

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

**AIR FORCE INSTRUCTION 11-2VIP  
VOLUME 2**



**17 JUNE 2010**

***Flying Operations***

**VIP AIRCREW EVALUATION CRITERIA**

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OPR: HQ AMC/A3VS

Certified by: HQ USAF/A3O-A (Col Scott  
L. Dennis)

Supersedes: AFI11-2SAMV2, 15  
November 2000; AFI11-2C-  
20V2, 1 August 2000;  
AFI11-2DVG2; 7 May  
2001 (ANG C-40C Only);  
AFI11-2C-9CV2, 1 July  
2000.

Pages: 113

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This instruction implements AFD 11-2, *Aircraft Rules and Procedures*. It establishes evaluation criteria for the operation of VC-25A, C-32A, C-40B/C, C-9C, C-20B/H and C-37A/B aircraft to safely and successfully accomplish their worldwide mobility missions. It is used in conjunction with AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*, and the appropriate MAJCOM supplement. This instruction applies to Air Mobility Command (AMC), Pacific Air Forces (PACAF), United States Air Forces in Europe (USAFE), Air Force Reserve Command (AFRC), and Air National Guard (ANG) units. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF IMT 847, *Recommendation for Change of Publication*; route AF IMT 847s from the field through Major Command (MAJCOM) Stan/Eval.

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This publication may be supplemented at any level, but all direct Supplements must be routed to the OPR of this publication for coordination prior to certification and approval.

The Privacy Act of 1974 applies to certain information gathered pursuant to this instruction. The System of Records Notice F011 AF XO A, Aviation Resource Management System (ARMS), covers required information. The authority for maintenance of the system is 37 U.S.C. 301a, Incentive Pay; Public Law 92-204, Section 715, DoD Appropriations Act for 1972, December 18, 1971; Public Law 93-294, Aviation Career Incentives Act of 1974, May 31, 1974; Public Law 93-570, Continuing Appropriations, 1975, February 25, 1975; DoD Directive 7730.57, Aviation Career Incentive Act and Required Annual Report, February 5, 1976; and Executive Order 9397, Numbering System for Federal Accounts Relating to Individual Persons, November 22, 1943. The Paperwork Reduction Act of 1995 affects this instruction.

**SUMMARY OF CHANGES**

This document has been substantially revised and must be completely reviewed. Major changes include added guidance for C-40B/C, C-20B/H, and C-37A/B differences training, multiple qualifications, and aircrew evaluation criteria. In addition, all of the AF Form 3862, *Flight Evaluation Worksheet* examples have been updated to the new form.

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## Chapter 1

### GENERAL INFORMATION

**1.1. General.** This AFI provides flight examiners and aircrew members with procedures and evaluation criteria/tolerances to be used during flight evaluations required by AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. Specific areas for evaluation are prescribed to ensure an accurate assessment of the proficiency and capabilities of aircrews. Evaluators use this AFI when conducting aircrew evaluations. Instructors use this AFI when preparing aircrews for qualification.

**1.2. Applicability.** This AFI is applicable to all individuals operating VC-25, C-32A, C-40B/C, C-9C, C-20B/H and C-37A/B aircraft. Copies should be available to all crewmembers operating these Mission Design Series (MDS) aircraft.

#### **1.3. Key Words Explained.**

1.3.1. “Will” and “Shall” indicate a mandatory requirement.

1.3.2. “Should” is normally used to indicate a preferred, but not mandatory, method of accomplishment.

1.3.3. “May” indicates an acceptable or suggested means of accomplishment.

1.3.4. “Note” indicates operating procedures, techniques, etc., that are considered essential to emphasize.

**1.4. Deviations and Waivers.** Do not deviate from the policies and guidance in this AFI under normal circumstances, except for safety or when necessary to protect the crew or aircraft from a situation not covered by this AFI and immediate action is required. Report deviations or exceptions without waiver through appropriate Stan/Eval channels to MAJCOM Stan/Eval or equivalent, who, in turn, will notify AMC/A3V for follow-on action, if necessary.

1.4.1. Waiver authority for the contents of this document is lead command, which in turn, delegates MAJCOM/A3 as waiver authority according to AFI 11-202V2, and the appropriate MAJCOM supplement.

1.4.2. MAJCOM/A3 will forward a copy of approved long-term waivers to this instruction to lead command for follow-on action, if required.

**1.5. Supplements and Local Procedures.** This AFI is a basic directive. MAJCOMs and units may supplement this AFI according to AFD 11-2, *Aircraft Rules and Procedures*. Limit supplements to unique mission evaluation requirements only.

