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SECRETARY OF THE AIR FORCE**

**AIR FORCE INSTRUCTION 11-2T-37  
VOLUME 2**

**25 SEPTEMBER 2002**

***Flying Operations***

***T-37B AIRCREW EVALUATION CRITERIA***



**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFD 11-2, *Aircraft Rules and Procedures*, and AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*. It establishes procedures and criteria for evaluation of all aircrews performing duties in the T-37B aircraft. File a copy of all approved waivers with this instruction. This publication applies to Air Force Reserve Command pilots flying T-37B aircraft; it does not apply to the Air National Guard. **Attachment 1** contains a glossary of references, and supporting information. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule* (will become AFMAN 33-322, Volume 4).

According to AFD 11-2, major commands (MAJCOM) will forward proposed MAJCOM-level supplements to HQ USAF/XOOT through HQ AETC/DOFV for approval prior to publication. After approved and published, copies of MAJCOM-level supplements will be sent to HQ USAF/XOOT, HQ AETC/DOFV, and user-MAJCOM OPRs. Field units below MAJCOM level will forward copies of their supplements to their parent MAJCOM OPR for post-publication review. See paragraph **1.2** for guidance on submitting comments and suggesting improvements to this AFI.

The Privacy Act of 1974 applies to certain information gathered pursuant to this instruction. The Privacy Act System Number F011 AF XO A, Aviation Resource Management System (ARMS), covers required information. The authority for maintenance of the system is Title 37 U.S.C. 301a, *Incentive Pay*; Public Law 92-204, *Appropriation Act for 1973*, Section 715; Public Law 93-570, *Appropriations Act for 1974*; Public Act 93-294, *Aviation Career Incentive Act of 1974*; DoD Directive 7730.57, *Aviation Career Incentive Act and Required Annual Report*; and Executive Order 9397, *Numbering System for Federal Accounts Relating to Individual Persons*. The Paperwork Reduction Act of 1974 as amended in 1996 affects this instruction.

This instruction contains references to the following MAJCOM-level publication, which until converted to a department-level publication, may be obtained from the respective MAJCOM publication office: AETCM 3-3, Volume 2, *Primary Flying, T-37* (projected to be AFMAN 11-2XX).

**SUMMARY OF REVISIONS**

**This document is substantially revised and must be completely reviewed.**

Evaluation grading criteria has been expanded and refined ([Table 1.2.](#)). References to offset trail were deleted and replaced with fighting wing and extended trail ([Table 1.1.](#) and [Table 2.1.](#)).

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## Chapter 1

### GENERAL INFORMATION

**1.1. Conducting Evaluations.** All evaluations will be conducted in accordance with the provisions of AFI 11-202, Volume 2, and this AFI.

**1.2. Recommended Changes and Waivers.** Submit suggested improvements to this instruction on AF Form 847, **Recommendation for Change of Publication**, to the parent MAJCOM through standardization/evaluation (stan/eval) channels. Parent MAJCOMs will forward approved recommendations to HQ AETC/DOFV in accordance with AFD 11-2. HQ USAF/XO is approval authority for changes or revisions to this instruction. Each MAJCOM director of operations is waiver authority for this AFI. Waiver requests may be submitted in message or memorandum format.

#### 1.3. Procedures:

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

1.3.2. Unless specified, the examinee will fly in the seat that best enables the FE to conduct a thorough evaluation.

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

1.3.4. Areas required by AFI 11-202, Volume 2, are indicated in Chapter 2 of this instruction. When it is impossible to evaluate a required area in-flight, it will be evaluated by an alternate method (that is, in a simulator or cockpit procedure trainer [CPT] or by oral examination) to complete the evaluation. The alternate evaluation will be documented in the examiner's remarks in the Comments block of the AF Form 8, **Certificate of Aircrew Qualification**.

1.3.5. The FE 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. A squadron supervisor must be debriefed on all evaluations. Additionally, a squadron supervisor must attend the debrief if the overall grade is Q-3.

#### 1.4. Grading Instructions:

1.4.1. Tolerances in performance parameters are based on conditions of smooth air and a stable aircraft. Momentary deviations from tolerances will not be considered in grading, 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. Compare examinee performance for each area accomplished during the evaluation with the standards provided in this volume and assign an appropriate grade for the area. Derive the overall flight evaluation grade (Q-1, Q-2, or Q-3) from the area grades, based on a composite for the observed events and tasks according to AFI 11-202, Volume 2, and this instruction.

1.4.3. FEs will use the grading criteria in **Table 1.1.** and **Table 1.2.** to determine individual area grades. FE judgment must be exercised when the wording of areas is subjective and specific situations are not covered.

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

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

1.4.6. The following grading criteria will be used to grade individual items on all evaluations:

1.4.6.1. **Q.** This grade indicates the examinee’s performance is correct and he or she quickly recognizes and corrects errors.

1.4.6.2. **Q-.** This grade indicates the examinee’s performance is safe, but of limited proficiency, and he or she makes errors of omission or commission.

1.4.6.3. **U.** This grade indicates the examinee’s performance is unsafe or indicates lack of knowledge or ability is indicated.

1.4.7. The general evaluation criteria in **Table 1.1.** for basic aircraft control apply during all phases of flight (except as noted in **Table 1.2.** for specific events and instrument final approaches).

**Table 1.1. General Evaluation Criteria.**

<b>I T E M</b>	<b>A</b>	<b>B</b>	<b>C</b>
	<b>Q</b>	<b>Q-</b>	<b>U</b>
<b>1</b>	Altitude ± 150 feet	Altitude ± 300 feet	Exceeded Q- limits
<b>2</b>	Airspeed ± 10 KIAS	Airspeed ± 20 KIAS	
<b>3</b>	Course ± 5 degrees/3 nautical miles (nm) (whichever is greater)	Course ± 10 degrees/5 nm (whichever is greater)	
<b>4</b>	Arc ± 2 nm	Arc ± 3 nm	

**1.5. Emergency Procedures Evaluation (EPE).** If available and configured appropriately, a flight simulator will be used to conduct the requisite EPE for the instrument/qualification evaluation. If a simulator is not used, the EPE will be conducted in an appropriate CPT. If a CPT is not used, the EPE will be given orally.

1.5.1. The following items will be included on EPEs:

1.5.1.1. Aircraft general knowledge.

1.5.1.2. Emergency procedures. Evaluate all boldface procedures and a minimum of one emergency procedure per phase of flight.

1.5.1.3. Unusual attitude recoveries.

1.5.1.4. At least one approach and use of standby or emergency instruments.

1.5.1.5. Alternate or divert airfields. Evaluate a minimum of one approach at other than home base.

1.5.2. For EPEs graded “Q” with additional training; the FE will indicate whether the additional training must be accomplished before the next flight. Additional training and reevaluations will be accomplished IAW AFI 11-202, Volume 2.

