

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**



**AIR FORCE INSTRUCTION 11-2H-1  
VOLUME 2**

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***Flying Operations***

***H-1 AIRCREW EVALUATION CRITERIA***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFD 11-2, *Aircraft Rules and Procedures*. It establishes the H-1 Aircrew Evaluation Criteria consistent with the Aircrew Standardization/Evaluation Program that support Air Force objectives and is applicable to all units assigned to or gained by MAJCOMs and applies to commanders, operations supervisors, and aircrews assigned or attached to all flying activities of these commands. It does not apply to the Air National Guard (ANG) or Air Force Reserve Command (AFRC). Major commands will send one copy of their supplement to HQ USAF/XOOT and HQ AFSPC/XONH. Field units below MAJCOM level will forward copies of their supplements to this publication to their parent MAJCOM office of primary responsibility for post publication review. Submit suggested improvements to this instruction on AF Form 847, **Recommendation for Change of Publication**, through unit/NAF standardization/evaluation channels, to HQ AFSPC/XONH, 150 Vandenberg St., Suite 1105, Peterson AFB CO 80914-4170.

The Privacy Act of 1974 affects this instruction. The Privacy Act System Number F011 AF XO A, Aviation Resource Management System (ARMS) covers required information. The authority for maintenance of ARMS is Title 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 93-294 (Aviation Career Incentive Act of 1974), DoD 7730.57 (Aviation Career Incentive Act and Required Annual Report), and Executive Order 9397. Ensure that all records created by this AFI are maintained in accordance with AFMAN 37-123, *Management of Records*, and disposed of in accordance with AFMAN 37-139, *Records Disposition Schedule*.

Forms: AF Form 4068, **H-1 Helicopter Crew Member Flight Evaluation**.

### ***SUMMARY OF REVISIONS***

This instruction has been updated with the following changes: Paragraph **1.1.**: General Information is clarified. Paragraph **1.4.** Unit Stan/Eval Programs (Operations group, squadron and flight): no longer used. Paragraph **2.2.4.**: identifies which forms are to be used in evaluations. Paragraph **2.2.5.** redundant

information deleted. Paragraph **2.3.**: designates personnel authorized to accomplish SPOT evals. **Table 2.1.**: Required Aircrew Publications is added. Paragraph **2.5.**: Substantially simplified. Paragraphs 2.5.1.-2.5.6. Deleted. Paragraph **2.6.2.**: authorizes flight examiners to consider cumulative deviations when determining the overall grade. Paragraph **2.6.3.**: deleted. Paragraph **2.6.4.**: renumbered to **2.6.3.** Paragraph **3.1.3.**: clarifies MSN evaluation requirements. Paragraphs **3.2.1.**, **3.2.2.**, and **3.2.3.**: completely rewritten, clarifies guidance. Paragraphs **3.3.** and **3.4.**: references to AF Form 4031 deleted. **Table 3.1.**: Mission Qualifications and Certifications is added. **Attachment 1**: numerous changes/additions to (references, abbreviations, acronyms and terms). **Attachment 2** has been extensively rewritten and must be reviewed in its entirety. Paragraphs have been renumbered where necessary to accommodate updates.

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## Chapter 1

### GENERAL INFORMATION

**1.1. General.** Conduct all evaluations IAW AFI 11-202V2, *Aircrew Standardization/ Evaluation Program*, and this publication. This volume contains detailed procedures and criteria for the evaluation of individual aircrew members assigned flying duties in the UH-1N.

**1.2. Waiver Authority.** The MAJCOM/DO is the waiver authority for provisions of this instruction unless otherwise indicated. Request waivers to this instruction through applicable standardization/evaluation channels to MAJCOM/DO or equivalent level. MAJCOMs will provide information copies of approved waivers to HQ Air Force Space Command Helicopter Operations Branch (HQ AFSPC/XONH). Waivers to supplemental guidance will be handled by the MAJCOM agency that generated the supplement.

#### **1.3. Higher Headquarters Stan/Eval Program:**

##### **1.3.1. HQ USAF/XOO:**

1.3.1.1. Designates AFSPC as lead command, in accordance with AFD 10-9, *Lead Operating Command Weapon Systems Management*, for the H-1.

1.3.1.2. Assigns HQ AFSPC as OPR for this instruction.

1.3.1.3. Monitors and reviews H-1 programs ensuring policies, guidance and supplements are adequate.

1.3.1.4. Resolve issues of contention between the H-1 lead command (AFSPC) and other user commands.

##### **1.3.2. Lead Command (AFSPC):**

1.3.2.1. AFSPC will develop this instruction consistent with the USAF Standardization and Evaluation Program and unique requirements, according to AFD 11-2, *Aircraft Rules and Procedures*. AFSPC will coordinate operational procedures, evaluation criteria and guidance published in this instruction with user MAJCOMs operating like weapons systems.

1.3.2.2. Develop and maintain any additional forms required by all user-MAJCOMs. These forms will be approved and issued as AF Forms if they are needed by more than one command.

1.3.2.3. Convene conferences and working groups, as necessary to review and improve H-1 stan/eval procedures.

##### **1.3.3. User-MAJCOMs:**

1.3.3.1. MAJCOMs may supplement this instruction, provided these supplements are not less restrictive.

**1.4. Unit Stan/Eval Programs (Operations Group, Squadron and Flight):** Not Used.

## Chapter 2

### EVALUATION PROCEDURES

**2.1. Evaluation Criteria Source.** H-1 crewmember evaluation criteria for instrument, qualification, mission and instructor evaluations are located in [Attachment 2](#).

#### **2.2. Evaluation Conduct:**

2.2.1. Flight examiners will use the evaluation criteria contained in this volume for conducting all flight and emergency procedures evaluations (EPE). To ensure standard and objective evaluations, Flight examiners will be thoroughly familiar with the prescribed evaluation criteria.

2.2.2. Unless specified, the examinee or flight examiner may fly in any seat (within their crew qualification) that will best enable the flight examiner to conduct a thorough evaluation.

2.2.3. Prior to flight, the flight examiner will brief the examinee on the purpose and conduct of the evaluation and, if applicable, will inform the Aircraft Commander of special requirements. The examinee will accomplish appropriate flight planning/mission preparation. Flight examiner will be furnished copies of mission materials to include necessary maps (only one map per aircraft is required), flight logs, etc.

