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Flying Operations

UH-1N AIRCREW EVALUATION CRITERIA



# COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This publication implements Air Force instruction (AFI) 11-200, Aircrew Training, Standardization/Evaluation, and General Operations Structure. This publication establishes initial and periodic aircrew qualification evaluation criteria for all UH-1N units, and it is used in conjunction with Air Force manual (AFMAN) 11-202 Volume 2 (V2), Aircrew Standardization and Evaluation Program, and major command (MAJCOM) supplements. DAF civilian employees and uniformed members of the Regular Air Force, the Air Force Reserve, and the Air National Guard. This publication does not apply to the United States Space Force. This Manual requires the collection and or maintenance of information protected by the Privacy Act of 1974. System of Records Notice F011 AF XO A, Aviation Resource Management System (ARMS), covers required information. The authority for maintenance of ARMS is Title 37 United States Code 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Law 93-294 (Aviation Career Incentive Act of 1974), Public Laws 93-570 (Appropriations Act for 1974), and Executive Order 9397 as amended by Executive Order 13478, Amendments to Executive Order 9397 relating to Federal Agency Use of Social Security Numbers, November 18, 2008. Ensure all records generated as a result of processes prescribed in this publication adhere to AFI 33-322, Records Management and Information Governance Program, and are disposed in accordance with the Air Force Records Disposition Schedule (RDS), which is located in the Air Force Records Information Management System (AFRIMS). Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Forms 847, Recommendation for Change of Publication; route DAF Forms 847 from the field through the appropriate functional chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following

the compliance statement. See DAFMAN 90-161, *Publishing Processes and Procedures*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the requestor's commander for non-tiered compliance items.

#### **SUMMARY OF CHANGES**

This document has been substantially revised and must be completely reviewed. Major changes include (1) correcting multiple grammatical and typographical errors, (2) updated multiple AFI, DAFMAN, and AFMAN titles, (3) updated publications check guidance in paragraph 1.7, (4) added paragraph 1.19 clarifying losing squadron procedures, previously included in 11-2UH-1N Volume 1 (V1), (5) updated mission evaluation profile guidance in paragraphs 2.2.3.2 and 3.2.3.2, (6) modified Table 2.1 and Table 3.1 to require threat avoidance/tactics/countermeasures graded area for Air Force Global Strike Command (AFGSC) and Air Force District of Washington (AFDW) periodic mission (MSN) and in-unit regualification mission (RQ MSN) evaluations, (7) revised graded area title and maneuver criteria for unprepared landing area operations to incorporate takeoff and departure maneuvers, (8) removed authentication procedures from both pilot (P) and flight engineer (FE) evaluation criteria, (9) revised graded area title and pilot/flight engineer maneuver criteria for weapons employment to include ground force integration, (10) combined hoist and alternate insertion and extraction (AIE) operations into a single graded area, (11) updated live AIE evaluation guidance, (12) added evaluation guidance for non-live fire aerial gunnery events, (13) removed duplicate takeoff and landing data (TOLD) grading criteria from fire bucket, cargo sling, and water operations graded areas, (14) aligned threat avoidance/tactics/countermeasures pilot/flight engineer grading criteria references and verbiage with current Air Force Tactics, Techniques, & Procedures (AFTTPs), (15) moved cabin configuration/loading and tiedown graded area to the general phase.

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#### Chapter 1

#### GENERAL INFORMATION

- **1.1. General.** This instruction establishes requirements and grading criteria for ground and flight phases of initial, requalification, and periodic flight evaluations. Guidance on conducting aircrew evaluations is provided in this instruction and AFMAN 11-202V2 and as supplemented. Specific areas for evaluation are prescribed to ensure an accurate assessment of proficiency and capabilities of aircrew. This AFMAN is used by flight examiners and instructors while conducting/preparing for aircrew evaluations.
  - 1.1.1. Due to the diverse nature of UH-1N units, all references to MAJCOM, Numbered Air Force (NAF) or a particular MAJCOM or NAF office are intended to mean that office or equivalent. MAJCOMs will ensure supplements to this AFMAN will indicate if there is a different office of responsibility. (**T-2**)
  - 1.1.2. For purposes of this manual, the Air Force District of Washington Director of Operations (AFDW/A3) and Air National Guard Air Directorate (NGB/A3) are responsible for actions directed to MAJCOM level in this publication.
  - 1.1.3. Waivers. Waiver authority for this publication is Major Command Director of Operations (MAJCOM/A3), or as indicated by appropriate tier level. Request waivers to this instruction through applicable command channels. Approved waivers are to be forwarded to Air Force Global Strike Command Standardization and Evaluation Branch (AFGSC/A3TV) for informational purposes. Waiver authority for supplemental guidance will be specified in the supplement.
  - 1.1.4. Deviations. Do not deviate from the policies and guidance in this AFMAN except for safety or when necessary to protect the crew or aircraft from a situation not covered by this AFMAN and immediate action is necessary. Report deviations or exceptions without a waiver to appropriate MAJCOM Standardization and Evaluation branch, who will notify AFGSC/A3TV for follow-on action, if necessary. (T-2)

#### 1.2. Roles and Responsibilities.

1.2.1. MAJCOMs, NAFs, Wings/Groups. Use applicable guidance and oversight provided in AFMAN 11-202V2.

#### 1.3. Evaluation Procedures.

- 1.3.1. Flight examiners will use evaluation criteria contained in each crew chapter for conducting all flight and emergency procedures evaluations (EPEs). (T-2)
- 1.3.2. Prior to the aircrew briefing, the flight examiner briefs the examinee on specific evaluation areas, purpose and conduct of the evaluation, and, if applicable, inform the aircraft commander (AC) of special requirements. Flight examiners will be furnished copies of mission materials to include necessary maps (only one map per aircraft is necessary), flight logs, etc. (T-3)
- 1.3.3. Flight Examiners will ensure all required training and documentation is complete prior to conducting an evaluation. (**T-3**)

- 1.3.4. Unless specified, the examinee or flight examiner may fly in any seat (within their crew qualification), to include the cabin, that best enables the flight examiner to conduct a thorough evaluation. (**Exception**: During pilot initial or requalification evaluations, if an evaluator pilot sits in the cabin, a qualified instructor pilot will be at a set of controls.) (**T-3**)
- 1.3.5. Flight examiners will not intentionally fail any equipment during flight evaluations but may deny the use of systems not affecting safety of flight. (**T-3**) (**Exception**: During evaluations conducted in an aircrew training device equipment may be failed or disabled.)
- 1.3.6. Flight examiners will use a locally produced AF IMT 3862, *Flight Evaluation Worksheet*, or equivalent, while performing the flight evaluation/EPE. (**T-3**)
- 1.3.7. When it is impossible or impractical to evaluate a required area in flight, the flight examiner may elect to evaluate area(s) by an alternate method (simulator, procedural trainer, or verbal examination following guidance in **paragraph 1.13**). Alternate methods are not authorized for initial evaluations. (**Exception:** Initial instrument (INIT INSTM) evaluations may be accomplished in a flight simulator).
- 1.3.8. During an actual emergency, the flight examiner should terminate an evaluation. A flight examiner is expected to determine when and if the evaluation should continue after the emergency is safely completed.
- **1.4. Evaluations.** Examinees will be evaluated in the position of their highest qualification. Examinees must accomplish initial qualification (INIT QUAL), initial mission (INIT MSN) and requalification (RQ QUAL or RQ MSN) evaluations in the aircraft. (**T-2**) The examinee will not be given two consecutive evaluations in the simulator. (**T-3**) (**Exception**: Instrument (INSTM) evaluations). Examinees may also be evaluated on current certifications as listed on their AF Form 4348, *USAF Aircrew Certifications*.
- **1.5. Ground Phase Requisites.** Guidance is provided in AFMAN 11-202V2 and MAJCOM supplements for conducting qualification and instrument evaluations. All crewmembers must complete a mission open book examination and EPE during all mission evaluations. (**Exception**: When completing initial/requalification mission events that are on a separate AF Form 8, *Certificate of Aircrew Qualification* that do not re-establish the 17-month cycle). (**T-2**)
- **1.6. Examinations.** Guidance for conducting examinations is provided in AFMAN 11-202V2 and MAJCOM supplements.
  - 1.6.1. Units will comply with the minimum numbers of test questions as outlined below. (**T-2**)
    - 1.6.1.1. Qualification open book examination (pilot–P/flight engineer–FE): 50 questions.
    - 1.6.1.2. Qualification closed book examination (P/FE): 25 questions.
    - 1.6.1.3. Mission open book examination (P/FE): 50 questions.
    - 1.6.1.4. Instrument open book examination (P): 50 questions.
  - 1.6.2. Boldface examination. In accordance with (IAW) Technical Order (T.O.) 1H-1(U)N-1, *Flight Manual USAF Series UN-1N Helicopter*, and AFMAN 11-202V2. (**T-2**)
- **1.7. Emergency Procedures Evaluation (EPE).** The purpose of the EPE is to discuss systems knowledge and evaluate emergency procedures, allowing for an in-depth investigation of systems

knowledge and scenario driven circumstances. The flight examiner will evaluate areas commensurate with the examinee's training level as indicated on the unit's Letter of Xs. (T-2) EPEs may be performed individually or as a crew, in-flight, in a simulator, verbally, or by another method determined by the examiner or unit standardization/evaluation. Operations group (OG) standardization/evaluation may develop EPE guides for each crew position for flight examiner use.

- 1.7.1. EPEs should be scenario driven, tailored to the specific crew position, and emphasize emergency procedures, special interest items and systems knowledge. Flight examiners may use one continuous scenario throughout the EPE or different scenarios for each emergency procedure.
- 1.7.2. Examinees may use publications that are normally available in flight. If applicable, the examinee must recall all boldface items from memory IAW T.O. 1H-1(U)N-1. (**T-1**)
- 1.7.3. Flight examiners should include the following items on all EPEs:
  - 1.7.3.1. Aircraft general knowledge including operation of systems, limitations, and capabilities.
  - 1.7.3.2. Crew coordination and risk management.
  - 1.7.3.3. Tailor mission evaluation scenarios to unit tasking and any current special interest items as much as possible. Flight examiners should include the following additional items on the EPE given as a requisite to the mission evaluation:
    - 1.7.3.3.1. Mission equipment malfunctions and emergencies.
    - 1.7.3.3.2. Evasive action/threat reaction/degradation, if applicable to unit mission.
- 1.7.4. Emergency Procedures Evaluation Grading Criteria:
  - 1.7.4.1. (1) Satisfactory systems/procedural knowledge. Operated within prescribed limits and correctly diagnosed problems. Performed and/or explained proper corrective action, in the proper sequence, for each type of malfunction. Accomplished all required checklists and/or effectively used available aids. Thoroughly described the location, use and limitations of emergency equipment. If applicable during mission evaluations was able to properly assess threat and perform evasive actions and degrade threat if situation permits per directives.
  - 1.7.4.2. (2) Marginal systems/procedural knowledge. Slow to analyze problems or apply proper corrective actions. Did not effectively use checklist and/or available aids. Minor omissions or deviations in describing the location, use and limitations of emergency equipment. If applicable during mission evaluations was able assess threat; was able to evade but not as prescribed in directives and marginally degraded threat.
  - 1.7.4.3. (3) Unsatisfactory systems/procedural knowledge. Failed to analyze problem or take corrective action. Failed to accomplish required checklists and/or unable to locate information in available aids. Major omissions or deviations in describing the location, use and limitations of emergency equipment. If applicable during mission evaluations did not recognize threat; did not evade or degrade threat.
- **1.8. Publications Check.** Refer to AFMAN 11-2UH-1N Volume 3 (V3) for required flight publications. Units may specify additional publications to be evaluated in a unit supplement. Aircrew are required to maintain, for currency and proper posting, personal copies (paper or

- digital) of flight publications that are issued by MAJCOMs. (**T-2**) If electronic flight bags (EFBs) are authorized for use, publications check will confirm updated/current publications, current flight information publications (FLIP) applicable to the sortie, and all other requirements from MAJCOM and other local directives. (**T-2**)
- **1.9.** Cockpit/Crew Resource Management (CRM). Guidance is provided in AFMAN 11-290, Cockpit/Crew Resource Management and Threat & Error Management (TEM) Program, for evaluating crew resource management skills during initial and periodic evaluations. CRM skills are integral to all phases of flight; therefore, no specific area titled CRM exists. CRM skills are embedded within specific grading criteria (mission planning, airmanship/situational awareness, crew coordination, communication, risk management/decision making, task management, and briefing/debriefing) and include all the skills listed on the AF IMT 4031, CRM/TEM Skills Criteria Training/Evaluation Form. Therefore, use of the AF IMT 4031 is unnecessary for evaluations.
- **1.10. Mission Evaluations.** Mission evaluations will use mission-specific profiles and tactics as required by the unit's mission. (**T-3**)
  - 1.10.1. Evaluations during exercises or non-contingency deployments are encouraged. Evaluations during contingencies are authorized but require operations group commander (OG/CC) approval.
  - 1.10.2. Combat mission ready (CMR) aircrew should accomplish their periodic mission evaluation during the unit's most demanding sortie (i.e., night vision goggles (NVG) formation and/or low level, NVG aerial gunnery/hoist, etc.). At a minimum, aircrew will be evaluated on at least one NVG mission event every other mission evaluation cycle. (**T-3**)
  - 1.10.3. For CMR aircrew to complete an evaluation, they must accomplish all areas annotated with an "R" in the crew event tables (**Table 2.1** and **Table 3.1**). (**T-2**) In addition, instructors must accomplish all areas in **Table 4.1**. (**T-2**)
  - 1.10.4. Basic mission capable (BMC) aircrew will only be evaluated on those missions routinely performed and in those areas which they are qualified to perform unsupervised. (**T-2**) An examinee is evaluated in those areas in which they are qualified/certified to perform or in areas gaining qualification.
- **1.11. Difference Qualification.** Upon successful completion of the qualification (QUAL) and instrument (INSTM) flight evaluations, existing mission (MSN) events and certifications (except functional check flight (FCF) and flight examiner certification) transfer between H-1 series aircraft (or as specified by MAJCOM supplement).
- **1.12. SPOT Evaluations.** Any flight examiner may administer an aircrew SPOT evaluation. Instructional ability should be evaluated during the SPOT evaluation (if applicable). If the examiner is administering a SPOT evaluation to an aircrew member from another Air Force specialty code, only boldface, safety/judgment, aircrew discipline, and airmanship/situational awareness will be evaluated. **(T-3)**

#### 1.13. Alternate Methods of Evaluation of Sub-areas.

- 1.13.1. For initial evaluations, aircrew must perform all required items by actual demonstration. (**T-2**)
- 1.13.2. During requalification/periodic/recurring evaluations, when it is impossible or impractical to evaluate a required area in-flight, the flight examiner may elect to evaluate the

area(s) by an alternate method (i.e., simulator, procedural trainer, or verbal examination). If, in the flight examiner's judgment, a required item cannot be adequately evaluated by an alternate method, complete the evaluation on an additional flight.

### 1.14. Unsatisfactory Performance.

- 1.14.1. If a flight examiner observes an aircrew member jeopardizing safety, the examiner will assume the duties of that aircrew member if in like crew position. If not in like crew position, the flight may continue if crew complement allows. This does not mean the examiner assumes the examinee's position any time unsatisfactory performance is observed.
  - 1.14.1.1. If the examiner feels the examinee can continue safely with supervision, the examiner is not required to assume the examinee's duties.
  - 1.14.1.2. If the flight examiner assumes the examinee's duties, they will assign an overall grade of Q3 (unqualified). (**T-2**)
- 1.14.2. Flight Examiners must report unsatisfactory deviations/discrepancies from established procedures/directives in any area, regardless of the individual's crew specialty, to the squadron commander, operations officer and/or group commander, along with flight examiner's recommendation for corrective action. Guidance for this is provided in AFMAN 11-202V2 and MAJCOM supplement.
- 1.14.3. Flight examiners will notify the examinee's squadron commander and/or operations officer, if available, whenever less than an overall grade of Q1 is given. (**T-2**)
- **1.15. Additional Training.** Additional training may be accomplished on the same flight as the evaluation, provided the unique situation presents a valuable training opportunity and the discrepancy requiring the additional training did not result in an overall Q3 evaluation. This option requires flight examiner discretion and judicious application. The examinee must be informed when the additional training begins and ends. **(T-3)** If training is not accomplished on the same flight as an evaluation any approved training device or medium may be used for additional training.
- **1.16. AF IMT 3862.** Units will use AF IMT 3862, or electronic equivalent, as an evaluation worksheet and temporary evaluation certificate. **(T-2)** 
  - 1.16.1. Units may create separate AF IMT 3862, or electronic equivalent, for each evaluation and crew position (e.g., Pilot QUAL/INSTM, FE QUAL, etc.). Copy each title, area number and text (in the order illustrated) and shade the appropriate blocks.
  - 1.16.2. Units may add special interest items and/or MAJCOM evaluation requirements as necessary.
- **1.17. Mission Events Documentation. Table 1.1** lists core mission events for the UH-1N. Units will document all Core Mission Events evaluated in **Section VIII. Comments A. Mission Description** of an aircrew member's AF Form 8 using the abbreviations from **Table 1.1** (**T-2**) Aircrew must have the mission event/s documented in an AF FORM 8 to be qualified in that event.

#### 1.18. Supplements/Local Procedures.

1.18.1. Each user MAJCOM may supplement this AFMAN according to AFI 11-200. Limit supplemental information to unique requirements only. Using MAJCOMs will send supplements to AFGSC/A3TV for coordination before publication.

1.18.2. Wings/Groups below the MAJCOM will send supplements to their MAJCOM standardization/evaluation office for review and coordination before publishing. (**T-2**)

Table 1.1. UH-1N Core Mission Events<sup>1</sup>.

EVENT NAME	ABBREVIATION	POSITION			
Formation	FORM	All			
NVG Formation	NFORM	All			
Unprepared Landing Area	UPL	All			
NVG Unprepared Landing Area	NUPL	All			
Low Level	LLV	All			
NVG Low Level	NLLV	All			
NOTES:					
1. Evaluations completed with NVGs qualify/credit corresponding day events.					

**1.19. Losing Squadron Procedures.** Squadron commanders (SQ/CC) will ensure aircrew members complete their MSN evaluation prior to departing for an inter-command permanent change of station (PCS) to another UH-1N flying assignment when it expires within five months after their departure. (T-3) Coordinate with the gaining OG/CC for any instances where this requirement cannot be met. For qualification (QUAL) and instrument (INSTM) evaluation requirements, refer to AFMAN 11-202V2.