1.5.1. MAJCOM Supplement Coordination Process. Forward MAJCOM/A3-approved supplements, with attached AF Form 673, *Air Force Publication/Form Action Request*, to lead command (HQ AMC/A3V) for review. HQ AMC/A3V will provide a recommendation and forward to AF/XOOT for approval. AF/XOOT advises HQ AMC/A3V of approval/denial of supplement. Use the following OPR's address: HQ AMC/A3V, 402 Scott Dr., Unit 3A1, Scott AFB IL, 62225-5302. When the supplement is published provide a final copy to AF/XOOT and lead command OPR (HQ AMC/A3V).

1.5.2. Approved long-term waivers to AFI 11-202V2 (including approval authority and date) are incorporated in the appropriate paragraph of this instruction.

1.5.3. Local Supplement Coordination. Units send proposed Local Supplement to MAJCOM Stan/Eval for coordination, then MAJCOM/A3 for approval. When published, provide a final copy to HQ AMC/A3V and MAJCOM Stan/Eval.

**1.6. Requisition and Distribution Procedures.** Unit commanders provide copies for all aircrew members and associated support personnel, through local publications distribution offices.

**1.7. Improvement Recommendations.** Send comments and suggested improvements to this instruction on AF Form 847, *Recommendation for Change of Publication*, through Stan/Eval channels to HQ AMC/A3V, 402 Scott Drive Unit 3A1, Scott AFB IL, 62225-5302 according to AFI 11-215, *USAF Flight Manual Programs (FMP)*, and MAJCOM Supplement.

**1.8. Evaluations.** This instruction establishes standardized instrument, qualification, mission, and instructor evaluation criteria. It also establishes the areas/subareas necessary for the successful completion of evaluations, and which required areas will be considered critical and/or non-critical. Evaluations shall be administered by a USAF flight examiner in appropriate aircraft or Aircrew Training Device (ATD).

1.8.1. AMC Pyramid Evaluation Program. Pyramid evaluation program will be IAW AFI 11-202V2, AMCSUP1, *Aircrew Standardization/Evaluation Program*. If no MDS-qualified evaluator is on staff at AMC/A3V, AMC will designate the senior MDS flight examiner to evaluate the top of the pyramid. PAG/CC will designate the senior flight examiners to evaluate within the PAG.

1.8.2. To the maximum extent possible, evaluations should be accomplished in an approved ATD. Evaluations will consist of areas/subareas that have fidelity in the ATD and are ATD-creditable IAW AFI 11-2VIPV1, *VIP Aircrew Training*.

1.8.3. Evaluators should not conduct evaluations when scheduled as a primary crewmember.

**1.9. Evaluation Requirements.** See the appropriate crew chapters for evaluation requirements. Accomplish a combined evaluation (one flight evaluation) concurrently, whenever practical. Aircrews will complete the INSTM, QUAL, MSN and INSTR evaluations (as appropriate), at 17-month intervals according to AFI 11-202V2. Align dates, if possible, to minimize operational impacts and ensure requisites are met.

1.9.1. Qualification (QUAL) Evaluation. All crewmembers will successfully complete an initial (INIT) and periodic qualification (QUAL) evaluation. Requisites include Open Book, Closed Book, Boldface/Critical Actions Procedures (CAPs) exams (if applicable), Emergency Procedures Evaluation (EPE), and an evaluation in the aircraft or simulator.

1.9.2. Instrument (INSTM) Evaluation. All pilots will successfully complete a periodic instrument (INSTM) evaluation. Requisites include Open Book written instrument examination according to AFMAN 11-210, *Instrument Refresher Course Program*, and an evaluation in the aircraft or simulator.

1.9.3. Mission (MSN) Evaluation. All crewmembers will successfully complete an initial and periodic mission evaluation (MSN) according to AFI 11-202V2 in the aircraft or simulator.

1.9.3.1. Enroute (OME). Prior to certification to act as Pilot-in-Command (PIC) on any VIP mission, all pilots must complete an operational mission evaluation (OME). The OME is the culmination of aircraft commander (MP) upgrade training. Refer to Chapter 2 of this instruction for further guidance.