2.2.4. Units will utilize the AF Form 4068, **H-1 Helicopter Crewmember Flight Evaluation** (or MAJCOM equivalent) to aid in administering flight evaluations and EPEs.

2.2.5. When it is impossible to evaluate a required area in flight (due to equipment malfunctions, operational requirements, scheduling restrictions, or weather), the flight examiner may elect to evaluate the area(s) by an alternate method (verbal, procedural trainer). Document why required area(s) were not evaluated in flight, and the alternate method of evaluation used, in the examiner's remarks section of the AF Form 8, **Certificate of Aircrew Qualification**. If, in the flight examiners judgment, a required item cannot be adequately evaluated by an alternate method, complete the evaluation on an additional flight.

2.2.6. For initial evaluations, all required items must be performed by actual demonstration. Additionally, to evaluate a mission area, all sub-areas on the AF Form 4068 must be evaluated, unless the sub-area is designated as optional.

2.2.7. All simulated emergency procedure maneuvers will be accomplished according to the guidance in the flight manual and AFI 11-2H-1 Vol 3, *H-1 Helicopter Operations Procedures*.

2.2.8. The flight examiner will thoroughly debrief all aspects of the evaluation. During the debrief, the flight examiner will review the overall rating, specific deviations, area grades assigned, and required additional training (if applicable).

2.2.9. Instrument evaluations may be administered in an UH-1N configured flight simulator. For simulator evaluations, the video tape recorder should be used, when available, to reconstruct/evaluate the mission.

**2.3. SPOT Evaluations of Other Aircrew Specialties.** Any H-1 OGV/HHQ flight examiner, regardless of aircrew specialty, may administer aircrew SPOT evaluations. However, if the examiner is administer-

ing a SPOT evaluation to a person in another aircrew specialty, only boldface, safety consciousness, judgment, situational awareness, and instructor duties (if applicable) may be evaluated.

**2.4. Aircrew Publications.** Aircrew publications will be checked during all qualification evaluations to ensure they are current and properly posted. Each aircrew member is responsible for maintaining the publications listed in Table 2.1. Each MAJCOM will determine any additional flight publications their aircrew members are required to maintain.

**Table 2.1. Required Aircrew Publications.**

Publication	Pilot	FE	AG
TO 1H-1(U)N-1 <i>Flight Manual</i>	X	X	X
TO 1H-1(U)N-1CL-1 <i>Flight Crew Checklist</i>	X	X	X
TO 1H-1(U)N-1CL-2		X	X
TO 1H-1(U)N-5		X	X
AFI 11-2H-1, Vol 3	X	X	X
AFI 11-2H-1, Vol 3 CL-1	X	X	X
AFI 11-202, Vol 3	X	X	X

**2.5. Crew Resource Management.** Crew Resource Management (CRM) is the effective use of all available resources--by individuals or crews to safely and efficiently accomplish an assigned mission or task. The term "CRM" will be used to refer to the training program, objectives, and key skills directed to this end. CRM will be evaluated on all flight evaluations.

**2.6. Evaluation Grading Instructions:**

2.6.1. Areas not applicable to the unit or mission should not be performed; however, all areas performed will be graded.

2.6.2. Base tolerances for in-flight parameters on conditions of smooth air and a stable aircraft. Do not consider a momentary deviation from tolerances, provided the examinee applies prompt corrective action and such deviations do not jeopardize flying safety. The flight examiners may consider cumulative deviations when determining the overall grade.

2.6.3. The standards/grading criteria contained in **Attachment 2** of this volume are provided as a guide to assist the flight examiner in determining grades. They are not necessarily provided as minimum/maximum parameters for each maneuver. Examiners should compare examinee performance for each grading area with the standards provided in this instruction, and consider all other factors before assigning grades. Derive the overall flight evaluation grade IAW AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, and this volume.

2.6.3.1. Flight examiner judgment must be exercised when wording of grading criteria is subjective and when specific situations are not covered.

2.6.3.2. Flight examiner judgment will be the determining factor in assigning the overall grade.

2.6.4. Critical Area/Sub-Area. Critical areas/sub-areas are defined as those that can be graded only “Q” or “U” and are identified on the AF Form 4068 (or MAJCOM equivalent). Any unsatisfactory performance in a critical area/sub-area will result in a qualification level of “Q-3.” Critical areas/sub-areas are identified in **Attachment 2** with an asterisk (\*) prior to the sub-area number.

2.6.5. Non-Critical Area/Sub-Area. Non-critical areas/sub-areas are graded either “Q”, “Q-“ or “U.” Unsatisfactory performance in a non-critical area/sub-area will result in a qualification level of no higher than “Q-2.”

2.6.6. Area/Sub-area Grades. The desired level of performance, “Q,” is listed in **Attachment 2** for each area/sub-area. Descriptions for Q- and U are included when they contain specific criteria or tolerances. Otherwise refer to the definitions for Q-, and U from AFI 11-202 Vol 2.

## **2.7. Aircrew Examination Procedures:**

2.7.1. Computer based training or electronic information management tool may satisfy the requirement for written examinations, if the computer/electronic format meets the requirements for examinations in AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*. Units may generate a unique test for each crewmember using appropriate computer software programs.

2.7.2. The minimum number of test questions are:

- 2.7.2.1. Qual Open -- 50 questions.
- 2.7.2.2. Qual Closed -- 25 questions.
- 2.7.2.3. Instrument Open -- 50 questions.
- 2.7.2.4. Mission Open -- 50 questions.
- 2.7.2.5. Flight Surgeon -- 20 questions.

2.7.3. AFSPC will provide an H-1 specific master question file (MQF) to all user-MAJCOMs.

## Chapter 3

### EVALUATION DESCRIPTION

#### 3.1. Evaluation Requisites:

3.1.1. QUAL evaluation requisites. Reference AFI 11-202, Vol 2.

3.1.2. INSTM evaluation requisites. Reference AFI 11-202, Vol 2.

3.1.3. MSN evaluation requisites. A mission open book examination and EPE (evaluate MSN specific emergency procedures and systems knowledge during MSN evaluations). A mission open book examination is not required for a mission evaluation that adds a qualification for a crewmember, however, if the mission open book examination is not completed the evaluation will not update the 17-month cycle.