**Table 1.2. Evaluation Criteria.**

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
	<b>PREFLIGHT</b>			
<b>1</b>	Area 1. Mission Planning.	Developed plan to complete all mission requirements in a timely manner and IAW all applicable directives. Was aware of alternatives available if flight couldn't be completed as planned. Read and initialed all items in the FCIF or read files. Was prepared at briefing time.	Made minor errors or omissions that did not detract from mission effectiveness. Demonstrated limited knowledge of performance capabilities or approved operating procedures or rules in some areas.	Made major errors or omissions that would have prevented a safe or effective mission. Displayed faulty knowledge of operating data or procedures. Did not review or initial FCIF. Was not prepared at briefing time.
<b>2</b>	Area 2. Mission Briefing: a. Organization.	Briefing well organized with a logical sequence. Finished in time to allow for element or crew briefing (if applicable) and preflight of personal equipment and aircraft.	Events were out of sequence and hard to follow; some were redundant.	Gave a confusing presentation. Did not allow time for element or crew briefing (if applicable) and preflight of personal equipment and aircraft.
<b>3</b>	b. Presentation.	Clearly defined mission requirements and goals. Effectively used training aids. Ensured CRM objectives clearly understood. Solicited questions and comments.	Did not make effective use of available training aids. Dwelled on nonessential mission items.	Did not use training aids. Briefing was redundant throughout. Lost interest of flight members. Presentation created doubts or confusion.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
4	c. Mission Coverage.	Established objectives for the mission. Presented all events and technique discussion for accomplishing the mission.	Omitted some minor training events. Limited discussion of techniques.	Did not establish objectives for the mission. Omitted major training events or did not discuss techniques.
5	Area 3. Ground Operations.	Established and adhered to station, start engine, taxi, and takeoff times to assure thorough preflight, check of personal equipment, etc. Accurately determined readiness of aircraft for flight. Performed all checks and procedures prior to takeoff in accordance with approved checklists and applicable directives.	Made minor procedural deviations that did not detract from mission effectiveness.	Omitted major checklist items. Major deviations in procedure would have prevented 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 ineffective.
6	Area 4. Takeoff.	Maintained smooth aircraft control throughout takeoff. Maintained runway alignment $\pm 10$ feet during takeoff. Rotated - 0 to + 10 knots of rotation speed. Retracted gear and flaps after safely airborne and prior to exceeding aircraft limits.	Made minor procedural deviations that did not detract from the takeoff. Control was rough or erratic. Runway alignment was $\pm 25$ feet. Rotated - 0 to + 15 KIAS of rotation speed.	Takeoff was potentially dangerous. Exceeded aircraft or systems limitations. Raised gear or flaps too early or too late. Failed to establish proper climb attitude. Overcontrolled aircraft, resulting in excessive deviations from intended flightpath.
7	Area 5. Departure.	Executed departure as published or directed and complied with all restrictions.	Minor deviations in airspeed and navigation occurred during completion of departure.	Failed to comply with published or directed departure instructions.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
8	Area 6. Clearing.	Recognized actual or potential conflicts and adjusted aircraft performance to safely avoid those conflicts. Effectively utilized accepted clearing techniques and employed radios to aid in clearing.	Was intermittent throughout sortie. Was slow to take actions to reduce possible conflicts.	Clearing was inadequate and actions were not taken to reduce possible conflicts.
9	Area 7. Leveloff.	Leveloff was smooth. Promptly established proper cruise airspeed.	Leveloff was erratic. Was slow in establishing proper cruise airspeed.	Leveloff was erratic. Had excessive delay or failed to establish proper cruise airspeed. Failed to reset altimeter as required.
10	Area 8. Cruise/Navigation.	Demonstrated satisfactory capability to navigate, using appropriate navigation procedures. Ensured NAVAIDs were properly tuned, identified, and monitored. Complied with clearance instructions. Was aware of position at all times. Remained within the confines of assigned airspace.	Made minor errors in procedures or use of navigation equipment. Some deviations in tuning, identifying, and monitoring NAVAIDs. Was slow to comply with clearance instructions. Had some difficulty in establishing exact position and course.	Exceeded Q- criteria. Made major errors in procedures or use of navigation equipment. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace.
11	Area 9. In-Flight Checks.	Completed all checklist items correctly and at the proper point in the mission.	Same as Q except for minor deviations or omissions during checks that did not detract from mission accomplishment.	Did not perform in-flight checks or monitor systems.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
12	Area 10. In-Flight Planning.	Actively monitored fuel throughout the mission and complied with all established fuel requirements. Adhered to briefed joker and bingo fuels. Adjusted mission profile to comply with time or fuel limitations, weather, and area limits. Remained within area boundaries with or without ground references and used assigned airspace efficiently.	Made errors in fuel management procedures that did not prevent mission accomplishment. Was slow to adjust mission profile for time or fuel limitations, weather, and area limits.	Failed to monitor fuel status or comply with established fuel requirements. Poor fuel management prevented mission accomplishment. Exceeded area boundaries.
13	Area 11. Communication/IFF Procedures.	Able to understand and prioritize multiple radio transmissions. Correctly formulated timely and accurate responses using proper terminology. Complied with and acknowledged all required instructions. All required radio calls made IAW directives. Intercockpit and/or interflight communication was clear and concise. All visual signals performed correctly and IAW directives. Used appropriate IFF procedures IAW directives.	Occasional deviations from procedures required retransmissions or resetting codes. Was slow to initiate (or missed) some required calls. Made minor errors or omissions that did not significantly detract from situational awareness or mission accomplishment. Transmissions were not in proper sequence or used nonstandard terminology. Communication was sometimes unclear or confusing, but did not significantly impact mission accomplishment or flight safety.	Incorrect procedures or poor performance caused confusion and jeopardized mission accomplishment. Omitted (or missed) numerous required radio calls. Inaccurate or confusing terminology significantly detracted from situational awareness, threat warning, or mission accomplishment. Unclear or confusing intercockpit or interflight communication significantly impacted mission accomplishment or flight safety.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
14	Area 12. Crew Coordination/ Flight Integrity.	Provided direction and information when necessary. Effectively coordinated with other crewmember throughout the mission. Focused crew attention on task at hand. Solicited inputs from other crew member when appropriate.	Crew coordination was adequate to accomplish the mission. Deficiencies in crew communication or interaction resulted in degraded crew or mission efficiency.	Poor crew coordination seriously degraded mission accomplishment or safety of flight.
15	Area 13. Risk Management/ Decision-Making.	Accurately identified all contingencies and alternatives. Gathered and cross-checked available data before deciding. Clearly stated decisions and ensured they were understood.	Made minor errors in identifying contingencies, gathering data, or communicating a decision that did not affect safe or effective mission accomplishment.	Improperly or ineffectively identified contingencies or gathered data or communicated a decision that seriously degraded mission accomplishment or safety of flight.
16	Area 14. Task Management.	Correctly prioritized and managed multiple tasks, based on existing and new information that assured mission success.	Made minor errors in prioritization or management of tasks that did not effect safe or effective mission accomplishment.	Incorrectly prioritized or managed tasks that seriously degraded mission accomplishment or safety of flight.
17	Area 15. Debriefing.	Thoroughly debriefed applicable portions of the mission. Compared mission results with briefed objectives and debriefed deviations. Offered corrective guidance as appropriate.	Performed a limited debriefing. Did not thoroughly discuss performance in relationship to mission objectives. Did not debrief all deviations.	Did not debrief mission deviations or offer corrective guidance.
18	Area 16. Airmanship ( <b>Critical</b> ).	Executed assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.	<b>NOTE:</b> Because this area is critical, Q- is not applicable.	Poor decisions resulted in failure to accomplish the assigned mission. Demonstrated poor judgment that compromised safety.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
19	Area 17. Safety <b>(Critical)</b> .	Was aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.	<b>NOTE:</b> Because this area is critical, Q- is not applicable.	Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Operated the aircraft in a dangerous manner. Knowingly violated established procedures or flight restrictions.
20	Area 18. Aircrew Discipline <b>(Critical)</b> .	Demonstrated strict professional flight and crew discipline throughout all phases of the mission.	<b>NOTE:</b> Because this area is critical, Q- is not applicable.	Failed to exhibit strict flight or crew discipline. Violated flight restrictions or established procedures.
21	Area 19. Situational Awareness <b>(Critical)</b> .	Accurately analyzed flight conditions to minimize effects of adverse factors and capitalized on opportunities. Maintained fuel awareness and planned and acted in a timely manner to ensure safe mission accomplishment. Never exceeded capability to safely control the aircraft. Prioritization of flight requirements assured mission success.	<b>NOTE:</b> Because this area is critical, Q- is not applicable.	Misanalysis of flight conditions and failure to prioritize compromised safety or mission accomplishment.