1.9.4. Instructor (INSTR) Evaluations. To initially qualify as an instructor in an MDS, all crewmembers will successfully complete an initial instructor (INSTR) evaluation in that MDS. The initial instructor (INIT INSTR) evaluation will include all areas under GENERAL, INSTRUCTOR, and selected QUALIFICATION/MISSION areas as determined by the evaluator. At unit commander's discretion, a crewmember that is fully mission qualified in primary and secondary platform, may upgrade to instructor on both platforms simultaneously with accomplishment of all prerequisites (only one evaluation in either aircraft is required). Evaluate crewmembers designated as instructors on their ability to instruct during all periodic QUAL or INSTM evaluations. **NOTE:** Pilots may complete periodic INSTR evaluations in the simulator. **NOTE:** Crewmembers who desire to align their qualification evaluation during an initial instructor evaluation must demonstrate all required areas under GENERAL, QUALIFICATION/MISSION, and INSTRUCTOR.

1.9.5. SPOT Evaluations. SPOT evaluations will be conducted IAW AFI 11-202V2, and associated MAJCOM supplements to this AFI. To align and/or be credited as recurring INSTM, QUAL, MSN or INSTR, all requisites for the desired evaluations must be met. In this case, the evaluator must be qualified in the MDS and crew position.

1.9.6. Combined Evaluations. QUAL, INSTM, MSN and INSTR evaluations should be combined to balance resources and mission taskings. All requirements for combined evaluations must be met. Limit verbal evaluation on requirements to the maximum extent possible. **EXCEPTION:** Combined evaluations are not authorized for OMEs.

1.9.7. Emergency Procedures Evaluations (EPE). Evaluate a crewmember's knowledge of emergency procedures and systems knowledge for all initial (INIT), requalification (RQ), qualification (QUAL) and mission (MSN) evaluations. If able, conduct EPE prior to mission execution to prevent mission scheduling impacts in the event of deficiency. The EPE will include areas commensurate with the examinee's graduated training or as specified in AFI 11-202V2 and MAJCOM and unit local supplements. EPE should be accomplished in ATD when available. See AFI 11-202V2 for further guidance.

1.9.7.1. Unit OGV will publish, in a local supplement to this instruction, EPE guidelines and requirements to ensure adequacy and standardization. An EPE guide for each crew position will be developed detailing the evaluation areas and conduct of the EPE.

1.9.7.2. Examinees may use publications which are available in-flight.

1.9.7.3. Examinees receiving an overall EPE grade of unqualified (U) will be placed in supervised status until recommended additional training and re-evaluation are completed. If failure is due to unsatisfactory Boldface/CAPs accomplishment, examinee will not be permitted to fly in their aircrew position until a successful re-evaluation is accomplished.

1.9.7.4. See respective crewmember chapters in this instruction for additional guidance.

1.9.8. No-Notice Evaluations (N/N). Evaluate aircrew on any mission, local training sortie, or ATD sortie. Evaluatee will be notified of the evaluation IAW AFI 11-202V2. Publish additional unit-specific N/N notification requirements in the local supplement.

1.9.9. Evaluation Prefixes. Use AFI 11-202V2 evaluation prefixes (e.g. INIT, RQ) for AF Form 8, *Certificate of Aircrew Qualification*, and AF Form 942, *Record of Evaluation*.

1.9.9.1. Identify unique mission-type evaluation (ones that do not have a specific prefix associated with them) descriptions on AF Form 8, Examiner's Remarks, A. Mission Description. See respective crewmember chapters in this instruction for further guidance.

## **1.10. Grading Policies.**

1.10.1. The overall qualification level awarded on an evaluation is based on performance during both the flight and ground phases. This grade should be awarded only after all evaluation requirements have been completed and given due consideration.

1.10.2. To receive a qualified grade on an evaluation, the aircrew member must satisfy the criteria set forth for that evaluation and demonstrate ability to operate the aircraft and/or equipment safely and effectively during all phases of the evaluation.

1.10.3. Use the grading criteria in this instruction to grade areas/subareas accomplished during an evaluation.

1.10.3.1. The flight examiner must grade the areas/subareas listed as "required" in the general and specific evaluation sections of this instruction.

1.10.3.2. The flight examiner may grade any area/subarea accomplished during an evaluation if performance in that area/subarea impacts the specific evaluation accomplished or flight safety.

1.10.4. When flight evaluation of a required area is not possible, the area may be verbally evaluated. Flight examiners will make every effort to evaluate all required areas in-flight before resorting to this provision. See the appropriate chapter for areas prohibited from verbal or ATD evaluation.

1.10.5. Grading criteria tolerances assume smooth air and stable aircraft conditions. Minor momentary deviations are acceptable, provided the examinee applies prompt corrective action and such deviations do not jeopardize flight safety. Consider cumulative deviations when determining the overall grade.

1.10.5.1. If the flight manual recommends a specific airspeed range for performance of a maneuver, the flight examiner will apply the grading criteria to the upper and lower limits of that range.