#### 3.2. Emergency Procedure Evaluations:

3.2.1. EPEs will not be conducted in flight. The purpose of the EPE is to evaluate systems knowledge and emergency procedures out of the in-flight environment, allowing a more in-depth investigation of systems knowledge and scenario driven circumstances.

3.2.2. The EPE is a verbal evaluation and should be scenario driven with an emphasis on emergency procedures and systems knowledge. Flight examiners may use one continuous scenario throughout the EPE or different scenarios for each emergency procedure.

3.2.3. Examinees may use publications that are normally available in flight. The examinee must recall applicable boldface items from memory.

3.2.4. The flight examiner may present situational emergency procedures in flight, however, they will be graded under applicable sections of the AF Form 4068, as required.

3.2.5. The flight examiner will assign an overall grade (1, 2 or 3) in the Qualification Ground Phase of the AF Form 8, **Certificate of Aircrew Qualification**.

**3.3. Qualification (QUAL) Evaluations.** Complete all required sub-areas from sections I and II of the AF Form 4068, according to crew position. If the crewmember is an instructor, complete section IV. "Optional" areas/sub-areas that are not accomplished in flight will be evaluated verbally.

**3.4. Instrument (INSTM) Evaluations.** Complete all required sub-areas from sections I and III of the AF Form 4068, according to crew position. If the crewmember is an instructor, complete section IV. "Optional" areas/sub-areas that are not accomplished in flight will be evaluated verbally.

**3.5. Mission (MSN) Evaluations.** Complete all of Area I (General) and a representative sample of mission areas/sub-areas from section V of the AF Form 4068. If the crewmember is an instructor, complete section IV. Evaluators are encouraged to give the crewmember a scenario representative of a unit mission. Not every unit mission needs to be evaluated in flight and unit missions can be conducted day or night, with or without Night Vision Goggles (NVG). Pre-flight of NVGs will be evaluated under in section I, General, area 3. Preflight/Postflight Flight Equipment.

3.5.1. **Table 3.1.** prescribes qualifications and certifications for the UH-1N.

**Table 3.1. Mission Qualifications and Certifications.**

Qualifications			Certifications		
Remotes	REM	All	AIE	AIE	(P)
NVG Remote	NVG	All	FCF	FCF	(P, FE)
Formation	FORM	(P)	FCF Co-Pilot	FCFCP	(CP)
Aerial Gunnery	GUN	(FE, AG)	Fire Bucket	FB	All
Tactical	TAC	All	Parachute Drop	PARA	All
NVG Tactical	NTAC	All	Sling Operations	SLNG	All
Contingency	CONT	All	Day Water Operations	DWO	All
AIE Rappel	RPL	(FE, AG)			
AIE Rope Ladder	RL	(FE, AG)	Hot Refuel	HR	All
AIE Hoist	HST	(FE, AG)	NVG Scanner	NVGS	(P)
AIE Fast Rope	FR	(FE, AG)			

**NOTE:** Table 3.1. Does not apply to Flight Surgeons and Aerial Photographers.

3.5.2. Initial Mission (INIT MSN). Any evaluation that completes a formal mission qualification upgrade will be annotated as INIT MSN on the AF Form 8 and the AF Form 942.

3.5.3. Examiner's remarks on the AF Form 8 will include mission qualifications and certifications evaluated IAW Table 3.1. Document missions and certifications evaluated in the Mission Description section.

3.5.4. The certifying official will sign the AF Form 1381, **USAF Certification of Aircrew Training**.

**3.6. Instructor Evaluations.** To initially qualify as an instructor in the H-1, the crewmember must successfully complete an INIT INSTR evaluation. The evaluation may be conducted as one flight covering areas I and IV, plus a representative sample of areas II, III (for pilots), and V. Events qualified/certified after the initial instructor evaluation do not require additional instructor evaluations.

**NOTE:** A recurring evaluation for an evaluator pilot should be given on an instructional sortie not while administering an evaluation.

3.6.1. MAJCOMs will determine appropriate crew compliment for initial instructor (INIT INSTR) evaluations.

3.6.2. Evaluate Area IV during all periodic evaluations for instructors.

3.6.3. Thoroughly evaluate the examinee's instructor knowledge and ability as outlined in [Attachment 2](#).

**3.7. Formal Course Evaluations.** Conduct evaluations IAW syllabus mission profile guidelines, or on a mission profile developed from syllabus training objectives. Formal course guidelines may be modified, based on local operating considerations or flight examiners judgment. Grade training objectives and

related areas using the performance criteria in this volume. For all pilot/co-pilot initial evaluations, a qualified instructor/flight examiner will be in a seat with a set of controls.

**3.8. Forms Prescribed.** AF Form 4068, **H-1 Helicopter Crew Member Flight Evaluation.**

**3.9. Forms Adopted.** AF Form 8, **Certificate of Aircrew Qualification**, AF Form 847, **Recommendation for Change of Publication**, AF Form 1381, **USAF Certification of Aircrew Training.**

