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SECRETARY OF THE AIR FORCE**

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VOLUME 2**



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Flying Operations

U-2—PILOT EVALUATION CRITERIA

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFD 11-4, *Aviation Service*; AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*; and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. It applies to all U-2 units. This publication does not apply to the Air National Guard (ANG) or Air Force Reserve Command (AFRC). Major commands (MAJCOM)/direct reporting units (DRU)/field operating agencies (FOA) are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to AF/A3O-AI, through ACC/A3CH, for approval prior to publication IAW AFI 11-200. **NOTE:** The terms DRU and FOA as used in this paragraph refer only to those DRU/FOAs that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360, *Publications and Forms Management*. **NOTE:** See [paragraph 1.2](#) of this volume for guidance on submitting comments and suggesting improvements to this publication. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363 *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) maintained in the Air Force Records Information Management System (AFRIMS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional's chain of command.

This instruction requires the collection or maintenance of information protected by the Privacy Act of 1974, 5 U.S.C. § 552a. The authority to collect and maintain the records prescribed in this instruction are *Title 37 United States Code Section 301a, Incentive Pay, Public Law 92-204* (Appropriations Act for 1973), *Section 715; Public Law 93-570* (Appropriations Act for 1974); *Public Law 93-294* (Aviation Career Incentive Act of 1974); *DOD Directive 7730.57, Aviation Career Incentive Act and Required Annual Report*; *Air Force Instruction 11-401, Aviation*

Management; and Executive Orders 9397 and 13478. System of records notice F011 AF XO A, Aviation Resource Management System (ARMS) applies. The reporting requirements in this instruction are exempt from licensing IAW AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Intra-agency Air Force Information Collections.*

SUMMARY OF CHANGES

Corrects publication format IAW the latest release of AFI 33-360. Corrects OPR references throughout the document, due to changes in ACC office symbols. Updates references, acronyms and abbreviations, and definitions in Attachment 1. Deleted references to the Cockpit Procedures Trainer (CPT) and replaced with Mission Procedures Trainer (MPT). Updated mission evaluation requirements adding emphasis for combat operations, sensitive reconnaissance operations, and primary/backup navigation and communications system. Updated instructor evaluation guidance to clarify requirements for U-2S and TU-2S qualification and requalification evaluations. Added required areas and evaluation criteria for mobile evaluations. Modified evaluation criteria for threat reactions to include knowledge/use of the electronic warfare system. Added evaluation criteria for primary/backup communication and navigation procedures.

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Chapter 1

GENERAL INFORMATION

1.1. General. Conduct all evaluations in accordance with (IAW) the provisions of AFI 11-401, *Aviation Management*, AFI 11-202V2, and this volume.

1.1.1. Air Combat Command, C2ISR Operations Division (ACC/A3C), has overall responsibility for administration of this AFI.

1.1.2. Copies will be current and available to planning staffs from headquarters to aircrew level.

1.2. Recommended Changes/Waivers. Do not deviate from the policies and guidance in this AFI under normal circumstances. If an urgent requirement or aircraft emergency dictates otherwise, the pilot in command, or instructor, will take the appropriate action to safely recover the aircraft.

1.2.1. Submit proposed changes to this AFI through appropriate channels to ACC/A3CH according to AFI 11-215, *USAF Flight Manuals Program (FMP)*. Use AF Form 847, *Recommendation for Change of Publication*.

1.2.2. When a controlling source publication changes, that publication takes precedence until the change is incorporated herein. After a change is made to a controlling source, a change to this AFI will be distributed in a timely manner.

1.2.3. Waiver authority for this publication is the MAJCOM/A3, IAW AFI 11-202 Volume 2. Waivers will be requested from the parent MAJCOM Stan/Eval through appropriate channels. Waiver authority for supplemental guidance will be as specified in the supplement and approved through the higher level coordination authority.

1.3. Procedures:

1.3.1. Standardization/Evaluation Flight Examiners (SEFE) will use the evaluation criteria contained in **Table 3.1** for conducting all flight and emergency procedures evaluations.

1.3.2. U-2 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 TU-2S. Required items for U-2 instrument evaluations are listed in **paragraph 2.2** and **Table 2.1**.

1.3.3. To complete Qualification and Mission evaluations all required areas must be successfully accomplished. Required areas are shown in **Table 2.1**. When conditions such as equipment malfunction, operational requirements, or weather preclude evaluation of a particular event in-flight, it may be evaluated by an alternate method and will be documented in the Additional Comments portion of the AF Form 8, *Certificate of Aircrew Qualification*.

1.3.4. U-2 mission and qualification evaluations are normally flown separately due to limited transition duty day and high flight time requirements. The evaluatee has the option of completing a combined Qualification/Mission Evaluation during the Mission Evaluation. If the evaluatee wishes to take this option, it must be approved by the evaluatee's Squadron CC or DO and briefed in advance (before takeoff) with the SEFE. 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.

1.3.5. The SEFE will brief the evaluatee 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 Evaluations, 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 (HHQ) 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.

1.3.6. For non-instructor evaluations in the TU-2S, the SEFE will occupy the rear cockpit. For Instructor Pilot (IP) evaluations, the SEFE will occupy the front cockpit.

1.3.7. Ground based video recorders and Global Positioning System (GPS) data may be used to reconstruct and evaluate the mission.