1.10.5.2. Flight examiners will use the grading criteria in this instruction to assist in determining proper grades, not to replace flight examiner judgment.

## **1.11. Grading System.** Refer to AFI 11-202V2 for specific guidance.

1.11.1. Critical Areas. Critical areas require adequate accomplishment by the aircrew member in order to successfully achieve the mission objectives. If an aircrew member receives an unqualified grade in any critical area, the overall grade for the evaluation will also be unqualified. Critical areas are identified by "(Critical)" in the areas' title and

shading of Q- block on AF Form 3862, *Flight Evaluation Worksheet*, (see examples at **Attachment 2**, **Attachment 3**, **Attachment 4**, **Attachment 5**, and **Attachment 6**).

## **1.12. Conduct of Evaluations.**

1.12.1. Flight examiners will pre-brief the examinee on the conduct, purpose, requirements of the evaluation, and all applicable evaluation criteria. Flight examiners will then evaluate the examinee in each graded area/subarea.

1.12.1.1. Flight examiners should not evaluate personnel they have primarily trained or recommended for upgrade evaluation.

1.12.2. Unless otherwise specified, flight examiners may conduct the evaluation in any crew position/seat which will best enable the flight examiner to observe the examinee's performance.

1.12.3. Note discrepancies and deviations from prescribed tolerances and performance criteria during the evaluation. Compare the examinee's performance with the tolerances provided in the grading criteria and assign an appropriate grade for each area.

1.12.3.1. An evaluation will not be changed to a training mission to avoid documenting substandard performance, nor will a training mission be changed to an evaluation.

1.12.3.2. The judgment of the flight examiner, guidance provided in AFI 11-202V2, and this Instruction will be the determining factors in assigning an overall grade. The flight examiner will thoroughly critique all aspects of the flight. During the critique, the flight examiner will review the examinee's overall rating, specific deviations, area/subarea grades assigned, and any additional training required.

1.12.3.3. In the event of unsatisfactory performance, the flight examiner will determine additional training requirements. Additional training should not be accomplished on the same flight. **EXCEPTION:** Additional training on the same flight is acceptable when, in the evaluator's judgment, unique situations presenting training opportunities exist. This option requires the flight examiner's judicious application. When used, the examinee will be informed of exactly when the additional training begins and ends.

1.12.4. A flight examiner other than the one who administered the original evaluation should administer any re-evaluations.

1.12.5. ATD may be used to accomplish additional training and re-evaluations. Areas for additional training and re-evaluation should be limited to those areas/subareas that can be realistically accomplished in the ATD.

## **1.13. Unsatisfactory Performance.**

1.13.1. Conduct a thorough post-mission debriefing to the examinee and applicable aircrew members on all aspects of the evaluation.

1.13.2. Immediately correct breaches of flying safety or flight discipline. When an examinee jeopardizes safety of flight, the evaluator may assume the duties of that aircrew member. This does not mean the flight examiner must assume the examinee's position any time unsatisfactory performance is observed.

1.13.3. Assign a qualification level of Q-3 for unsatisfactory performance in any critical area/subarea or if the flight examiner assumes the examinee's duties.

1.13.4. Immediately notify the examinee's squadron commander or operations officer when less than Q-1 performance is observed.

1.13.5. Unsatisfactory performance in a non-critical area/subarea will result in no higher than a qualification level Q-2.

1.13.6. Flight examiners observing unsatisfactory performance by a crewmember other than the examinee (including one in a different crew position) will comply with the requirements in AFI 11-202V2.

**1.14. Use of AF Form 3862, Flight Evaluation Worksheet.** Units (normally OGV) will overprint AF Form 3862, using the examples at **Attachment 2, Attachment 3, Attachment 4, Attachment 5, and Attachment 6**, for use as an evaluation worksheet. Copy each title, area number and text (in the order illustrated), and shading to the appropriate blocks. Units may add special interest items and/or local evaluation requirements. In-flight, use the worksheet to ensure all required areas are evaluated. Record all positive and negative trend information and aircrew member's performance. Sign and file the worksheet or draft copy of the AF Form 8 in the aircrew member's Flight Evaluation Folder (FEF) immediately after the flight evaluation as a temporary record of the evaluation. Maintain until the completed AF Form 8 is added to the FEF.

1.14.1. Evaluation worksheets produced using approved computer-based stan/eval programs in lieu of AF Form 3862 are authorized.