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

AFPD 10-9, *Lead Operating Command Weapon Systems Management*

AFPD 11-2, *Aircraft Rules and Procedures*

AFI 11-2H-1V1, *H-1 Helicopter Aircrew Training*

AFI 11-2H-1V3, *H-1 Helicopter Operations Procedures*

AFI 11-202V2, *Aircrew Standardization/Evaluation Program*

AFMAN 11-217V1, *Instrument Flight Procedures*

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

***Abbreviations and Acronyms***

**AC**—Aircraft Commander

**AF**—Air Force

**AFRC**—Air Force Reserve Command

**AFSPC**—Air Force Space Command

**AFTO**—Air Force Technical Order

**AGL**—Above Ground Level

**AHO**—Above Highest Obstacle

**AIE**—Alternate Insertion or Extraction

**ANG**—Air National Guard

**AWL**—Above Water Level

**BMC**—Basic Mission Capable

**CP**—Co-pilot

**CRM**—Crew Resource Management

**DH**—Decision Height

**DME**—Distance Measuring Equipment

**EF**—Evaluator Flight Engineer

**EP**—Emergency Procedure

**EPE**—Emergency Procedures Evaluation

**FCF**—Functional Check Flight

**FCIF**—Flight Crew Information File

**FE**—Flight Engineer  
**FEF**—Flight Evaluation Folder  
**FL**—Flight Lead  
**GS**—Ground Speed  
**HHQ**—Higher Headquarters  
**IAW**—In Accordance With  
**ILS**—Instrument Landing System  
**IMC**—Instrument Meteorological Conditions  
**IP**—Instructor Pilot or Initial Point  
**ITO**—Instrument Take Off  
**KIAS**—Knots Indicated Airspeed  
**LOC**—Localizer  
**LZ**—Landing Zone  
**MAJCOM**—Major Command  
**MAP**—Missed Approach Point  
**MC**—Mission Co-pilot  
**MDA**—Minimum Descent Altitude  
**MDS**—Mission Design Series  
**MP**—Mission Pilot  
**MQF**—Master Question File  
**MSA**—Minimum Safe Altitude  
**MSN**—Mission  
**N/A**—Not Applicable  
**NAF**—Numbered Air Force  
**NAV**—Navigation  
**NLT**—Not Later Than  
**NM**—Nautical Mile  
**NOTAM**—Notice to Airman  
**NVG**—Night Vision Goggle  
**PAR**—Precision Approach Radar  
**RPM**—Revolutions Per Minute  
**SA**—Situational Awareness

**SELO**—Standardization/Evaluation Liaison Officer

**SQB**—Secure Question Bank

**TACAN**—Tactical Air Navigation

**TO**—Technical Order

**TOLD**—Take off and Landing Data

**TOT**—Time on Target

**USAF**—United States Air Force

**VFR**—Visual Flight Rules

**VMC**—Visual Meteorological Conditions

**VOR**—VHF Navigation Aid

### *Terms*

**Certification**—The process of certifying an individual to perform a specific event (i.e., water operations, cargo sling, etc.).

**Eligibility Period**—The 6-month period prior to the expiration date of an evaluation.

**Emergency Procedures Evaluation**—A verbal evaluation used to evaluate emergency procedures and systems knowledge.

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

**Initial Evaluation**—The first evaluation of any type for a crew position in an MDS (i.e., INIT QUAL, INIT MSN, etc.).

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

**Skills Criteria**—Defined skills used as the basis for operational training and evaluation. The characteristics of the skill are that they are easily identifiable and offer consistency in grading evaluations.

## Attachment 2

### H-1 HELICOPTER CREWMEMBER FLIGHT EVALUATION CRITERIA

#### A2.1. Ground Phase Requisites:

A2.1.1. Ground Phase Requisites Grading Criteria. Ground phase requisites are graded as level [1], [2], or [3] IAW AFI 11-202, Vol 2.

A2.1.2. Publications Check:

[1] Publications current and properly posted.

[2] Publications current with minor/administrative errors in posting.

[3] Publications not current and/or with errors in posting that result in incorrect/incomplete information.

A2.1.3. Emergency Procedures Evaluation (EPE).

[1] Given a simulated emergency, correctly analyzed the situation and provided the appropriate action (boldface, if required provided promptly with correct response in the correct sequence). Used checklist or flight manual, as required. Thoroughly familiar with applicable aircraft systems, limitations, and performance characteristics.

[2] Minor deviations from [1] criteria. Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness. Analysis slow or incomplete. Some deficiencies in systems knowledge. Referred to checklist or flight manual, as required.

[3] Major deviations from [1] criteria. Incorrect analysis or incorrect response to boldface. If required, boldface provided with significant hesitation or with incorrect response or incorrect sequence. Significant deficiencies in systems knowledge. Did not refer to checklist or flight manual, as required.

#### A2.2. Flight Phase Areas, Sub-areas and Grading Criteria (See AF Form 4068):

**Asterisk (\*) items identify critical areas/sub-areas**

##### I. GENERAL:

##### 1. Knowledge of Publications, Systems, and Limits: (P/FE/AG)

**Q** Demonstrated thorough knowledge of National Airspace System rules and procedures, applicable aircraft, equipment, publications and systems operating limits. Ensured satisfactory operation within limits.

##### 2. Performance Data/Weight and Balance: (P/FE)

##### A. Takeoff and Landing Data (TOLD).

**Q (P/FE)** Checked all factors applicable to the flight. Satisfactory knowledge of applicable directives and correctly computed TOLD. Computed TOLD within the following specified tolerances: power available +/-1 percent, power required +/-2 percent (4 foot and OGE only), minimum safe single-engine airspeed +/-2 knots, maximum safe single-engine airspeed +/-2 knots, Vne +/-2 knots.

**Q- (P/FE)** Checked all factors applicable to the flight. Satisfactory knowledge of applicable directives and correctly computed TOLD. Computed TOLD within the following specified tolerances: power avail-

able +/-2 percent, power required +/-3 percent (4 foot and OGE only), minimum safe single-engine airspeed +/-3 knots, maximum safe single-engine airspeed +/-3 knots, Vne +/-3 knots.

**\*B. Weight and Balance.**

**Q (P)** Checked all factors applicable to the flight. Verified accuracy of weight and balance information to ensure operating within specified parameters. If required, correctly computed weight and balance IAW governing directives.

**Q (FE)** Checked all factors applicable to the flight. Satisfactory knowledge of weight and balance and other applicable directives and correctly computed a DD Form 365-4. Computed the DD Form 365-4 within the following specified tolerances: Weight +/-100 pounds, center of gravity +/-0.1 inches.

**Q- (FE)** Checked all factors applicable to the flight. Satisfactory knowledge of weight and balance and other applicable directives and correctly computed a DD Form 365-4. Computed the DD Form 365-4 within the following specified tolerances: Weight +/-150 pounds, center of gravity +/-0.2 inches.

**3. Preflight/Postflight: (P/FE)**

**Q** Accomplished required aircraft/equipment inspections IAW flight manual and applicable directives. Ensured the aircraft was correctly configured for assigned mission and is fully aware of aircraft readiness for flight. Appropriate checklists and/or T.O.s were out and available for reference. Ensured all required personal and mission equipment was available. Equipment was properly preflighted, operated, and secured. Has a thorough understanding of the information contained in aircraft/equipment forms and correctly determined aircraft/equipment status. Completed all required forms (before, during, and after flight, to include training folders, as applicable) without significant errors.

**4. Cargo/Passenger Loading/Offloading and Tiedown: (P/FE)**

**Q** Satisfactorily loaded/off loaded the aircraft and secured all cargo and equipment IAW the flight manual and other applicable directives.

**5. Start/Shutdown Procedures: (P/FE)**

**Q** Accomplished engine start and shutdown procedures, including all required checks, IAW the flight manual, checklist, and applicable directives. Correctly configured the cockpit and coordinated with ground support personnel.