1.3.8. The SEFE will thoroughly debrief all aspects of the flight. This debrief will include the evaluatee's overall rating, specific deviations, area grades assigned (if other than qualified) and any required additional training. To the maximum extent possible, evaluations will be debriefed with the SQ/CC or evaluatee's supervisor.

1.4. Grading Instructions:

1.4.1. Standards and performance parameters are contained in AFI 11-202V2 and this instruction. The following criteria will be applied during all phases of flight except instrument finals and as noted for specific events:

Table 1.1. General Criteria.

Standards/Performance Level	Criteria
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

1.4.2. 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 11-202V2 and this instruction. If the evaluatee receives an unqualified area grade in any of the CRITICAL areas identified in **Table 2.1**, 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 and Mission Evaluations should be conducted in the Mission Procedures Trainer (MPT) when possible. If the MPT is not available, the EPE may be oral.

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.** For the Qualification Evaluation, 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.** In-flight unusual attitude recoveries will not be evaluated in the U-2. Unusual attitude recoveries will be evaluated during the Qualification 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 in the EPE 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. EPEs for Mission Evaluations should maximize emphasis on mission-related tactics, procedures, and emergencies.

1.5.2.1. Sensor and Datalink System Operation.

1.5.2.2. Knowledge of threats and use of the Electronic Warfare System (EWS).

1.5.2.3. Combat and Sensitive Reconnaissance Operations (SRO) primary and backup communication and navigation procedures.

1.5.3. Evaluatees receiving an overall unqualified grade will be placed in supervised status until recommended additional training is completed and/or a reevaluation is successfully accomplished. Evaluatees receiving an overall unqualified grade due to an unsatisfactory performance of Bold Face Emergency/Critical Action Procedures 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 11-202V2.

Chapter 2

EVALUATION REQUIREMENTS

2.1. General:

2.1.1. Evaluation requirements for Qualification and Mission Evaluations listed in this chapter are generic. Specific areas required are listed in **Table 2.1**. Prior to the mission, the flight examiner will ensure the evaluatee understands which areas will be evaluated. The criteria in **Table 3.1** will be used to evaluate the mission.

2.1.2. **Evaluation Requirements.** Areas in **Table 2.1** marked 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 in-flight, the SEFE may elect to evaluate the area by an alternate method (e.g., MPT, verbally, etc.), in order to complete the evaluation. If the SEFE determines the required item cannot be adequately evaluated by an alternate method, the evaluatee will require an additional flight to complete the evaluation.

2.2. Qualification Evaluation. Due to the limited numbers of U-2 aircraft and the majority of U-2 pilots participating in the T-38 CTP, instrument evaluation requirements are normally completed in conjunction with the T-38 Qualification/Instrument Evaluation. This requires the U-2 Qualification Evaluation be administered as a separate event. To the maximum extent possible, instrument evaluations will include approaches at airfields other than home or deployed locations.

2.2.1. The following items are requisites for initial and recurring evaluations.

2.2.1.1. Qualification Exam (Closed Book).

2.2.1.2. Bold Face Exam.

2.2.1.3. Qualification Exam (Open Book).

2.2.1.4. EPE.

2.2.1.5. Instrument Refresher Course (IRC) exam. (if also annual instrument qualification)

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

2.3.1. An EPE is a requisite for initial and recurring evaluations.

2.3.2. A handheld GPS may be used to reconstruct and evaluate the mission.

2.3.3. Mission evaluations should include material from AFTTP 3-1.U-2 and the most current version of CJCSI 3250.01, and evaluators should ensure evaluatees have a working knowledge of both publications. Excerpts from actual OPLANs, CONPLANs, SPINs, CONOPs, or communications plans may be incorporated at the evaluator’s discretion.

2.3.4. Evaluations during exercises or deployments are encouraged; however units should apply ORM principles to the scheduling of the evaluation. (Real world contingencies may

provide a unique opportunity to conduct evaluations; however factors beyond the control of the examinee and SEFE may preclude its successful completion.)

2.3.5. Evaluations flown from the home station should utilize profiles resembling operational missions. Operational missions (e.g. domestic imagery collections) are encouraged when available. If such a mission is not available, an INS Orbit Exercise will be planned and flown to simulate an actual operational mission and the evaluation will include a timing exercise, orbit change, simulated threat reactions, file transfer, and use of backup communications/navigation capabilities. INS orbit types are at the evaluator's discretion, and should balance both utility of aircraft avionics capabilities and actual orbit techniques utilized on operational missions. Approximately one half hour of dead reckoning/pilotage navigation will be scheduled.

2.3.6. For all mission evaluations, evaluatees must demonstrate working knowledge of all avionics pages, with specific emphasis on sensor/datalink employment, communications equipment/modes (e.g. secure voice and HAVE QUICK), and navigational capabilities (both INS and GPS).

2.4. Instructor Evaluations:

2.4.1. 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.

2.4.2. Instructors must demonstrate timely, effective and efficient instruction to 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.

2.4.3. 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 Standardization/Evaluation (Stan/Eval) administered evaluations, the evaluator will provide the evaluatee a performance critique as soon as possible following the evaluatee's critique.

2.4.4. Single seat U-2S (Phase II) instructor evaluations.

2.4.4.1. Initial and requalification evaluations for single-seat U-2S instructors are administered in the mobile vehicle.