**1.15. Aircrew Testing.** See specific testing requirements in AFI 11-202V2 and include the following:

1.15.1. Open Book Exam. Requisite for QUAL evaluations.

1.15.2. Closed Book Exam. Requisite for QUAL evaluations.

1.15.3. Instrument Exam. Requisite for INSTRM evaluations.

1.15.4. Instructor Exam. Requisite for all INSTR evaluations. A portion of the open book examination administered to flight instructors will include instructor related questions. A separate instructor open book examination is not required for periodic evaluations. For difference-/multiple-qualified crewmembers, INSTR evaluations in additional MDS aircraft do not require an additional instructor exam for current qualified instructors.

1.15.5. Boldface/CAPs. Requisite for QUAL evaluations (if applicable).

**1.16. Evaluation Profiles.** Evaluators will complete all required areas of the flight evaluation worksheet in addition to the areas required for a specific MDS.

1.16.1. Unit OGV will ensure simulator profiles include all areas/subareas; annotate those areas that are ATD creditable. Profiles shall limit verbal evaluation of subareas as much as possible.

**1.17. Difference Certification.**

1.17.1. Difference. The term "difference" describes the certification of one or more unique areas to meet the qualification requirements of the different model aircraft within the same

series MDS (e.g., C-40B and C-40C or C-37A and C-37B). As a minimum, include all areas that are different between aircraft models, systems and/or operations.

1.17.2. Crewmembers qualified in one MDS may be certified and thus qualified in another series of the same design aircraft (e.g., C-40B and C-40C). Certification requires completion of MAJCOM/A3T approved difference training IAW AFI 11-2VIPV1, *VIP Aircrew Training*.

1.17.3. Certification will be documented IAW AFI 11-202V2 and associated MAJCOM supplements upon training completion for specific aircraft model.

1.17.4. See respective crewmember chapters in this instruction for additional guidance.

**1.18. Multiple Qualifications.** Approval authority for multiple qualifications in two or more different MDS aircraft (e.g., C-37A and C-40B or C-32A and C-40B) is IAW AFI 11-202V1 and associated MAJCOM supplements.

1.18.1. Multiple-qualified crewmembers will complete all training requirements and initial/periodic evaluations in each aircraft (except for Communication Systems Operators and Flight Attendants as noted in their respective chapters).

1.18.2. See respective crewmember chapters in this instruction for additional guidance.

**1.19. Senior Officer Requirements.** See AFI 11-401, AFI 11-202V1, and AFI 11-2VIPV1.

1.19.1. Senior Officer Course (SOC). Completion of Senior Officer Course (SOC) requires successful accomplishment of a qualification evaluation in the aircraft or ATD.

1.19.2. Senior Officer Familiarization. Senior Officer Familiarization training (typically some combination of ground and simulator training) does not result in an AF Form 8.

## Chapter 2

### PILOT EVALUATIONS

**2.1. General.** This chapter standardizes initial, periodic, and requalification evaluations, including the requirements for instrument, qualification, mission, and instructor evaluations. The examinee must satisfactorily demonstrate the ability to perform all pilot duties safely and effectively, including the operation of appropriate aircraft systems, IAW applicable flight manuals and Air Force Instructions (AFIs).

**2.2. QUAL/MSN Evaluations.** Log mission evaluations with qualification/requalification requirements (e.g. INIT QUAL/MSN). Include all areas under GENERAL and QUALIFICATION/MISSION. May be accomplished in aircraft or simulator.

2.2.1. Simulator Evaluations. Units may conduct a full motion simulator evaluation in conjunction with all initial, periodic and requalification QUAL evaluations. The evaluator will determine the fidelity of the simulator in the event of inoperative simulator function(s). Accomplish INSTM evaluation in combination with QUAL/MSN evaluation if all applicable instrument approaches were accomplished. Use a contractor-developed scenario or a unit Stan/Eval-approved and flight examiner-provided scenario during the evaluation. Flight examiner-provided scenarios must be coordinated with the contractor before the evaluation to ensure compatibility with ATD software. Evaluate areas/subareas that are ATD-creditable training events in AFI 11-2VIPV1.

2.2.2. Qualification and Difference Certification.

2.2.2.1. C-40 Qualification and Certification. C-40B and C-40C are considered the same type MDS for qualification and evaluation purposes.

2.2.2.1.1. Qualification. Initial qualification evaluation is conducted in the B737-700 ATD. Upon completion of an Initial Qualification Evaluation, the aircraft type will be documented as "C-40" on the AF Form 8.

2.2.2.1.2. Certification. Individual certification of C-40 variants (e.g., C-40B and C-40C) will be accomplished IAW MAJCOM/A3T approved training and documented IAW AFI 11-202V2 and associated MAJCOM supplements.