**6. Use of Checklists: (P/FE/AG)**

**Q** Effectively referenced and completed appropriate checklists with accurate and timely responses. Must be familiar with checklist *Notes*, *Cautions*, and *Warnings* without reference to Flight Manual. Before Takeoff and/or Before Landing checklists adequately covered aircrew intentions in the event of an abort, aircraft problem etc.

**\*7. Safety: (P/FE/AG)**

**Q** Recognized factors affecting safety of flight. Assessed available options and selected a suitable course of action based on reasonable risk assessment. Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

**\*8. Judgment: (P/FE/AG)**

**Q** 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.

**9. Crew Resource Management: (P/FE/AG)****\*A. Situational Awareness:**

**Q** Aware of and responded to all factors which affected safety, crewmembers, aircraft or mission effectiveness. The aircrew member 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.

**B. Crew Coordination/Flight Integrity:**

**Q** Communicated and coordinated effectively with other crewmembers without misunderstanding, confusion, or delay. Considered needs, responsibilities, abilities, and inputs of all crewmembers. Worked effectively with all members of the crew to accomplish the tasks of the mission. Utilized all the members of a flying package to accomplish the mission at hand. Had knowledge of, and effectively exercised the attributes of leadership, responsibility, assertiveness, conflict resolution, hazardous attitudes, behavioral styles, legitimate avenues of dissent, and team building.

**C. Communications/ATC Procedures:**

**Q** Fully knowledgeable of communications procedures. Required contacts were made without hesitation, omission, or discrepancy. Promptly complied with all controlling agencies instructions and made required reports. Obtained proper clearance from controlling agency. Shared information with others to cause some kind of action: to direct, to inform, to question, or to persuade. 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.).

**D. Risk Management/Decision Making:**

**Q** Accurately completed Safety Risk Assessment program to mitigate risks. Updated risk analysis throughout the mission, and kept the crew informed on changes. Exercised logic-based, common sense approach to making calculated decisions on human, material, and environmental factors before, during, and after mission activities and operations. Demonstrated the ability to choose a course of action using logical and sound judgment based on available information. Effectively incorporated risk assessment, the risk management process, tools, breakdowns in judgment and discipline, problem solving, evaluation of hazards, and control measures.

**E. Task Management:**

**Q** Effectively demonstrated the ability to alter a course of action based on new information, maintain constructive behavior under pressure, and adapt to internal and external environment changes. Also, properly considered establishing priorities, overload, underload, complacency, management of automation, available resources, checklist discipline, and standard operating procedures.

**F. Mission Planning: [evaluates the process not just the plan]**

**Q** Developed a sound and thorough plan to accomplish the mission. Accounted for all factors applicable to the flight (i.e. weather, NOTAMs, landing site data, FLIPs, weight and balance, performance data, fuel requirements, maps, etc.) IAW applicable directives. Flight engineers assisted in assessing all factors applicable to flight and actively contributed to mission planning as necessary.

**G. Brief/Debrief:**

**Q** Presented a logical, well-organized, and professional briefing in a timely manner. Covered all factors pertaining to the flight and provided effective discussion for accomplishing the mission. Concluded the briefing in time to allow for a thorough preflight of personal equipment, aircraft and mission equipment. Considered the abilities/limitations of all crew and flight members. Effective use of training aids. Passengers were thoroughly and professionally briefed IAW applicable directives. *Note:* If not the briefer, actively participated and provided input when required. Fully understood the briefing and followed instructions. Thoroughly debriefed the mission. Discussed mission accomplishment and debriefed deviations and lessons learned. Offered correct guidance as appropriate. Debriefed maintenance personnel as required. Included pre-mission analysis and planning, briefing, ongoing mission evaluation, and post mission debrief as well as specific tools and techniques to be used in operational and training missions. Reviewed and discussed mission accomplishment looking at what was achieved what barriers were encountered and how the mission could be accomplished better next time.

**Q-** Events were out of sequence, redundant, and difficult to understand. Did not effectively use training aids. Focused on non-essential items and omitted minor details. Did not consider all aircrew members' abilities. Poor time management. Passenger briefing lacked sufficient information. Did not compromise safety or mission effectiveness. *Note:* If not the briefer/debriefer, did not fully understand duties and lack of action/input created minor problems that did not affect safe mission accomplishment.

**U** Errors or omissions precluded safe and effective mission accomplishment. Disorganized or illogical sequence. Presentation created doubts or confusion or omitted major events. Did not allow sufficient time for preflight of personal equipment, aircraft, and/or mission equipment. Ignored crew and flight members' abilities, limitations, and/or questions. Passengers not briefed. Did not debrief mission deviations or offer corrective guidance. Did not debrief maintenance personnel, as required. *Note:* If not the briefer/debriefer, late or missed the briefing. Not prepared or did not actively participate when requested. Did not fully understand duties, and lack of action/input created problems that impacted safe mission accomplishment.

**10. Resource Management: (P/FE/AG)**

**Q** Effectively managed all resources (time, fuel, etc.) applicable to mission execution. Able to adapt available resources to changing situations.

**11. Scanning/Clearing: (P/FE/AG)**

**Q** Provided clear, concise and positive direction to the crew during flight, reconnaissance, approaches, landing, and departures. Ensured aircraft clearance from obstacles.

**II. QUALIFICATION:****12. Hover/Taxi Maneuvers: (P)**

**Q** Performed hover and taxi IAW procedures 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.

**13. Takeoffs: (P)**

**Q** Performed takeoffs IAW procedures outlined in the flight manual and other directives. Smooth, precise, and controlled aircraft movement. Maintained constant ground track and climbout angle. Smooth power application. If necessary, takeoff abort executed in a safe and timely manner as briefed/required without exceeding aircraft limitations.

**A. Normal Takeoff:** Initiated from the ground or hover. Applied hover power plus 10%, and achieved approximately 70 KIAS at 50 feet AGL, but greater than 15 feet by 60 KIAS (see HV diagram) or as briefed.

**B. Marginal Power Takeoff:** Initiated at a 3-5 foot hover. Accelerated without ground contact. Applied no more than hover power. Cleared a 50-ft. obstacle downrange. Climbout above effective translational lift (ETL) without descending below 50-ft. and/or the obstacle while accelerating to 50 KIAS.