#### Chapter 2

#### PILOT EVALUATIONS

- **2.1. General.** Evaluation standards are administered in accordance with the individual's crew position as listed below:
  - 2.1.1. Basic aircraft qualified (BAQ) pilots (FP)/mission pilots (MP) will be evaluated to the standards outlined in **Table 2.1**. (**T-2**) MPs certified as aircraft commanders will be evaluated as aircraft commanders and flight lead (if applicable). (**T-2**) This implies they have command of the aircraft, crew, and formation.
  - 2.1.2. Instructor pilots (IP) will be evaluated to the standards outlined in **Table 2.1** and **Table 4.1**. (**T-2**)

# 2.2. Evaluation Requirements.

# 2.2.1. Qualification (QUAL).

- 2.2.1.1. Flight examiners will use **Table 2.1** for required QUAL evaluation areas. (**T-2**)
- 2.2.1.2. Profile. For instructor qualification evaluations, flight examiners must evaluate 180 degree turning autorotation. (**T-2**)

#### 2.2.2. Instrument (INSTM).

2.2.2.1. Flight examiners will use **Table 2.1** for required INSTM evaluation areas. (**T-2**)

#### 2.2.3. **Mission (MSN).**

- 2.2.3.1. Flight examiners will use **Table 2.1** for required MSN evaluation areas. (**T-2**)
- 2.2.3.2. Profile. Flight examiners should use scenarios that represent the unit's designed operational capability (DOC) tasking structured to evaluate the examinee's qualifications and certifications listed in AFMAN 11-2UH-1NV1, *UH-1N Helicopter Aircrew Training*, as well as allowing the examinee to demonstrate decision making and maneuvering of the aircraft in an operational environment. For initial/requalification mission evaluations, flight examiners will evaluate every core mission event in **Table 1.1** unless waived by the respective MAJCOM/A3. (**T-2**) Certifications are not considered required mission events.

Table 2.1. Pilot QUAL/INSTM/MSN Event Requirements Table.

AREA	GRADING AREA	QUAL	INSTM	MSN
	GENERAL PHASE			
1	Knowledge of Directives and Forms	R	R	R
2	Boldface Emergencies (CRITICAL)	R	О	O
3	Publications Check	R	О	O
4	Life Support Systems/Egress	R	R	R
5	Flight Planning	R	R	R
6	Weight and Balance/Takeoff and Landing Data (W&B/TOLD)	R	R	R
7	Briefings/Debriefings	R	R	R
8	Safety/Judgment (CRITICAL)	R	R	R

9	Aircrew Discipline (CRITICAL)	R	R	R
10	Airmanship/Situational Awareness (CRITICAL)	R	R	R
11	Systems Operation/Knowledge/Limitations/National Airspace System	R	R	R
12	Preflight/Aircraft Run-Up	R	R	R
13	Use of Checklists	R	R	R
14	Crew Coordination	R	R	R
15	Risk Management/Decision Making	R	R	R
16	Task Management	R	R	R
17	Communication/ATC Procedures	R	R	R
18	Cargo/Passenger Loading/Offloading and Tiedown	О	О	О
19	Scanning/Clearing	R	R	R
20	After Landing and Post Flight Responsibilities	R	R	R
	QUALIFICATION PHASE			
21	Hover/Taxi Maneuvers	R		
22	Takeoff (Normal, Marginal Power, Maximum Performance)	R		
23	Approaches/Landings (Base and Final Approach)/(Normal, Shallow, Steep, Slide Landing)	R		
24	Traffic Pattern (Prior to Base Turn)	R		
25	Single Hydraulic Failure	R		
26	Manual Fuel	R		
27	Single Engine Failure	R		
28	Autorotations			
28a	Straight Ahead (All)	R		
28b	90-Degree Turning (All)	R		
28c	180-Degree Turning (IP only)	R		
	INSTRUMENT PHASE			
29	Unusual Attitude Recovery		O	
30	Instrument Departure		R	
31	Use of NAVAIDs/Navigation		R	
32	Holding Procedures		1	
33	Non-Precision Approach		R	
34	Precision Approach or Approach with Vertical Guidance		R	
35	Missed Approach		R	
36	Circling Procedures		О	
37	Final Approach and Landing		0	
	MISSION PHASE			
38	Mission Planning			R
39	Mission Execution			R
40	Terrain/Flight Navigation			R

41	Terminal Area Operations	R
42	Formation	
42a	Formation Lead	2
42b	Formation Wingman	2
43	Low Level Operations	2
44	Unprepared Landing Area Operations	2
45	NVG Usage/Limitations	2, 3
46	Classified/Sensitive Material/Operations Security	O
47	Time-on-Target (TOT)	O
48	Alternate Insertion/Extraction Operations	O
49	Search Procedures	O
50	Divert Procedures	O
51	Threat Avoidance/Tactics/Countermeasures	4
52	Cargo Sling	O
53	Fire Bucket	O
54	Water Operations	O
55	Parachute Operations	О
56	Weapons Employment	О

#### **NOTES:**

- R—Required
- O-Optional
- 1. Required for INIT and RQ INSTM evaluations. (T-2)
- 2. Required for INIT and RQ MSN evaluations. (T-2)
- 3. Required for evaluations including NVG mission events. (T-2)
- 4. Required for AFGSC and AFDW periodic MSN and in-unit RQ MSN evaluations. (T-2)

# **2.3. Flight Evaluation Criteria.** This section contains evaluation criteria for conducting pilot flight evaluations.

#### 2.4. General Phase.

## 2.4.1. Area 1 — Knowledge of Directives and Forms.

- 2.4.1.1. **Q.** Prepared and completed mission in compliance with existing instructions and directives. Knowledgeable of all applicable directives, both higher headquarters (HHQ) and local. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications. All required forms and/or flight plans were complete, accurate, readable, and accomplished on time IAW applicable directives. Relayed an accurate debrief of significant events to applicable agencies (intelligence, weather, maintenance, etc.).
- 2.4.1.2. **Q-.** Knowledge of capabilities, approved operating procedures, and rules is marginal in some areas but did not impact safe/effective mission accomplishment. Unsure of directives and/or had difficulty locating information in appropriate publications. Minor errors on forms and/or flight plans did not affect conduct of the flight/mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.

- 2.4.1.3. **U.** Unaware of procedures and/or could not locate them in the appropriate publication in a timely manner. Failed to comply with a procedure that could have jeopardized safety or mission success. Did not accomplish required forms and/or flight plans. Omitted or incorrectly reported significant information due to major errors or omissions.
- 2.4.2. **Area 2 Boldface Emergencies (CRITICAL). Note** : May be evaluated inflight, simulator or in a static aircraft.
  - 2.4.2.1. **Q.** Correct and timely response. Satisfactory performance of the corrective action. The examinee pointed without hesitation to, and knew the function of, all switches and controls required for all critical action emergency procedures for his/her crew position.
  - 2.4.2.2. **U.** Incorrect sequence, unsatisfactory/untimely response, or unsatisfactory performance of the corrective action. The examinee could not, without hesitation, identify or explain the function of all switches and controls required for all critical action emergency procedures for his/her crew position.
- 2.4.3. **Area 3 Publications Check.** Conduct a thorough review of paper or electronic publications required by **Chapter 1.** 
  - 2.4.3.1. **Q.** Publications were current, contain all supplements/changes, and were properly posted.
  - 2.4.3.2. **Q-.** Publications contained deficiencies that would not impact flight safety or mission accomplishment.
  - 2.4.3.3. **U.** Publications were outdated and/or contained deficiencies that would impact flight safety or mission accomplishment.

## 2.4.4. Area 4 — Life Support Systems/Egress.

- 2.4.4.1. **Q.** Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated and emphasized the proper operating procedures used to operate aircraft egress devices such as doors, windows, hatches, life rafts, etc.
- 2.4.4.2. **Q-.** Limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
- 2.4.4.3. **U.** Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unsatisfactory knowledge of aircraft egress procedures.

## 2.4.5. Area 5 — Flight Planning.

2.4.5.1. **Q.** Clearly defined the mission overview and mission goals. Provided specific information on required tasks. Solicited feedback from other crewmembers to ensure understanding of mission requirements. Thoroughly analyzed plans to identify potential problem areas and ensured all had understanding of possible contingencies. Checked all factors applicable to flight such as FLIP, weather, notices to airmen (NOTAM), alternate airfields, flight logs, weight and balance, performance data, fuel requirements, and charts. When required, extracted necessary information from special instructions (SPINS). Aware of the available alternatives if unable to complete the flight/mission as planned. Read and initialed all items in the Flight Crew Information File/read files.

- 2.4.5.2. **Q-.** Did not adequately define the mission overview and mission goals. Potential problem areas partially addressed or not at all. Did not adequately solicit feedback or analyze the plans to ensure understanding of possible contingencies. Minor errors or omissions detracted from mission effectiveness but did not affect mission accomplishment. Limited knowledge of performance capabilities or approved operating procedures/rules.
- 2.4.5.3. **U.** Did not define the mission overview and goals. Lack of specific information on required tasks. Did not solicit feedback from other crewmembers to ensure understanding. Did not analyze plans to identify potential problem areas. Major errors or omissions would have prevented a safe or effective mission. Unsatisfactory knowledge of operating data or procedures.

#### 2.4.6. Area 6 — Weight and Balance/Takeoff and Landing Data (W&B/TOLD).

- 2.4.6.1. **Q.** Correctly computed (or verified) the W&B/TOLD using applicable performance charts with corrections for existing field conditions. Was fully knowledgeable of W&B/TOLD calculations. If no flight engineer was present, computed W&B/TOLD within the following specified tolerances in a timely manner.
  - 2.4.6.1.1. W&B Criteria.
    - 2.4.6.1.1.1. Takeoff or Landing Gross Weights +/- 100 lbs.
    - 2.4.6.1.1.2. Center of Gravity +/- 0.1 inches.
  - 2.4.6.1.2. TOLD Criteria.
    - 2.4.6.1.2.1. Power Available: +/- 2 percent.
    - 2.4.6.1.2.2. Power Required: +/- 2 percent.
    - 2.4.6.1.2.3. Safe Single Engine Airspeeds: +/- 2 knots.
    - 2.4.6.1.2.4. Velocity Never Exceed (Vne): +/- 2 knots.
- 2.4.6.2. **Q-.** Minor errors in the appropriate use of W&B publications and performance charts resulting in errors or omissions that could degrade mission effectiveness. Knowledge of weight and balance publications and performance charts was marginal in some areas. Errors or omissions would not have compromised safety of flight. If no flight engineer was present, computed W&B/TOLD within the following specified tolerances.
  - 2.4.6.2.1. W&B Criteria.
    - 2.4.6.2.1.1. Takeoff or Landing Gross Weights: > 100 lbs but < 200 lbs.
    - 2.4.6.2.1.2. Center of Gravity: > 0.1 but < 0.4 inches.
  - 2.4.6.2.2. TOLD Criteria.
    - 2.4.6.2.2.1. Power Available: > 2 percent but < 5 percent.
    - 2.4.6.2.2. Power Required: > 2 percent but < 5 percent.
    - 2.4.6.2.2.3. Safe Single Engine Airspeeds: > 2 but < 5 knots.
    - 2.4.6.2.2.4. Velocity Never Exceed (Vne): > 2 but < 5 knots.

2.4.6.3. **U.** Major errors or omissions that would preclude safe and effective mission accomplishment. Failed to compute (or verify) W&B/TOLD data. Errors caused W&B/TOLD calculations to exceed Q- criteria. Limited knowledge of W&B/TOLD calculations.

#### 2.4.7. Area 7 — Briefings/Debriefings.

- 2.4.7.1. **Q.** Ensured briefing contained all applicable information. Prepared at briefing time. Briefings effectively organized and professionally presented in a logical sequence. Presented all objectives, training events and special interest items. Effectively used available briefing aids. Debriefed mission using specific, positive and/or negative, feedback of crew and individual performance. Provided specific ways to correct errors. Asked for inputs from others. Recapitulated key points and compared mission results with mission objectives.
- 2.4.7.2. **Q-.** Omitted items pertinent but not critical to the mission. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Limited discussion of training events or special interest items. Dwelled on non-essential items. Not fully prepared for briefing. Debriefed mission without specific, positive and/or negative, feedback on individual and crew performance. Did not consistently seek input from others. Incomplete or inadequate recapitulation of key points and comparison of mission results to mission objectives.
- 2.4.7.3. **U.** Failed to conduct/attend required briefings. Failed to use appropriate briefing aids. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of subject knowledge. Briefing was poorly organized and not presented in a logical sequence. Presented erroneous information that would affect safe/effective mission accomplishment. Presentation created doubts or confusion. Failed to discuss training events or special interest items. Late crew transport due to excessively long briefing. Did not provide positive and/or negative feedback during debriefing. Did not seek input from others. Did not recapitulate key mission points nor compare mission results to mission objectives.

# 2.4.8. Area 8 — Safety/Judgment (CRITICAL).

- 2.4.8.1. **Q.** Recognized factors affecting safety of flight. Assessed available options and selected a suitable course of action based on reasonable risk assessment. Was aware of, and complied with all safety factors required for safe aircraft/equipment operation and mission accomplishment. Identified and assessed risk appropriately. Properly considered consequences of decisions. Assessed all aspects of the situation and took an appropriate course of action consistent with prudence, common sense, integrity, mission priority, and safe and effective mission accomplishment.
- 2.4.8.2. U. Not aware of, or did not comply with, all safety factors required for safe aircraft/equipment operation or mission accomplishment. Failed to properly identify and assess risk. A clear lack of judgment hampered or precluded mission accomplishment. Did not adequately clear the aircraft. Operated aircraft in a dangerous manner. Unnecessarily subjected crew/aircraft to increased risk. Allowed a dangerous situation to develop without taking proper corrective action. Failed to consider consequences of decisions. Untimely or

inappropriate decision led to inappropriate response to the situation or compromised integrity, safety, or degraded or prevented effective mission accomplishment.

## 2.4.9. Area 9 — Aircrew Discipline (CRITICAL).

- 2.4.9.1. **Q.** Demonstrated strict, professional aircrew discipline throughout all phases of the mission. Coordinated and communicated effectively with other crewmember(s). Provided required direction/information. Correctly adapted to meet new situational demands.
- 2.4.9.2. **U.** Failed to exhibit strict aircrew discipline. Violated or ignored rules or regulations. Did not provide direction/information when needed. Did not correctly adapt to meet new situational demands. Improperly or ineffectively coordinated or communicated with the other crewmembers causing delays or confusion which did, or could have, adversely affected safety or mission accomplishment.

# 2.4.10. Area 10 — Airmanship/Situational Awareness (CRITICAL).

- 2.4.10.1. **Q.** Executed the assigned mission in a timely, efficient manner. Anticipated situations that would have adversely affected the mission, and corrected them. Made appropriate decisions based on available information. Recognized the need for action. Maintained continuous perception of self and aircraft in relation to the dynamic environment of flight, threats, and mission. Demonstrated the ability to forecast, and then execute tasks based on that perception. Demonstrated knowledge and skills to prevent the loss of situational awareness, recognize the loss of situational awareness, and when necessary, demonstrated techniques for recovering from the loss of situational awareness.
- 2.4.10.2. **U.** Decisions, or lack thereof, caused failure to accomplish assigned mission. Did not recognize the need for action. Not aware of performance of self and other flight members. Not aware of on-going mission status. Failed to recognize, verbalize and act on unexpected events. Unaware of or unresponsive to factors affecting mission accomplishment, safety, crewmembers, or aircraft.

# 2.4.11. Area 11 — Systems Operation/Knowledge/Limitations/National Airspace System.

- 2.4.11.1. **Q.** Demonstrated/explained a satisfactory knowledge of aircraft systems operations/limitations and proper procedural use of systems. Ensured satisfactory operation within limits. Demonstrated adequate knowledge of and complied with NAS rules and procedures in all areas of mission planning and flight operations.
- 2.4.11.2. **Q-.** Marginal knowledge of aircraft systems operations and limitations in some areas. Used individual technique instead of established procedures and was unaware of differences. Marginal knowledge of NAS rules and procedures.
- 2.4.11.3. **U.** Unsatisfactory systems knowledge. Failed to demonstrate/explain the procedures for aircraft system operations. Operated the aircraft or systems outside applicable limits. Unsatisfactory knowledge of NAS rules and procedures.

#### 2.4.12. Area 12 — Preflight/Aircraft Run-Up.

2.4.12.1. **Q.** Completed systems preflight/inspections per tech orders, checklists, and instructions. Ensured aircraft was correctly configured for assigned mission and was fully

aware of aircraft readiness for flight. Appropriate checklists and/or T.O.s were available for reference. Individual technique complied with established procedures. Ensured all required personal and mission equipment was available. Equipment was properly preflighted, operated, and secured. Thorough understanding of the information contained in aircraft/equipment forms and correctly determined aircraft/equipment status. Established and adhered to station, engine start, and taxi times. Accomplished engine start procedures, including all required checks, IAW the flight manual, checklist, and applicable directives. Correctly configured the cockpit and coordinated with ground support personnel. Familiar with required responses to abnormal or emergency situations.

- 2.4.12.2. **Q-.** Minor deviations from established systems preflight/inspection. Individual technique was safe, but detracted from established procedures. Used individual technique instead of established procedure and was unaware of differences. Did not compromise safety, aircraft limitations, or mission effectiveness.
- 2.4.12.3. **U.** Did not use the checklist or omitted major item(s). Failed to preflight critical component or could not conduct a satisfactory preflight/inspection. Individual techniques were unsafe and/or in violation of established procedures. Incorrect or unfamiliar with startup procedures or checks. Failed to accurately determine proper configuration or readiness of aircraft for flight. Did not respond properly to abnormal or emergency situations. Errors or omissions precluded safe and effective mission accomplishment.

#### 2.4.13. Area 13 — Use of Checklists.

- 2.4.13.1. **Q.** Effectively referenced and completed appropriate checklists with accurate and timely responses; accomplished appropriate actions at the appropriate time throughout the mission. Familiar with checklists and contents.
- 2.4.13.2. **Q-.** Used the appropriate checklist, but responses were untimely and/or crewmember required continual prompting for correct responses/action. Did not compromise safety, aircraft limitations, or mission effectiveness.
- 2.4.13.3. **U.** Failed to use the proper checklist or consistently omitted checklist items. Lacked acceptable familiarity with contents. Omitted or did not complete checklist(s) at the appropriate time which compromised safety and/or exceeded aircraft limitations.

#### 2.4.14. Area 14 — Crew Coordination.

- 2.4.14.1. **Q.** Effectively coordinated with other crewmembers during all phases of the mission. Had knowledge of common errors, cultural influences, and barriers (rank, age, experience and position). Demonstrated effective listening, feedback, precision and efficiency of communication with all members and agencies (i.e., crewmembers, wingmen, weather, ATC, intelligence, etc.). Identified, planned, and executed alternate mission activity in response to inflight contingencies in a timely manner. Actively sought other crewmember's opinions and ideas. Recognized and requested assistance when task saturated. Properly prioritized multiple tasks and effectively used available resources, ensuring smooth mission execution.
- 2.4.14.2. **Q-.** Coordinated with other crewmembers with minor exceptions. Intra-crew communications were not clear or concise. Coordination was lacking with other crewmembers to the extent minor deviations or omissions caused delays, confusion, and/or

degraded crew situational awareness. Slow to identify, plan, or execute alternate mission activities in response to contingencies. Marginal task prioritization and inefficient use of available resources resulted in less than optimum mission execution. Slow to recognize and request assistance when task saturated.

2.4.14.3. **U.** Breakdown in coordination with other crewmembers precluded mission accomplishment and/or jeopardized safety. Crew coordination was lacking to the extent the mission accomplishment was severely degraded. Created confusion or delays that could have endangered the aircraft or prevented mission completion. Failed to prioritize multiple tasks and did not use available resources at his/her disposal to manage workload.