I T E M	A	B	C	D
		Grading Criteria		
	Grading Area	Q	Q-	U
<b>CONTACT</b>				
22	Area 20. Traffic Pattern Stalls.	Recognized approach-to-stall indications and recovered properly. Recovered to level flight with minimum loss of altitude. Recognized secondary stall, if entered, and recovered properly. Did not overspeed gear or flaps.	Delayed recovery beyond the aerodynamic buffet or artificial stall warning. Was late to recognize secondary stall.	Failed to recognize stall indications. Misapplied flight control and throttle inputs in a manner that aggravated the stalled condition and resulted in excessive altitude loss. Exceeded aircraft limits.
23	Area 21. Power-On Stalls.	Properly recovered after fully developed. Recognized secondary stall, if entered, and recovered properly. Recovered to level flight with minimum loss of altitude. Did not over-speed gear or flaps.	Did not allow stall to fully develop. Late to recognize secondary stall.	Misapplied flight control and throttle inputs resulting in excessive altitude loss. Did not recognize secondary stall and did not recover properly. Exceeded aircraft limits.
24	Area 22. Slow Flight.	Airspeed - 0 to + 5 KIAS of desired airspeed.	Airspeed - 5 to + 10 KIAS of desired airspeed.	Maintained deviations in excess of Q- criteria.
25	Area 23. Spin Prevention.	Initiated and performed the procedures promptly and IAW the flight manual.	Was slow to recognize aircraft departure and/or make necessary flight control inputs.	Did not perform procedures when appropriate. Applied incorrect or unsafe procedures.
26	Area 24. Spin Recovery.	Recovered to level flight with minimum altitude loss. If secondary stall was entered, compiled with stall recognition and recovery procedures.	Was slow to initiate recovery procedures. Delayed initiation of spin recovery procedures.	Performed improper execution of spin recovery procedures.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
27	Area 25. Stability Demonstration.	Recognized required aircraft control inputs to prevent entering a stall or spin.	Set pitch attitude too high or too low. Maneuver effectiveness was degraded.	Maintained deviations in excess of Q- criteria.
28	Areas 26 - 28. Nose-Low, Nose-High, and Inverted Recoveries.	Recovered to level flight expeditiously without stalling or exceeding aircraft limitations and with minimum altitude loss.	Was slow to analyze attitude or erratic in recovery to level flight. Was slow to recognize or use the proper power setting and configuration.	Failed to correctly analyze attitude and execute appropriate recovery. Used improper power setting and configuration.
29	Area 29. Aerobatics. (Perform aerobatic maneuvers to include: - chandelle - lazy eight - barrel roll - aileron roll - cloverleaf - loop - Immelmann - cuban eight - split S.)	Maneuvers were smooth, positive, coordinated, and flown IAW all applicable directives. Attained proper entry parameters prior to beginning the maneuver and placed emphasis on use of outside references. Maneuvers were planned and flown to remain within area boundaries.	Entry parameters were not met and energy levels were not adequate to properly accomplish maneuver. Aircraft control during maneuvers was adequate, but not smooth and positive. Minor procedural deviations occurred.	Significantly missed entry parameters. Maneuvers were not flown IAW directives. Aircraft control was erratic, causing unsatisfactory accomplishment of maneuvers. Exceeded aircraft limits.
30	Area 30. Letdown and Traffic Entry.	Performed letdown as published or directed and complied with all restrictions and directives.	Minor deviations in airspeed and navigation occurred during completion of letdown.	Failed to comply with published or directed letdown instructions or directives.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
31	Area 31. Normal Pattern/Landing (Overhead).	Properly analyzed pattern winds. Maintained pattern altitude $\pm 100$ feet prior to the final turn. Performed break between approach end and 3,000 feet down the runway. Maintained airspeed $\pm 10$ KIAS on initial. Aircraft properly configured prior to starting the final turn. Final turn and final airspeed was - 0 to + 10 KIAS. Maintained proper runway alignment, and touchdown speed was - 5 to + 10 KIAS, in the prescribed landing zone. Braking was smooth and effective.	Misanalysis of pattern winds resulted in loose or tight downwind or long or short final. Maintained pattern altitude $\pm 200$ feet prior to the final turn. Performed pattern break outside the proper zone. Maintained airspeed $\pm 20$ KIAS on initial. Final turn and final airspeed was - 5 to + 15 KIAS. Touchdown speed was - 5 to + 15 KIAS, slightly outside the prescribed landing zone but safe. Ineffective braking resulted in an increased landing roll.	Exceeded Q- criteria. Configuration was improper.
32	Area 32. Normal Pattern/Landing (Straight-In).	Aircraft properly configured prior to starting down final. Airspeed on final was - 0 to + 10 KIAS. Maintained proper runway alignment, and touchdown speed was - 5 to + 10 KIAS in the prescribed landing zone. Braking was smooth and effective.	Was late configuring aircraft. Airspeed on final was - 5 to + 15 KIAS. Touchdown speed was - 5 to + 15 KIAS, slightly outside the prescribed landing zone but safe. Ineffective braking resulted in an increased landing roll.	Exceeded Q- criteria. Configuration was improper. Exceeded aircraft limits.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
33	Area 33. Zero-Flap Pattern/ Landing.	Properly analyzed pattern winds. Maintained pattern altitude $\pm 100$ feet prior to the final turn. Performed break between approach end and 3,000 feet down the runway (compensating for winds). Maintained airspeed $\pm 10$ KIAS on initial. Aircraft properly configured prior to starting the final turn. Final turn and final airspeed was 120 KIAS (- 0 to + 10 KIAS). Maintained proper runway alignment, and touchdown speed was - 5 to + 10 KIAS in the prescribed landing zone. Nose was lowered to the runway above nose-wheel touchdown speed. Braking was smooth and effective.	Misanalysis of pattern winds resulted in loose or tight downwind or long or short final. Maintained pattern altitude $\pm 200$ feet prior to the final turn. Performed pattern break outside the proper zone. Maintained airspeed was $\pm 20$ KIAS on initial. Final turn and final airspeed was - 5 to + 15 KIAS. Touchdown speed was - 5 to + 15 KIAS, slightly outside the prescribed landing zone but safe. Was late lowering nose-wheel to the runway. Ineffective braking resulted in an increased landing roll.	Exceeded Q- criteria. Configuration was improper. Exceeded aircraft limits.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
34	Area 34. Emergency Traffic Pattern/Landing (No-Flap).	Complied with all flight manual and operational procedures. Maintained safe maneuvering airspeed. Used sound judgment. Configured at the appropriate position or altitude. Flew final based on recommended procedures, airspeed, and glidepath. Had smooth, positive control of aircraft. Touchdown point was according to applicable guidance and permitted safe stopping in available runway.	Made minor procedural errors that did not detract from safe handling of the situation. Airspeed control was erratic. Configured at a position and altitude that allowed for a safe approach. Required unnecessary maneuvering due to minor errors in planning or judgment. Touchdown was longer than desired (> 2000 feet down runway).	Did not comply with applicable procedures. Erratic airspeed control compounded problems associated with the emergency. Judgment was unsafe. Required excessive maneuvering. Could not have landed safely. Touchdown point would not have allowed for safe stopping on available runway. Exceeded aircraft limits.
35	Area 35. Emergency Traffic Pattern/Landing (Single-Engine).	Complied with all flight manual and operational procedures. Maintained safe maneuvering airspeed. Used sound judgment. Configured at the appropriate position or altitude. Had smooth, positive control of aircraft. Touchdown point permitted safe stopping in available runway.	Made minor procedural errors that did not detract from safe handling of the situation. Configured at a position and altitude that allowed a safe approach. Minor errors in planning or judgment required unnecessary maneuvering. Touchdown was longer than desired (> 2000 feet down runway).	Made major deviations or did not comply with applicable procedures. Improperly configured the aircraft. Judgment was unsafe. Excessive maneuvering was required. Could not have landed safely. Touchdown point would not have allowed for safe stopping on available runway. Exceeded aircraft limits.
36	Area 36. Go-Around.	Initiated and performed go-around promptly IAW operational procedures and directives.	Was slow to initiate go-around or procedural steps.	Did not initiate go-around when appropriate or directed. Techniques were unsafe or applied incorrect procedures.