2.4.4.2. Requalification evaluations will be documented on the AF Form 8. For Unit/CC-directed or syllabus-directed requalification programs which include a flight evaluation, document the mobile evaluation on the same AF Form 8 as the flight requalification.

2.4.4.3. Recurring evaluations in the mobile vehicle are not required as long as IP duties are sampled on recurring Qualification and Mission Evaluations.

2.4.5. Two-seat TU-2S (Phase III) instructor evaluations.

2.4.5.1. Initial and requalification evaluations for two-seat TU-2S instructors are administered in the TU-2S. Evaluations 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 TU-2S (to include rear-cockpit patterns and landings) and on Mission Evaluations (normally flown in the U-2S).

2.4.5.2. On an initial evaluation, the evaluatee may update the qualification expiration date if requisites are accomplished IAW AFI 11-202V2.

2.4.5.3. Requalification evaluations will be documented on the AF Form 8 and may be combined with a recurring Qualification Evaluation or Mission Evaluation (if flown in the TU-2S).

2.4.6. Instructor Evaluation Grading.

2.4.6.1. An instructor receiving an area grade of U in any instructor area will receive an overall Qual Level 3 for the Instructor Evaluation. The instructor 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 on the AF Form 8.

2.4.6.2. An instructor receiving an area grade of Q- with additional training in any instructor area will receive an overall Qual Level 3 for the Instructor Evaluation. The instructor 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 on the AF Form 8.

2.4.6.3. If an instructor receives an area grade of Q- in any instructor area, but the flight examiner determines additional training is not appropriate or necessary, the overall Qual Level awarded for the Instructor Evaluation resides within the flight examiner’s judgment.

2.5. Formal Course Evaluation. Syllabus evaluations will be flown according to syllabus profile guidelines (if stated) or on a profile developed from syllabus training objectives. To complete the evaluation, formal course guidelines may be modified, based on local operating considerations or SEFE judgment. Syllabus tasks not addressed in **Chapter 3** will be evaluated using criterion reference objectives (CRO) from the appropriate syllabus.

2.6. Required Evaluation Areas. Grade only those areas observed or recorded.

Table 2.1. Table of Required Areas.

AREA	NOTES	TITLE	QUAL EVAL	MISSION EVAL	MOBILE EVAL
GENERAL					
1		Mission Planning	R	R	R
2		Briefing	R	R	R

3		Ground Operations	R	R	R
4		Takeoff	R	R	R
5		Departure	R	R	
6		Level-off	R	R	
7		Cruise		R	
8		In-flight Checks	R	R	
9		Equipment Operation	R	R	R
10		Comm/IFF/SIF	R	R	
11		Crew Coordination	R	R	R
12		Normal VFR Pattern/ Approach	R		
13	1	Landings	R	R	
14		Go-around			
15		Emergency Patterns	R		
16		Knowledge	R	R	R
17	(CRITICAL)	Airmanship	R	R	
18	(CRITICAL)	Safety	R	R	R
19	(CRITICAL)	Flight Discipline	R	R	
20	2	Flight Characteristics Demonstration	R*		
21	2	Approach to Stall	R*		
22	2	High Speed Taxi Demo	R*		
23		Instructor Performance	R**	R**	R**

INSTRUMENT					
24	3	Holding	R***		
25	3	Arrival	R***		
26	3	Non-precision Approach	R***		
27	3	Precision Approach	R***		
28	3	Missed Approach/Climb- out	R***		
29	3	Circling/Side-step Approach			
30		Instrument Cross Check	R***		
MISSION					
31		DR/Pilotage Navigation			
32		INS Orbit Exercise		R	
33		Sensor Operation		R	
34		Threat Reactions and AN/ALQ-221 Operations		R	
35		Primary/Backup Combat/SRO Navigation Procedures		R	
36		Primary/Backup Combat/SRO Communication Procedures		R	
MOBILE					
37		Run-ins			R

38		Calls			R
<p>NOTES:</p> <ol style="list-style-type: none">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 TU-2S instructor evaluations only.3. For TU-2S instructor evaluations, a sampling of instrument approaches and procedures is desired. “CRITICAL” areas, if graded U, require overall evaluation grade of Q-3. “R” indicates areas required for each evaluation. * Indicates additional areas required for TU-2S instructors. ** Indicates additional areas required for all instructors. *** Indicates additional areas required for an instrument evaluation, if not completed in CTP.					

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 in-flight and ground requisite performances tempered by sound evaluator judgment.

3.2. Evaluation Criteria:

Table 3.1. Table of Evaluation Criteria.

GRADE	CRITERIA
<i>AREA 1—MISSION PLANNING</i>	
1A. Publications.	
Q	Assigned flight manual publications were current and usable for any of the unit's combat tasks.
Q-	Assigned flight manual publications contained minor deviations, omissions, and/or errors; however, contained everything necessary to effectively accomplish the mission and did not compromise safety of flight.
U	Assigned flight manual publications contained deviations, omissions, and/or errors that could compromise safety of flight.
1B. Mission Preparation.	
Q	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 and displayed sound operational risk management.
Q-	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.
U	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.