#### 2.4.15. Area 15 — Risk Management/Decision Making.

- 2.4.15.1. **Q.** Identified contingencies and alternatives. Gathered and cross-checked relevant data before deciding. Clearly stated problems and proposed solutions. Investigated doubts and concerns of crewmembers. Used facts to come up with solution. Involved and informed necessary crewmembers when appropriate. Coordinated mission crew activities to establish proper balance between command authority and crewmember participation and acted decisively when the situation required. Clearly stated decisions, received acknowledgement, and provided rationale for decisions.
- 2.4.15.2. **Q-.** Partially identified contingencies and alternatives. Made little effort to gather and cross check relevant data before deciding. Did not clearly state problems and propose solutions. Did not consistently use facts to come up with solutions. Did not effectively inform crewmembers when appropriate. Did not effectively coordinate mission crew activities to establish a proper balance between command authority and crewmember participation and acted indecisively at times.
- 2.4.15.3. **U.** Failed to identify contingencies and alternatives. Made no effort to gather and cross check relevant data before deciding. Did not inform necessary crewmembers when appropriate. Did not use facts to come up with solution. Avoided or delayed necessary decisions which jeopardized mission effectiveness. Did not coordinate mission crew activities to establish proper balance between command authority and crewmember participation; acted indecisively.

#### 2.4.16. Area 16 — Task Management.

- 2.4.16.1. **Q.** Correctly prioritized tasks. Used available resources to manage workload. Asked for assistance when overloaded. Clearly stated problems and proposed solutions. Accepted better ideas when offered. Used facts to come up with solution. Clearly communicated and acknowledged workload and task distribution. Demonstrated high level of vigilance in both high and low workload conditions. Prepared for expected or contingency situations. Avoided the creation of self-imposed workload/stress. Recognized and reported work overloads in self and others.
- 2.4.16.2. **Q-.** Did not consistently and correctly prioritize tasks. Did not effectively use available resources to manage workload. Did not clearly communicate and acknowledge workload and task distribution. Did not consistently demonstrate high level of vigilance in both high and low workload conditions. Slow to prepare for expected or contingency situations. Created some self-imposed workload/stress due to lack of planning that

degraded mission effectiveness. Slow to recognize and report work overloads in self and others.

2.4.16.3. **U.** Failed to correctly prioritize tasks. Did not use available resources to manage workload. Did not communicate and acknowledge workload and task distribution. Did not demonstrate high level of vigilance in both high and low workload conditions. Extremely slow to prepare for expected or contingency situations. Created excessive self-imposed workload/stress due to lack of planning that jeopardized safety of flight or caused mission failure. Failed to recognize and report work overloads in self and others.

#### 2.4.17. Area 17 — Communication/ATC Procedures.

- 2.4.17.1. **Q.** Fully knowledgeable of communications procedures. Required contacts were made without hesitation, omission, or discrepancy. Communicated using precise, standard terminology. Acknowledged all communications. Promptly complied with all controlling agency instructions and reporting requirements. Obtained the proper clearance from the controlling agency. Complied with all national airspace requirements. Asked for/provided clarification when necessary.
- 2.4.17.2. **Q-.** Unclear or incomplete communication led to repetition or misunderstanding. Slow to ask for or give constructive feedback/clarifications. Inconsistent use of precise, standard terminology. Did not always state opinions/ideas, ask questions when uncertain or make positive statements to flight members. Slow to comply with controlling agency instructions or unsure of the reporting requirements. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness.
- 2.4.17.3. **U.** Failed to communicate effectively. Continuously interrupted others, mumbled, and/or conduct/attitude was detrimental to communication among crewmembers. Withheld information and failed to ask for/respond to constructive criticism. Failed to use precise, standard terminology. Repeatedly failed to acknowledge communications. Did not state opinions, ask questions when unsure or attempt to motivate flight members using positive statements. Failed to comply with controlling agency instructions or accepted a clearance for which they could not comply. Entered controlled airspace without proper clearance. Errors or omissions precluded safe and effective mission accomplishment. Improperly or ineffectively communicated or coordinated with all members and agencies (i.e., crewmembers, wingmen, weather, ATC, intelligence, etc.). Did not consider other crewmembers' inputs.

## 2.4.18. Area 18 — Cargo/Passenger Loading/Offloading and Tiedown.

- 2.4.18.1. **Q.** Satisfactorily loaded/offloaded the aircraft and ensured all cargo and equipment was secured per the flight manual and other applicable directives. Satisfactory knowledge of restraint equipment/requirements, weight limitations, and safety precautions.
- 2.4.18.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment.
- 2.4.18.3. **U.** Major deviations from Q criteria. Unsatisfactory knowledge/performance of aircraft/passenger loading/unloading, restraint equipment/requirements, weight limitations, and safety precautions. Major deviations which would affect safe/effective mission accomplishment.

#### 2.4.19. Area 19 — Scanning/Clearing.

- 2.4.19.1. **Q.** Provided clear, concise and positive direction to the crew during flight, reconnaissance, approaches, landing, and departures. Ensured aircraft clearance from obstacles.
- 2.4.19.2. **Q-.** Minor deviations from Q criteria. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness.
- 2.4.19.3. **U.** Major deviations from Q criteria. Did not provide sufficient direction or directions were not clear, concise and positive. Affected safe, effective mission accomplishment. Did not assure adequate clearance from obstacles.

## 2.4.20. Area 20 — After Landing and Post Flight Responsibilities.

- 2.4.20.1. **Q.** Performed proper aircraft and equipment post flight and/or reconfiguration. Correctly determined the condition and status of the aircraft after shutdown. Completed all applicable aircraft forms correctly and briefed maintenance personnel as required.
- 2.4.20.2. **Q-.** Minor deviations from Q criteria. Did not compromise safety or mission effectiveness.
- 2.4.20.3. **U.** Incorrect or unfamiliar with shutdown procedures or checks. Failed to perform the aircraft and equipment post flight and/or reconfiguration. Did not respond properly to abnormal or emergency situations. Failed to complete the aircraft forms or brief maintenance personnel as required.

# 2.5. Qualification Phase.

#### 2.5.1. Area 21 — Hover/Taxi Maneuvers.

- 2.5.1.1. **Q.** Performed hover and taxi procedures as outlined in the flight manual and other directives. Smooth, precise, and controlled aircraft movement. Maintained desired position/ground track. Taxied at appropriate speeds and altitudes. Familiar with marshaling signals. Cleared the aircraft.
- 2.5.1.2. **Q-.** Minor deviations from Q criteria in altitude/position/ground track. Did not compromise safety, aircraft limitations, or maneuver effectiveness.
- 2.5.1.3. **U.** Hover and taxi procedures not performed as outlined in the flight manual and other published directives. Aircraft control/position/ground track/altitude was erratic. Errors or omissions precluded safe or effective maneuver accomplishment. Taxi speeds/altitudes inappropriate or dangerous. Insufficient knowledge of marshaling signals. Failed to adequately clear the aircraft.

#### 2.5.2. Area 22 — Takeoff (Normal, Marginal Power, Maximum Performance).

2.5.2.1. **Q.** Smooth, positive aircraft control throughout the takeoff. Maintained the proper power setting (+/- 5 percent torque). Performed the takeoffs as outlined in the flight manual, published directives, and the crew briefing. Maintained briefed heading or ground track (+/- 10 degrees) and climb out angle. Smooth power application. Performed the departure as published/directed and complied with all restrictions. Visually cleared the area. If necessary, takeoff abort executed in a safe and timely manner without exceeding aircraft limitations.

- 2.5.2.2. **Q-.** Minor deviations from procedures outlined in the flight manual and other published directives. Some under or over-control on lift-off. Maintained the proper power setting (+/- 10 percent torque). Maintained briefed heading or ground track up to +/- 20 degrees off. Did not compromise safety, aircraft limitations, or maneuver effectiveness. Visually cleared the area.
- 2.5.2.3. **U.** Lift-off was potentially dangerous. Exceeded aircraft/systems limitations. Failed to establish proper aircraft attitude. Over-controlled the aircraft resulting in excessive deviations from intended flight path. Failed to comply with the published/directed departure instructions or exceeded the tolerance of **Q-.** Failed to establish the proper cruise airspeed. Failed to adequately clear the area. Level off was erratic.

# 2.5.3. Area 23 — Approaches/Landings (Base and Final Approach)/(Normal, Shallow, Steep, Slide Landing).

- 2.5.3.1. **Q.** Performed the approaches and landings as outlined in the flight manual, published directives and crew briefing. Aircraft control was smooth and precise. Started the final descent on the desired approach angle. Demonstrated satisfactory control to maintain/correct to the desired rate of descent, ground track and approach angle. Maintained briefed heading or ground track through desired touchdown heading (+/-10 degrees). Touchdown/termination was within the desired area. If necessary, go-around was executed in a safe and timely manner as briefed/required without exceeding aircraft limitations.
- 2.5.3.2. **Q-.** Same as Q except for minor deviations to procedures outlined in the flight manual, published directives and crew briefing. Did not compromise safety, aircraft limitations, or maneuver effectiveness. Desired touchdown heading was +/-20 degrees and did not create rolling point or potential.
- 2.5.3.3. **U.** Major deviations to the procedures outlined in the flight manual and published directives. Errors or omissions precluded safe and effective maneuver accomplishment. Aircraft control was erratic/unsafe; excessive flare required to arrest descent. Consistently overshot/undershot final. Failed to recognize/maintain the correct or desired rate of descent and approach angle. Failed to touchdown or terminate within the desired area. Exceeded 800-fpm descent rate with less than 40 knots indicated airspeed (KIAS) and did not correct or initiate a go-around. Heading control was erratic and landed greater than +/-20 degrees from desired heading.

#### 2.5.4. Area 24 — Traffic Patterns (Prior to Base Turn).

- 2.5.4.1. **Q.** Performed traffic patterns as outlined in the flight manual, operating procedures, and local directives. Smooth, precise, and controlled aircraft movement. Constantly cleared area of intended flight. Ensured the required checklists were called for and accomplished.
  - 2.5.4.1.1. Altitude. +/- 50 feet
  - 2.5.4.1.2. Airspeed. +/- 10 KIAS
- 2.5.4.2. **Q-.** Performed traffic patterns with minor deviations to the procedures outlined in the flight manual, operating procedures, and local directives. Aircraft control was not

consistently smooth. Did not compromise safety, aircraft limitations, or maneuver effectiveness. Constantly cleared the area of intended flight. Required checklists were usually called for and accomplished.

- 2.5.4.2.1. Altitude. +/- 100 feet
- 2.5.4.2.2. Airspeed. +/- 20 KIAS
- 2.5.4.3. **U.** Traffic patterns were not performed as outlined in the flight manual, operational procedures, and local directives. Erratic aircraft control or did not clear the aircraft. Exceeded the Q- parameters in multiple instances.

## 2.5.5. Area 25 — Single Hydraulic Failure.

- 2.5.5.1. **Q.** Called for and completed the proper checklist in a timely manner. Pattern, approach and landing accomplished the procedures as outlined in the flight manual and other published directives. Knowledgeable of maneuver parameters and provided input to correct deviations in a timely manner. Pattern, approach, and landing adjusted to the situation. Smooth, precise, and controlled aircraft movement. Touchdown from hover accomplished with no sideward drift. Touchdown to slide accomplished with an appropriate amount of forward speed and appropriate nose alignment (+/- 10 degrees).
- 2.5.5.2. **Q-.** Same as Q except for deviations which did not compromise safety, aircraft limitations, or maneuver effectiveness. Had difficulty or slow to recall maneuver parameters and/or provide input during deviations. Slow to correct aircraft drift or did not maintain appropriate nose alignment on slide landing (greater than +/- 10 degrees).
- 2.5.5.3. U. Called for an incorrect checklist or did not complete the checklist in a timely manner. Displayed limited to no knowledge of maneuver parameters. Major deviations to the procedures outlined in the flight manual and other published directives. Errors or omissions precluded safe and effective maneuver accomplishment. Aircraft control erratic/unsafe; frequent major heading deviations. Touchdown accomplished dangerously or too fast/slow. Unaware of or unresponsive to factors affecting the aircraft.

#### 2.5.6. **Area 26** — **Manual Fuel.**

- 2.5.6.1. **Q.** Called for and completed the proper checklist in a timely manner. Entered/exited manual fuel operations procedures as outlined in the flight manual, operating procedures, and local directives. Knowledgeable of maneuver parameters and provided input to correct deviations in a timely manner. Pattern, approach and landing procedures accomplished as outlined in the flight manual and other published directives. Smooth, precise, and controlled aircraft movement. Controlled engine and rotor revolutions per minute (RPM) throughout the maneuver. Kept the manual engine torque approximately 5 to 10 percent below the governed engine. Torque on the ungoverned engine may be less than 5 percent below the governed engine under high DA conditions to preclude over temp or over torque of the governed engine.
- 2.5.6.2. **Q-.** Same as Q except for minor deviations which did not compromise safety. Rarely married or swapped Nf needles and applied proper correction. Did not over control engine or rotor RPM. Had difficulty or slow to recall maneuver parameters and/or provide input during deviations. Kept the manual engine torque 11 percent to 20 percent below governed engine. Did not exceed flight manual operating limitations.

2.5.6.3. U. Called for an incorrect checklist or did not complete the checklist in a timely manner. Displayed limited to no knowledge of maneuver parameters. Major deviations to the procedures outlined in the flight manual and other published directives. Errors or omissions precluded safe and effective maneuver accomplishment. Aircraft control erratic/unsafe; frequent over control of engine and rotor RPM. Unaware of or unresponsive to factors affecting the aircraft.

### 2.5.7. Area 27 — Single Engine Failure.

- 2.5.7.1. **Q.** Called for and completed the appropriate checklist in a timely manner. Performed before landing checks and accomplished the approach and landing procedures as outlined in the flight manual and other published directives. Knowledgeable of maneuver parameters and provided input to correct deviations in a timely manner. Pattern, approach, and landing adjusted to the situation. Smooth, precise, and controlled aircraft movement. Touchdown was within the desired area. Touchdown speed commensurate with terrain and power available. Aware of minimum safe single engine airspeed and the existing power available/required.
- 2.5.7.2. **Q-.** Minor deviations from Q criteria which would not have compromised safety, aircraft limitations, or maneuver effectiveness. Had difficulty or slow to recall maneuver parameters and/or provide input during deviations.
- 2.5.7.3. **U.** Major deviations from the procedures outlined in the flight manual and other published directives. Displayed limited to no knowledge of maneuver parameters. Errors or omissions precluded safe and effective maneuver accomplishment. Aircraft control erratic or unsafe. Unaware of go-around requirements or power available/required. Would not have landed safely or within the desired area. Unaware of or unresponsive to factors affecting the aircraft.

# 2.5.8. Area 28 — Autorotations (Straight Ahead/90-Degree Turning (All) & 180-Degree Turning (IP Only)). Use the following criteria for Areas 28a, 28b and 28c.

- 2.5.8.1. **Q.** Completed the appropriate boldface. Airspeeds, altitudes and procedures per the flight manual, checklist and other published directives. Knowledgeable of maneuver parameters and provided input to correct deviations in a timely manner. Smooth, precise, and controlled aircraft movement. Controlled the rotor RPM throughout maneuver. Would have landed safely and within the desired area. Flared at an appropriate altitude and accomplished a smooth and controlled power recovery.
- 2.5.8.2. **Q-.** Same as Q except for minor deviations which would not have compromised safety, aircraft limitations, or maneuver effectiveness. Had difficulty or slow to recall maneuver parameters and/or provide input during deviations.
- 2.5.8.3. U. Failed to complete appropriate boldface. Major deviations from the procedures outlined in the flight manual and other published directives. Errors or omissions precluded safe and effective maneuver accomplishment. Displayed limited to no knowledge of maneuver parameters. Failed to control rotor RPM. Would not have landed safely or within the desired area. Aircraft control erratic or unsafe. Unable to maintain aircraft position or alignment. Cushion applied too early/late in improper amount. Unaware of or unresponsive to factors affecting the aircraft.

#### 2.6. Instrument Phase.

- 2.6.1. **Area 29 Unusual Attitude Recovery.** (**Note:** Will not be accomplished during instrument meteorological conditions (IMC) flight, but may be accomplished in the simulator.)
  - 2.6.1.1. **Q.** Smooth, positive recovery to level flight using the correct recovery procedures. Demonstrated a satisfactory knowledge of procedures.
  - 2.6.1.2. **Q-.** Slow to analyze, or erratic in recovery to level flight. Correct recovery procedures used.
  - 2.6.1.3. **U.** Unable to determine attitude or used improper recovery procedures. Inadequate knowledge of proper procedures.

## 2.6.2. Area 30 — Instrument Departure.

- 2.6.2.1. **Q.** Performed departure as published/directed. Complied with all restrictions or controlling agency instructions. Made all required reports. Smooth, positive aircraft control throughout the takeoff. Applied course/heading corrections promptly. Crossing/intermediate altitudes were +/- 100 feet. Maintained course/heading and recognized deviations of +/- 10 degrees and applied corrections promptly. Level-off smoothly at the specified altitude within +/- 100 feet. Promptly established the proper cruise airspeed +/- 10 KIAS. Visually cleared the area.
- 2.6.2.2. **Q-.** Minor flight manual procedural deviations. Some under or over control on lift-off. Minor deviations in navigation occurred during departure. Slow to comply with controlling agency instructions or unsure of reporting requirements. Slow to apply course/heading corrections. Aircraft control was not consistently smooth and positive. Crossing/intermediate altitudes were +/- 300 feet. Maintained course/heading and recognized deviations of +/- 15 degrees and applied corrections promptly. Level off was erratic, maintained altitude within +/- 300 feet. Slow in establishing the proper cruise airspeed. Visually cleared the area.
- 2.6.2.3. **U.** Lift off was potentially dangerous. Instrument departure was not as directed in technical orders, directives, or published procedures. Failed to comply with published/directed departure or controlling agency instructions. Accepted an inaccurate clearance. Errors or omissions precluded safe and effective mission accomplishment. Overcontrolled the aircraft resulting in excessive deviations from the intended flight path. Level off was erratic or exceeded the tolerances of **Q-.** Excessive delay or failed to establish the proper cruise airspeed. Failed to adequately clear the area.

# 2.6.3. Area 31 — Use of NAVAIDs/Navigation.

- 2.6.3.1. **Q.** Able to navigate using all available means. Used appropriate navigation procedures and demonstrated capability to navigate accurately. Ensured navigation aids (NAVAIDs) were properly tuned, identified, and monitored. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.
  - 2.6.3.1.1. Course. +/- half dot.
  - 2.6.3.1.2. Altitude. +/- 100 feet.
  - 2.6.3.1.3. Airspeed. +/- 10 KIAS.

- 2.6.3.2. **Q-.** Minor errors in the procedures/use of navigation equipment. Some deviations in tuning, identifying, monitoring, and selecting NAVAIDs. Slow to comply with clearance instructions. Had some difficulty in establishing exact position. Slow to adjust for deviations in time and course.
  - 2.6.3.2.1. Course. +/- 1 dot.
  - 2.6.3.2.2. Altitude. +/- 200 feet.
  - 2.6.3.2.3. Airspeed. +/- 20 KIAS.
- 2.6.3.3. **U.** Major errors in procedures/use of navigation equipment. Did not ensure NAVAIDs were tuned, identified, monitored and/or selected. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace. Exceeded Q- criteria.