I T E M	A	B	C	D
		Grading Criteria		
	Grading Area	Q	Q-	U
37	Area 37. Touch-and-Go Procedures.	Maintained proper runway alignment, and touchdown speed was - 5 to + 10 KIAS in the prescribed landing zone. Application of power, cross-check of engine instruments, and runway alignment during takeoff phase was smooth and timely.	Executed landing phase with minor deviations. Touchdown speed was - 5 to + 15 KIAS, slightly outside the prescribed landing zone but safe. Application of power, cross-check of engine instruments, and runway alignment during the takeoff phase was slow.	Exceeded Q- criteria. Application of power, cross-check of engine instruments, and runway alignment was late during the takeoff phase.
38	Area 38. Closed Traffic.	Attained 150 KIAS minimum before start of pullup. Maintained 150 KIAS during pullup and 120 KIAS on downwind. Rolled out at pattern altitude $\pm$ 100 feet. Complied with published directives.	Airspeed on inside downwind was 120 KIAS, - 5 to + 15 KIAS. Altitude was $\pm$ 200 feet.	Exceeded Q- criteria.
39	Area 39. Breakout and Reentry.	Complied with all flight manual and operational procedures. Maintained safe maneuvering airspeed and altitude.	Erratic airspeed and altitude control led to minor procedural errors. Errors did not detract from safe handling of the situation.	Did not comply with applicable procedures. Erratic airspeed and altitude control compromised safety.
<b>INSTRUMENTS</b>				
40	Area 40. En Route Aircraft Control.	Aircraft control was smooth and positive. Maintained airspeed $\pm$ 10 KIAS, altitude $\pm$ 150 feet, and heading $\pm$ 5 degrees of desired.	Erratic aircraft control resulted in minor deviations. Maintained airspeed $\pm$ 30 knots, altitude $\pm$ 300 feet, and heading $\pm$ 10 degrees of desired.	Exceeded Q- criteria. Consistently deviated from airspeed altitude, and/or heading.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
41	Area 41. Instrument Climb/ Descent.	Maintained smooth and positive aircraft control. Complied with appropriate directives and procedures.	Made minor deviations in procedure. Aircraft control not smooth and positive, but adequate.	Exceeded Q- criteria. Aircraft control erratic.
42	Area 42. Airspeed Change.	Performed in a smooth and positive manner.	Was slow to change airspeed when required.	Failed to make directed or required airspeed changes.
43	Area 43. Vertical S.	Aircraft control was smooth and positive. Maintained $\pm 200$ feet VVI, airspeed $\pm 5$ KIAS, heading $\pm 5$ degrees, and $\pm 100$ feet of desired leveloff altitude. Bank angle was $\pm 5$ degrees.	Erratic aircraft control resulted in minor deviations. Maintained $\pm 300$ feet VVI, $\pm 20$ KIAS, and $\pm 200$ feet of desired level off altitude. Bank angle was $\pm 10$ degrees.	Exceeded Q- criteria. Failed to make appropriate corrections.
44	Area 44. Steep Turns.	Aircraft control was smooth and positive. Bank angle was $\pm 10$ degrees. Maintained $\pm 5$ KIAS of desired airspeed. Altitude was $\pm 200$ feet at 60-degree bank and $\pm 100$ feet at 45-degree bank. Rollout heading $\pm 10$ degrees at 45-degree bank and $\pm 15$ degrees at 60-degree bank.	Made minor deviations. Bank angle was $\pm 20$ degrees. Maintained $\pm 10$ KIAS of desired airspeed. Altitude was $\pm 300$ feet at 60-degree bank and $\pm 200$ feet at 45-degree bank. Rollout heading was $\pm 20$ degrees at 45-degree bank and $\pm 30$ at 60-degree bank.	Exceeded Q- criteria. Failed to make appropriate corrections.
45	Area 45. Unusual Attitude Recoveries.	Made expeditious recovery to level flight with minimum altitude loss and without stalling or exceeding aircraft limits.	Slow to analyze attitude or erratic in recovery to level flight. Correct recovery procedures used.	Was unable to determine attitude. Used improper recovery procedures. Exceeded aircraft limits.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
46	Area 46. Wingover.	Maneuver performed IAW directives. Aircraft control was positive and smooth.	Made minor procedural deviations. Aircraft control was not always smooth and positive, but adequate.	Exceeded Q- criteria. Aircraft control was erratic, causing major deviations. Exceeded aircraft limits.
47	Area 47. Aileron Roll.	Maneuver performed IAW directives. Aircraft control was positive and smooth.	Made minor procedural deviations. Aircraft control was not always smooth and positive, but adequate.	Exceeded Q- criteria. Aircraft control was erratic, causing major deviations. Exceeded aircraft limits.
48	Area 48. Fix-to-Fix.	Made small infrequent heading changes; positioned aircraft $\pm 3$ miles of desired fix.	Made frequent or large heading changes; reached fix of $\pm 4$ miles.	Exceeded Q- criteria.
49	Area 49. Holding.	Executed entry and holding IAW published procedures and directives. Stayed within $\pm 15$ seconds and $\pm 2$ minutes of EFC (if assigned) of holding pattern limit fix.	Made minor errors that did not detract from safety. Stayed within $\pm 20$ seconds and $\pm 3$ minutes of EFC (if assigned) of holding pattern limit fix.	Exceeded Q- criteria. Did not comply with published procedures and directives.
50	Area 50. Penetration. (Initial Approach Fix to Final Approach Fix/Descent Point)	Performed the penetration and approach as published or directed and IAW the flight manual. Complied with all restrictions. Made smooth and timely corrections.	Performed penetration and approach with minor deviations. Complied with restrictions. Was slow to make corrections.	Performed the penetration and approach with major deviations. Made erratic corrections. Did not comply with restrictions. Compromised safety.
51	Area 51. En Route Descent.	Executed descent as directed. Complied with all restrictions. Remained position oriented.	Executed descent as directed with minor deviations.	Executed descent with major deviations. Did not comply with restrictions.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
52	Areas 52. Intercept/Maintain Course.	Complied with basic control standards. Established a valid intercept. Maintained course of $\pm 5$ degrees.	Maintained course of $\pm 10$ degrees, not to exceed 5 nm.	Exceeded Q- criteria.
53	Areas 53. Intercept/Maintain Arc.	Complied with basic control standards. Established valid arc intercept. Maintained arc of $\pm 2$ nm.	Maintained arc of $\pm 3$ nm.	Exceeded Q- criteria.
54	Area 54. ILS Approach.	Executed approach as published IAW the flight manual. Made smooth and timely corrections to azimuth and glide slope to remain within one dot. Airspeed was - 0 to + 10 KIAS. Complied with decision height and position would have permitted a safe landing.	Minor deviations did not detract from the approach. Slow to make corrections or initiate procedures. Airspeed was - 5 to + 15 KIAS and glide slope was within one dot low or two dots high. Azimuth was within two dots. Position at DH would have permitted a safe landing.	Exceeded Q- limits. Performed procedures with major deviations. Made erratic corrections. Did not comply with decision height or position at decision height would not have permitted a safe landing.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
55	Area 55. PAR Approach.	Executed approach as published IAW the flight manual. Performed smooth and timely response to controller instructions. Maintained glidepath with only minor deviations. Heading was $\pm 5$ degrees of controller instructions and airspeed was - 0 to + 10 KIAS. Complied with decision height and position would have permitted a safe landing.	Minor deviations did not detract from the approach. Slow response to controller's instructions caused poor glidepath control, but never exceeded well above or below glidepath. Heading was $\pm 10$ degrees of controller instruction and airspeed was - 5 to + 15 KIAS. Position at decision height would have permitted a safe landing.	Exceeded Q- limits. Made major deviations and/or erratic corrections. Did not respond to controller instructions, resulting in erratic glidepath and heading control. Proceeded below decision height and/or position would not have permitted a safe landing.
56	Areas 56. VOR Approach.	Adhered to all published or directed procedures and restrictions. Used appropriate descent rate to arrive at MDA (+ 100 to - 0 feet) at or before VDP. Maintained airspeed of - 0 to + 10 KIAS and course was $\pm 5$ degrees at MAP. Position would have permitted a safe landing.	Executed approach with minor deviations. Arrived at MDA (- 0 to + 150 feet) at or before the MAP, but past the VDP. Maintained airspeed - 5 to + 15 KIAS and course was $\pm 10$ degrees at MAP. Position would have permitted a safe landing.	Exceeded Q- limits. Did not comply with procedures or restrictions. Maintained steady-state flight below the MDA. Could not land safely from the approach.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
57	Areas 57. Localizer Approach.	Adhered to all published or directed procedures and restrictions. Used appropriate descent rate to arrive at MDA (+ 100 to - 0 feet) at or before VDP. Maintained airspeed of - 0 to + 10 KIAS and less than one dot deflection. Position would have permitted a safe landing.	Executed approach with minor deviations. Arrived at MDA (- 0 to + 150 feet) at or before the MAP, but past the VDP. Maintained airspeed - 5 to + 15 KIAS and stayed within two dots deflection. Position would have permitted a safe landing.	Exceeded Q- limits. Did not comply with procedures or restrictions. Maintained steady-state flight below the MDA. Could not land safely from the approach.
58	Areas 58. ASR Approach.	Executed approach as published IAW the flight manual. Smooth and timely response to controller instructions. Used appropriate descent rate to arrive at MDA (+ 100 to - 0 feet) at or before VDP. Maintained airspeed of - 0 to + 10 KIAS and heading was $\pm 5$ degrees of controller instructions. Position would have permitted a safe landing.	Executed approach with minor deviations. Arrived at MDA (- 0 to + 150 feet) at or before the MAP, but past the VDP. Maintained airspeed of - 5 to + 15 KIAS and course was $\pm 10$ degrees at MAP. Position would have permitted a safe landing.	Exceeded Q- limits. Did not comply with procedures or restrictions. Did not respond to controller instruction. Maintained steady-state flight below the MDA. Could not land safely from the approach.
59	Area 59. Low Altitude Approach.	Executed the approach as published or directed and IAW the flight manual. Complied with restrictions. Made smooth and timely corrections.	Executed the approach with minor deviations. Complied with restrictions. Was slow to make corrections.	Executed the approach with major deviations. Made erratic corrections.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
60	Area 60. Circling Approach.	Executed approach IAW the flight manual and AFMAN 11-217, Volume 1. Maintained a minimum of computed final turn airspeed until established on final. Maintained circling minimums and VMC until acquisition of visual glidepath. Smoothly positioned the aircraft for a safe landing.	Aircraft control was not consistently smooth, but safe. Made minor deviations that did not detract from the approach. Maintained circling minimums and VMC until acquisition of visual glidepath. Runway displacement was adequate but not optimum and did not require a missed approach.	Approach not flown IAW the flight manual or AFMAN 11-217, Volume 1. Aircraft control was erratic. Failed to correct large deviations in airspeed or altitude. Incorrectly configured aircraft. Displacement was not adequate to allow safely aligning with the landing runway and a missed approach was required.
61	Area 61. Missed Approach/ Climbout.	Executed missed approach or climbout as published or directed IAW flight manual procedures.	Executed missed approach or climbout with minor deviations. Was slow to comply with published procedures, controller's instructions, or flight manual procedures.	Executed missed approach or climbout with major deviations. Did not comply with applicable directives or procedures.
62	Area 62. Transition to Land/ Landing.	Made a smooth and timely transition based on computed visual descent point or where runway environment was visually acquired. Maintained runway alignment and touchdown speed was - 5 to + 10 KIAS, 500 to 2,000 feet from the runway threshold.	Slow transition led to a steeper than desired final, but appropriate corrections were made. Excessive power and pitch inputs resulted in a long or short landing.	Late transition or attempt to land in the "normal" landing zone led to a "duck-under." Improper calculation of visual descent point or excessively late transition prevented landing out of the approach.