**C. Maximum Performance Takeoff:** Initiated from the ground. Applied desired power (usually hover power plus 10-15%) smoothly and expediently. Cleared a real or simulated 100-ft. obstacle. Climbout without descending below 100 ft. and/or the obstacle while accelerating to 70 KIAS.

#### **14. Approaches: (P)**

**Q** Performed approach IAW procedures outlined in the flight manual and other directives. Smooth, precise, and controlled aircraft movement. Maintained constant ground track and approach angle. Descent and deceleration constant and even. If necessary, landing abort executed in a safe and timely manner as briefed/required without exceeding aircraft limitations.

**A. Normal Approach:** Entered at 300 feet AGL and 70 KIAS. Started descent on an apparent approach angle of 30 degrees. Terminated to hover or touchdown at the desired landing point.

**B. Steep Approach:** Entered at 300 feet and 30 knots apparent ground speed. Started descent on an apparent approach angle of 45 degrees. Did not exceed 800 feet per minute rate of descent. Terminated to touchdown at the desired landing point.

**C. Shallow Approach:** Entered at 300 feet AGL and 70 KIAS. Started descent on an apparent approach angle of 10 degrees. Terminated to hover or slide at the desired landing point.

**D. Turning Approach (optional):** Entered from any applicable point in the traffic pattern. Executed a continually descending, decelerating turn to align the aircraft with the landing spot. Terminated to hover or touchdown at the desired landing point.

#### **15. Landing: (P)**

**Q** Performed landing IAW procedures outlined in the flight manual and other directives. Smooth, precise, and controlled aircraft movement. Maintained constant heading.

**A. To a Hover:** Terminated at 3-5 feet over the intended spot with no forward speed.

**B. To a Touchdown:** Maintained constant rate of descent to touchdown. Touched down with minimal forward speed over the intended spot. Touched down without excessive descent rate and with no side drift.

**C. To a Slide:** Maintained above ETL (or as briefed) until touchdown. Maintained alignment with the landing area. Level touchdown accomplished at the intended location with minimal rate of descent.

#### **16. Traffic Pattern: (P)**

**Q** Performed traffic pattern IAW procedures outlined in the flight manual and other directives. Smooth, precise, and controlled aircraft movement. Maintained a rectangular pattern. Maintained 90 KIAS and 500 feet AGL on downwind; 70 KIAS and 300 feet AGL on base (or as local directives dictate). Conducted a level turn to final. Cleared the aircraft. Airspeed maintained within 10 KIAS and altitude within 50 feet.

#### **17. Single Hydraulic Failure: (P/FE)**

**Q (P)** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. 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 lane alignment.

**Q (FE)** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Communicated aircraft alignment, and performance to pilot flying in an accurate and timely manner. Able to explain corrective actions.

#### **18. Manual Fuel: (P/FE)**

**Q (P)** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Pattern, approach, and landing adjusted to the situation. Smooth, precise, and controlled aircraft movement. Controlled engine and rotor rpm throughout the maneuver. Maintained manual engine torque approximately 5-10 % below the governed engine.

**Q (FE)** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Communicated aircraft performance in an accurate and timely manner. Able to explain corrective actions.

**Q-** Deviations of Q 10% - 20% below the governed engine. Rarely married or swapped Nf needles, and applied proper corrections. Did not over control engine or rotor RPM. Aircraft control not erratic or unsafe.

#### **19. Single Engine: (P/FE)**

**Q (P)** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Pattern, approach, and landing adjusted to the situation. Smooth, precise, and controlled aircraft movement. Touchdown speed commensurate with terrain and power available.

**Q (FE)** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Accomplished power computations as required. Communicated aircraft performance quickly and effectively. Able to explain corrective actions.

#### **20. Autorotation: (P/FE)**

**Q (P)** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Smooth, precise, and controlled aircraft movement. Controlled Nr throughout the maneuver. If a power recovery during descent is required, initiated in a timely and effective manner without exceeding aircraft limitations. Flared at an appropriate altitude (between approximately 100 and 75 feet AGL), smooth and controlled power recovery, and would have landed safely and in the desired area. Power recovery no lower than 4 feet AGL.

**Q (FE)** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Communicated aircraft performance quickly and effectively. All calls made to the pilot flying were consistent and clear, and FE was able to explain corrective actions.

**A. Straight Ahead Autorotation.** Entered above 500 feet AGL, and between 60 and 100 KIAS.

**B. Turning Autorotations (90-degree).** Entered above 500 feet AGL, and between 60 and 100 KIAS.  
**(180-degree).** Entered above 800 feet AGL, and between 60 and 100 KIAS.

### **III. INSTRUMENTS: (P)**

**Table A2.1. General Instrument Deviation Criteria.**

Event	Q	Q-	U
Airspeed	< 10 KIAS	< 20 KIAS	> 20 KIAS
Altitude	< 100 foot	< 300 foot	> 300 foot
Heading	< 10 degrees	< 15 degrees	> 15 degrees
Maintaining an Arc	< 1 NM	< 2 NM	> 2 NM

**21. Instrument Cockpit Check:**

**Q** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Ensured required publications were onboard.

**22. Instrument Departure/Climb/Level-Off:**

**Q** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Smooth, precise, and controlled aircraft movement. Performed departure as published/directed and complied with all restrictions. Maintained course/heading accurately. Leveled off smoothly at specified altitude. Promptly established proper cruise airspeed.

**23. Use of NAVAIDs/Navigation:**

**Q** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Ensured NAVAIDs were properly tuned, identified, and monitored. Used appropriate navigation procedures and demonstrated capability to navigate accurately. Arrived at fix-to-fix point within 1 mile. Complied with clearance instructions. Aware of position at all times.

**Q-** Arrived at fix-to-fix point within 2 miles.

**24. Holding Procedures:**

**Q** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Able to correctly enter and maintain a holding pattern. Able to estimate winds and makes appropriate corrections. For VOR holding, able to make timing corrections. Smooth, precise, and controlled aircraft movement. Complied with ATC instructions.

**25. Non-Precision Approach:**

**Q** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Able to fly a non-precision approach as published/directed. Complied with all restrictions. Made smooth and timely corrections. Position would have permitted a safe landing. Not more than momentary descent below MDA. Course deviation within +/-1 dot; MDA deviation: -50/+100 feet. *Note:* The -50 foot tolerance at MDA applies only to momentary excursions.