2.2.2.2. C-20B, C-20H, C-37A and C-37B Qualification and Certification. C-20B, C-20H, C-37A and C-37B are considered the same type MDS for qualification and evaluation purposes following an initial evaluation in the primary type MDS and a SPOT evaluation in each additional type MDS.

2.2.2.2.1. Qualification. Qualification evaluations are conducted in approved ATD and/or aircraft. After completion of an evaluation in each MDS type, pilots may complete recurring periodic evaluations in any type MDS qualified. For pilots qualified in the C-37A, an evaluation in the C-37B is not required.

2.2.2.2.2. Certification. Transition between MDS types will be accomplished via MAJCOM/A3T approved difference training. Certification will be documented IAW AFI 11-202V2 and associated MAJCOM supplements.

2.2.3. Evaluator Notes.

2.2.3.1. Evaluate pilots in a random selection of abnormal and emergency procedures and knowledge of Bold Face or CAPs items, if applicable.

2.2.3.2. As a minimum, all pilots must demonstrate at least one all engine approach, one all engine missed approach, one engine out approach, and one engine out missed approach. These items may not be verbally evaluated.

2.2.3.3. Evaluate pilots on pilot monitoring/pilot not flying duties.

2.2.3.4. Evaluate tactics certified pilots on tactical procedures during the MSN evaluation. **EXCEPTION:** Tactics procedures not required to be evaluated for Senior Officer Course graduates.

2.2.4. Receiver Air Refueling (VC-25 only). Rendezvous or closure from a minimum of 1 NM is required. Initial and requalification pilots will demonstrate 15 minutes of contact time within a 30 minute period of arriving in the pre-contact position. Evaluate MPs in left seat. Evaluate instructors in either seat. During periodic evaluations, no minimum time in contact position is required; however the evaluatee must be able to demonstrate sustained stability in the contact position. Conduct a portion of the evaluation with tanker autopilot off.

2.2.4.1. The PAG Commander may waive evaluation of Receiver Air Refueling due to aircraft mission and maintenance demands.

2.2.5. Senior Officer Evaluations. For all Senior Officer Course initial, periodic and requalification evaluations, include all areas under GENERAL, INSTRUMENT, and QUALIFICATION/MISSION.

2.2.5.1. Senior Officers not qualified in Receiver Air Refueling may not occupy a pilot's seat during Receiver Air Refueling with passengers onboard.

2.2.5.2. Evaluate Senior Officers in a random selection of Bold Face or CAPs items, if applicable.

2.2.5.3. As a minimum, evaluate aborted takeoff, engine failure takeoff continued, all engine approach, and all engine landing.

2.2.5.4. When completing AF Form 8, check the "Restrictions" block and add the following remark: "Must fly under direct IP supervision during critical phases of flight."

**2.3. INSTM Evaluations.** Evaluate all areas under INSTRUMENT. May be accomplished in aircraft or simulator.

2.3.1. As a minimum, all pilots must demonstrate at least one precision approach and two non-precision approaches. These items may not be verbally evaluated.

2.3.2. Evaluate at least one ground-based NAVAID non-precision approach and a circling approach. If aircrew member and aircraft are CAT II/III, HUD, EVS, RNAV/GPS, LNAV/VNAV, RNAV(RNP) or IAN certified, evaluate appropriate procedures. If member is both CAT II and CAT III certified, evaluate only CAT III approach procedures.

2.3.3. For those aircraft that have a HUD, at least one approach, preferably a precision approach, will be accomplished using the HUD. Evaluate EVS (if equipped) in combination with HUD procedures. Evaluation should concentrate on knowledge of system usage and limitations.

2.3.4. May combine INSTM evaluation with the QUAL/MSN evaluation.

**2.4. Operational Mission Evaluations (OME).** All pilots will complete a one-time operational mission evaluation (OME) prior to certification as PIC. OMEs will not be conducted on training missions.

2.4.1. Document OME on the AF Form 8 as a "SPOT" evaluation and include the following comment under the examiner's remarks: "Enroute Qualified".

2.4.2. OME Mission Profiles. Conduct an OME on a mission consisting of at least two mission legs with the DV/VIP onboard. The mission profile must have a different departure and arrival base, and an off-station RON. Evaluatee must accomplish at least one instrument approach, and landing. OG/CC (or equivalent) is waiver authority to this paragraph. **EXCEPTION:** PAG/CC determines PAG OME requirements.