1C. Mobile	
Q	Coordinated with the pilot as required to ensure development of a sound plan to accomplish the mission. Backed up the pilot as appropriate, checking factors applicable to the flight. Aware of alternatives available if the flight could not be completed as planned.
Q-	Same as above, except minor deviations, errors, or omissions that did not detract from mission effectiveness.
U	Major errors, omissions, or deviations that would preclude safe and effective mission accomplishment.
AREA 2—BRIEFING	
2A. Organization.	
Q	Well organized and presented in a logical sequence. Concluded briefing in time to allow for preflight of personal equipment and aircraft.
Q-	Events out of sequence, hard to follow, some redundancy.
U	Disorganized. Illogical sequence during presentation caused confusion that would have compromised safety or accomplishment of the mission. Did not allow time for preflight of personal equipment and aircraft.
2B. Presentation.	
Q	Presented briefing in a professional manner. Effectively used training aids. Pilot and/or mobile officer clearly understood mission requirements.
Q-	Did not make effective use of available training aids. Dwelled on non-essential mission items.
U	Did not use training aids. Presentation created doubts or confusion that would have compromised safety or accomplishment of the mission.
2C. Mission Objectives.	
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.
2D. Mobile	
Q	Coordinated with the pilot as required for emergency procedure scenarios. Understood role in the event of takeoff emergencies. Understood role and plans briefed by the pilot for any in-flight emergencies away from the field.
Q-	Same as above, except for minor deviations or misunderstandings that did not detract from mission effectiveness.
U	Demonstrated lack of understanding of role desired by the pilot. Not aware of emergency procedures plans. Total failure to develop a shared mental picture with the pilot.
AREA 3--GROUND OPERATIONS	
3A. Pre-Takeoff.	
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.
3B. After Landing.	
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
3C. Mobile	
Q	Adhered to timing as briefed by the pilot. Performed all checks and procedures prior to pilot integration 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 checklist steps. Failed to accurately determine readiness of the aircraft for flight. Errors directly contributed to late takeoff time.
AREA 4--TAKEOFF	
4A. Pilot - Flight	
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.
4B. Mobile	
Q	Thorough drive around inspection performed. Ensured adequate O ₂ time, and takeoff clearance received. Positioned mobile to assist the pilot as necessary. Any calls to the pilot were timely and correct.
Q-	Minor omissions noted in drive around inspection. Minor errors in mobile positioning to support the pilot. Calls were either not timely or not correct, but errors did not affect safety of flight.
U	Exceeded "Q-" standards. Allowed pilot to takeoff without clearance or prior to adequate O ₂ time.
AREA 5—DEPARTURE	

5A. Standard Instrument Departure.	
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.
5B. Tactical Departure.	
Q	Performed departure as directed and complied with all restrictions.
Q-	Minor deviations in airspeed and navigation occurred during completion of departure.
U	Failed to comply with directed departure instructions.
<i>AREA 6--LEVEL-OFF</i>	
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. Excessive delay or failed to establish proper cruise airspeed. Failed to reset altimeter, if required.
<i>AREA 7—CRUISE</i>	
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.”

<i>AREA 8--IN-FLIGHT CHECKS</i>	
Q	Performed all in-flight checks as required.
Q-	Same as qualified, except for minor deviations, errors, or omissions during checks. Did not detract from mission accomplishment.
U	Major deviations, errors, or omissions that detracted 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.
<i>AREA 9--EQUIPMENT OPERATION</i>	
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.	
9A. Pilot	
Q	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.
Q-	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.
U	Exceeded "Q-" standards. Damaged equipment. Could not obtain acceptable results due to poor operational techniques or procedures.
9B. Mobile	
Q	Operated equipment according to procedures contained in the flight manual and governing directives. No damage, significant system degradation, or compromise of mission effectiveness resulted from operator input or lack of knowledge.

Q-	Operated equipment with deviations, omissions, or errors from procedures required by the flight manual or governing directives. The level of performance or knowledge was the minimum acceptable and warrants assigned study and/or additional training. Did not damage equipment.
U	Exceeded "Q-" standards. Damaged equipment. Could not obtain acceptable results due to poor operational techniques or procedures. Inability to perform mobile duties.
AREA 10--COMM/IFF/SIF	
Q	Complete knowledge of and compliance with correct Comm/IFF/SIF procedures. Transmissions concise with proper terminology. Complied with and acknowledged all required instructions.
Q-	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.
U	Incorrect procedures or poor performance precluded mission accomplishment or jeopardized safety.
AREA 11--CREW COORDINATION (TU-2S or with Mobile)	
11A. Pilot	
Q	Effectively coordinated with other crewmember or mobile without misunderstanding. Effective use of Cockpit Resource Management (CRM). See AFI 11-290, <i>Cockpit/Crew Resource Management Training Program</i> , and use AF Form 4031, <i>CRM Skills Criteria Training/Evaluation</i> , as a reference.
Q-	Coordinated with other crewmember or mobile with minor exceptions. Intra-crew communications were not clear or concise. CRM was the minimum acceptable.
U	Breakdown in coordination with other crewmember or mobile precluded mission accomplishment or jeopardized safety. CRM was lacking to the extent the mission accomplishment was severely degraded.
11B. Mobile	