**26. Precision Approach:**

**Q** Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Able to fly a precision approach as published /directed. Complied with all restrictions. Made smooth and timely corrections. Position would have permitted a safe landing. For **ILS**: Maintained on course and glidepath with no more than momentary deviations 1 dot left or right of localizer course and/or 1 dot below, 2 dots above glidepath. Not more than momentary descent below DH. For **PAR**: Followed controller instructions. Not more than momentary descent below DH.

Q- Did not compromise safety, aircraft limitations, or maneuver/mission effectiveness. Courses: +/-2 dots; Glideslope +/-1 ¾ dots below or 2 ¾ dots above.

**27. Missed Approach/Climbout:**

Q Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Executed missed approach/climbout as published/directed.

**28. Circling Procedures (optional):**

Q Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Able to fly a circling maneuver from an instrument approach as directed. Complied with all restrictions. Maneuver would have permitted a safe landing.

**29. Transition to Landing: (optional)**

Q Complied with instructions/restrictions. Able to safely land the aircraft at the termination of an instrument approach in the desired landing area as briefed.

**30. Unusual Attitude Procedures (optional):**

Q Familiar and complied with procedures outlined in the flight manual, checklist, and other directives. Able to recover from an unusual attitude using appropriate procedures.

**V. INSTRUCTOR: (P/FE/AG)**

**Asterisk (\*) items identify critical sub-areas**

**\*31. Ability to Instruct:**

Q Reviewed student's present level of training and defined mission events to be performed. Developed a sound plan for accomplishing necessary tasks. Provided a well-organized, thorough student briefing. Planned ahead and made timely decisions. Demonstrated ability to communicate effectively and offer instruction or suggestions for improvement.

**32. Demonstration of Maneuvers:**

Q Able to effectively demonstrate procedures and maneuvers. Demonstrated thorough knowledge of aircraft systems, procedures and all applicable publications and directives.

**33. Performance Analysis/Critique:**

Q Accurately assessed student performance. Able to discern problem areas. Correctly identified performance deficiencies or strengths. Able to provide performance feedback at appropriate times. Able to reconstruct the flight, offer analysis and provide corrective guidance where appropriate. Completed all training documents thoroughly and accurately.

**V. MISSION: (as applicable)**

**34. VFR Navigation: (P/FE/AG)**

Q Familiar with and able to effectively use available aircraft navigational systems. Able to satisfactorily determine position when map reading. Recognized check/turn points. Consistently remained on planned course. Able to adjust for deviations in time and course. Flight engineer assisted pilot as briefed/required in identifying terrain features and or obstacles while providing timely and useful navigation inputs as briefed/required throughout the mission.

**A. Dead Reckoning:** Able to use the principles of time, distance, and heading to determine aircraft position, navigation, and destination. Complied with appropriate planning guidance (used proper symbols, posted route on master map, etc.).

**B. Contour Navigation:** Complied with appropriate planning guidance (used proper symbols, posted route on master map, etc.). Remained within route/area boundaries. Effectively used terrain to determine route, altitude, ground speed, and aircraft masking.

**C. Divert Procedures:** Correctly determined new heading  $\pm 10^\circ$ . Correctly determined ETE  $\pm 2$  min. Determined ETE from the diversion point to nearest recovery base  $\pm 2$  min. Correctly determined fuel requirement  $\pm 100$  lbs; and surplus (loiter time)  $\pm 5$  min. Correctly analyzed and determined if mission could be accomplished (to include payload capability at arrival to destination point). Accomplished without undue delay.

**Q-** Able to regain position orientation in a minimal amount of time. Adapted to missed check/turn points. Did not provide adequate navigational input as briefed/required yet did not compromise safety or mission effectiveness.

### **35. Formation: (P)**

**Q** Familiar with and complied with formation procedures and directives. Established appropriate formations. Positive control of flight/element. Smooth on the controls and had proper wingman considerations. Planned ahead and made timely decisions.

**A. En Route:** Maintained position with only momentary deviations. Made smooth and immediate position corrections. Maintained safe separation.

**B. Lost Visual/No Joy Procedures:** Provided concise lost visual and rejoin instructions; correctly executed applicable actions.

**C. Rejoin:** Able to make a smooth, timely join-up without excessive closure rate to the appropriate briefed position.

**D. Terminal Area Operations:** Maintained position with only momentary deviations. Made smooth and immediate position corrections. Maintained safe separation.

### **36. Remote Operations: (P/FE/AG)**

**Q (P)** Familiar with procedures and able to execute appropriate maneuvers IAW the flight manual and other directives. Smooth, precise, and controlled aircraft movement during approach/hovering/takeoff. Thoroughly aware of power requirements/limitations. Proper consideration and use of terrain features and wind conditions. If not flying, closely monitored aircraft systems/instruments and aircraft flight path/position. Ensured aircraft clearance from obstacles.

**A. Site Evaluations:** Effectively assessed landing risk. Evaluated and communicated the landing area's obstacles, size and topography, associated winds and turbulence, aircraft's power available/required, and departure route. Maintained approximately 300' above the site and a minimum of 50 KIAS during the high reconnaissance. Maintained a minimum of 50' above highest obstacle (AHO) and 50 knots during the low reconnaissance.

**B. Approach/Landing/Departure:** Performed landing IAW procedures outlined in the flight manual and other directives. Smooth, precise, and controlled aircraft movement. Maintained constant ground track and approach angle. Descent and deceleration constant and even. Maintained constant heading during

touchdown. Performed takeoff IAW procedures outlined in the flight manual, other directives and commensurate with terrain. Smooth, precise, and controlled aircraft movement. Maintained constant ground track, obstacle clearance, and climbout angle. Smooth power application.

**C. Slope Operations (optional):** No excessive drift before touchdown and allowed minimum drift after skid contact with the ground. Heading remains within +/-5 degrees.

**Q (FE/AG)** Familiar and complied with procedures IAW the flight manual and other directives. Confirmed required TOLD and is thoroughly aware of power requirements/ limitations. Provided clear, concise and positive direction to the pilot flying during reconnaissance, approaches, landings, and departures. Communicated aircraft clearance from obstacles with an acceptable level of speed and accuracy.

### **37. Contingency Operations: (P/FE/AG)**

IAW local directives.