## 2.6.4. Area 32 — Holding Procedures.

- 2.6.4.1. **Q.** Performed entry and holding in accordance with published procedures, directives and/or technique. Able to estimate winds and made appropriate corrections. For non-distance measuring equipment (DME) holding, able to make timing corrections. Smooth, precise, and controlled aircraft movement. Complied with ATC instructions. Holding pattern tolerances exceeded by not more than:
  - 2.6.4.1.1. Course. +/- half dot (after established in the pattern).
  - 2.6.4.1.2. Altitude. +/- 100 feet.
  - 2.6.4.1.3. Airspeed. +/- 10 KIAS.
- 2.6.4.2. **Q-.** Performed entry and holding procedures with minor deviations. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness. Holding pattern limit exceeded by not more than:
  - 2.6.4.2.1. Course. +/- 1 dot (after established in the pattern).
  - 2.6.4.2.2. Altitude. +/- 200 feet.
  - 2.6.4.2.3. Airspeed. +/- 20 KIAS.
- 2.6.4.3. **U.** Holding was not accomplished per technical orders, directives, or published procedures. Unable to make appropriate wind or timing corrections. Aircraft control erratic or unsafe. Failed to comply with ATC instructions. Exceeded Q-holding pattern tolerances.

# 2.6.5. Area 33 — Non-Precision Approach.

- 2.6.5.1. **Q.** Approach was accomplished per flight manual, directives, and published procedures. Complied with all restrictions and used appropriate descent rate to arrive at minimum decision altitude (MDA)/derived decision altitude (DDA) at or before visual descent point (VDP)/missed approach point (MAP). Made smooth and timely corrections. Only momentary deviations off heading. Not more than momentary descent below MDA. Position permitted a safe landing. Smooth and timely response to controller's instructions while performing airport surveillance radar (ASR) approaches.
  - 2.6.5.1.1. Airspeed. +/- 10 KIAS.
  - 2.6.5.1.2. Heading. +/- 10 degrees.

- 2.6.5.1.3. Course. +/- 1 dot deflection.
- 2.6.5.1.4. Final approach fix (FAF)/MDA/DDA/Stepdown Altitudes. +100/-50 feet. **Note:** The 0 to -50 foot tolerance at MDA applies only to momentary excursions and timely positive corrections should be initiated.
- 2.6.5.2. **Q-.** Performed approach with minor deviations. Arrived at MDA at or before the MAP, but past the VDP (if applicable). Deviations off heading but recognized and corrected. Slow to make corrections. Position would have permitted a safe landing. Slow to respond to controller's instructions and make corrections while performing ASR approaches.
  - 2.6.5.2.1. Airspeed. +/- 20 KIAS.
  - 2.6.5.2.2. Heading. +/- 15 degrees.
  - 2.6.5.2.3. Course. +/- 2 dots deflection.
  - 2.6.5.2.4. FAF/MDA/DDA/Stepdown Altitudes. +150/-50 feet. **Note:** The 0 to -50 foot tolerance at MDA applies only to momentary excursions and timely positive corrections should be initiated.
- 2.6.5.3. **U.** Approach was not accomplished per flight manual, directives, or published procedures. Erratic corrections were made. Exceeded the tolerances of **Q-.** Maintained steady-state flight below the MDA. Position at the MAP would not have permitted a safe landing. Did not initiate missed approach/go-around when appropriate or directed.

## 2.6.6. Area 34 — Precision Approach or Approach with Vertical Guidance (APV).

- 2.6.6.1. **Q.** Approach was accomplished per flight manual, directives, and published procedures. Complied with all clearances and restrictions. Only momentary deviations off heading. Smooth and timely corrections to azimuth and glide slope. Complied with the decision altitude (DA) and the position would have permitted a safe landing. Not more than momentary descent below DA. Smooth and timely response to controller's instructions while performing precision approach radar (PAR) approaches.
  - 2.6.6.1.1. Glide Slope. Within 1 dot below or 2 dots above glide slope.
  - 2.6.6.1.2. Course. Within 1 dot left or right of course.
  - 2.6.6.1.3. Heading. +/- 10 degrees.
  - 2.6.6.1.4. Airspeed +/- 10 KIAS.
- 2.6.6.2. **Q-.** Performed the procedures with minor deviations. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness. Deviated from heading but recognized and corrected. Slow to respond to controller's instructions and make corrections. Position at the DA would have permitted a safe landing. Elevation did not exceed well above or well below glide path. Slow to respond to controller's instructions and make corrections while performing PAR approaches.
  - 2.6.6.2.1. Glide Slope. Greater than 1 to 2 dots below or 2 to 3 dots above glide slope.
  - 2.6.6.2.2. Course. Greater than 1 dot, but less than 2 dots left or right of course.
  - 2.6.6.2.3. Heading. +/- 15 degrees.

- 2.6.6.2.4. Airspeed +/- 20 KIAS.
- 2.6.6.3. **U.** Approach was not accomplished per flight manual, directives or published procedures. Erratic course and glide slope corrections. Did not make corrections or react to controller's instructions. Did not comply with DA and/or position would not have permitted a safe landing. Exceeded Q- tolerances.

# 2.6.7. Area 35 — Missed Approach.

- 2.6.7.1. **Q.** Executed missed approach per published procedures and restrictions. Initiated and performed go-around promptly. Complied with controller's instructions. Applied smooth control inputs. Attained and maintained a positive climb.
  - 2.6.7.1.1. Level Off Altitude. +/- 100 feet.
  - 2.6.7.1.2. Maneuvering Airspeed. +/- 10 KIAS.
  - 2.6.7.1.3. Heading/Course. +/- 10 degrees.
- 2.6.7.2. **Q-.** Executed the missed approach with minor deviations to published procedures/directives. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness. Slow to comply with the published procedures/directives, controller's instructions, or flight manual. Slightly over-controlled the aircraft. Allowed aircraft to descend during transition.
  - 2.6.7.2.1. Level Off Altitude. +/- 200 feet.
  - 2.6.7.2.2. Maneuvering Airspeed. +/- 20 KIAS.
  - 2.6.7.2.3. Heading/Course. +/- 20 degrees.
- 2.6.7.3. **U.** Did not execute missed approach per technical orders, directives or published procedures. Did not comply with controller's instructions. Deviations or misapplication of procedures could have led to an unsafe condition including excessive descent during transition. Exceeded Q- criteria.

## 2.6.8. Area 36 — Circling Procedures.

- 2.6.8.1. **Q.** Remained within the lateral limits of circling category. Complied with controller's instructions. Attained runway alignment without excessive bank angles. Did not descend from the MDA until in a position to place the aircraft on a normal glide path or execute a normal landing. Maneuver would have permitted a safe landing.
  - 2.6.8.1.1. MDA: +100/-50 feet. **Note:** The 0 to -50 foot tolerance at MDA applies only to momentary excursions and timely positive corrections should be initiated.
- 2.6.8.2. **Q-.** Slow to comply with controller's instructions. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness. Attained runway alignment but occasionally required excessive bank angles or maneuvering.
  - 2.6.8.2.1. MDA: +200/-50 feet. **Note:** The 0 to -50 foot tolerance at MDA applies only to momentary excursions and timely positive corrections should be initiated.
- 2.6.8.3. U. Exceeded the lateral tolerances of circling airspace. Did not comply with controller's instructions. Excessive maneuvering to attain runway alignment was potentially unsafe. Maneuver compromised safety or would not have permitted a safe

landing. Descended from the MDA before the aircraft was in position for a normal glide path or landing. Exceeded Q- criteria.

# 2.6.9. Area 37 — Final Approach and Landing.

- 2.6.9.1. **Q.** Performed the approaches and landings per the procedures and limitations outlined in the flight manual and published directives. Aircraft control was smooth and positive. Started the final descent on the desired approach angle in a safe position to land. Demonstrated satisfactory control to maintain/correct to the desired rate of descent and approach angle. Touchdown/termination was within the desired area +/-10 degrees of runway heading unless situation dictated otherwise.
- 2.6.9.2. **Q-.** Minor deviations from Q criteria in procedures and limitations outlined in the flight manual and published directives. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness and/or did not perform as briefed. Heading control +/- 20 degrees of runway heading unless situation dictated otherwise.
- 2.6.9.3. **U.** Major deviations to the procedures and limitations outlined in the flight manual and published directives. Aircraft control was erratic/unsafe. Consistently overshot/undershot final. Failed to recognize/maintain the correct or desired rate of descent and approach angle. Failed to touchdown or terminate within the desired/briefed area. Exceeded the tolerances of flight manual. Power inputs were erratic and heading control was greater than +/- 20 degrees of runway heading unless situation dictated otherwise.

#### 2.7. Mission Phase.

### 2.7.1. Area 38 — Mission Planning.

- 2.7.1.1. **Q.** Applied the appropriate tactics to the mission scenario. Followed guidance contained in applicable AFTTPs, other mission design series (MDS) volumes if participating, SPINS, and other operational guidance. Displayed good judgment. Exhausted all possible options to decrease the threat to the lowest possible level. Thoroughly planned all aspects of the mission using the crew concept. Updated the intelligence situation prior to the briefing.
- 2.7.1.2. **Q-.** Marginally planned all aspects of the mission. Partial application of the approved guidance to the scenario given. Possessed a limited knowledge of approved tactical guidance. Limited utilization of planning resources (i.e., intelligence, etc.).
- 2.7.1.3. **U.** Mission planning was based upon unapproved/unrealistic tactics. No plan to degrade the threat to the lowest level possible. Did not utilize crew inputs/considerations. Ignored numerous aspects of the mission. Possessed a poor knowledge of approved tactical guidance. Failed to update the mission critical intelligence situation prior to the briefing.

#### 2.7.2. Area 39 — Mission Execution.

- 2.7.2.1. **Q.** Successful execution of the mission plan. Adhered to the mission plan until the tactical situation required otherwise. Smooth positive control of aircraft throughout mission. Smooth power applications. Accomplished planned mission objectives.
- 2.7.2.2. **Q-.** Marginal execution of the mission plan. Positive control of aircraft throughout flight. Power applications were within limits. Slow to adjust to changes in the tactical situation.

2.7.2.3. U. Did not execute mission plan. Erratic control of aircraft throughout flight. Power applications were erratic and outside limits. Unable to adjust to changes in the tactical situation.

# 2.7.3. Area 40 — Terrain/Flight Navigation.

- 2.7.3.1. **Q.** Performed flight navigation IAW procedures outlined in the flight manual and other published directives. Familiar with and able to effectively use available aircraft navigational systems. Could satisfactorily determine position when map reading. Recognized all check/turn points. Remained within 1 nautical mile (NM) of planned course unless deviating for obstacles/threats and stayed within range/area boundaries. Able to adjust for deviations in time and course. Effectively used terrain masking to degrade/avoid threats. Demonstrated the capability to quickly adjust for deviations in timing and course.
- 2.7.3.2. **Q-.** Slow to determine the position when map reading. Slow to recognize check/turn points. Remained within 2 NM of planned course unless deviating for obstacles/threats and stayed within range/area boundaries. Did not provide adequate navigational input as briefed/required yet did not compromise safety or mission effectiveness. Satisfactorily used terrain masking to degrade/avoid threats. Slow to recognize and adjust for deviations in timing and course.
- 2.7.3.3. **U.** Flight navigation was not IAW procedures outlined in the flight manual and other published directives. Errors or omissions precluded safe and effective mission/maneuver accomplishment. Unable to effectively use available aircraft navigational systems. Could not establish position. Failed to recognize check/turn points or adjust for deviations in timing and course. Consistently deviated from planned course. Flew outside the established range/area boundaries. Failed to use terrain masking.

# 2.7.4. Area 41 — Terminal Area Operations.

- 2.7.4.1. **Q.** Performed in accordance with procedures outlined in current H-1 AFTTPs, flight manual, and other published directives. Smooth, precise, and controlled aircraft movement. Thoroughly aware of power and energy maneuverability (EM) requirements/limitations and the appropriate site restrictions. Proper consideration and use of terrain features and wind conditions. If not flying, closely monitored aircraft systems/instruments and aircraft flight path/position.
- 2.7.4.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment. Minor deviations to procedures and limitations outlined in the flight manual and published directives. Confused or disorganized communication with crewmembers. Able to apply techniques and procedures from flight manual and H-1 AFTTPs but had difficulty adjusting parameters based on external factors such as terrain and wind.
- 2.7.4.3. **U.** Major deviations from Q criteria. Major deviations to the procedures and limitations outlined in the flight manual and published directives. Errors or omissions precluded safe and effective mission/maneuver accomplishment. Unable to clearly communicate with crew. Aircraft control was erratic/unsafe. Failed to determine if an adequate power margin exists for the flight conditions.

#### 2.7.5. **Area 42** — **Formation.**

#### 2.7.5.1. **42a Formation Lead.**

- 2.7.5.1.1. **Q.** Established appropriate formations per AFTTPs, AFMAN 11-2UH-1NV3, and other published directives. Effectively directed the flight to accomplish mission objectives. Good situational awareness and wingman consideration. Positive control of the flight/element. Smooth on the controls. Planned ahead and made timely decisions. Complied with established procedures. Provided concise lost visual and rejoin instructions; correctly executed applicable actions.
- 2.7.5.1.2. **Q-.** Adequate flight management. Fair situational awareness and wingman consideration. Control inputs were not unsafe, but made it difficult for wingman to maintain position. Did not always plan ahead and/or hesitant in making decisions. Minor deviations in established procedures. Slow to provide lost visual or rejoin instructions; instructions vague or unclear.
- 2.7.5.1.3. **U.** Did not establish the appropriate formations. Poor situational awareness and wingman consideration. Control inputs were erratic and unsafe. Major deviations in established procedures. Did not plan ahead or indecisive. Did not provide adequate lost visual or rejoin instructions; instructions or execution incorrect.

### 2.7.5.2. 42b Formation Wingman.

- 2.7.5.2.1. **Q.** Maintained position with only momentary deviations. Made smooth and immediate position corrections. Maintained safe separation and complied with established procedures. Smooth, timely join-up without excessive closure rate to the appropriate briefed position. Maintained safe separation.
- 2.7.5.2.2. **Q-.** Varied position, but sometimes not within limits. Minor overcontrolling. Minor procedural deviations. Minor deviations in lost visual procedures, slow join-up.
- 2.7.5.2.3. **U.** Unable to maintain a formation position. Abrupt position corrections. Significant over-controlling requiring assistance from other pilot. Did not maintain safe separation. Unsafe join-up or formation procedures. Incorrect lost visual procedures.

#### 2.7.6. Area 43 —Low Level Operations.

- 2.7.6.1. **Q.** Planned and flew a route to minimize risk to aircraft and crew for a given mission per flight manual, governing directives, and AFTTPs. Maintained briefed/planned altitude profile with minor deviations (+/-100 feet, deviations below minimum altitude were infrequent, promptly corrected, and did not compromise safety). Remained within 1 NM of planned course unless deviating for obstacles, threats, or timing and stayed within range/area boundaries.
- 2.7.6.2. **Q-.** Planned and flew a route to minimize risk to aircraft and crew for a given mission with minor deviations from flight manual, governing directives and appropriate AFTTPs. Deviations from briefed/planned altitude profile exceeding Q criteria. Slow to determine the position using navigation systems or map. Slow to recognize check/turn points. Remained within 2 NM of planned course unless deviating for obstacles, threats, or timing and stayed within range/area boundaries. Slow to recognize and adjust for deviations in timing and course corrections.

2.7.6.3. **U.** Excessive or dangerous flight below minimum altitude. Major/unsafe deviations from flight manual, governing directives, and AFTTPs. Could not establish position. Failed to recognize check/turn points or adjust for deviations in timing and course. Exceeded the parameters for **Q-.** Flew outside the established range/area boundaries.

## 2.7.7. Area 44 — Unprepared Landing Area Operations

- 2.7.7.1. **Q.** Properly briefed the crew about approach and takeoff intentions. Proper consideration and use of terrain features and wind conditions. Effectively completed a thorough site evaluation and assessed risk. Effectively maintained appropriate approach path/angle used for the given terrain features, wind, and landing zone (LZ) conditions. Maintained a controlled, stable approach without excessive deviations. Able to perform a landing or alternate insertion and extraction (AIE) to the desired zone within 3 RD or 0.03 NM. Maintained briefed heading during touchdown (+/-10 degrees). Ensured aircraft clearance from obstacles. Maintained smooth, positive aircraft control during takeoff. Maintained briefed power setting (+/- 5 percent torque), heading/ground track (+/- 10 degrees). Satisfactorily applied techniques and procedures from flight manual, governing directives, and **AFTTP 3-3.H-1**, *Combat Fundamentals H-1*. Adjusted parameters based on external factors such as terrain and wind. Slope operations: Allowed minimum drift after skid contact with the ground landing.
- 2.7.7.2. **Q-.** Briefed the crew about approach and takeoff intentions with minor omissions. Site evaluation not tailored to the situation or excessively detailed and time consuming. Maintained controlled, stable approach with minor deviations. Able to perform a landing or AIE to the desired zone within 5 RD or 0.04 NM. Minor under or over-control during takeoff. Able to apply techniques and procedures from flight manual, governing directives, and AFTTP 3-3.H-1 but had difficulty adjusting parameters based on external factors such as terrain and wind. Did not compromise safety, aircraft limitations, or maneuver effectiveness. Maintained a proper power setting (+/- 10 percent torque) and heading control remained within +/- 20 degrees.
- 2.7.7.3. **U.** Unsafe closure rate or touchdown. Exceeded standards for **Q-.** Failed to consider significant details pertinent to the approach, landing, or departure. Overcontrolled the aircraft resulting in excessive deviations from intended flight path. Power setting and heading control was erratic and consistently remained outside **Q-** criteria. Exceeded aircraft/systems limitations.

## 2.7.8. Area 45 — NVG Usage/Limitations.

- 2.7.8.1. **Q.** Correctly described the use/limitations of night vision goggles (NVGs). Proper pre-flight, handling, and use of NVGs during the flight.
- 2.7.8.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment. Demonstrated a need for additional training in the use/limitations of NVGs.
- 2.7.8.3. **U.** Major deviations from Q criteria. Procedures for using NVGs were incorrect. Did not perform a proper pre-flight. Caused damage to equipment. Mission unsuccessful as a result of improper NVG usage. No knowledge of use/limitations of NVGs.

### 2.7.9. Area 46 — Classified/Sensitive Material/Operations Security.

- 2.7.9.1. **Q.** Demonstrated thorough knowledge of communications/operations security procedures and courier procedures (if applicable). Had positive control of classified/sensitive documents and information used throughout the mission. Properly stored, handled, and/or destroyed all classified/sensitive/communication security (COMSEC) material or information generated during the mission. Practiced sound operations security (OPSEC) during all phases of the mission. Identified, requested and obtained all classified/sensitive/cryptological material required for the mission.
- 2.7.9.2. **Q-.** Limited knowledge of COMSEC/OPSEC procedures and/or courier procedures (if applicable). Limited knowledge of proper storage, handling, and destruction procedures would not have resulted in compromise of classified/sensitive material/COMSEC, and did not impact mission accomplishment. Identified cryptological material required for mission, but was slow in requesting/obtaining material or did so only after being prompted.
- 2.7.9.3. **U.** Unsatisfactory knowledge of COMSEC/OPSEC. Classified documents, COMSEC or sensitive information would have been compromised as a result of improper control by examinee. Unfamiliarity with OPSEC procedures had or could have had a negative impact on mission accomplishment. Failed to identify, request or obtain all cryptological materials required for the mission.

#### 2.7.10. Not Used.

# 2.7.11. **Area 47** — **Time-on-Target (TOT).**

- 2.7.11.1. **Q.** Maneuvered aircraft/formation appropriately based on outside factors in order to arrive at objective on ground or at hover height on-time +/- 2 minutes.
- 2.7.11.2. **Q-.** Maneuvered aircraft/formation with minor deviations in sound tactical flight in order to arrive at objective on ground or at hover height on-time  $\pm$  5 minutes.
- 2.7.11.3. **U.** Failed to appropriately maneuver aircraft/formation. Failed to arrive at objective +/- 5 minutes.