I T E M	A	B	C	D
		Grading Criteria		
	Grading Area	Q	Q-	U
<b>FORMATION (GENERAL)</b>				
<b>63</b>	Area 63. Visual Signals.	Signals were IAW AFI 11-205 and clearly visible to wingman.	Signals were IAW AFI 11-205, but not clearly visible to wingman.	Signals were not IAW AFI 11-205 and unrecognizable to wingman.
<b>64</b>	Area 64. Position Change.	Lead was decisive and clearly directed position change while monitoring wingman position. Designated wingman moved smoothly to the directed position while maintaining aircraft separation.	Lead was slow to position the formation to facilitate the position change. Designated wingman was slow to move to the directed position or recognize less than adequate aircraft separation.	Excessive time was taken to accomplish position change. Procedure was not conducted according to directives. Safety was compromised.
<b>65</b>	Area 65. Formation Overhead Pattern/Landing.	Lead properly analyzed pat-tern winds and placed wingman on proper side. Maintained pattern altitude of $\pm 100$ feet and airspeed of $\pm 10$ KIAS. Executed pitchout IAW published or directed procedures. Wingman maintained a minimum of 3,000 feet spacing after pitchout. Final turn and final airspeed was - 0 to + 10 KIAS, and touchdown speed was - 5 to + 10 KIAS. Maintained proper side of the runway and alignment on rollout.	Misanalysis of pattern winds resulted in loose or tight downwind or long or short final. Maintained pattern altitude $\pm 200$ feet and airspeed $\pm 20$ KIAS. Executed pitchout outside the proper zone. Wingman did not maintain consistent spacing. Final turn and final airspeed was - 5 to + 15 KIAS, and touchdown speed was - 5 to + 15 KIAS.	Exceeded Q- criteria.

I T E M	A	B	C	D
		Grading Criteria		
	Grading Area	Q	Q-	U
<b>FORMATION (LEAD)</b>				
66	Area 66. Formation Takeoff.	Ensured wingman was on the proper side for conditions. Takeoff was IAW published or briefed procedures. Maintained proper power setting and runway alignment $\pm 10$ feet. Smoothly established proper takeoff attitude. Ensured wingman was safely airborne prior to retracting gear or flaps, but did so before exceeding aircraft limits.	Minor deviations occurred, but did not detract from the takeoff. Placed wingman on the wrong side for existing conditions. Slow to set proper power setting or takeoff attitude. Maintained proper side of runway, but alignment drifted $\pm 20$ feet. Inattentive to wingman's position.	Exceeded Q- criteria. Major deviations occurred.
67	Area 67. Interval Takeoff.	Executed takeoff IAW published or briefed procedures. Maintained runway alignment of $\pm 10$ feet. Set or maintained proper takeoff attitude. Retracted gear or flaps after safely airborne, but prior to exceeding aircraft limits. Proper power setting, smooth aircraft control, and effective communication facilitated a timely rejoin.	Minor deviations occurred, but did not detract from the takeoff. Maintained proper side of runway, but alignment drifted $\pm 25$ feet. Set and maintained proper takeoff attitude. Inattention to wingman's position, lack of communication, and/or improper power setting delayed rejoin.	Takeoff was potentially dangerous. Exceeded aircraft or systems limits. Raised gear and/or flaps too early or too late. Failed to establish proper climb attitude or power. Erratic aircraft control resulted in excessively delayed rejoin.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
68	<p>Areas 68 - 74. Formation. (Perform two-ship formation mission profile as lead, to include:</p> <ul style="list-style-type: none"> <li>- departure</li> <li>- fingertip</li> <li>- wingwork</li> <li>- echelon</li> <li>- close trail</li> <li>- pitchout</li> <li>- rejoin.)</li> </ul>	<p>Executed mission profile IAW published or briefed procedures. Maintained positive control of the flight and took timely action to correct discrepancies. Planned ahead and made timely decisions, completing the profile smoothly without exceeding wingman's capabilities or degrading flight safety. Fingertip maneuvering up to 3 Gs and 90 degrees of bank. Complied with all maneuver parameters.</p>	<p>Deviated slightly from procedures. Did not take positive control of the flight. Excessive maneuvering made it difficult for wingman to maintain position. Did not always plan ahead and/or was hesitant in making decisions. Poor decisions delayed mission accomplishment or degraded training. Inattentive to wingman's position.</p>	<p>Exceeded Q- criteria. Maneuvered erratically, forcing wingman to breakout. Failed to monitor wingman's position.</p>
69	<p>Area 75. Fighting Wing.</p>	<p>Executed smoothly IAW published or briefed procedures. Monitored wingman position and maneuvered aircraft with good situational awareness.</p>	<p>Poor in-flight decisions delayed mission accomplishment or degraded training. Rough control inputs made it difficult for wingman to maintain position. Did not always plan ahead.</p>	<p>Exceeded Q- criteria.</p>