**2.5. INSTR Evaluations.** Flight examiners will place particular emphasis on the examinee's ability to recognize student difficulties and provide corrective action. As a minimum, examinee will demonstrate/instruct a variety of instrument/visual approaches and touch and go landings. Conduct initial or requalification instructor evaluations with a qualified pilot occupying the other seat.

2.5.1. If realigning evaluation eligibility period, the evaluation will include all areas under GENERAL, QUALIFICATION/MISSION, INSTRUMENT, and INSTRUCTOR. This evaluation will have a flight phase description of INIT INSTR QUAL/INSTM/MSN for initial instructors.

2.5.2. Initial Instructor. For initial instructor evaluations, examinee will occupy the right seat for the instructor portion of the evaluation.

2.5.3. Periodic instructor evaluations will be administered in conjunction with required instrument and qualification evaluations and require all areas/subareas in GENERAL, QUALIFICATION/MISSION, INSTRUMENT, and INSTRUCTOR. Periodic instructor evaluation may be conducted in either seat.

2.5.4. Receiver A/R. During initial/requalification instructor evaluations include 10-minutes of contact time within a 20-minute period of arriving in the pre-contact position. Conduct a portion of the evaluation with tanker autopilot off. Limited inadvertent disconnects are permissible during a boom limits demonstration and therefore, will not be used as a measure of air refueling qualification.

**2.6. Emergency Procedures Evaluation (EPE).** Evaluate a crewmember's knowledge of emergency procedures and systems knowledge during all initial, requalification and periodic evaluations.

**2.7. Pilot Grading Criteria.**

2.7.1. **GENERAL. Area 1, Directives and Publications.**

**Q** Possessed a high level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted.

- Q-** Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

### **Area 2, Mission Preparation/Planning/Performance.**

- Q** Checked all factors applicable to flight such as: weather, NOTAMs, alternate airfields, airfield suitability, fuel requirements, charts, etc. Displayed a high level of knowledge of performance capabilities and operating data. Evaluate the performance data intended for use during takeoff/landing after final adjustments and corrections have been made:  
*V1, Vr, V2, flap retract, slat retract, Vmm: +/-3 KIAS*  
*N1 setting: +/-0.3%, EPR +/- 0.15*  
*Critical Field Length (CFL): +/-500 feet and suitable for takeoff/landing*  
*Landing speeds: +/-3 KIAS*
- Q-** Made minor errors or omissions in checking all factors that could have detracted from mission effectiveness. Marginal knowledge of performance capabilities and/or operating data. Performance calculations exceeded Q limits but did not exceed:  
*V1, Vr, V2, flap retract, slat retract, Vmm: +/-5 KIAS*  
*N1 setting: +/-0.6%, EPR +/- .20*  
*Critical Field Length (CFL): +/-800 feet and suitable for takeoff/landing*  
*Landing speeds: +/-5 KIAS*
- U** Made major errors or omissions, which would have prevented a safe or effective mission. Unsatisfactory knowledge of performance capabilities and/or operating data. Performance calculations exceeded Q- limits.

### **Area 3, Use of Checklists.**

- Q** Consistently used and called for the correct checklist and gave the correct response at the appropriate time throughout the mission.
- Q-** Checklist responses were untimely and/or crewmember required continual prompting for correct response.

- U Used or called for incorrect checklist or consistently omitted checklist items. Unable to identify the correct checklist to use for a given situation. Did not complete checklist prior to event.

**Area 4, Safety Consciousness (Critical).**

- Q Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
- U Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Attempted to operate the aircraft in a dangerous manner.

**Area 5, Judgment/Compliance (Critical).**

- Q Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.
- U Unaware of established 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.

**Area 6, Crew Coordination/Crew Resource Management (CRM).** See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF Form 4031, *CRM Skills Criteria Training/Evaluation Form*, as a reference.

- Q Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers' duties and responsibilities. Effectively applied CRM skills throughout the mission.
- Q- Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities.
- U Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight.

**Area 7, Communication Procedures.**

- Q** Complete knowledge of, and compliance with the correct communications procedures. Makes radio, data, and interphone transmissions concise with proper terminology. Complied with and acknowledged all required instructions including successful operation of the IFF/SIF Mode 4.
- Q-** Occasional deviations from procedures that required re-transmissions or resetting codes. Slow in initiating or missed several required radio calls, data transmissions. Transmissions contained extraneous matter, were not in proper sequence, or used non-standard terminology. Difficulty configuring/coding IFF/SIF Mode 4 without mission impact.
- U** Incorrect procedures or poor performance caused confusion and jeopardized mission accomplishment. Omitted numerous radio calls and data transmissions. Unable to configure/code IFF/SIF including Mode 4 with direct impact on mission success.