#### 2.7.12. Area 48 — Alternate Insertion/Extraction (AIE) Operations.

- 2.7.12.1. **Q.** Performed procedures as outlined in the flight manual and other published directives. Aircraft control was smooth and positive during the reconnaissance, approach, hovering, landing, and takeoff. Thoroughly aware of the power requirements/limitations. Proper consideration and use of the terrain features and wind conditions. Displayed the proper consideration of the AIE device length versus the altitude of deployment. Minor drift tendencies were promptly corrected. Good situational awareness. Acknowledged and responded to crew input for changes to location, altitude. Responded to emergencies appropriately. If acting as the non-flying pilot closely monitored and called out aircraft systems/instruments and aircraft flight path/position. Provided clear, concise and positive direction to the pilot flying during reconnaissance, approaches, hovering, and departures. Assisted the pilot flying as briefed/required. While in the hover maintained the following tolerances:
  - 2.7.12.1.1. Hover Altitude. +/- 10 feet from desired/briefed.
  - 2.7.12.1.2. Heading. +/- 10 degrees from briefed/desired.

- 2.7.12.2. **Q-.** Minor deviations from Q criteria which did not affect safety/mission accomplishment. Drifting during the hover did not jeopardize safety, but prevented the operation from being promptly accomplished. Slow to acknowledge and/or respond to crew input for changes to location, altitude. Slow but safe/appropriate response to emergencies. While in the hover maintained the following tolerances:
  - 2.7.12.2.1. Hover Altitude. +/- 20 feet from desired/briefed.
  - 2.7.12.2.2. Heading. +/- 20 degrees from briefed/desired.
- 2.7.12.3. **U.** Major deviations to the procedures outlined in the flight manual and other published directives. Errors or omissions precluded safe and effective mission/maneuver accomplishment. Aircraft control was erratic/unsafe. Failed to consider power requirements/limitations, device length versus deployment altitude, use of terrain features and wind conditions. Poor situational awareness. Failed to acknowledge and respond to crew input for changes to location, altitude. Failed to respond to emergencies appropriately. If acting as the non-flying pilot, failed to monitor and call out aircraft systems/instruments and/or aircraft flight path/position. Did not assist the pilot flying as briefed/required. Exceeded the parameters of  $\bf Q$ -.

#### 2.7.13. Area 49 — Search Procedures.

- 2.7.13.1. **Q.** Thorough knowledge of search procedures. Selected and applied the best search pattern/plan considering the objective, terrain, weather, and the overall scenario. Knowledgeable of scanning techniques and the content of appropriate briefing guides.
- 2.7.13.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment. Minor deviations to procedures and limitations outlined in the flight manual and published directives. Knowledge of search patterns, scanning, and procedures indicated the need for additional study in certain areas.
- 2.7.13.3. **U.** Major deviations from Q criteria. Major deviations from procedures and limitations outlined in the flight manual and published directives. Errors or omissions precluded safe and effective mission/maneuver accomplishment. Unacceptable level of knowledge in search patterns, procedures, or scanning techniques. Selection of the pattern was unsuitable for scenario. Applied incorrect search procedures to a scenario. Mission effectiveness or flight safety compromised.

#### 2.7.14. Area 50 — Divert Procedures.

- 2.7.14.1. **Q.** Performed divert procedures as outlined in published directives. Used available resources to manage workload. Familiar with and able to effectively use available aircraft navigational systems. Correctly analyzed and determined if mission could be accomplished. Asked for/provided clarification when necessary. Accomplished procedures without undue delay. Performed procedures within the following tolerances:
  - 2.7.14.1.1. Heading. +/- 10 degrees.
  - 2.7.14.1.2. Estimated time enroute (ETE). +/- 2 min.
  - 2.7.14.1.3. ETE from diversion point to nearest recovery base. +/- 2 min.
  - 2.7.14.1.4. Fuel requirements. +/- 100 lbs.

- 2.7.14.1.5. Payload capability at arrival/destination point. +/- 100 lbs.
- 2.7.14.1.6. Loiter time. +/- 10 min.
- 2.7.14.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment. Minor deviations to procedures and limitations outlined in the flight manual and published directives. Performed procedures within the following tolerance:
  - 2.7.14.2.1. Heading. +/- 15 degrees.
  - 2.7.14.2.2. Estimated time enroute (ETE). +/- 5 min.
  - 2.7.14.2.3. ETE from diversion point to nearest recovery base. +/- 5 min.
  - 2.7.14.2.4. Fuel requirements. +/- 200 lbs.
  - 2.7.14.2.5. Payload capability at arrival/destination point. +/- 200 lbs.
  - 2.7.14.2.6. Loiter time. +/- 20 min.
- 2.7.14.3. **U.** Major deviations from Q criteria. Major deviations to the procedures and limitations outlined in the flight manual and published directives. Errors or omissions precluded safe and effective mission/maneuver accomplishment. Unable to effectively use available aircraft navigational systems. Failed to use available resources to manage workload. Did not determine mission could be accomplished.

#### 2.7.15. Area 51 — Threat Avoidance/Tactics/Countermeasures.

- 2.7.15.1. **Q.** Used proper AFTTPs to limit aircraft susceptibility or highlighting to threats. Threat reactions were timely and in accordance with AFTTP 3-1.H-1. Performed maneuvers to counter specific threats. Familiar with visual threat indications.
- 2.7.15.2. **Q-.** Limited use of AFTTP guidance. Threat reactions were slow or inconsistent with AFTTP 3-1.H-1. Slow to perform maneuvers to counter specific threats. Limited knowledge of visual threat indications.
- 2.7.15.3. **U.** Failed to use AFTTP or take the appropriate evasive action and/or activate the appropriate countermeasures to specific threats. Exceeded the aircraft limitations/deviated from required altitude during evasive maneuvering. Improper threat call and/or clearing/scanning procedures. Flew back through the threat area after completion of the evasive maneuver.

#### 2.7.16. Area 52 — Cargo Sling.

- 2.7.16.1. **Q.** Familiar and complied with procedures and operations IAW flight manual, AFTTP and other directives. Properly briefed and executed hookup, flight and release procedures. Smooth, precise and controlled aircraft movement. Knowledgeable of power requirements and aware of safety concerns.
- 2.7.16.2. **Q-.** Minor deviations from Q criteria. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness.
- 2.7.16.3. **U.** Unfamiliar with procedures, directives, or operations. Improperly briefed or executed hookup, flight, or release procedures. Aircraft control was erratic or unsafe. Inadequate knowledge of power requirements. Allowed load to come in contact with the

ground on the approach. Errors or omissions precluded safe and effective mission/maneuver accomplishment.

#### 2.7.17. Area 53 — Fire Bucket.

- 2.7.17.1. **Q.** Familiar and complied with procedures and operations per flight manual, AFTTPs and other directives. Properly briefed and executed hookup, flight, and water release procedures. Smooth, precise and controlled aircraft movement. Knowledgeable of power requirements and aware of safety concerns.
- 2.7.17.2. **Q-.** Minor deviations from Q criteria. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness.
- 2.7.17.3. **U.** Unfamiliar with procedures, directives, or operations. Improperly briefed or executed hookup, flight, or release procedures. Aircraft control was erratic or unsafe. Inadequate knowledge of power requirements. Allowed load to come in contact with the ground on the approach. Errors or omissions precluded safe and effective mission/maneuver accomplishment.

# 2.7.18. Area 54 — Water Operations.

- 2.7.18.1. **Q.** Performance was per procedures outlined in the flight manual and other published directives. Aircraft control was smooth and positive during the pattern/approach/hover/takeoff. Minimal drift during the hover. Thoroughly aware of power requirements/limitations. Proper consideration of the wind/sea conditions and saltwater degradation. Closely monitored aircraft systems/instruments and aircraft flight path/position. As the non-flying pilot, identified, verbalized, and corrected unplanned aircraft descents in the pattern/hover. Assisted the pilot flying as briefed/required.
  - 2.7.18.1.1. Downwind Altitude. +/- 25 feet from desired (100 feet AWL minimum).
  - 2.7.18.1.2. Airspeed. +/- 10 KIAS from desired (50 KIAS minimum).
  - 2.7.18.1.3. Hover Altitude. +/- 5 feet from desired.
- 2.7.18.2. **Q-.** Minor deviations from Q criteria which did not affect safety, aircraft limitations or mission effectiveness.
  - 2.7.18.2.1. Downwind Altitude. +/- 50 feet from desired (100 AWL minimum).
  - 2.7.18.2.2. Airspeed. +/- 15 KIAS from desired (50 KIAS minimum).
  - 2.7.18.2.3. Hover Altitude. +/- 10 feet from desired (-5/+10 feet for a low & slow).
- 2.7.18.3. **U.** Major deviations to the procedures outlined in the flight manual, operational manual, and/or other published directives. Aircraft control was erratic/unsafe. Failed to consider the power requirements/limitations and wind conditions. Failed to monitor aircraft systems/instruments and/or aircraft flight path/position. Failed to identify, verbalize, and correct for unplanned aircraft descents in the pattern/hover. As the non-flying pilot, did not assist the pilot flying as briefed/required.

## 2.7.19. Area 55 — Parachute Operations.

2.7.19.1. **Q.** Properly briefed and executed parachute operations per applicable directives. Selected proper altitude, covered all elements of applicable briefs and made proper CRM

- calls. Was able to maintain desired altitude +/- 100 feet and airspeed +/- 10 knots only deviating momentarily for winds, turbulence, or obstacles. Was able to hold briefed headings +/- 10 degrees deviating momentarily for winds, turbulence, or obstacles.
- 2.7.19.2. **Q-.** Briefed and executed parachute operations per applicable publications and directives. Selected a safe altitude, covered most elements of applicable briefs and made proper CRM calls. Was able to maintain desired altitude +/- 200 feet and airspeed +/- 20 knots only deviating for winds, turbulence, or obstacles. Was able to hold briefed headings +/- 20 degrees deviating for winds, turbulence, or obstacles.
- 2.7.19.3. **U.** Did not brief or safely execute parachute operations per applicable publications and directives. Selected inappropriate altitude and did not brief any elements of applicable briefs. Was not able to maintain desired altitude +/- 200 feet and airspeed +/- 20 knots with erratic and excessive control inputs. Was not able to hold briefed headings +/- 20 degrees with erratic and excessive control inputs.

## 2.7.20. Area 56 — Weapons Employment.

- 2.7.20.1. **Q.** Properly briefed and executed aerial gunnery procedures per AFTTPs, local directives, and other applicable publications. Selected a proper pattern for the scenario/profile, covered all elements in brief, and made proper CRM calls. Was able to maintain desired altitude or starting and stopping altitude (diving fire) +/- 50 feet and airspeed +/- 10 knots only deviating momentarily for wind, terrain, turbulence, or obstacles. Was able to hold briefed or corrected firing line heading +/-10 degrees deviating momentarily for wind, terrain, turbulence or obstacles. When applicable, was able to properly relay fire mission brief with actual or simulated ground party in a timely manner. Was able to locate targets in a timely manner. Able to maintain situational awareness of wingman or other friendly forces during engagement.
- 2.7.20.2. **Q-.** Briefed and executed aerial gunnery procedures per AFTTPs, local directives, and other applicable publications. Selected a pattern that could safely deliver fire for the scenario/profile but may not have maximized effectiveness for weapon delivery. Was able to maintain desired altitude or starting and stopping altitude (diving fire) +/- 100 feet and airspeed +/- 20 knots only deviating momentarily for wind, terrain, turbulence, or obstacles. Was able to hold briefed or corrected firing line heading +/-20 degrees deviating momentarily for wind, terrain, turbulence or obstacles. Was able to relay integrated fire mission brief with an actual or simulated ground party in a timely manner, with minor deviations. Was able to locate targets. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness.
- 2.7.20.3. **U.** Did not brief and could not safely execute aerial gunnery procedures per AFTTPs, local directives, and other applicable publications. Selected a pattern that could not deliver fire in a safe or effective manner. Was erratic on controls and could not maintain desired altitude or starting and stopping altitude (diving fire) greater than +/- 100 feet. Was erratic with pitch and power and could not maintain airspeed +/- 20 knots. Was unable to hold briefed or corrected firing line heading +/-20 degrees. Did not relay integrated fire mission brief with an actual or simulated ground party in a timely manner. Was unable to locate targets. Lost situational awareness of wingman or other friendly forces during engagement, creating a hazardous situation.

## Chapter 3

#### FLIGHT ENGINEER (FE) EVALUATIONS

- **3.1. Crew Positions.** Evaluation standards are administered in accordance with the individual's crew position as listed below:
  - 3.1.1. Basic aircraft qualified (BAQ) flight engineers (FF)/mission flight engineers (MF) will be evaluated to the standards outlined in **Table 3.1**. (**T-2**)
  - 3.1.2. Flight examiners will evaluate instructor flight engineers (IF) to the standards outlined in **Table 3.1** and **Table 4.1**. (**T-2**)

## 3.2. Evaluation Requirements.

## 3.2.1. Qualification (QUAL).

3.2.1.1. Flight examiners will use **Table 3.1** for required QUAL evaluation areas. (**T-2**)

#### 3.2.2. **Mission (MSN).**

- 3.2.2.1. Flight examiners will use **Table 3.1** for required MSN evaluation areas. (**T-2**)
- 3.2.2.2. Mission evaluations may be conducted concurrently with qualification evaluations as long as the required items in **Table 3.1** are completed. If the evaluations are conducted independently, examinees must accomplish all applicable ground requisites for each evaluation and the results be annotated in the ground phase section of the **AF Form 8.** (**T-2**)
- 3.2.2.3. Profile. Flight examiners should use scenarios that represent the unit's DOC tasking structured to evaluate the examinees qualifications and certifications listed in AFMAN 11-2UH-1NV1 as well as allowing the examinee to demonstrate decision making and airmanship in an operational environment. For initial/requalification mission evaluations, flight examiners will evaluate every mission event in **Table 3.1** unless waived by the respective MAJCOM/A3. (**T-2**) Certifications are not considered required mission events.

#### 3.2.3. AIE Evaluation Requirements.

3.2.3.1. Flight examiners will evaluate AIE operations using actual equipment (hoist, fast rope, rappel, rope ladder). Annotate all live AIE events on AF Form 8, Section IV., Examiner's Remarks, A. Mission Description, if accomplished on an evaluation. (**T-3**)

## 3.2.4. Weapons Employment Requirements.

3.2.4.1. During periodic evaluations, flight engineers are required to demonstrate weapons preflight and emergency procedures using an actual weapon or certified aircrew training device. (**T-2**)

Table 3.1. Flight Engineer QUAL/MSN Event Requirements Table.

AREA	GRADING AREA	QUAL	MSN
	GENERAL PHASE		
70	Knowledge of Directives and Forms	R	R

71	Boldface Emergencies (CRITICAL)	R	О
72	Publications Check	R	0
73	Life Support Systems/Egress	R	R
74	Flight Planning	R	R
75	Weight and Balance/Takeoff and Landing Data (W&B/TOLD)	R	R
76	Briefings/Debriefings	R	R
77	Safety/Judgment (CRITICAL)	R	R
78	Aircrew Discipline (CRITICAL)	R	R
79	Airmanship/Situational Awareness (CRITICAL)	R	R
80	Preflight/Aircraft Run-Up	R	R
81	Use of Checklists	R	R
82	Systems Knowledge	R	R
83	Crew Coordination	R	R
84	Risk Management/Decision Making	R	R
85	Task Management	R	R
86	Communication Procedures	R	R
87	Cabin Configuration/Loading and Tiedown	R	R
88	Scanning/Clearing	R	R
89	After Landing and Post Flight Responsibilities	R	R
<del></del>	QUALIFICATION PHASE		
90	Hover/Taxi Maneuvers	R	
91	Takeoff (Normal, Marginal Power, Maximum Performance, )	R	
0.2	Approaches/Landings (Base and Final Approach)/(Normal,		
92	Shallow, Steep, Slide Landing)	R	
93	Single Hydraulic Failure	R	
94	Manual Fuel	R	
95	Single Engine Failure	R	
96	Autorotations		
96a	Straight Ahead	R	
96b	Turning	R	
	MISSION PHASE		
97	Mission Planning		R
98	Mission Execution		R
99	Terrain/Flight Navigation		R
100	Terminal Area Operations		R
101	Formation		1
102	NVG Usage/Limitations		1, 2
103	Classified/Sensitive Material/Operations Security		О
104	AIE Operations		О
105	Search Procedures		О
106	Divert Procedures		О
107	Threat Identification/Countermeasure Procedures		3
108	Cargo Sling		0

109	Fire Bucket	О
110	Water Operations	О
111	Weapons Employment	O

#### **NOTES:**

- R—Required
- O-Optional
- 1. Required for INIT and RQ MSN evaluations. (T-2)
- 2. Required for evaluations including NVG mission event. (T-2)
- 3. Required for AFGSC and AFDW periodic an in-unit RQ MSN evaluations. (T-2)
- **3.3. Flight Evaluation Criteria.** This section contains evaluation criteria for conducting flight engineer flight evaluations.

#### 3.4. General Phase.

## 3.4.1. Area 70 — Knowledge of Directives and Forms.

- 3.4.1.1. **Q.** Prepared and completed mission in compliance with existing instructions and directives. Knowledgeable of all applicable directives, both HHQ and local. Demonstrated knowledge and location of operating procedures/restrictions within governing publications. All required forms and/or flight plans were complete, accurate, readable, and accomplished on time IAW applicable directives. Relayed an accurate debrief of significant events to applicable agencies (Intel, Maintenance, etc.).
- 3.4.1.2. **Q-.** Knowledge of capabilities, approved operating procedures, and rules was marginal in some areas but did not impact safe/effective mission accomplishment. Unsure of directives and/or had difficulty locating information in appropriate publications. Minor errors on forms and/or flight plans that did not affect conduct of the flight/mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- 3.4.1.3. **U.** Unaware of procedures and/or could not locate them in the appropriate publication in a timely manner. Failed to comply with a procedure that could have jeopardized safety or mission success. Unaware of the need to accomplish required forms. Omitted or incorrectly reported significant information due to major errors or omissions.
- 3.4.2. **Area 71 Boldface Emergencies (CRITICAL). Note:** may be evaluated in flight, simulator or in a static aircraft.
  - 3.4.2.1. **Q.** Correct and timely response. Satisfactory performance of the corrective action. The examinee pointed without hesitation to, and knew the function of, all switches and controls required for all critical action emergency procedures for his/her crew position.
  - 3.4.2.2. **U.** Incorrect sequence, unsatisfactory/untimely response, or unsatisfactory performance of the corrective action. The examinee could not, without hesitation, identify or explain the function of all switches and controls required for all critical action emergency procedures for his/her crew position.
- 3.4.3. **Area 72** —**Publications Check.** Conduct a thorough review of paper or electronic publications required by **Chapter 1**, AFMAN 11-2UH-1NV3, and local directives.

- 3.4.3.1. **Q.** Publications were current, contain all supplements/changes, and were properly posted.
- 3.4.3.2. **Q-.** Publications contained deficiencies that would not impact flight safety or mission accomplishment.
- 3.4.3.3. **U.** Publications were outdated and/or contained deficiencies that would impact flight safety or mission accomplishment.