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
70	Area 76. Extended Trail.	Executed smoothly IAW published or briefed procedures. Monitored wingman position and maneuvered aircraft with good situational awareness and energy level.	Some minor deviations occurred. Poor in-flight decisions delayed mission accomplishment or degraded training. Rough control inputs made it difficult for wingman to maintain position. Did not always plan ahead and/or hesitated in making decisions.	Exceeded Q- criteria.
71	Area 77. Descent and Traffic Entry.	Executed descent and traffic entry as published or directed and complied with all restrictions without exceeding wingman's capabilities.	Made minor deviations in airspeed or navigation that did not detract from the maneuver. Inattentive to wingman's position.	Failed to comply with published or directed instructions. Failed to monitor wingman's position.
72	Area 78. Formation Approach.	Executed approach IAW applicable publications and directives. Smooth and timely corrections to airspeed, azimuth, and glideslope helped wingman maintain position. Maintained safe airspeed of - 0 to + 10 KIAS. Position would have permitted a safe landing for both aircraft.	Slow to comply with published or briefed procedures. Erratic or abrupt corrections to airspeed, azimuth or glideslope made it difficult for wingman to maintain position. Position would have permitted a safe landing for both aircraft.	Made major deviations in procedures. Did not execute approach as published or directed. Did not monitor wingman's position or configuration. Placed wingman in unsafe situation. Flight could not land from approach.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
73	Area 79. Formation Landing.	Aircraft properly configured prior to starting down final. Airspeed on final was - 0 to + 10 KIAS. Landed in center of appropriate side of runway without drift. Touchdown speed was - 5 to + 10 KIAS and 500 to 1,500 feet from the runway threshold.	Configured aircraft late. Minor drifting occurred, but was recognized and corrected. Occasional rough control inputs were not unsafe, but made it difficult for wingman to maintain position. Airspeed on final was - 0 to + 15 KIAS. Touchdown speed was - 5 to + 15 KIAS, slightly outside the prescribed landing zone but safe.	Exceeded Q- criteria. Did not monitor wingman's position or configuration. Placed wingman in unsafe situation.
<b>FORMATION (WING)</b>				
74	Area 80. Formation Takeoff.	Maintained position with only momentary deviations. Maintained safe separation and complied with lead's instructions. Moved to fingertip position after gear and flaps were retracted.	Overcontrolled aircraft to the extent that formation position varied considerably. Made late configuring, but did not exceed aircraft limits.	Made abrupt position corrections. Did not maintain safe separation or formation position throughout the takeoff. Exceeded aircraft limits.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
75	Area 81. Interval Takeoff.	Executed takeoff IAW published or briefed procedures. Maintained runway alignment of $\pm 10$ feet. Set or maintained proper takeoff attitude. Retracted gear or flaps after safely airborne, but prior to exceeding aircraft limits. Proper power setting, smooth aircraft control, and effective use of geometry facilitated a timely rejoin.	Minor deviations occurred, but did not detract from the takeoff. Maintained runway alignment of $\pm 25$ feet. Set and maintained proper takeoff attitude. Inattention, improper power setting, and/or improper use of geometry delayed rejoin.	Takeoff was potentially dangerous. Exceeded aircraft or systems limits. Raised gear and/or flaps too early or too late. Failed to establish proper climb attitude or power. Erratic aircraft control resulted in excessively delayed rejoin.
76	Areas 82 - 92. Formation. (Perform two-ship formation on the wing, to include: - fingertip - wingwork - echelon - route - crossunder - close trail - pitchout - rejoin. - breakout - overshoot - lost wingman.)	<b>Fingertip/Wingwork:</b> Maintained 3 to 7 feet wingtip separation, $\pm 4$ feet vertical and $\pm 4$ feet longitudinal. <b>Echelon Turn:</b> Stacked level $\pm 5$ feet. Maintained fore and aft fingertip references during rollin, turn, and rollout. <b>Route:</b> Maintained position IAW directives or as briefed. Demonstrated ability to clear, monitor NAVAID, and maneuver with lead. <b>Crossunder:</b> Completed in a timely manner. Crossed below lead's wake with nose to tail clearance, but no further aft than one ship length.	Overcontrolled aircraft to the extent that formation position varied considerably. Made minor procedural errors that did not detract from the maneuver being flown. Was slow to make appropriate corrections.	Was unable to perform the required maneuver. Failed to maintain safe separation. Compromised safety in an attempt to accomplish the maneuver. Exceeded aircraft or systems limits.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
		<p><b>Close Trail:</b> Maintained one to two aircraft lengths behind lead, just below the wake.</p> <p><b>Pitchout:</b> Rolled out at about the same altitude as lead, in trail.</p> <p><b>Rejoin:</b> Expeditiously maneuvered to the proper rejoin line. Maintained controlled closure to the fingertip position and overshoot if required.</p> <p><b>Breakout:</b> Executed in a timely manner and IAW directives or briefing. Adequate aircraft separation was achieved.</p> <p><b>Overshoot:</b> Made the decision to overshoot in a timely manner and executed the maneuver IAW directives and briefing. Excessive over-take or angle was dissipated safely. Kept lead in sight.</p> <p><b>Lost Wingman:</b> Executed in a timely manner and IAW directives and briefing. Immediate and adequate aircraft separation was achieved.</p>		
77	Area 93. Fighting Wing.	Remained within published cone, using appropriate geometry.	Was slow to make appropriate corrections.	Failed to maintain safe separation.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
78	Area 94. Extended Trail.	Made smooth and/or positive control inputs and demonstrated a clear understanding of turn circle geometry and creative use of pursuit curves or energy management to maintain position. Remained aware of fuel state and did not overfly bingo.	Was slow to recognize and react to changing aspect, angle-off, and closure. Erratic power control resulted in less than optimum position.	Unable to maintain position. Failed to maintain safe separation. Compromised safety in an attempt to accomplish maneuvers. Exceeded aircraft or systems limits.
79	Area 95. Formation Approach.	Maintained fingertip position with only momentary deviations until stacking level. Made smooth or timely corrections. Monitored appropriate NAVAID and remained positionally aware. Configured when directed and maintained 10 to 25 feet of wingtip separation.	Overcontrolled aircraft to the extent that formation position varied considerably. Made minor procedural errors that did not detract from the maneuver. Was slow to make appropriate corrections.	Unable to maintain position. Failed to maintain safe separation. Compromised safety in an attempt to accomplish maneuver. Exceeded aircraft or systems limits.
80	Area 96. Formation Landing.	Maintained 10 to 25 feet of wingtip separation, stacked- level position with only momentary deviations. Made smooth and timely corrections. Did not become airborne after touchdown and maintained appropriate side of the runway.	Overcontrolled aircraft to the extent that formation position varied considerably. Made minor procedural errors that did not detract from the maneuver. Was slow to make appropriate corrections.	Unable to maintain position. Failed to maintain safe separation. Compromised safety in an attempt to accomplish maneuver. Exceeded aircraft or systems limits.
<b>NAVIGATION</b>				
81	Area 97. Chart Preparation.	Prepared chart according to applicable directives to include CHUM.	Made minor errors or omissions that did not detract from mission effectiveness.	Made major errors or omissions that would have prevented a safe or effective mission.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
82	Area 98. Flight Log (AF Form 70) Maintenance.	Updated form as soon as practical after passing each en route fix with actual time of arrival, fuel remaining and estimated time of arrival to next fix.	Completed form IAW directives. Made minor deviations that did not compromise safety.	Form was not completed IAW directives. Made major deviations or errors that could compromise safety.
83	Area 99. In-Flight Computations.	Made timely and accurate computations based on flight conditions.	Slow to compute necessary in-flight computations. Made only minor errors.	In-flight computations were omitted where they were necessary for the safe conduct of the mission. Made major errors.
84	Area 100. Maintaining Course.	Maintained $\pm 2$ miles (VFR) or $\pm 5$ degrees (IFR).	Maintained $\pm 3$ miles VFR or $\pm 10$ degrees IFR.	Exceeded Q- criteria.
85	Area 101. VFR Arrival.	Performed VFR arrival IAW procedures and techniques outlined in flight manual, operational procedures, and local directives.	Performed VFR arrival with minor deviations to procedures and techniques outlined in flight manual, operational procedures, and local directives.	VFR arrival was not performed according to procedures and techniques outlined in flight manual, operational procedures, and local directives.
<b>LOW-LEVEL NAVIGATION</b>				
86	Area 102. Route Entry.	Arrived at entry point $\pm 1$ nm.	Arrived at entry point $\pm 3$ nm or route corridor, whichever is less.	Exceeded Q- criteria.
87	Area 103. Altitude Control.	Maintained 500 to 1,500 feet AGL unless obstacles or safety dictated.	Maintained no higher than 2,000 feet AGL unless obstacles or safety dictated.	Exceeded Q- criteria.
88	Area 104. Time Control.	Reached each checkpoint $\pm 90$ seconds of planned time.	Reached each checkpoint $\pm 150$ seconds of planned time.	Exceeded Q- criteria.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
89	Area 105. Course Control.	Maintained terrain awareness and planned course $\pm$ 2 nm.	Deviations from course were recognized and corrected. Maintained course within route corridor limits.	Violated airspace restrictions. Exceeded Q- criteria.
90	Area 106. Wind Analysis.	Properly analyzed winds and made appropriate drift correction to stay on course.	Improper wind analysis or insufficient drift correction caused aircraft to be blown slightly off course.	Did not correct for winds.
91	Area 107. DR Procedures.	Navigated to planned checkpoints $\pm$ 2 nm and remained geographically oriented.	Deviations in course or airspeed control led to the need for large corrections.	Failed to locate one or more checkpoints. Exceeded route corridor limits.
92	Area 108. Map Reading.	Was able to read map and identify prominent landmarks without the use of navigational instruments.	Errors in procedures or techniques led to some disorientation.	Failed to recognize or misidentified checkpoints.
93	Area 109. In-Flight Data/Fuel Procedures.	Made timely and accurate updates based on flight computations.	Slow to compute necessary in-flight updates.	In-flight checks omitted where necessary for the safe conduct of the mission.
94	Area 110. Escape/Recovery.	Climbed to an appropriate, safe recovery altitude. Read map and identified landmarks along route.	Was slow to attain appropriate recovery altitude. Was slow to identify correct landmarks on route.	Climbed to incorrect altitude for recovery. Was unable to maintain proper course on recovery.