Q	Effectively coordinated with the pilot without misunderstanding. Effective use of CRM. See AFI 11-290, <i>Cockpit/Crew Resource Management Training Program</i> , and use AF Form 4031, <i>CRM Skills Criteria Training/Evaluation</i> , as a reference.
Q-	Coordinated with the pilot with minor exceptions. Intra-crew communications were not clear or concise. CRM was the minimum acceptable.
U	Breakdown in coordination with the pilot precluded mission accomplishment or jeopardized safety. CRM was lacking to the extent the mission accomplishment was severely degraded.
AREA 12--NORMAL VFR PATTERN/APPROACH	
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.	
Q	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
Q-	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
U	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.
AREA 13--LANDINGS	
The following evaluation criteria apply to minimum-run landings as well.	
13A. Landings with Altitude Calls.	
Q	Performed landings IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Touchdown point was in the 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 feet. 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.
13B. Landings without Altitude Calls (No Voice).	
Q	Performed landings IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Skips did not exceed 2 feet. Touchdown point was in the 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 feet. 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 Pilot Induced Oscillation (PIO). Drift, crab, skips and bounces exceeded Q- criteria.
AREA 14--GO-AROUND	
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.
AREA 15--EMERGENCY PATTERNS	
Ensure that all sub-areas are evaluated to include Simulated Flameout (SFO) with and without flaps. Additional parameters associated with specific emergency patterns are listed in their sub-areas.	

Q	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. Properly assessed impact of local conditions and tailored planned profile if necessary.
Q-	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	Major deviations from recommended procedures, airspeed, and altitudes. Required excessive maneuvering due to inadequate planning or judgment. Could not have landed safely.
15A. Simulated Flameout (SFO)/Precautionary Pattern.	
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 feet. Use of spoilers is authorized to ensure arrival at 10 feet within parameters. The evaluator may request to see the maneuver repeated without the use of spoilers.	
Q	Airspeed +10/-2 knots. 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 feet.
Q-	Airspeed +15/-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.
15B. No-Flap Pattern.	
The evaluator may request to sample another no-flap pattern flown without spoilers if spoilers are required to correct for a poorly planned or flown no-flap pattern. Environmental conditions may require the use of spoilers to correctly fly the pattern.	
Q	Cross the threshold with airspeed +5/-0 knots.
Q-	Cross the threshold with airspeed +10/-1 knots.
U	Failure to meet Q- parameters

AREA 16—KNOWLEDGE (<i>Ensure that all applicable sub-areas are evaluated.</i>)	
16A. Aircraft General.	
Q	Thorough knowledge of aircraft systems, limitations, and performance characteristics.
Q-	Knowledge of aircraft systems, limitations, and performance characteristics sufficient to perform the mission safely. Deficiencies either in depth of knowledge or comprehension.
U	Unsatisfactory knowledge of aircraft systems, limitations, or performance characteristics.
16B. Emergency Procedures.	
Q	Correct, immediate response to Bold Face and non-Bold Face emergency situations. Effectively used checklist or flight manual.
Q-	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.
U	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.
16C. Flight Rules and Procedures.	
Q	Thorough knowledge of flight rules and procedures. Thorough knowledge of local area procedures.
Q-	Deficiencies in depth of knowledge. Limited knowledge of local area procedures.
U	Inadequate knowledge of flight rules and procedures. Inadequate knowledge of local area procedures.
16D. Mobile	
Q	Thorough knowledge of mobile and aircraft procedures, requirements, and systems.

Q-	Knowledge of mobile and aircraft procedures, requirements, and systems sufficient to perform mission safely. Deficiencies in either depth of knowledge or comprehension.
U	Unsatisfactory knowledge of mobile and aircraft procedures, requirements, and systems.
<i>AREA 17--AIRMANSHIP (CRITICAL)</i>	
Q	Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.
U	Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.
<i>AREA 18--SAFETY (CRITICAL)</i>	
Q	Aware of and complied with all safety factors required for safe mobile or aircraft operations and conduct of the mission.
U	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 mobile or aircraft in a dangerous manner. Failed to correctly accomplish Bold Face procedures.
<i>AREA 19--FLIGHT DISCIPLINE (CRITICAL)</i>	
Q	Demonstrated strict professional flight and crew discipline throughout all phases of the mission.
U	Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations.
<i>AREA 20--FLIGHT CHARACTERISTICS DEMONSTRATION</i>	
Q	Aircraft control during maneuvering was positive and smooth. Maneuvering performed IAW techniques and procedures outlined in the flight manual, operational procedures, and local directives.
Q-	Aircraft control during maneuvers not always smooth and positive, but adequate. Minor procedural deviations.
U	Aircraft control erratic. Aircraft handling failed to demonstrate predetermined effect. Temporary loss of aircraft control.

<i>AREA 21--APPROACH TO STALL</i>	
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.
<i>AREA 22--HIGH SPEED TAXI DEMONSTRATION</i>	
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	Deviations were such that demonstration was not effective or was unsafe.
<i>AREA 23--INSTRUCTOR PERFORMANCE</i>	
23A. Briefing and Debriefing.	
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. Exercised operational risk management.
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. Failed to define mission objectives.
23B. Demonstration of Maneuvers.	