## 3.4.4. Area 73 — Life Support Systems/Egress.

- 3.4.4.1. **Q.** Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated and emphasized the proper operating procedures used to operate aircraft egress devices such as doors, windows, hatches, life rafts, etc.
- 3.4.4.2. **Q-.** Limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
- 3.4.4.3. **U.** Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unsatisfactory knowledge of aircraft egress procedures.

## 3.4.5. Area 74 — Flight Planning.

- 3.4.5.1. **Q.** Adequately assisted the pilot in planning the mission. Actively involved in the mission planning process. Checked fuel requirements and aircraft configuration to ensure successful mission accomplishment. When required, extracted necessary information from SPINS/frag. Read and signed off all items in the Flight Crew Information File/read files.
- 3.4.5.2. **Q-.** Provided marginal assistance in the mission planning process. Minor errors or omissions detracted from mission effectiveness, but did not affect mission accomplishment.
- 3.4.5.3. **U.** Did not assist the pilot in mission planning. Not actively involved in the planning process. Did not verify fuel requirements and aircraft configuration which prevented a safe or effective mission. Did not read or sign off the Flight Crew Information File/read file.

#### 3.4.6. Area 75 — Weight and Balance/Takeoff and Landing Data (W&B/TOLD).

- 3.4.6.1. **Q.** Correctly computed W&B/TOLD using applicable performance charts with corrections for existing field conditions. Was fully knowledgeable of W&B/TOLD calculations. Computed W&B/TOLD within the following specified tolerances in a timely manner.
  - 3.4.6.1.1. W&B Criteria.
    - 3.4.6.1.1.1. Gross Weights. +/- 100 lbs.
    - 3.4.6.1.1.2. Center of Gravity. +/- 0.1 inches.
  - 3.4.6.1.2. TOLD Criteria.
    - 3.4.6.1.2.1. Power Available. +/- 2 percent.
    - 3.4.6.1.2.2. Power Required. +/- 2 percent.

- 3.4.6.1.2.3. Safe Single Engine Airspeeds. +/- 2 knots.
- 3.4.6.1.2.4. Velocity Never Exceed (Vne). +/- 2 knots.
- 3.4.6.2. **Q-.** Minor errors in the appropriate use of W&B publications and performance charts resulting in errors or omissions that could degrade mission effectiveness. Knowledge of weight and balance publications and performance charts were marginal in some areas. Errors or omissions would not have compromised safety of flight. Computed W&B/TOLD within the following specified tolerances
  - 3.4.6.2.1. W&B Criteria.
    - 3.4.6.2.1.1. Takeoff or Landing Gross Weights. > 100 lbs but < 200 lbs.
    - 3.4.6.2.1.2. Center of Gravity. > 0.1 but < 0.4 inches.
  - 3.4.6.2.2. TOLD Criteria.
    - 3.4.6.2.2.1. Power Available. > 2 percent but < 5 percent.
    - 3.4.6.2.2.2. Power Required. > 2 percent but < 5 percent.
    - 3.4.6.2.2.3. Safe Single Engine Airspeeds. > 2 but < 5 knots.
    - 3.4.6.2.2.4. Velocity Never Exceed (Vne). > 2 but < 5 knots.
- 3.4.6.3. **U.** Major errors or omissions that would preclude safe and effective mission accomplishment. Failed to compute W&B/TOLD data. Errors caused W&B/TOLD calculations to exceed Q- criteria. Limited knowledge of W&B/TOLD calculations.

# 3.4.7. Area 76 — Briefings/Debriefings.

- 3.4.7.1. **Q.** Prepared and in seat at briefing time. W&B/TOLD briefed in a logical, professional and organized sequence. Effectively completed crewmember specific briefing (i.e., AIE Briefing) in an organized and professional manner. Provided specific, non-threatening positive and negative feedback of crew and individual performance. Provided specific alternatives to correct errors. Asked for inputs from others. Recapitulated key points and compared mission results with mission objectives.
- 3.4.7.2. **Q-.** Omitted items pertinent but not critical to the mission. Some difficulty communicating clearly. Dwelled on non-essential items. Not fully prepared for briefing. Incomplete or inadequate recapitulation of key points and comparison of mission results to mission objectives.
- 3.4.7.3. **U.** Failed to conduct/attend required briefings. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of knowledge of subject. Briefing was poorly organized and not presented in a logical sequence. Presentation created doubts or confusion. Did not provide non-threatening positive and negative feedback during debriefing. Did not seek input from others. Did not recapitulate key mission points nor compare mission results to mission objectives.

# 3.4.8. Area 77 — Safety/Judgment (CRITICAL).

3.4.8.1. **Q.** Recognized factors affecting safety of flight. Assessed available options and selected a suitable course of action based on reasonable risk assessment. Was aware of, and complied with, all safety factors required for safe aircraft/equipment operation and

mission accomplishment. Identified and assessed risk appropriately. Properly considered consequences of decisions. Assessed all aspects of the situation and took appropriate course of action consistent with prudence, common sense, integrity, mission priority, and safe and effective mission accomplishment.

3.4.8.2. **U.** Not aware of, or did not comply with, all safety factors required for safe aircraft/equipment operation or mission accomplishment. Failed to properly identify and assess risk. A clear lack of judgment hampered or precluded mission accomplishment. Did not adequately clear the aircraft. Allowed aircraft to be operated in a dangerous manner subjecting crew/aircraft to increased risk. Allowed a dangerous situation to develop without taking proper corrective action. Failed to consider consequences of decisions. Untimely or inappropriate decision led to inappropriate response to the situation or compromised integrity, safety, or degraded or prevented effective mission accomplishment.

## 3.4.9. Area 78 — Aircrew Discipline (CRITICAL).

- 3.4.9.1. **Q.** Demonstrated strict, professional aircrew discipline throughout all phases of the mission. Coordinated and communicated effectively with other crewmember(s). Provided required direction/information. Correctly adapted to meet new situational demands.
- 3.4.9.2. **U.** Failed to exhibit strict aircrew discipline. Violated or ignored rules or regulations. Did not provide direction/information when needed. Did not correctly adapt to meet new situational demands. Improperly or ineffectively coordinated or communicated with the other crewmembers causing delays or confusion which did, or could have, adversely affected safety or mission accomplishment.

# 3.4.10. Area 79 — Airmanship/Situational Awareness (CRITICAL).

- 3.4.10.1. **Q.** Executed the assigned mission in a timely, efficient manner. Anticipated situations that would have adversely affected the mission, and corrected them. Made appropriate decisions based on available information. Recognized the need for action. Maintained continuous perception of self and aircraft in relation to the dynamic environment of flight, threats, and mission. Demonstrated the ability to forecast, and then execute tasks based on that perception. Demonstrated knowledge and skills to prevent the loss of situational awareness, recognize the loss of situational awareness, and when necessary, demonstrated techniques for recovering from the loss of situational awareness.
- 3.4.10.2. **U.** Decisions, or lack thereof, caused failure to accomplish assigned mission. Did not recognize the need for action. Not aware of performance of self and other flight members. Not aware of on-going mission status. Failed to recognize, verbalize and act on unexpected events. Unaware of or unresponsive to factors affecting mission accomplishment, safety, crewmembers, or aircraft.

## 3.4.11. Area 80 — Preflight/Aircraft Run-Up.

3.4.11.1. **Q.** Completed systems preflight/inspections per tech orders, checklists, and instructions. Ensured aircraft was correctly configured for assigned mission and was fully aware of aircraft readiness for flight. Appropriate checklists and/or T.O.s were available for reference. Individual technique complied with established procedures. Ensured all

required personal and mission equipment was available. Thorough understanding of the information contained in aircraft/equipment forms and correctly determined aircraft/equipment status. Established and adhered to station, engine start, and taxi times. Accomplished engine start procedures, including all required checks, IAW the flight manual, checklist, and applicable directives. Correctly configured the cabin area for flight and coordinated with ground support personnel. Familiar with required responses to abnormal or emergency situations.

- 3.4.11.2. **Q-.** Minor deviations from established systems preflight/inspection. Individual technique was safe, but detracted from established procedures. Used individual technique instead of established procedure and was unaware of differences. Did not compromise safety, aircraft limitations, or mission effectiveness.
- 3.4.11.3. **U.** Did not use the checklist or omitted major item(s). Failed to preflight critical component or could not conduct a satisfactory preflight/inspection. Individual techniques unsafe and/or in violation of established procedures. Incorrect or unfamiliar with startup procedures or checks. Failed to accurately determine proper configuration or readiness of aircraft for flight. Did not respond properly to abnormal or emergency situations. Errors or omissions precluded safe and effective mission accomplishment.

#### 3.4.12. Area 81 — Use of Checklist.

- 3.4.12.1. **Q.** Effectively referenced and completed appropriate checklists with accurate and timely responses, accomplished appropriate actions at the appropriate time throughout the mission. Familiar with checklists and contents.
- 3.4.12.2. **Q-.** Used the appropriate checklist, but responses were untimely and/or crewmember required continual prompting for correct responses/action. Did not compromise safety, aircraft limitations, or mission effectiveness.
- 3.4.12.3. **U.** Failed to use the proper checklist or consistently omitted checklist items. Lacked acceptable familiarity with contents. Omitted or did not complete checklist(s) at the appropriate time which compromised safety and/or exceeded aircraft limitations.

#### 3.4.13. Area 82 — Systems Knowledge.

- 3.4.13.1. **Q.** Demonstrated a complete knowledge of aircraft systems and operating limitations both with and without reference to the flight manual and/or available aids.
- 3.4.13.2. **Q-.** Limited knowledge of aircraft systems operations and limitations in some areas. Used individual technique instead of procedures and was unaware of differences.
- 3.4.13.3. **U.** Unsatisfactory systems knowledge. Failed to demonstrate or explain the procedures for aircraft systems operations with or without reference to the flight manual and/or available aids.

## 3.4.14. Area 83 — Crew Coordination.

3.4.14.1. **Q.** Effectively coordinated with other crewmembers during all phases of the mission. Crewmember identified, planned, and executed alternate mission activity in response to inflight contingencies in a timely manner. Actively sought other crewmembers' opinions and ideas. Recognized and requested assistance when task saturated. Crewmember properly prioritized multiple tasks and effectively used available resources,

ensuring smooth mission execution. Provided clear and concise direction using standard terminology for motion and direction consistent with AFTTP 3-3.H-1 procedures.

- 3.4.14.2. **Q-.** Coordinated with other crewmembers with minor exceptions. Crew communications was not clear or concise. Coordination was lacking with other crewmembers to the extent that minor deviations or omissions caused delays, confusion, degraded crew situational awareness. Crewmember was slow to identify, plan, or execute alternate mission activities in response to contingencies. Marginal task prioritization and inefficient use of available resources resulted in less than optimum mission execution. Slow to recognize and request assistance when task saturated. Provided direction using not standard terminology for motion and direction consistent with the AFTTP 3-3.H-1.
- 3.4.14.3. **U.** Major deviations from Q criteria. Breakdown in coordination with other crewmembers precluded mission accomplishment and/or jeopardized safety. Crew coordination was lacking to the extent that mission accomplishment was severely degraded. Created confusion or delays that could have endangered the aircraft or prevented mission completion. Failed to prioritize multiple tasks and did not use available resources at his/her disposal to manage workload. Provided direction that was neither clear nor concise, and did not use standard terminology for motion and direction consistent with the AFTTP 3-3.H-1.

# 3.4.15. Area 84 — Risk Management/Decision Making.

- 3.4.15.1. **Q.** Identified contingencies and alternatives. Gathered and cross-checked relevant data before deciding. Clearly stated problems and proposed solutions. Investigated doubts and concerns of crewmembers. Used facts to come up with solution. Involved and informed necessary crewmembers when appropriate. Coordinated mission crew activities to establish proper balance between command authority and crewmember participation, and acted decisively when the situation required. Clearly stated decisions, received acknowledgement, and provided rationale for decisions.
- 3.4.15.2. **Q-.** Partially identified contingencies and alternatives. Made little effort to gather and cross-check relevant data before deciding. Did not clearly state problems and propose solutions. Did not consistently use facts to come up with solutions. Did not effectively inform crewmembers when appropriate. Did not effectively coordinate mission crew activities to establish a proper balance between command authority and crewmember participation, and acted indecisively at times.
- 3.4.15.3. **U.** Failed to identify contingencies and alternatives. Made no effort to gather and cross- check relevant data before deciding. Did not inform necessary crewmembers when appropriate. Did not use facts to come up with solution. Avoided or delayed necessary decisions which jeopardized mission effectiveness. Did not coordinate mission crew activities to establish proper balance between command authority and crewmember participation; acted indecisively.

## 3.4.16. Area 85 — Task Management.

3.4.16.1. **Q.** Correctly prioritized tasks. Used available resources to manage workload. Asked for assistance when overloaded. Clearly stated problems and proposed solutions. Accepted better ideas when offered. Used facts to come up with solution. Clearly communicated and acknowledged workload and task distribution. Demonstrated a high

- level of vigilance in both low/high workload conditions. Prepared for expected or contingency situations. Avoided the creation of self-imposed workload/stress. Recognized and reported work overloads in self and others.
- 3.4.16.2. **Q-.** Did not consistently and correctly prioritize tasks. Did not effectively use available resources to manage workload. Did not clearly communicate and acknowledge workload and task distribution. Did not consistently demonstrate high level of vigilance in both low and high workload conditions. Slow to prepare for expected or contingency situations. Created some self-imposed workload/stress due to lack of planning that degraded mission effectiveness. Slow to recognize and report work overloads in self and others.
- 3.4.16.3. **U.** Failed to correctly prioritize tasks. Did not use available resources to manage workload. Did not communicate and acknowledge workload and task distribution. Did not demonstrate a high level of vigilance in both low/high workload conditions. Extremely slow to prepare for expected or contingency situations. Created excessive self-imposed workload/stress due to lack of planning that jeopardized safety of flight or caused mission failure. Failed to recognize and report work overloads in self and others.

#### 3.4.17. Area 86 — Communication Procedures.

- 3.4.17.1. **Q.** Fully knowledgeable of communications procedures. Communicated using precise, standard terminology. Acknowledged all communications. Asked for/provided clarification when necessary. Stated opinions/ideas. Asked questions when uncertain. Advocated specific courses of action. Had knowledge of common errors, cultural influences, and barriers (rank, age, experience and position). Demonstrated effective listening, feedback, precision and efficiency of communication with all members and agencies (i.e., crewmembers, wingmen, etc.).
- 3.4.17.2. **Q-.** Unclear or incomplete communication led to repetition or misunderstanding. Slow to ask for or give constructive feedback/clarifications. Inconsistent use of precise, standard terminology. Did not always state opinions/ideas, ask questions when uncertain or make positive statements to crewmembers. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness.
- 3.4.17.3. **U.** Failed to communicate effectively. Continuously interrupted others, mumbled, and/or conduct/attitude was detrimental to communication among crewmembers. Withheld information and failed to ask for/respond to constructive criticism. Failed to use precise, standard terminology. Repeatedly failed to acknowledge communications. Did not state opinions/ask questions when unsure, or attempt to motivate crewmembers using positive statements. Errors or omissions precluded safe and effective mission accomplishment. Improperly or ineffectively communicated or coordinated with all members and agencies (i.e., crewmembers, wingmen, etc.). Did not consider other crewmember's inputs.

#### 3.4.18. Area 87 — Cabin Configuration/Loading and Tiedown.

3.4.18.1. **Q.** Ensured the cabin was properly configured to accommodate mission requirements. Familiar with various configurations as outlined in applicable directives and properly stowed configuration items that were not used. Made sure all cargo items were

- preflighted, loaded properly, and secured per the cargo loading procedures. Correctly briefed and performed passenger handling duties.
- 3.4.18.2. **Q-.** Difficulty configuring the aircraft but did not impede mission. Limited knowledge of various configurations as outlined in applicable directives, and stowed unused items with minor errors. Made sure all cargo items were preflighted, loaded properly, and secured in accordance with the cargo loading manual with minor errors and deviations from Q criteria. Correctly briefed and performed passenger handling duties with minor errors and deviations from Q criteria.
- 3.4.18.3. **U.** Failed to ensure proper aircraft configuration or caused mission delays. Unsatisfactory knowledge of configurations and failed to properly stow configuration items that were not used. Incorrectly loaded and secured cargo items. Failed to brief and/or did not perform proper passenger handling procedures.

# 3.4.19. Area 88 — Scanning/Clearing.

- 3.4.19.1. **Q.** Provided clear, concise and positive direction to the crew during flight, reconnaissance, approaches, landing, and departures. Ensured aircraft clearance from obstacles.
- 3.4.19.2. **Q-.** Minor deviations from Q criteria. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness.
- 3.4.19.3. **U.** Major deviations from Q criteria. Did not provide sufficient direction or directions were not clear, concise and positive. Affected safe, effective mission accomplishment. Did not assure adequate clearance from obstacles

# 3.4.20. Area 89 — After Landing and Post Flight Responsibilities.

- 3.4.20.1. **Q.** Performed proper aircraft and equipment post flight and/or reconfiguration. Correctly determined the condition and status of the aircraft after shutdown. Completed all applicable aircraft forms correctly and briefed maintenance personnel as required.
- 3.4.20.2. **Q-.** Minor deviations from Q criteria that did not compromise safety or mission effectiveness.
- 3.4.20.3. **U.** Incorrect or unfamiliar with shutdown procedures or checks. Failed to perform the aircraft and equipment post flight and/or reconfiguration. Did not respond properly to abnormal or emergency situations. Unaware of the need to accomplish required aircraft forms or brief maintenance personnel as required.

#### 3.5. Qualification Phase:

#### 3.5.1. Area 90 — Hover/Taxi Maneuvers.

- 3.5.1.1. **Q.** Provided pilot flying with drift/altitude deviation calls. Provided proper drift correction instructions. Used standard/correct terminology. Cleared the aircraft.
- 3.5.1.2. Q-. Minor deviations from Q criteria which did not affect safe movement of aircraft.
- 3.5.1.3. **U.** Did not provide drift/altitude deviation calls. Failed to provide correct drift correction instructions. Did not use standard terminology resulting in confusion. Failed to clear the aircraft.

## 3.5.2. Area 91 — Takeoff (Normal, Marginal Power, Maximum Performance).

- 3.5.2.1. **Q.** Accomplished all required checklists. Monitored aircraft systems/instruments and fuel status. Cleared the aircraft.
- 3.5.2.2. **Q-.** Minor deviations from Q criteria which did not degrade safe/effective mission accomplishment.
- 3.5.2.3. **U.** Major deviations which affected safe/effective mission accomplishment. Failed to monitor aircraft systems/instruments and fuel status. Failed to complete checklists. Did not clear the aircraft. Failed to recall briefed abort, power and airspeed parameters.

# 3.5.3. Area 92 — Approaches/Landings (Base and Final Approach)/(Normal, Shallow, Steep, Slide Landing).

- 3.5.3.1. **Q.** Accomplished all required checklists. Monitored aircraft systems/instruments and fuel status. Cleared the aircraft.
- 3.5.3.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment.
- 3.5.3.3. **U.** Major deviations which affected safe/effective mission accomplishment. Failed to monitor aircraft systems/instruments and fuel status. Failed to complete checklists. Did not clear the aircraft. Failed to recall go-around options, power and airspeed parameters. Failed to call go-around when warranted.