I T E M	A	B	C	D
		Grading Criteria		
	Grading Area	Q	Q-	U
<b>GENERAL KNOWLEDGE</b>				
95	Area 111. Emergency Procedures.	Correctly and immediately responded to boldface or critical action procedures and nonboldface emergency situations. Effectively used checklist.	Response to boldface or critical action procedures was correct, but response to nonboldface procedures was slow or confused. Used the checklist, but was slow to locate required data.	Made incorrect response for boldface or critical action procedures. Unable to analyze problems or take corrective action. Did not use checklist or lacked acceptable familiarity with its arrangement or content.
96	Area 112. General Knowledge: a. Aircraft General.	Demonstrated a thorough knowledge of aircraft systems, limitations, and performance characteristics.	Demonstrated deficiencies either in depth of knowledge or comprehension.	Demonstrated unsatisfactory knowledge of aircraft systems, limitations, or performance characteristics.
97	b. Flight Rules/ Procedures.	Had a thorough knowledge of flight rules and procedures.	Had deficiencies in depth of knowledge.	Had inadequate knowledge of flight rules or procedures.
98	c. Local Area Procedures.	Had a thorough knowledge of local procedures.	Had limited knowledge of local procedures.	Had inadequate knowledge of local procedures.
99	Area 113. Publications.	Publications were current, contained all supplements and changes, and were properly posted.	Publications contained deficiencies that would not impact flight safety or mission accomplishment.	Publications were outdated and/or contained deficiencies that would impact flight safety or mission accomplishment.

I T E M	A	B	C	D
		Grading Criteria		
	Grading Area	Q	Q-	U
<b>INSTRUCTION (IF APPLICABLE)</b>				
<b>100</b>	Area 114. Briefing/Debriefing.	Presented a comprehensive, instructional briefing or debriefing that encompassed all mission events. Made excellent use of training aids. Gave an excellent analysis of all events or maneuvers. Clearly defined objectives.	Minor errors or omissions in briefing, debriefing, or mission critique. Was occasionally unclear in analysis of events or maneuvers.	Made major errors or omissions in briefing or debriefing. Analysis of events or maneuvers was incomplete, inaccurate, or confusing. Did not use training aids or reference material effectively. Briefing or debriefing was below the caliber of that expected of instructors. Failed to define mission objectives.
<b>101</b>	Area 115. Demonstration of Maneuvers.	Performed required maneuvers within prescribed parameters. Provided concise, meaningful in-flight commentary. Demonstrated excellent instructor proficiency.	Performed required maneuvers with minor deviations from prescribed parameters. In-flight commentary was sometimes unclear.	Was unable to properly perform required maneuvers. Made major procedural errors. Did not provide in-flight commentary. Demonstrated below-average instructor proficiency.
<b>102</b>	Area 116. Instructor Knowledge.	Demonstrated in-depth knowledge of procedures, requirements, aircraft systems, performance characteristics, and mission beyond that expected of noninstructors.	Had deficiencies in depth of knowledge, comprehension of procedures, requirements, aircraft systems, performance characteristics, or mission.	Was unfamiliar with procedures, requirements, aircraft systems, performance characteristics, or mission. Lack of knowledge seriously detracted from instructor effectiveness.

I T E M	A	B	C	D
	Grading Area	Grading Criteria		
		Q	Q-	U
<b>103</b>	Area 117. Ability To Instruct.	Demonstrated excellent instructor or evaluator ability. Clearly defined all mission requirements and any required additional training or corrective action. Instruction or evaluation was accurate, effective, and timely. Was completely aware of aircraft or mission situation at all times.	Problems in communication or analysis degraded effectiveness of instruction or evaluation.	Demonstrated inadequate ability to instruct or evaluate. Unable to perform, teach, or assess techniques, procedures, systems use, or tactics. Was not aware of aircraft or mission situation at all times.
<b>104</b>	Area 118. Grading Practices.	Completed appropriate training or evaluation records accurately. Adequately assessed and recorded performance. Comments were clear and pertinent.	Made minor errors or omissions in training or evaluation records. Comments were incomplete or slightly unclear.	Did not complete required forms or records. Comments were invalid, unclear, or did not accurately document performance.

### 1.6. Completion of AF Form 8:

1.6.1. Record and certify the aircrew member's qualification, using the AF Form 8 in accordance with AFI 11-202, Volume 2.

1.6.2. Place all comments, with the exception of restrictions and exceptionally qualified designation (if used), on the reverse side of the AF Form 8.

1.6.3. All mission evaluations (whether contact, formation, instrument/navigation, or low level) will be logged as "MSN" evaluations in the Flight Phase block of the AF Form 8. Additional clarification as to the specific type of mission evaluation will be included in the Mission Description section of the Examiner's Remarks in the Comments block of the AF Form 8. (See AFI 11-202, Volume 2, for AF Form 8 requirements.)

## Chapter 2

### EVALUATION REQUIREMENTS

#### 2.1. Guidelines:

2.1.1. All evaluations will follow the guidelines set in Chapter 5 of AFI 11-202, Volume 2. Pilot evaluation requirements are shown in **Table 2.1.** of this instruction. They are divided into the following areas: preflight, general, contact, instruments, formation (general), formation (lead), formation (wing), navigation, low-level navigation, general knowledge, and instruction (if applicable). Use all areas for criteria applicable to the events performed on the evaluation.

2.1.2. Areas indicated in **Table 2.1.** 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. If it is impossible to accomplish a required area in flight, the FE may elect to evaluate the area by an alternate method (for example, simulator, CPT, orally, etc.) in order to complete the evaluation. If the FE determines the required item cannot be adequately evaluated by an alternate method, the examinee will require an additional flight to complete the evaluation.

2.1.3. Areas in **Table 2.1.** indicated with an asterisk (\*) are critical items for that evaluation.

#### 2.2. Pilot Instrument/Qualification Evaluation:

2.2.1. A mission flown according to instrument flight rules (IFR) fulfills the objective of the instrument/qualification evaluation. To the maximum extent possible, this evaluation will include approaches at airfields other than the examinee’s home field. The examinee will complete the following requisites:

2.2.1.1. Instrument refresher course (IRC) training.

2.2.1.2. Instrument examination.

2.2.1.3. Closed- and open-book qualification examinations.

2.2.1.4. EPE.

2.2.1.5. Boldface examination.

2.2.1.6. Publications check. Publications that will be checked during the evaluation are technical order (TO) 1T-37B-1, *USAF Series T-37B Flight Manual*; TO 1T-37B-1CL-1, *T-37B Flight Crew Checklist*; and the local in-flight guide.

Table 2.1. Pilot Evaluations Requirements.

I T E M	A	B	C	D	E	F	G
	Area	Title	Types of Evaluation (See Legend)				
			1	2	3	4	5
<b>PREFLIGHT</b>							
1	1	Mission Planning	R				
2	2	Mission Briefing			R		
3	3	Ground Operations	R		R		
4	4	Takeoff	R				
5	5	Departure	R				
6	6	Clearing	R				
7	7	Leveloff	R				
8	8	Cruise/Navigation					
9	9	In-Flight Checks	R				
10	10	In-Flight Planning	R				
11	11	Communication/IFF Procedures	R	R	R	R	R
12	12	Crew Coordination/Flight Integrity			R		
13	13	Risk Management/Decision-Making	R	R	R	R	R
14	14	Task Management	R	R	R	R	R
15	15	Debriefing			R		
16	16	Airmanship*	R	R	R	R	R
17	17	Safety*	R	R	R	R	R
18	18	Aircrew Discipline*	R	R	R	R	R
19	19	Situational Awareness*	R	R	R	R	R
<b>CONTACT</b>							
20	20	Traffic Pattern Stalls	R	R			
21	21	Power-On Stalls		R			
22	22	Slow Flight					
23	23	Spin Prevention		R			
24	24	Spin Recovery	R	R			
25	25	Stability Demonstration					
26	26	Nose Low Recovery	R	R			
27	27	Nose High Recovery	R	R			
28	28	Inverted Recovery	R				

I T E M	A	B	C	D	E	F	G
	Area	Title	Types of Evaluation (See Legend)				
			1	2	3	4	5
29	29	Aerobatics		R			
30	30	Letdown and Traffic Entry					
31	31	Normal Pattern/Landing (Overhead)	R				
32	32	Normal Pattern/Landing (Straight-In)					
33	33	Zero-Flap Pattern/Landing					
34	34	Emergency Traffic Pattern/Landing (No-Flap) (notes 1 and 2)	R	R			
35	35	Emergency Traffic Pattern/Landing (Single-Engine) (note 1)		R			
36	36	Go-Around					
37	37	Touch-and-Go-Procedures					
38	38	Closed Traffic					
39	39	Breakout and Reentry					
<b>INSTRUMENTS</b>							
40	40	En Route Aircraft Control					
41	41	Instrument Climb/Descent					
42	42	Airspeed Change					
43	43	Vertical S					
44	44	Steep Turns					
45	45	Unusual Attitude Recoveries	R				
46	46	Wingover					
47	47	Aileron Roll					
48	48	Fix to Fix					
49	49	Holding					
50	50	Penetration (note 3)	R				
51	51	En Route Descent (note 3)	R				
52	52	Intercept/Maintain Course					
53	53	Intercept/Maintain Arc					
54	54	ILS Approach (notes 4 and 5)	R			R	
55	55	PAR Approach (notes 4 and 5)	R			R	
56	56	VOR Approach (notes 4 and 5)	R			R	