Q	Performed required maneuvers within prescribed parameters. Provided concise, meaningful in-flight commentary. Demonstrated sound instructor proficiency.
Q-	Performed required maneuvers with minor deviations from prescribed parameters. In-flight commentary was sometimes unclear.
U	Was unable to properly perform required maneuvers. Made major procedural errors. Did not provide in-flight commentary.
23C. Instructor Knowledge.	
Q	Demonstrated in-depth knowledge of procedures, requirements, aircraft systems and 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 and 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.
23D. Training & Evaluation Forms Preparation (if applicable).	
Q	Completed appropriate training records accurately. Adequately assessed and recorded performance. Comments were clear and pertinent.
Q-	Minor errors or omissions in training and 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.
23E. Ability to Instruct.	
Q	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.
<i>AREA 24—HOLDING</i>	
Q	Entry and holding procedures IAW applicable directives. Pattern limit exceeded by not more than: --TACAN +/- 2 NM
Q-	Pattern limit exceeded by not more than: --TACAN +/- 3 NM
U	Exceeded criteria for Q- or holding pattern limits.
<i>AREA 25-- ARRIVAL</i>	
25A. Instrument Penetration or Enroute Descent.	
Q	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.
Q-	Performed the penetration or enroute descent and approach with minor deviations. Complied with all restrictions. Slow to make corrections.
U	Performed the penetration or enroute descent and approach with major deviations. Erratic corrections.
25B. Tactical Arrival.	
Q	Performed the arrival as published or directed and IAW applicable flight manuals. Complied with all restrictions. Made smooth and timely corrections.
Q-	Performed the arrival with minor deviations. Slow to make corrections.
U	Performed the arrival with major deviations. Erratic corrections.
<i>AREA 26--NON-PRECISION APPROACH</i>	

Q	<p>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.</p> <p>--Airspeed +10/-5 knots</p> <p>--Heading ± 5 degrees (ASR)</p> <p>--Course ± 5 degrees at MAP</p> <p>--Localizer less than one dot deflection</p> <p>--Minimum Descent Altitude +100/-25 feet</p>
Q-	<p>Performed approach with minor deviations. Arrived at MDA at or before the MAP, but past the VDP. Position would have permitted a safe landing.</p> <p>--Airspeed +15/-10 knots</p> <p>--Heading ± 10 degrees (ASR)</p> <p>--Course ± 10 degrees at MAP</p> <p>--Localizer within two dot deflection</p> <p>--Minimum Descent Altitude +150/-50 feet.</p> <p>NOTE: The -50 foot tolerance applies only to momentary deviations.</p>
U	<p>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.</p>
AREA 27--PRECISION APPROACH	
Q	<p>Performed procedures as directed and IAW applicable flight manual. Smooth and timely response to controller's instructions. Complied with decision height (DH). Position would have permitted a safe landing. Maintained glide path with only minor deviations.</p> <p>--Airspeed +10/-5 knots</p> <p>--PAR: Heading within 5 degrees of controller's instructions</p> <p>--ILS: Glide Slope/Azimuth within one dot</p>

Q-	<p>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 DH +/- 50 feet.</p> <p>--Airspeed +15/-10 knots</p> <p>--PAR: Heading within 10 degrees of controller's instructions.</p> <p>--ILS: Glide Slope within one dot low to two dots high; Azimuth within two dots.</p>
U	<p>Performed procedures with major deviations. Erratic corrections. Did not respond to controller's instructions. Erratic glide path control. Did not comply with DH or position would not have permitted a safe landing. Exceeded Q- criteria.</p>
AREA 28--MISSED APPROACH/CLIMBOUT	
Q	<p>Executed missed-approach or climb-out as published or directed. Completed all procedures IAW applicable flight manual.</p>
Q-	<p>Executed missed approach or climb-out with minor deviations. Slow to comply with published procedures, controller's instructions, or flight manual procedures.</p>
U	<p>Executed missed approach or climb-out with major deviations, or did not comply with applicable directives.</p>
AREA 29--CIRCLING/SIDE-STEP APPROACH	
Q	<p>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.</p>
Q-	<p>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.</p>
U	<p>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. Exceeded Q- criteria.</p>
AREA 30--INSTRUMENT CROSS-CHECK	

Q	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.
Q-	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.
U	Inadequate instrument cross-check. Erratic aircraft control. Exceeded Q-limits.
<i>AREA 31--DEAD-RECKONING/PILOTAGE NAVIGATION</i>	
Q	Performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Circular error at end of DR/Pilotage Nav leg did not exceed 14 NM or 2 minutes, whichever is higher.
Q-	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.
U	Did not meet Q- criteria.
<i>AREA 32--INERTIAL NAVIGATION SYSTEM (INS) ORBIT EXERCISE</i>	
Abnormal mission actions (e.g. timing changes, threat reaction, retrograde, and re-entry procedures) may be introduced during this exercise. The evaluator will coordinate the actions with ARTCC and establish initiation criteria.	
Q	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.
Q-	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.
U	Did not meet Q- criteria.
<i>AREA 33--SENSOR OPERATION</i>	
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.	