## 3.5.4. Area 93 — Single Hydraulic Failure.

- 3.5.4.1. **Q.** Completed the required checklists correctly and assisted the pilot as briefed/required. Pattern, approach and landing accomplished per the procedures outlined in the flight manual and other published directives. Correctly briefed the crew on restrictions/limitations. Monitored systems/instruments and effectively incorporated scan during the approach.
- 3.5.4.2. **Q-.** Minor deviations from Q criteria which did not compromise safety, aircraft limitations, or maneuver effectiveness. Had difficulty or slow to recall maneuver parameters and/or provide input during deviations.
- 3.5.4.3. **U.** Failed to complete the checklists correctly or did not assist the pilot as briefed/ required. Displayed limited to no knowledge of maneuver parameters. Major deviations to the procedures outlined in the flight manual and other published directives. Did not brief the crew on restrictions/limitations and/or provide inputs to deviations to maneuver parameters. Failed to monitor systems, instruments, or provide inputs during deviations and did not effectively incorporate scan during the approach.

## 3.5.5. **Area 94** — **Manual Fuel.**

3.5.5.1. **Q.** Completed all required checklists correctly and assisted the pilot. Knowledgeable of maneuver parameters and provided input to correct deviations in a timely manner. Gave clear/concise indications when engine torque needles were married, split, or swapped. Correctly briefed the crew on restrictions/limitations. Monitored systems/instruments and effectively incorporated scan during the approach.

- 3.5.5.2. **Q-.** Minor deviations from Q criteria which did not compromise safety. Had difficulty or slow to recall maneuver parameters and/or provide input during deviations.
- 3.5.5.3. **U.** Failed to complete all require checklists correctly. Did not assist the pilot as briefed/required. Did not give indications of engine torque needles being married, split, or swapped. Did not brief the crew on restrictions/limitations and/or provide inputs to deviations to maneuver parameters. Failed to monitor systems, instruments, or provide inputs during deviations and did not effectively incorporated scan during the approach.

## 3.5.6. Area 95 — Single Engine Failure.

- 3.5.6.1. **Q.** Completed all required checklists and assisted the pilot as briefed/required. Knowledgeable of maneuver parameters and provided input to correct deviations in a timely manner. Gave clear/concise indications of nose alignment, engine power, aircraft parameters and limit calls as requested. Monitored systems/instruments and effectively incorporated scan during the approach. Single engine performance was computed within the following tolerances:
  - 3.5.6.1.1. Single Engine Power Available: +/- 2 percent
- 3.5.6.2. Q Minor deviations from Q criteria which did not compromise safety. Had difficulty or slow to recall maneuver parameters and/or provide input during deviations. Single engine performance was computed within the following tolerances:
  - 3.5.6.2.1. Single Engine Power Available: > 2 percent but < 5 percent.
- 3.5.6.3. U. Failed to complete all required checklist. Did not compute single engine performance. Did not give indications of nose alignment, engine power, aircraft parameters and limits. Single engine performance tolerances exceeded Q- criteria. Did not monitor aircraft systems/instruments or assist the pilot. Did not brief the crew on restrictions/limitations and/or provide inputs to deviations to maneuver parameters.
- 3.5.7. **Area 96 Autorotations.** (**Straight Ahead/Turning**). Use the following criteria for Areas 96a and 96b.
  - 3.5.7.1. **Q.** Monitored aircraft systems/instruments as briefed. Knowledgeable of maneuver parameters and provided input to correct deviations in a timely manner. Gave clear/concise indications of rotor, engine, aircraft parameters, and limits as requested by pilot or per other directives. Effectively incorporated scan during the approach. Understands duties for both training and actual autorotation.
  - 3.5.7.2. **Q-.** Minor deviations from Q criteria which did not compromise safety. Does understand duties with minor deficiencies. Had difficulty or slow to recall maneuver parameters and/or provide input during deviations.
  - 3.5.7.3. **U.** Failed to monitor aircraft systems/instruments as briefed. Did not give indications of rotor, engine, aircraft parameters, and limits as requested by pilot or per other directives. Does not understand duties required during training and real-world autorotation. Did not brief the crew on restrictions/limitations and/or provide inputs to deviations to maneuver parameters. Failed to monitor systems, instruments, or provide inputs during deviations and did not effectively incorporate scan during the approach.

#### 3.6. Mission Phase.

## 3.6.1. Area 97 — Mission Planning.

- 3.6.1.1. **Q.** Actively involved in the mission planning process. Familiar with and able to locate information contained in the appropriate tactical guidance. Assisted the pilot in updating the intelligence situation prior to the briefing.
- 3.6.1.2. **Q-.** Provided marginal assistance in the mission planning process. Limited knowledge of the location of approved tactical guidance.
- 3.6.1.3. **U.** Did not assist the pilot in mission planning. Not actively involved in the planning process. Unfamiliar with the information contained in approved tactical guidance publications. Failed to update the intelligence situation prior to the briefing.

## 3.6.2. Area 98 — Mission Execution.

- 3.6.2.1. **Q.** Effectively performed required duties in support of mission tasks.
- 3.6.2.2. **Q-.** Marginal performance of required duties.
- 3.6.2.3. U. Poor performance of required duties. Unable to accomplish required tasks.

#### 3.6.3. Not Used.

## 3.6.4. Area 99 — Terrain/Flight Navigation.

- 3.6.4.1. **Q.** Maintained positional awareness, terrain clearance, threat awareness/avoidance, Time-on-Targets (TOT), and terminal objective situational awareness by identifying navigational cues. Safely cleared the aircraft.
- 3.6.4.2. **Q-.** Maintained positional awareness, terrain clearance, threat awareness/avoidance, TOT, and terminal objective SA by identifying navigational cues with some deviations. Safely cleared the aircraft.
- 3.6.4.3. **U.** Major navigation deviations which affected safe/effective mission accomplishment. Did not use navigational cues to assist the pilot in navigating. Did not safely clear the aircraft.

#### 3.6.5. Area 100 — Terminal Area Operations.

- 3.6.5.1. **Q.** Satisfactory performance per flight manuals, operating manuals, AFTTPs, and other applicable directives. Provided clear, concise, and positive direction to the pilot during the reconnaissance, approaches, landings, and departure. Ensured aircraft clearance from obstacles. If necessary/required/requested, computed TOLD. Was thoroughly aware of power margin/limitations and the appropriate site training restrictions.
- 3.6.5.2. **Q-.** Minor deviations from Q criteria which did not affect safety/mission accomplishment.
- 3.6.5.3. **U.** Major deviations to the procedures outlined in flight manuals, operating manuals, AFTTPs, and other applicable directives. Failed to compute TOLD if necessary/required/requested or was unaware of the power requirements/limitations and site training restrictions. Failed to provide clear, concise, and positive direction/inputs to the pilot flying. Did not ensure adequate clearance from obstacles.

## 3.6.6. **Area 101**—**Formation.**

- 3.6.6.1. **Q.** Provided timely inputs on the wingman's position in the formation. Cleared the aircraft throughout maneuvers. Recognizes closure and took proper action to correct. Understood formation employment procedures.
- 3.6.6.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment. Demonstrated a need for additional training in execution or knowledge of formation procedures.
- 3.6.6.3. U. Consistently failed to update the crew on the wingman's position. Failed to clear the aircraft throughout maneuvers. Failed to recognize or verbalize closure. Displays no formation employment knowledge.

## 3.6.7. Area 102 — NVG Usage/Limitations.

- 3.6.7.1. **Q.** Correctly described the use/limitations of NVGs. Proper pre-flight, handling, and use of NVGs during flight.
- 3.6.7.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment. Demonstrated a need for additional training in the use/limitations of NVGs.
- 3.6.7.3. U. Major deviations from Q criteria. Procedures for using NVGs were incorrect. Did not perform a proper pre-flight. Caused damage to equipment. Mission unsuccessful as a result of improper NVG usage. No knowledge of use/limitations of NVGs.

## 3.6.8. Area 103 — Classified/Sensitive Material/Operations Security.

- 3.6.8.1. **Q.** Demonstrated thorough knowledge of communications/operations security procedures and courier procedures (if applicable). Had positive control of classified/sensitive documents and information used throughout the mission. Properly stored, handled, and/or destroyed all classified/sensitive COMSEC material or information generated during the mission. Practiced sound OPSEC during all phases of the mission. Identified, requested, and obtained all classified/sensitive/cryptological material required for the mission.
- 3.6.8.2. **Q-.** Limited knowledge of COMSEC/OPSEC procedures and/or courier procedures (if applicable). Limited knowledge of proper storage, handling, and destruction procedures would not have resulted in compromise of classified/sensitive material/COMSEC, and did not impact mission accomplishment. Identified cryptological material required for mission, but was slow in requesting/obtaining material or did so only after being prompted.
- 3.6.8.3. **U.** Unsatisfactory knowledge of COMSEC/OPSEC. Classified documents, COMSEC or sensitive information would have been compromised as a result of improper control by examinee. Unfamiliarity with OPSEC procedures had or could have had a negative impact on mission accomplishment. Failed to identify, request, or obtain all cryptological materials required for the mission.

## 3.6.9. Area 104 —AIE Operations.

3.6.9.1. **Q.** Performed procedures per the flight manual, AFTTPs, and other published directives. Aware of/computed power requirements/limitations. Satisfactory knowledge of AIE device limitations and emergency procedures. Provided clear and concise direction

using standard terminology for motion and direction consistent with AFTTPs during approach, insertion, pickup, and departure. Advised pilot flying promptly of minor drift tendencies. Actively scanned/cleared aircraft during the AIE procedures. Equipment malfunctions were handled effectively while maintaining situational awareness and crew coordination.

- 3.6.9.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment. Slow to advise the pilot flying of drift tendencies and/or slow to scan the area around the aircraft.
- 3.6.9.3. **U.** Major deviations to the procedures outlined in the flight manual, AFTTPs, and other published directives which affected safe/effective mission accomplishment. Unaware of the proper AIE methods or the emergency procedures associated with the device used. Poor knowledge of limitations. Failed to advise the pilot flying of drift tendencies and failed to scan the area around the aircraft. Equipment preparation was not accomplished in a timely manner or per published directives. Did not correct equipment malfunctions and failed to maintain situational awareness/crew coordination.

#### 3.6.10. Area 105 — Search Procedures.

- 3.6.10.1. **Q.** Thorough knowledge of search procedures. Selected and applied the best search pattern/plan considering the objective, terrain, weather, and the overall scenario. Knowledgeable of scanning techniques and the content of appropriate briefing guides.
- 3.6.10.2. **Q-.** Minor deviations from Q criteria which did not affect safe/effective mission accomplishment. Minor deviations to procedures and limitations outlined in the flight manual and published directives. Knowledge of search patterns, scanning, and procedures indicated the need for additional study in certain areas.
- 3.6.10.3. **U.** Major deviations from Q criteria. Major deviations from procedures and limitations outlined in the flight manual and published directives. Errors or omissions precluded safe and effective mission/maneuver accomplishment. Unacceptable level of knowledge in search patterns, procedures, or scanning techniques. Selection of the pattern was unsuitable for scenario. Applied incorrect search procedures to a scenario. Mission effectiveness or flight safety compromised.

#### 3.6.11. Area 106 — Divert Procedures.

- 3.6.11.1. **Q.** Adequately assisted the pilots in performing divert procedures per procedures outlined in the flight manual and other published directives. Asked for/provided clarification when necessary. Accomplished procedures without undue delay. Provided the pilot with current fuel load, aircraft weight and zero fuel weight within the following tolerance:
  - 3.6.11.1.1. Current fuel load. +/- 100 lbs.
  - 3.6.11.1.2. Gross weight. +/- 100 lbs.
  - 3.6.11.1.3. Zero fuel weight. +/- 0 lbs.
- 3.6.11.2. **Q-.** Provided marginal assistance to the pilot. Slow in proving information to the pilot which did not affect mission accomplishment. Provided the pilot with current fuel load, aircraft weight and zero fuel weight within the following tolerance:

- 3.6.11.2.1. Current fuel load. > 100 lbs but < 200 lbs.
- 3.6.11.2.2. Aircraft weight. > 100 lbs but <200 lbs.
- 3.6.11.2.3. Zero fuel weight. +/- 0 lbs.
- 3.6.11.3. **U.** Did not assist the pilot in divert procedures when requested. Provided incorrect information to the pilot which affected mission accomplishment. Provided the pilot with current fuel load, aircraft weight and zero fuel weight which exceeded Q-criteria.

### 3.6.12. Area 107 — Threat Identification/Countermeasure Procedures.

- 3.6.12.1. **Q.** Used proper AFTTPs to limit aircraft susceptibility or highlighting to threats. Threat reactions were timely and in accordance with AFTTP 3-1.H-1. Performed maneuvers to counter -specific threats. Familiar with visual threat indications. Demonstrated proper use of suppressive fire, if appropriate.
- 3.6.12.2. **Q-.** Limited use of AFTTP guidance. Threat reactions were slow or inconsistent with AFTTP 3-1.H-1. Slow to initiate maneuvers to counter specific threats. Limited knowledge of visual threat indications. Slow to use suppressive fire, if appropriate.
- 3.6.12.3. **U.** Failed to verbalize/take the appropriate threat/countermeasure procedure calls. Failed to clear/scan. Allowed the aircraft limitations to be exceeded during evasive maneuvering. Improper threat call. Failed to stop the aircraft from flying back through the threat area after completion of the evasive maneuver. No knowledge of aircraft and MAJCOM specific threat avoidance/defense. Did not use suppressive fire, if appropriate.

## 3.6.13. **Area 108** — Cargo Sling.

- 3.6.13.1. **Q.** Familiar and complied with cargo sling procedures per the flight manual and other directives. Properly executed hookup and release procedures. Computed required TOLD and was thoroughly aware of power requirements/limitations and emergency procedures. Provided clear, concise and positive direction to the pilot flying during takeoff, en route, approaches and landings. Communicates sling load clearance from obstacles. Provided clear, concise and positive direction to place the sling load on a pre-designated or specified area without inadvertent contact with the ground/obstacles.
- 3.6.13.2. **Q-.** Minor deviations from Q criteria. Did not compromise safety, aircraft limitations or maneuver/mission effectiveness. Directions allowed sling load to be positioned within the pre-designated or specified area but required multiple attempts or repositioning after ground contact. While hovering, the FE's direction or lack of direction caused the load to briefly/unintentionally contact the ground.
- 3.6.13.3. **U.** Major deviations from Q criteria. Errors or omissions precluded safe and effective mission/maneuver accomplishment. Unfamiliar with procedures, directives, or operations. Improperly executed hookup and/or release procedures. Inadequate knowledge of power requirements. Allowed load to come in contact with the ground on the approach. Direction or lack of direction allowed the sling load to be positioned outside the predesignated or specified area, despite numerous attempts to reposition after ground contact. Mission effectiveness or safety was compromised.

#### 3.6.14. Area 109 — Fire Bucket.

- 3.6.14.1. **Q.** Familiar and complied with fire bucket procedures per applicable directives. Thoroughly familiar with and properly performs fire bucket preflight procedures per applicable directives. Properly performs fire bucket operational checks, hookup and water release procedures. Computed required TOLD and was thoroughly aware of power requirements/limitations. Provided clear, concise and positive calls directing fire bucket and water release over a predetermined and specified area. Ensure fire bucket clearance from obstacles.
- 3.6.14.2. **Q-.** Minor deviations from Q criteria. Did not compromise safety, aircraft limitations or maneuver/mission effectiveness. Directions allowed water release over a predetermined and specified area but required multiple attempts.
- 3.6.14.3. **U.** Deviations exceeding Q- criteria. Errors or omissions precluded safe and effective mission/maneuver accomplishment. Unfamiliar with procedures, directives, or operations. Improperly executed hookup and/or release procedures. Inadequate knowledge of power requirements. Direction or lack of direction allowed the water release to be outside the predetermined or specified area, despite numerous attempts. Mission effectiveness or safety was compromised.

## 3.6.15. Area 110 — Water Operations.

- 3.6.15.1. **Q.** Performed operations per the procedures outlined in the flight manual and other published directives. Aware of computed power requirements/limitations. Confirmed required TOLD and was thoroughly aware of power requirements/limitations. Successfully deployed the appropriate equipment/people and provided clear and concise direction during pattern, approach, pickup, and departure. Effectively managed equipment malfunctions and maintained situational awareness/crew coordination. Knowledgeable of the types of pyrotechnics and their characteristics.
- 3.6.15.2. **Q-.** Minor deviations from Q criteria which did not affect safety/mission accomplishment.
- 3.6.15.3. **U.** Major deviations to the procedures outlined in the flight manual and other published directives which affected safe/effective mission accomplishment. Failed to provide clear and concise direction during approach, pickup and departure. Inadequate aircraft clearance from obstacles and/or water. Severe lack of knowledge, about the use and employment of pyrotechnics. Failed to manage equipment malfunctions or maintain situational awareness/crew coordination.

## 3.6.16. Area 111 — Weapons Employment.

3.6.16.1. **Q.** Effectively employed weapons system per the flight manual, other technical orders, AFTTPs, and other published directives. Demonstrated the ability to preflight, arm, acquire/effectively engage the target, and de-arm the weapon. Able to identify and clear weapon malfunctions in a timely manner per the appropriate operating manuals. Provided clear, concise, and positive direction to the pilot flying using standard terminology and maintained constant target acquisition. Ensured pilot flying maintained appropriate gunnery pattern, approaches to and away from target zone. Kept crew advised of target, other aircraft, and friendly forces during employment.

3.6.16.2. **Q-.** Minor deviations in preflight procedures. Minor procedural errors and/or was slow to arm/de-arm the weapon. Target acquisition was slow or limited in its effectiveness. Slow to identify and/or clear (if possible) weapons malfunctions per the appropriate operating manuals. Limited knowledge of AFTTPs and other directives. Direction provided to the pilot flying was not completely clear and concise but still allowed for constant target acquisition. Slow to advise crew of target, other aircraft, and friendly forces during employment. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness.

3.6.16.3. **U.** Unable to preflight, arm, acquire, engage the target, or de-arm the weapon. Major errors in procedures. Improperly performed weapons procedures per the flight manual, other technical orders and directives. Target acquisition was ineffective. Unable to identify and/or clear weapons malfunctions. Provided unclear directions and did not use standard terminology. Failed to ensure pilots flying maintained appropriate gunnery patterns, approaches to and away from target zone. Failed to acquire or advise crew of target, other aircraft, and friendly forces during employment. Compromised safety.