I T E M	A	B	C	D	E	F	G
	Area	Title	Types of Evaluation (See Legend)				
			1	2	3	4	5
57	57	Localizer Approach (notes 4 and 5)	R			R	
58	58	ASR Approach (notes 4 and 5)	R			R	
59	59	Low Altitude Approach					
60	60	Circling Approach					
61	61	Missed Approach/Climbout					
62	62	Transition To Land/Landing					
<b>FORMATION (GENERAL)</b>							
63	63	Visual Signals					
64	64	Position Change					
65	65	Formation Overhead Pattern/Landing					
<b>FORMATION (LEAD)</b>							
66	66	Formation Takeoff					
67	67	Interval Takeoff					
68	68	Departure					
69	69	Fingertip					
70	70	Wingwork (note 6)			R		
71	71	Echelon					
72	72	Close Trail					
73	73	Pitchout					
74	74	Rejoin					
75	75	Fighting Wing					
76	76	Extended Trail			R		
77	77	Descent and Traffic Entry					
78	78	Formation Approach					
79	79	Formation Landing					
<b>FORMATION (WING)</b>							
80	80	Formation Takeoff					
81	81	Interval Takeoff					
82	82	Fingertip					
83	83	Wingwork (note 6)			R		

I T E M	A	B	C	D	E	F	G
	Area	Title	Types of Evaluation (See Legend)				
			1	2	3	4	5
84	84	Echelon			R		
85	85	Route					
86	86	Crossunder					
87	87	Close Trail					
88	88	Pitchout					
89	89	Rejoin (note 7)			R		
90	90	Breakout					
91	91	Overshoot					
92	92	Lost Wingman					
93	93	Fighting Wing					
94	94	Extended Trail			R		
95	95	Formation Approach					
96	96	Formation Landing					
<b>NAVIGATION</b>							
97	97	Chart Preparation					R
98	98	Flight Log (AF Form 70) Maintenance					
99	99	In-Flight Computations					
100	100	Maintaining Course					
101	101	VFR Arrival					
<b>LOW-LEVEL NAVIGATION</b>							
102	102	Route Entry					R
103	103	Altitude Control					R
104	104	Time Control					R
105	105	Course Control					R
106	106	Wind Analysis					R
107	107	DR Procedures					R
108	108	Map Reading					
109	109	In-Flight Data/Fuel Procedures					R
110	110	Escape/Recovery					R

I T E M	A	B	C	D	E	F	G
	Area	Title	Types of Evaluation (See Legend)				
			1	2	3	4	5
<b>GENERAL KNOWLEDGE</b>							
<b>111</b>	111	Emergency Procedures	R	R	R	R	R
<b>112</b>	112	General Knowledge	R	R	R	R	R
<b>113</b>	113	Publications	R				
<b>INSTRUCTION (IF APPLICABLE)</b>							
<b>114</b>	114	Briefing/Debriefing		R	R	R	R
<b>115</b>	115	Demonstration of Maneuvers		R	R	R	R
<b>116</b>	116	Instructor Knowledge		R	R	R	R
<b>117</b>	117	Ability To Instruct		R	R	R	R
<b>118</b>	118	Grading Practices		R	R	R	R

**LEGEND:**

- 1 - Instrument/Qualification Evaluation
- 2 - Contact Mission Evaluation
- 3 - Formation Mission Evaluation
- 4 - Instrument/Navigation Mission Evaluation
- 5 - Low-Level Mission Evaluation
- R - Required area
- \* - Critical area

**NOTES:**

1. At least one emergency pattern will be accomplished on Evaluation #2 (Contact Mission).
2. One no-flap straight-in or no-flap overhead pattern is required on Evaluation #1 (Instrument/Qualification).
3. At least an en route descent or a penetration will be accomplished on Evaluation #1 (Instrument/Qualification).
4. One approach will be flown by the examinee on Evaluation # 4 (Instrument/Navigation Mission).
5. At least one precision and one nonprecision approach will be flown on Evaluation #1 (Instrument/Qualification).
6. Wingwork will be accomplished to 90 degrees of bank and 2 to 3 Gs on Evaluation #3 (Formation Mission).

7. Both straight-ahead and turning rejoins can be evaluated, but only one is required to complete the evaluation.

### **2.3. Pilot Mission Evaluation:**

2.3.1. Scenarios that represent unit tasking satisfy the requirements of this evaluation. The profiles will be designed to evaluate the training, flight position, and special qualifications as well as basic airmanship of the examinee. Initial mission evaluations will be given in the primary mission of the unit.

2.3.2. Minimum ground phase requisites are EPE and boldface examinations. If the instrument/qualification and mission evaluation eligibility periods overlap, a single EPE fulfills each requirement if it is accomplished within both eligibility periods. (A separate boldface examination is still required for each evaluation.)

2.3.3. Examinees will only be evaluated on those missions routinely performed by the pilot. Examinees will only be evaluated on those areas and at a performance level for which they are qualified.

2.3.4. T-37 mission areas are contact, formation, instrument/navigation, and low-level.

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

**2.5. Instructor Evaluation.** Instructor evaluations will be conducted according to Chapter 5 of AFI 11-202, Volume 2. Flight evaluations will include a thorough evaluation of the examinee's instructor knowledge and ability.

## Chapter 3

### EVAULATION CRITERIA

#### 3.1. Requirements:

3.1.1. To initially qualify as an instructor, the pilot must successfully complete a dedicated initial instructor evaluation. Subsequently, crewmembers designated as instructors will be evaluated on their ability to instruct during all periodic evaluations. FEs will act as a student for the purpose of evaluating the examinee's instructional ability.

3.1.2. During all T-37B evaluations, examinees will occupy the seat normally occupied when performing in-flight duties.

CHARLES F. WALD, Lt General, USAF  
DCS/Air & Space Operations

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

Executive Order 9397, *Numbering System for Federal Accounts Relating to Individual Persons*, November 22, 1943

Title 37, United States Code (U.S.C.), Section 301a, *Incentive Pay*

Public Law 92-204, Section 715, *Appropriations Act for 1972*, December 18, 1971

Public Law 93-294, *Aviation Career Incentives Act of 1974*, May 31, 1974

Public Law 93-570, *Continuing Appropriations, 1975*, February 25, 1975

DoDD 7730.57, *Aviation Career Incentive Act and Required Annual Report*, February 5, 1976

AFPD 11-2, *Aircraft Rules and Procedures*

AFI 11-2T-37, Volume 1, *T-37B Aircrew Training*

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

AFI 11-205, *Aircraft Cockpit and Formation Flight Signals*

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

AFMAN 11-217, Volume 1, *Instrument Flight Procedures*

AFMAN 37-139, *Records Disposition Schedule* (will become AFMAN 33-322, Volume 4)

AETCM 3-3, Volume 2, *Primary Flying, T-37* (projected to be AFMAN 11-2XX)

TO 1T-37B-1, *USAF Series T-37B Flight Manual*

TO 1T-37B-1CL-1, *T-37B Flight Crew Checklist*

***Abbreviations and Acronyms***

**ASR**—airport surveillance radar

**CPT**—cockpit procedures trainer

**CRM**—cockpit/crew resource management

**DR**—dead reckoning

**EFC**—expect further clearance

**EPE**—emergency procedures evaluation

**FE**—flight examiner

**IFF**—identification, friend or foe

**IFR**—instrument flight rules

**ILS**—Instrument Landing System

**IMC**—instrument meteorological conditions

**IRC**—instrument refresher course

**KIAS**—knots indicated airspeed

**MAJCOM**—major command

**MAP**—missed approach point

**MDA**—minimum descent altitude

**NAVAID**—navigational aid

**Nm**—nautical mile

**PAR**—precision approach radar

**TO**—technical order

**VDP**—visual descent point

**VFR**—visual flight rules

**VOR**—very high frequency omnidirectional range station

**VVI**—vertical velocity indicator