Q	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.
Q-	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.
U	Not up to “Q-” standards. Damaged equipment. Could not obtain acceptable results due to poor application of procedures or operational techniques.
AREA 34—THREAT REACTIONS AND AN/ALQ-221 OPERATIONS	
This area includes U-2 specific threat reactions to SAM, AI, MANPAD, cyber and communication/navigation threats. U-2 pilots should demonstrate working knowledge of AFTTP 3-1.U-2, to include current threats in each category, defensive reactions, system operation as prescribed in all flight manuals and other governing directives, and degraded operations (e.g. degraded AN/ALQ-221 capability and options).	
Q	Threat reactions were timely and correct. Accomplished appropriate countermeasures and performed maneuvers to counter threat. Operated equipment according to procedures and checklists contained in the flight manuals and governing directives. Accurately and efficiently analyzed equipment malfunctions.
Q-	Threat reactions were slow or inconsistent. Slow to accomplish appropriate countermeasures or perform maneuvers to counter threat. 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 was the minimum acceptable and warrants assigned study or additional training.
U	Numerous threat reactions were omitted or incorrect. Failed to accomplish countermeasures or perform maneuvers to counter threat. Failed to meet Q-standards for equipment operation and analysis of equipment malfunctions.
AREA 35—PRIMARY/BACKUP COMBAT/SRO NAVIGATION PROCEDURES	

Q	Thorough knowledge of navigation procedures applicable to both combat environment and SRO. Thorough knowledge of aircraft navigation system capabilities and limitations when operating in a degraded environment (e.g. INS-only or with degraded GPS).
Q-	Knowledge of navigation procedures and system capabilities/limitations is sufficient to perform the mission safely. Deficiencies in either depth of knowledge, comprehension, or application.
U	Unsatisfactory knowledge of navigation procedures and system capabilities/limitations with potential to compromise safety of flight, violate airspace/international borders, or degrade mission accomplishment.
<i>AREA 36—PRIMARY/BACKUP COMBAT/SRO COMMUNICATION PROCEDURES</i>	
Q	Thorough knowledge of communication procedures applicable to both combat environment and SRO. Thorough knowledge of aircraft communications capabilities and limitations including, but not limited to, secure voice, HAVE QUICK, HF phone patch, NICKELBACK procedures, and datalink voice/data communications.
Q-	Knowledge of communication procedures and system capabilities/limitations is sufficient to perform the mission safely. Deficiencies in either depth of knowledge, comprehension, or application.
U	Unsatisfactory knowledge of communication procedures and system capabilities/limitations with potential to degrade mission accomplishment.
<i>AREA 37—RUN-INS</i>	
High angle run-ins consist of run-ins at an angle of greater than 60 degrees to the runway. Long distance is considered greater than 500 feet.	
7A. High Angle Run-in, Both Long and Short Distance	
Q	Consistently demonstrated the ability to place the mobile vehicle in a position to provide effective support to the pilot. Vehicle control was positive. Remained in a position to support the pilot at all times.
Q-	Demonstrated minimum acceptable ability to place the mobile vehicle in a position to provide effective support to the pilot, without affecting safety or mission accomplishment.
U	Exceeded “Q-“ standards. Consistently failed to place the vehicle in a position to support the pilot. Unable to perform mobile duties.

7B. Low Angle Run-in, Both Long and Short Distance	
Q	Consistently demonstrated the ability to place the mobile vehicle in a position to provide effective support to the pilot. Vehicle control was smooth and positive. Remained in a position to support the pilot at all times.
Q-	Demonstrated minimum acceptable ability to place the mobile vehicle in a position to provide effective support to the pilot, without affecting safety or mission accomplishment.
U	Exceeded "Q-" standards. Consistently failed to place the vehicle in a position to support the pilot. Unable to perform mobile duties.
<i>AREA 38--CALLS</i>	
8A. 10 Feet to 5 Feet	
Q	Altitude calls were largely accurate. Any advisory and directive calls were timely, accurate, and correct.
Q-	Altitude calls were occasionally accurate. Advisory and directive calls were mostly timely, accurate, and correct. Any errors did not affect safety or mission accomplishment.
U	Exceeded "Q-" standards. Failed to make any advisory or directive calls critical to safety of flight. Errors affected safety of flight and/or mission accomplishment.
8B. 4 Feet to Touchdown	
Q	Altitude calls were largely accurate. Any advisory and directive calls were timely, accurate, and correct. Analysis of any issues with the landing were correct.
Q-	Altitude calls were occasionally accurate. Advisory and directive calls were mostly timely, accurate, and correct. Analysis of any issues with the landing was mostly correct. Any errors did not affect safety or mission accomplishment.
U	Exceeded "Q-" standards. Failed to make any advisory or directive calls critical to safety of flight. Errors affected safety of flight and/or mission accomplishment.

HERBERT J. CARLISLE, Lt Gen, USAF
DCS, Operations, Plans and Requirements

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

- AFI 10-704, *Military Deception Program*, 30 August 2005
- AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, 19 January 2012
- AFI 11-202V1, *Aircrew Training*, 22 November 2010
- AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, 13 September 2010
- AFI 11-202V3, *General Flight Rules*, 22 October 2010
- AFI 11-205, *Aircraft Cockpit and Formation Flight Signals*, 19 May 1994
- AFI 11-214, *Air Operations Rules and Procedures*, 22 December 2005
- AFI 11-215, *USAF Flight Manuals Program (FMP)*, 22 December 2008
- AFI 11-218, *Aircraft Operations and Movement on the Ground*, 11 May 2005
- AFI 11-290, *Cockpit/Crew Resource Management Training Program*, 11 April 2001
- AFI 11-401, *Aviation Management*, 10 December 2010
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- AFI 11-403, *Aerospace Physiological Training Program*, 20 February 2001
- AFI 11-404, *Centrifuge Training for High-G Aircrew*, 28 October 2005
- AFI 13-201, *Airspace Management*, 1 December 2006
- AFI 13-212, *Range Planning and Operations*, 16 November 2007
- AFI 14-105, *Unit Intelligence Mission and Responsibilities*, 3 June 2002
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- AFI 36-2238, *Self-Aid and Buddy Care Training*, 19 January 2006
- AFI 36-2251, *Management of Air Force Training Systems*, 5 June 2009
- AFI 51-401, *Training and Reporting to Ensure Compliance with the Law of Armed Conflict*, 11 August 2011
- AFI 71-101V1, *Criminal Investigations Programs*, 8 April 2011
- AFI 71-101V2, *Protective Service Matters*, 17 May 11