## Chapter 4

#### INSTRUCTOR EVALUATIONS

- **4.1. General.** The instructor grading criteria apply to initial, requalification, and all periodic instructor (INSTR) evaluations. The examinee must demonstrate the ability to instruct in a safe and effective manner. **(T-2)**
- **4.2. Requirements.** Flight examiners will evaluate instructors on the areas listed in **Table 4.1**. (**T-2**) Instructor candidates must be qualified and certified in all areas they are going to instruct and should have a solid understanding of tactics, techniques and procedures. (**T-2**) Initial instructor evaluations may be a stand-alone evaluation or accomplished in conjunction with a periodic qualification/mission evaluations will accomplish instructor evaluations in conjunction with periodic qualification/mission evaluations using guidance provided in AFMAN 11-202V2 (and applicable supplements). If able, evaluate instructors instructing actual students. Otherwise, the flight examiner may act as the student. An instructor or flight examiner graded Q-2 on any evaluation will not perform instructor or flight examiner duties until additional training is completed. (**T-2**) Flight Examiners will reference AFMAN 11-202V2 for restrictions to instructors who fail an evaluation for any item in **Table 4.1**. (**T-2**) Annotate all initial, requalification and periodic evaluation Forms 8 with IP or IF in the crew position and provide a description of areas/events in which instructor ability was demonstrated in the mission description (if the instructor taught throughout the entire mission and there were numerous areas in which instructional ability was demonstrated, one general comment will suffice). (**T-2**)
  - 4.2.1. Initial Instructor Evaluations. There are no requisites for initial instructor evaluations. Flight Examiners will evaluate initial qualification instructor evaluations in the aircraft. (**T-3**) Evaluate instructor candidates on instructor performance during a representative sample of the unit's qualification, instrument and mission maneuvers as appropriate. Label initial instructor evaluations with INIT INSTR.
  - 4.2.2. Instructor Evaluations. Instructors will, at a minimum, demonstrate instructional ability during maneuvers, events or procedures in flight or in an aircrew training device. (**T-2**) All other areas may be evaluated via alternate method. Accomplish all events required by **Table 2.1** or **Table 3.1** by a balance of demonstration and instruction.
  - 4.2.3. Requalification Instructor Evaluations. Previously qualified instructors may requalify directly to instructor status in those areas previously instructor qualified provided their training and evaluations include instructor duties, procedures, and techniques. Instructor requalification flight evaluations can be conducted separately (e.g., QUAL only) or combined (e.g., QUAL/INSTM/MSN). However, evaluate instructor performance during a representative sample of QUAL, INSTM and MSN events during each evaluation as appropriate. (T-2) All requalification instructor evaluations will be labeled appropriately (e.g., RQ INSTR/INSTM, RQ INSTR/QUAL/INSTM, RQ INSTR/MSN, etc.). (T-2)

Table 4.1. Instructor Evaluation Event Requirements Table (all Crew Positions). (T-2)

AREA	GRADING AREA
120	Instructional Preparation
121	Instructional Ability (CRITICAL)

122	Instructor Knowledge
123	Briefings/Debriefings/Critique/Forms
124	Demonstration of Maneuvers/Procedures

## 4.3. Instructor Grading Criteria.

## 4.3.1. Area 120 — Instructional Preparation.

- 4.3.1.1. **Q.** Thoroughly reviewed student's training documentation. Ascertained student's present level of training. Assisted student in pre-mission planning and allowed student time for questions. Correctly prioritized training events. Gave student a clear idea of mission training objectives.
- 4.3.1.2. **Q-.** Did not thoroughly review student's training folder or correctly ascertain student's present level of training. Caused student to hurry pre-mission planning. Poorly prioritized training events. Training plan/scenario made poor use of time.
- 4.3.1.3. U. Did not review student's training folder. Did not ascertain student's present level of training. Did not assist student with pre-mission planning or did not allow time for questions. Did not prioritize training events. Failed to give student a clear idea of mission training objectives, methods, and sequence of events.

## 4.3.2. Area 121 — Instructional Ability. (CRITICAL)

- 4.3.2.1. **Q.** Demonstrated proper instructor ability and communicated effectively. Provided appropriate guidance when necessary. Planned ahead, and provided accurate, effective, and timely instruction. Identified and corrected potentially unsafe maneuvers/situations.
- 4.3.2.2. **U.** Failed to effectively communicate or provide timely feedback. Performed or taught improper procedures/techniques/tactics to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe maneuvers/situations in a timely manner. Made no attempt to instruct.

## 4.3.3. Area 122 — Instructor Knowledge.

- 4.3.3.1. **Q.** Demonstrated a high level of knowledge of all applicable aircraft systems, techniques, procedures, missions, publications and tactics to be performed. Comments were clear and pertinent.
- 4.3.3.2. **Q-.** Minor errors/deficiencies in knowledge of above areas did not affect safety or adversely affect student progress. Comments were incomplete or slightly unclear.
- 4.3.3.3. **U.** Lack of knowledge of publications or procedures seriously detracted from instructor effectiveness. Could not apply knowledge of above areas. Comments were invalid, unclear, or did not accurately reflect performance.

## 4.3.4. Area 123 — Briefings/Debriefings/Critique/Forms.

4.3.4.1. **Q.** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Showed a satisfactory ability during the critique to reconstruct the flight, offer mission analysis, and provide guidance where appropriate. Training grade reflected the actual performance of the student

- relative to the standard. Pre-briefed the student's next mission, if required. Properly completed training folders/records, understood grading policies and procedures.
- 4.3.4.2. **Q-.** Minor errors or omissions in briefings, critique, and/or completion of training folders/records that did not affect safety or adversely affect student progress.
- 4.3.4.3. **U.** Briefings/debriefings were marginal or non-existent; major errors or omissions in briefings/debriefings. Did not review student past performance. Analysis of events or maneuvers was incomplete, inaccurate, or confusing. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required. Improperly completed training folders/records, failed to understand grading policies and procedures.

#### 4.3.5. Area 124 — Demonstration of Maneuvers/Procedures.

- 4.3.5.1. **Q.** Effectively demonstrated procedures and techniques. Provided concise, meaningful, and timely in-flight commentary. Had thorough knowledge of applicable aircraft systems, procedures, publications, and instructions.
- 4.3.5.2. **Q-.** Performed required maneuvers/procedures with minor deviations from prescribed parameters. In-flight commentary was sometimes unclear or poorly timed, interfering with student performance. Discrepancies in the above areas did not adversely affect safety or student progress.
- 4.3.5.3. **U.** Failed to properly perform required maneuvers/procedures. Made major procedural errors. Did not provide in-flight commentary and/or in flight commentary was incorrect or unsafe. Insufficient knowledge of aircraft systems, procedures, and/or proper source material.

## Chapter 5

#### FLIGHT EXAMINER OBJECTIVTY EVALUATIONS

- **5.1. General.** Flight examiner objectivity evaluations are SPOT evaluations used by any flight examiner to observe a flight evaluation and evaluate the objectivity and performance of a lower echelon flight examiner. The examinee must demonstrate the ability to perform evaluations in a safe and effective manner. **(T-2)**
- **5.2. Requirements.** Any flight examiner may administer aircrew flight examiner objectivity evaluations. Flight examiners will evaluate other flight examiners (all crew positions) on the areas listed in **Table 5.1**. (**T-2**) Flight examiners will only use Q1 or Q3 qualification levels. Document a Q3 if a grade of U is received in any area. Consider cumulative Q- deviations when determining the qualification level. The OG/CC will determine the future status of any flight examiner receiving a Q3. (**T-3**) Units will not use flight examiner objectivity evaluations to fulfill the requirements of periodic evaluations. (**T-2**) Flight Examiners will document flight examiner objectivity evaluations on the AF Form 8. (**T-2**)
  - 5.2.1. A flight examiner receiving an unqualified rating will not sign the AF Form 8 for the direct evaluation examinee. (**T-2**) If the higher echelon flight examiner is the same crew position as the direct evaluation examinee, the higher echelon flight examiner will sign both the lower echelon flight examiner's and the direct examinee's AF Form 8 as the flight examiner. (**T-2**) If the examiner is administering an evaluation to a person in another Air Force aircrew specialty code, the direct examinee's evaluation will be terminated. (**T-2**)
  - 5.2.2. If the direct examinee was receiving a recurring evaluation (QUAL, INSTM or MSN), the higher echelon flight examiner is responsible for ensuring all requisites and items are completed for the evaluation, or the evaluation will be recorded as a SPOT and not count for the 17-month recurring evaluation requirement.
  - 5.2.3. If an examinee assigns an incorrect area grade or assigns an incorrect qualification level, the flight examiner administering the flight examiner objectivity evaluation will assign the appropriate area grade or qualification level and complete the documentation for the evaluation being administered by the examinee. **(T-2)**

Table 5.1. Flight Examiner Event Requirements Table (all Crew Positions). (T-2)

AREA	GRADING AREA
130	Compliance with HHQ and Local Stan/Eval Directives
131	Flight Examiner Briefing
132	Identification of Discrepancies and Assignment of Area Grades
133	Assessment of Overall Performance
134	Appropriate Assignment of Additional Training and Restrictions
135	Mission Critique
136	Flight/EP Evaluation Documentation
137	Squadron Commander Debriefing. (For Q2 or Q3 Evaluations Only)
138	Flight Examiner Performance

## 5.3. Flight Examiner Grading Criteria.

## 5.3.1. Area 130 — Compliance with HHQ and Local Stan/Eval Directives.

- 5.3.1.1. **Q.** Complied with all directives pertaining to the administration of a flight evaluation.
- 5.3.1.2. **Q-.** Complied with most directives. Deviations did not jeopardize the effectiveness of the evaluation or flight safety.
- 5.3.1.3. **U.** Failed to comply with directives or allowed flight safety to be jeopardized.

## 5.3.2. Area 131 — Flight Examiner Briefing.

- 5.3.2.1. **Q.** Thoroughly briefed the examinee on the conduct of the evaluation, mission requirements, responsibilities, grading criteria, and flight examiner actions/position during the evaluation.
- 5.3.2.2. **Q-.** Items were omitted during the briefing causing minor confusion or requiring later clarification. Did not fully brief the examinee as to the conduct and purpose of the evaluation.
- 5.3.2.3. U. Flight examiner failed to adequately brief the examinee.

## 5.3.3. Area 132 — Identification of Discrepancies and Assignment of Area Grades.

- 5.3.3.1. **Q.** Identified all discrepancies and assigned proper area grade.
- 5.3.3.2. **Q-.** Most discrepancies were identified. Failed to assign Q- grade when appropriate. Assigned discrepancies for performance which was within standards.
- 5.3.3.3. **U.** Failed to identify discrepancies related to flight discipline or deviations that merited an unqualified grade. Assigned Q or Q- grades for performance that should have been assigned U grades.

#### 5.3.4. Area 133 — Assessment of Overall Performance.

- 5.3.4.1. **Q.** Awarded the appropriate overall qualification level based on the examinee's performance.
- 5.3.4.2. **Q-.** Awarded an overall qualification level without consideration of cumulative deviations in the examinee's performance.
- 5.3.4.3. **U.** Did not award a qualification level commensurate with overall performance. Awarded a Q1 or Q2 overall grade after awarding a U grade in a critical area.

## 5.3.5. Area 134 — Appropriate Assignment of Additional Training and Restrictions.

- 5.3.5.1. **Q.** Assigned proper additional training and restrictions (if warranted).
- 5.3.5.2. **Q-.** Additional training assigned was insufficient to ensure the examinee would achieve proper level of qualification. Restrictions assigned were not appropriate.
- 5.3.5.3. **U.** Failed to assign additional training or restrictions when warranted.

## 5.3.6. Area 135 — Mission Critique.

5.3.6.1. **Q.** Thoroughly debriefed the examinee on all aspects of the evaluation.

- 5.3.6.2. **Q-.** Failed to fully discuss all deviations and assigned grades. Did not advise the examinee of additional training and/or restrictions if required.
- 5.3.6.3. U. Did not discuss any assigned area grades or the overall rating. Changed grades without briefing the examinee.

# 5.3.7. Area 136 — Flight/EP Evaluation Documentation.

- 5.3.7.1. **Q.** Correctly completed and/or understands all required documentation.
- 5.3.7.2. **Q-.** Minor errors in documentation which did not affect the validity of the evaluation.
- 5.3.7.3. **U.** Failed to complete all required documentation. Major errors caused the validity of the evaluation to be questioned.

## 5.3.8. Area 137 — Squadron Commander Debriefing (For Q2 or Q3 Evaluations Only).

- 5.3.8.1. **Q.** Thoroughly debriefed the examinee's squadron commander.
- 5.3.8.2. **Q-.** Debriefed the squadron commander but failed to adequately discuss all discrepancies, qualification level, or additional training.
- 5.3.8.3. U. Failed to debrief the examinee's squadron commander on a Q2 or Q3 evaluation.

## 5.3.9. Area 138 — Flight Examiner Performance.

- 5.3.9.1. **Q.** Flight examiner performed as briefed, conducted a thorough evaluation, and did not detract from examinee performance.
- 5.3.9.2. **Q-.** Flight examiner committed minor errors that did not detract from the examinee's performance.
- 5.3.9.3. **U.** Flight examiner committed major errors which disrupted the examinee's performance or prevented a thorough evaluation.

JAMES C. SLIFE, Lt. Gen, USAF DCS, Operations

#### **Attachment 1**

#### GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

## References

Executive Order 9397 as amended by Executive Order 13478, *Amendments to Executive Order 9397 Relating to Federal Agency Use of Social Security Numbers* 

DAFMAN 90-161, Publishing Processes and Procedures, 14 April 2022

AFI 11-200, Aircrew Training, Standardization/Evaluation, and General Operations Structure, 3 May 2022

AFI 33-322, Records Management and Information Governance Program, 28 July 2021

AFMAN 11-290, Cockpit/Crew Resource Management and Threat & Error Management Program, 25 October 2021

AFMAN 11-202V2, Aircrew Standardization/Evaluation Program, 30 August 2021

AFMAN 11-2UH-1NV1, UH-1N Helicopter Aircrew Training, 9 January 2023

AFMAN 11-2UH-1NV3, UH-1N Helicopter Operations Procedures, 6 December 2022

AFTTP 3-3.H-1, Combat Fundamentals H-1, 25 June 2021

T.O. 1H-1(U)N-1, Flight Manual, 1 May 2022

# Adopted Forms

AF Form 8, Certificate of Aircrew Qualification

DAF Form 847, Recommendation for Change of Publication

AF IMT 3862, Flight Evaluation Worksheet

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

AF Form 4348, USAF Aircrew Certifications

#### Abbreviations and Acronyms

AC—Aircraft Commander

**AF**—Air Force

**AFDW**—Air Force District of Washington

AFGSC—Air Force Global Strike Command

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**AFRIMS**—Air Force Records Information Management System

**AFTTP**—Air Force Tactics, Techniques, and Procedures

**AIE**—Alternate Insertion and Extraction

ANG—Air National Guard

**ARMS**—Aviation Resource Management Systems

**ASR**—Airport Surveillance Radar

BAQ—Basic Aircraft Qualified

**BMC**—Basic Mission Capable

**CMR**—Combat Mission Ready

**COMSEC**—Communication Security

**CRM**—Crew Resource Management

**DA**—Decision Altitude

**DAFMAN**—Department of the Air Force

**DME**—Distance Measuring Equipment

**DOC**—Designed Operational Capability

**EFB**—Electronic Flight Bag

**EPE**—Emergency Procedures Evaluation

**ETE**—Estimated Time Enroute

**FAF**—Final Approach Fix

**FCF**—Functional Check Flight

**FE**—Flight Engineer

**FF**—Basic Aircraft Qualified Flight Engineers

**FLIP**—Flight Information Publication

**FORM**—Formation

FP—Basic Aircraft Qualified Pilot

**HHQ**—Higher Headquarters

**IAW**—In Accordance With

**IF**—Instructor Flight Engineers

**IMC**—Instrument Meteorological Conditions

**INIT**—Initial

**INSTM**—Instrument

**INSTR**—Instructor

**IP**—Instructor Pilot

**KIAS**—Knots Indicated Airspeed

**MAJCOM**—Major Command

MAP—Missed Approach Point

MDA—Minimum Descent Altitude

**MDS**—Mission Design Series

MF—Mission Flight Engineer

**MP**—Mission Pilot

MSN—Mission

**LLV**—Low Level

NAF—Numbered Air Force

**NAVAID**—Navigation Aid

**NFORM**—Night Formation

**NLLV**—Night Low Level

NM—Nautical Mile

**NOTAM**—Notices to Airmen

**NUPL**—Night Unprepared Landing

**NVG**—Night Vision Goggle

**OG**—Operations Group

**OPR**—Office of Primary Responsibility

**OPSEC**—Operation Security

**P—Pilot**—(all inclusive)

**PAR**—Precision Approach Radar

**Q—Qualified**—Q- Qualified Minus

**Q1**—Qualification Level 1

**Q2**—Qualification Level 2

**Q3**—Qualification Level 3

**QUAL**—Qualification

**RDS**—Records Disposition Schedule

**RPM**—Revolutions Per Minute

**SPINS**—Special Instructions

**TEM**—Threat and Error Management

T.O.—Technical Order

**TOLD**—Takeoff and Landing Data

**TOT**—Time-on-Target

U—Unqualified—UPL—Unprepared Landing

**USAF**—United States Air Force

**VDP**—Visual Descent Point

**VFR**—Visual Flight Rules

Vne—Velocity Never Exceed

**W&B**—Weight and Balance

Office Symbols

**AF/A3T**—Air Force Training and Readiness Directorate, Deputy Chief of Staff, Operations

**AFDW/A3**—Air Force District of Washington Director of Operations

AFGSC/A3TV—Air Force Global Strike Command Standardization and Evaluation Branch

MAJCOM/A3—Major Command Director of Operations

NGB/A3—Air National Guard Air Directorate

**OG/CC**—Operations Group Commander

**SQ/CC**—Squadron Commander

#### **Terms**

**Certification**—Procedure used to document competency in a particular task. Not interchangeable with qualification, which requires AF Form 8/8A documentation.

**Deviation**—Performing an action not in accordance with current procedures, directives, or regulations. Performing action(s) out of sequence due to unusual or extenuating circumstances is not considered a deviation. In some cases, momentary deviations may be acceptable; however, cumulative momentary deviations will be considered in determining the overall qualification level.

**Emergency Procedures Evaluation (EPE)**—A flight, aircrew training device, or verbal evaluation used to evaluate emergency procedures and systems knowledge.

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

**INIT Aircrew Evaluation**—The first aircrew evaluation of any type for an MDS (e.g., INIT QUAL/ INSTM, INIT MSN, INIT INSTR).

**INSTM Evaluation**—The means of assessing an aircrew member's ability to operate under instrument flight rules (IFR)

**INSTR Evaluation**—A means of assessing an aircrew member's instructional ability in their weapon system/crew position and to obtain/maintain instructor qualification. This evaluation initially establishes or reestablishes instructor qualification of the examinee in an MDS (e.g., INIT INSTR and RQ INSTR) as directed in AFI/AFMAN 11-2MDS Vol 1.

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

**MSN Evaluation**—Qualifies an individual to perform the unit's operational mission.

**No-Notice Evaluation**—An aircrew evaluation where the examinee is notified of the aircrew evaluation at or after the beginning of normal preparation for the mission.

**Profile**—Defines the required items of an evaluation to include a scenario.

**Q**—The desired level of performance. The examinee demonstrated a satisfactory knowledge of all required information, performed aircrew duties within the prescribed tolerances, and accomplished the assigned mission.

**Q-**—The examinee is qualified to perform the assigned area/subarea tasks, but requires debriefing or additional training as determined by the flight examiner. Deviations from established standards must not exceed the prescribed Q- tolerances or jeopardize safety of flight.

**QUAL Evaluation**—A means of assessing an aircrew member's ability to perform the basic duties of a particular crew position in the specified aircraft. Requires AF Form 8/8A documentation.

**Requalification** (**RQ**)—An aircrew evaluation administered to remedy a loss of qualification due to expiration of a required periodic evaluation, loss of currency (as specified in applicable AFI/AFMAN 11-2MDS Volume 1), an aircrew qualification following a failed aircrew evaluation or a commander-directed downgrade.

**SPOT Evaluation**—An aircrew evaluation, EPE, Examination or the evaluation of a specific event that does not intend to satisfy the requirements of an initial, periodic or requalification evaluation. May be No-Notice. Requires AF Form 8/8A documentation. SPOT is not an acronym.

U—A breach of flight discipline, performance outside allowable parameters, or deviations from prescribed procedures/tolerances that adversely affected mission accomplishment or compromised flight safety. An examinee receiving an area/subarea grade of U normally requires additional training.