### **38. Tactical Operations: (P/FE/AG)**

**Q (P)** Familiar with procedures and able to execute appropriate maneuvers IAW the flight manual and other directives. Smooth, precise, and controlled aircraft movement during approach/hovering / takeoff. Thoroughly aware of power requirements/limitations. Proper consideration and use of terrain features and wind conditions. If not flying, closely monitored aircraft systems/instruments and aircraft flight path/position.

**A. En Route:** Chose and flew an effective route, altitude and check/turn points. Flew above the minimum altitude and in an established low-level area.

**B. Terminal Area Operations:** Familiar with and able to apply infiltration/exfiltration procedures. Developed an appropriate plan to accomplish the infiltration/exfiltration. Able to adapt to unforeseen circumstances or contingencies. Successfully accomplished the infiltration/exfiltration. Correctly applied authentication procedures.

**C. Threat Degradation:** Familiar with and able to apply threat degradation principles. Planned for and applied appropriate tactics for known and suspected threats consistent with directives. Took prompt, appropriate action to minimize exposure to unforeseen threats.

**D. Low-Level Navigation:** Complied with appropriate planning guidance (used proper symbols, posted route on master map, etc.). Able to use the principles of time, distance, heading to determine aircraft position, navigation, and destination. Remained within route/area boundaries. Effectively used terrain for masking if available.

**E. Time-On-Target.** Arrived at target within  $\pm 2$  minutes. (Q-) Arrived at the target within +/-5 minutes.

**Q (FE)** Familiar and complied with procedures IAW the flight manual and other directives. Provided clear, concise and positive direction to the pilot flying during approaches, landings, and departures. Confirms TOLD and is thoroughly aware of power requirements/limitations. Communicated aircraft clearance from obstacles with an acceptable level of speed and accuracy.

### **39. Search Procedures: (P/FE/AG)**

**Q** Familiar with the various types of search patterns and search procedures. Knowledgeable of scanning techniques and content of appropriate briefing guides. Able to correctly apply search procedures to a scenario.

**40. Alternate Insertion and Extraction (Rescue Hoist, Rope Ladder, Fast Rope, or Rappel): (P/FE/AG)**

**Q (P)** Familiar with procedures and able to execute appropriate maneuvers IAW the flight manual and other directives. Smooth, precise, and controlled aircraft movement during approach/hovering/takeoff. Thoroughly aware of power requirements/limitations. Proper consideration and use of terrain features and wind conditions. If not flying, closely monitored aircraft systems/instruments and aircraft flight path/position. Provided clear, concise and positive direction to the pilot flying during reconnaissance, approaches, hovering, and departures. Maintained hover altitude +/-10 feet from desired/briefed; maintained hover heading +/-10 degrees from briefed/desired.

**Q (FE/AG)** Familiar and complied with procedures IAW the flight manual and other directives. Confirmed required TOLD and is thoroughly aware of power requirements/ limitations. Provided clear, concise and positive direction to the pilot flying during reconnaissance, approaches, hovering, landings, and departures. Communicated aircraft clearance from obstacles with an acceptable level of speed and accuracy. Ensured required equipment is properly preflighted, and configured for the mission. Effectively deployed and/or recovered AIE device/personnel (if necessary).

**41. Water Operations: (P/FE/AG)**

**Q (P)** Familiar and complied with procedures, directives, and operations as applicable to the assigned mission. Able to effectively execute the assigned mission. Established appropriate traffic pattern, approach, and departure; enabled proper pyrotechnic and/or swimmer deployment. Smooth, precise and controlled aircraft movement.

**Q (FE/AG)** Familiar and complied with procedures, directives, and operations as applicable to the assigned mission IAW the flight manual and other directives. Confirmed required TOLD and is thoroughly aware of power requirements/limitations. Provided clear, concise and positive direction to the pilot flying during reconnaissance, approaches, hovers, and departures; enabling proper pyrotechnic and / or swimmer deployment. Communicated aircraft clearance from obstacles with an acceptable level of speed and accuracy and has a satisfactory knowledge in the use and employment of pyrotechnics. Established appropriate traffic pattern, approach, and departure; enabled proper pyrotechnic and/or swimmer deployment.

**A. Swimmer Deployment/Observation Pass:** Flown at an appropriate altitude and airspeed for effective deployment or observation IAW directives.

**B. Day Water Pattern:** Flown at appropriate altitude and airspeed IAW directives.

**42. Cargo Sling: (P/FE/AG)**

**Q (P)** Familiar and complied with cargo sling procedures and 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.

**Q (FE)** Familiar and complied with cargo sling procedures IAW the flight manual and other directives. Properly executed hookup and release procedures. Computed required TOLD and is 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.

**Q (AG)** Familiar and complied with cargo sling procedures IAW the flight manual and other directives. Properly executed hookup and release procedures. Properly executed hookup and release procedures. 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.

**43. DV Support Operations: (P/FE/)**

IAW local directives.

**44. NVG Operations: (P/FE)**

**Q** Complied with guidance in AFI 11-2H-1 Vol 3, Chapter 7, maneuver and CRM standards while using NVGs.

**45. Aerial Gunnery: (P/FE/AG)**

**Q (P)** Familiar and complied with procedures and operations IAW flight manual and other directives. Able to effectively execute the assigned mission. Established appropriate aerial gunnery patterns, approaches to target zone and departures away from target zone allowing for successful target engagement. Smooth, precise and controlled aircraft movement.

**A. Arm/De-Arm/ Safe Weapon. Q (FE)** Familiar and complied with procedures and operations IAW flight manual and other directives. Properly accomplished all weapons procedures IAW Flight Manual, other technical orders and directives.

**B. Target Acquisition. Q (FE)** Provided clear, concise, and positive direction to the pilot flying, allowing for constant target acquisition. Ensured pilots flying maintained appropriate gunnery patterns, approaches to and away from target zone. Must consistently be able to deliver rounds on target.

**46. Para Drop: (P/FE/AG)**

IAW local directives

**47. Fire Bucket: (P/FE/AG)**

**Q (P)** Familiar and complied with fire bucket procedures and operations IAW applicable 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.

**Q (FE/AG)** Familiar and complied with fire bucket procedures IAW applicable directives. Thoroughly familiar with and properly performs fire bucket preflight procedures IAW applicable directives. Properly performs fire bucket operational checks, hookup and water release procedures. Computed required TOLD and is 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.