AFI 91-202, *The US Air Force Mishap Prevention Program*, 5 August 2011

AFMAN 11-210, *Instrument Refresher Program (IRP)*, 3 February 2005

AFMAN 11-217V1, *Instrument Flight Procedures*, 3 January 2005

AFMAN 36-2236, *Guide For Air Force Instructors*, 12 November 2003

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

AFTTP 3-1.U-2, *Tactical Employment--U-2*, 21 January 2011

T.O. 1U-2S-1, *Flight Manual*, 31 March 2011

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AF Form 8, *Certificate of Aircrew Qualification*

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

Abbreviations and Acronyms

ACC—Air Combat Command

ACC/A3C—C2ISR Operations Division

ACC/A3CH—High Altitude Reconnaissance Operations Branch

AF—Air Force

AFI—Air Force Instruction

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFTTP—Air Force Tactics, Techniques and Procedures

AI—Airborne Interceptor

ANG—Air National Guard

ARTCC—Air Route Traffic Control Center

ASR—Airport Surveillance Radar

ATC—Air Traffic Control

C2ISR—Command and Control, Intelligence, Surveillance and Reconnaissance

CC—Commander

COMM—Communications

CONOP—Concept of Operations

CONPLAN—Contingency Plan

CRM—Cockpit/Crew Resource Management

CRO—Criterion Reference Objectives

CTP—Companion Trainer Program
DH—Decision Height
DO—Director of Operations
DOC—Designed Operational Capability
DR—Dead Reckoning
DRU—Direct Reporting Unit
EPE—Emergency Procedures Evaluation
ETA—Estimated Time of Arrival
EWS—Electronic Warfare System
FCIF—Flight Crew Information File
FOA—Field Operating Agency
GPS—Global Positioning System
HHQ—Higher Headquarters
HQ—Headquarters
IAW—In accordance with
ICAO—International Civil Aviation Organization
IFF—Identification Friend or Foe
ILS—Instrument Landing System
INS—Inertial Navigation System
IP—Instructor Pilot
IRC—Instrument Refresher Course
MAJCOM—Major Command
MAP—Missed Approach Point
MDA—Minimum Descent Altitude
NAF—Numbered Air Force
NM—Nautical Mile
NOTAMS—Notice to Airmen
OPLAN—Operational Plan
OPORD—Operations Order
OPR—Office of Primary Responsibility
ORI—Operational Readiness Inspection
PAR—Precision Approach Radar

PDM—Periodic Depot Maintenance
PIO—Pilot Induced Oscillation
Q—Qualified
R—Required
SEFE—Standardization Evaluation Flight Examiner
SFO—Simulated Flameout
SIF—Selective Identification Feature
SPINs—Special Instructions
SRO—Sensitive Reconnaissance Operations
STAN/EVAL—Standardization/Evaluation
T—Threshold
TACAN—Tactical Air Navigation System
U—Unqualified
USAF—United States Air Force
VDP—Visual Descent Point
VFR—Visual Flight Rule

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.

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

Ground Time—Interval between arrival in the blocks and next takeoff time.

HHQ Missions—Missions executed at or above the NAF level. HHQ missions include: deployment, redeployment, reconnaissance operations, ORIs, and PDM input/output. Exercise support to classified users, and missions flown in support of HHQ-directed exercises (e.g. GREEN FLAG, COPE THUNDER, FLEETEX, etc.) are also considered HHQ missions.

Judgment—The art of relying upon experience, techniques, and procedural information to resolve conflicting navigational data.

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

Minor—Did not detract from mission accomplishment, adversely affect use of equipment, or violate safety.

Mission—Movement of aircraft from a designated point of origin to a designated destination as defined by assigned mission identifier, mission nickname, or both in the schedule, mission directive, OPORD, OPLAN, or fragmentary (frag) order.

Omission—To leave out a required action.

Over Water Flight—Any flight that exceeds power-off gliding distance from land.

Scheduled Takeoff Time—Takeoff time as established in the schedule or operations order (OPORD).

Significant Meteorological Information (SIGMET)—An area weather advisory issued by an ICAO meteorological office relayed to and broadcast by the applicable ATC agency. SIGMET advisories are issued for tornadoes, lines of thunderstorms, embedded thunderstorms, large hail, severe and extreme turbulence, severe icing, and widespread dust or sand storms. SIGMETs frequently cover a large geographical area and vertical thickness. They are prepared for general aviation and may not consider aircraft type or capability.

Squadron Supervisor—Squadron Commander, Operations Officer, Assistant Operations Officers, and selected senior Flight Commanders.

Tactical Arrival/Departure—A non-standard arrival or departure (AFTTP 3-1.U-2).