE-STEP APPROACH.</b>	
<b>Q</b>	Performed circling or side-step approach in accordance with procedures outlined in the flight manual and directives. Aircraft control was positive and smooth. Proper runway alignment. Airspeed: +10/-5 knots.
<b>Q-</b>	Performed circling or side-step approach with minor deviations to procedures outlined in the flight manual and directives. Aircraft control was not consistently smooth, but safe. Variations in runway alignment, but go-around not required. Airspeed: +20/-5 knots.
<b>U</b>	Circling or side-step approach not performed in accordance with procedures outlined in the flight manual and directives. Erratic aircraft control. Large deviations in runway alignment required go-around.
<b>AREA 30. INSTRUMENT CROSS-CHECK.</b>	
<b>Q</b>	Effective instrument cross-check. Smooth and positive aircraft control throughout the flight. Met "Q" criteria listed in General Criteria, applicable special events, or instrument final approaches.
<b>Q-</b>	Slow instrument cross-check. Aircraft control occasionally abrupt to compensate for recognition of errors. Met "Q-" criteria listed in General Criteria, applicable special events, or instrument final approaches.
<b>U</b>	Inadequate instrument cross-check. Erratic aircraft control. Exceeded Q- limits.
<b>AREA 31. PHOTO FLIGHT LINE. (See note 5, table 2.6)</b>	
<b>Q</b>	Performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. 90% of scored positions were within 3 NM of PFL track.
<b>Q-</b>	Performed with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Between 80% and 90% of scored positions were within 3 NM of PFL track.
<b>U</b>	Did not meet Q- criteria.
<b>AREA 32. DEAD-RECKONING NAVIGATION. (See note 5, table 2.6)</b>	
<b>Q</b>	Performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Circular error at end of DR Nav leg did not exceed 14 NM or 2 minutes, whichever is higher.
<b>Q-</b>	Performed with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Circular error at end of DR Nav leg did not exceed 20 NM or 3 minutes, whichever is higher.
<b>U</b>	Did not meet Q- criteria.
<b>AREA 33. INERTIAL NAVIGATION SYSTEM ORBIT EXERCISE. (See note 5, table 2.6)</b>	
<b>Q</b>	Performed with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Met ETA to orbit points within 2 minutes.
<b>Q-</b>	Performed with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Met ETA to orbit points within 3 minutes.
<b>U</b>	Did not meet Q- criteria.

<b>AREA 34. SENSOR and DATALINK OPERATION.</b>	
This area includes applicable aircraft sensor and datalink operation as prescribed in all flight manuals and other governing directives. Also includes the individual's system knowledge of proper operating procedures, analysis of equipment malfunctions, and use of proper corrective action.	
<b>Q</b>	Operated equipment according to procedures and checklists contained in the flight manuals and governing directives. Accurately and efficiently analyzed equipment malfunctions with consistent mission results. No damage or significant system degradation resulted from operator inputs or lack of knowledge.
<b>Q-</b>	Operated equipment with deviations, omissions, or errors from procedures required by the flight manual or governing directives. Equipment malfunctions were consistently ignored, analyzed in error, or caused by erroneous data input or faulty operator techniques. The level of performance or knowledge was the minimum acceptable and warrants assigned study or additional training. Did not damage equipment.
<b>U</b>	Not up to "Q-" standards. Damaged equipment. Could not obtain acceptable results due to poor application of procedures or operational techniques.



## Attachment 1

## GLOSSARY OF ABBREVIATIONS, ACRONYMS, AND TERMS

## Abbreviations and Acronyms

<b>Abbreviation or Acronym</b>	<b>Definition</b>
ACC	Air Combat Command
AFI	Air Force Instruction
AFPD	Air Force Policy Directive
AFR	Air Force Regulation
AFRES	Air Force Reserves
ASR	Airport Surveillance Radar
ATD	Aircrew Training Device
CC	Commander
CCTS	Combat Crew Training
COMM	Communication
CTP	Companion Trainer Program
CRM	Cockpit Resource Management
DEG	Degree
DH	Decision Height
DO	Director of Operations
DOTV	Director of Operations Training Standardization Evaluation
DOV	Director of Operations Standardization/Evaluation
DOYR	Director of Operations Reconnaissance Operations and Training
DR	Dead Reckoning
EP	Emergency Procedures
EPE	Emergency Procedures Evaluation
EW	Electronic Warfare
FCIF	Flight Crew Information File
FEF	Flight Evaluation Folder
FLT	Flight
FTU	Formal Training Unit
HF	High Frequency
HHQ	Higher Headquarters
HQ	Headquarters
IAS	Indicated Airspeed
IAW	In accordance with
IFF	Identification Friend or Foe
ILS	Instrument Landing System
INS	Inertial Navigation System
INSTMT	Instrument
INSTR	Instructor
IP	Instructor Pilot
IRC	Instrument Refresher Course
KIAS	Knots Indicated Airspeed
MAJCOM	Major Command
MCOPR	Major Command Office of Primary Responsibility
MCR	Multi-Command Regulation
MDA	Minimum Descent Altitude
MDS	Mission Design Series
MQF	Master Question File
MR	Mission Ready
MSN	Mission
N/A	Not available
NAF	Numbered Air Force

NF	No-Flap
N/N	No-Notice
NOTAMS	Notice to Airmen
OCR	Office of Collateral Responsibility
OG	Operations Group
OGV	Operations Group Standardization/Evaluation
OPR	Office of Primary Responsibility
P	Pilot
PAR	Precision Approach Radar
PCS	Permanent Change of Station
PFL	Photo Flight Line
QUAL	Qualification
Q	Qualified
R	Required
ROE	Rules of Engagement
SAV	Staff Assistance Visit
SELO	Standardization Evaluation Liaison Officer
SFO	Simulated Flameout
SIF	Selective Identification Feature
SIM	Simulator
SPINS	Special Instructions
SQ	Squadron
SQB	Secure Question Bank
SSAN	Social Security Number
STAN/EVAL	Standardization/Evaluation
T	Threshold
TDY	Temporary Duty
U	Unqualified
UHF	Ultra High Frequency
US	United States
USAF	United States Air Force
VDP	Visual Descent Point
VFR	Visual Flight Rule
VOR	VHF Omnidirectional Range

### Terms

**Deviation**--Performing an action not in sequence with current procedures, directives, or instructions. Performing actions out of sequence due to unusual or extenuating circumstances is not considered a deviation. In some cases, momentary deviations may be acceptable. Cumulative momentary deviations will be considered in determining the overall qualification level.

**Omission**--To leave out a required action.

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

**NOTE:** The following qualifiers apply to **deviation**, **omission**, and **error**:

- **Minor**--Did not detract from mission accomplishment, adversely affect use of equipment, or violate safety.
- **Major**--Detracted from mission accomplishment, adversely affected use of equipment, or violated safety.

*See AFI 11-408 for additional terms.*