#### **Area 8, Life Support Systems/Egress.**

- 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, slide rafts, and escape ropes/pulleys.
- 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.
- U** Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices or egress the aircraft.

#### **Area 9, Knowledge/Completion of Forms.**

- Q** All required forms and/or flight plans were complete, accurate, readable, accomplished on time and IAW applicable directives. Related an accurate debrief of significant events to applicable agencies (intelligence, maintenance, etc.)
- Q-** Minor errors on forms and/or flight plans did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.

U Did not accomplish required forms and/or flight plans. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.

**Area 10, Airmanship/Situational Awareness.**

Q Executed the assigned mission in a timely, efficient manner. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with a sense of understanding and comprehension.

Q- Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.

U Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

2.7.2. **QUALIFICATION/MISSION.** Use the criteria in Table 2.1 as a general tolerance for airspeed, altitude, and heading/course.

**Table 2.1. General Pilot Tolerances.**

Use the following criteria as general tolerances for airspeed, altitude, and heading/course:	
Q	<i>Airspeed: +10/-5 KIAS Altitude: ±100 feet Heading/Course: ±5 degrees</i>
Q-	Exceeds Q criteria but does not exceed: <i>Airspeed: +15/-5 KIAS Altitude: ±200 feet Heading/Course: ±10 degrees</i>
U	Exceeds Q- criteria.
<b>NOTE 1:</b> Airspeed tolerances apply when a specific airspeed has been assigned by Air Traffic Control or prescribed in the flight manual. Airspeed “minus” tolerance is based on minimum maneuvering speed for aircraft configuration.	
<b>NOTE 2:</b> Add 5 KIAS, 50 feet (when practical) and 2 degrees to all engines operating criteria for operations with an engine out.	
<b>Area 11, Ground Operations/Taxi.</b>	
Q	Established and adhered to station, start engine, taxi, and take-off time to assure thorough preflight, check of personal equipment, crew/passenger briefings, etc. Accurately determined readiness of aircraft for flight. Completed all systems pre-flight/post-flight inspections according to flight manual, AFI 11-218, <i>Aircraft Operations and Movement on the Ground</i> , and local procedures.

Q-	Same as above except for minor procedural deviations that did not detract from mission effectiveness.
U	Crew errors directly contributed to a late takeoff that degraded the mission. Failed to accurately determine readiness for flight. Failed to preflight/post-flight a critical component or could not conduct a satisfactory preflight/post-flight inspection.
<b>Area 12, Takeoff.</b>	
Q	Maintained smooth, positive aircraft control throughout the takeoff. Performed the takeoff IAW flight manual and as published/directed.
Q-	Minor deviations from published procedures without affecting safety of flight. Control was rough or erratic. Hesitant in application of procedures/corrections.
U	Takeoff was potentially dangerous. Exceeded aircraft/systems limitations. Failed to establish proper climb attitude. Excessive deviation from intended flight path. Violated flight manual procedures.
<b>Area 13, Radar Operations/Weather Avoidance/Windshear.</b>	
Q	Effectively demonstrated procedures for operating weather radar. Updated weather radar/analysis throughout the mission. Highly knowledgeable of windshear detection, procedures and use of avoidance equipment. Used all available sources to determine if and/or to what degree severe weather conditions exist. Complied with all weather separation and windshear avoidance procedures.
Q-	Minor deviations observed when operating weather radar. Did not update radar/weather analysis during worsening weather conditions. Limited knowledge of windshear detection, procedures and use of avoidance equipment.
U	Unable to demonstrate proper use of weather radar. Failed to update radar/weather analysis during the mission. Displayed unsatisfactory knowledge of windshear detection, procedures and use of avoidance equipment. Failed to comply with weather separation or windshear avoidance directives that could have jeopardized safety or mission success.
<b>Area 14, Fuel Planning/Conservation.</b>	
Q	Possessed a high level of knowledge of all applicable aircraft publications and directives and understood how to apply both to enhance fuel conservation and fuel planning. Fully understands dispatch flight management procedures and CAT I, ETOPs/EROPs procedures (if applicable). Successfully applied fuel conservation procedures in all areas of the mission with less than 10% unidentified extra.
Q-	Possessed some knowledge of applicable aircraft publications and directives and understood how to apply both to enhance fuel conservation and fuel planning. Some understanding of dispatch flight management procedures and CAT I, ETOPs/EROPs procedures (if applicable). Successfully applied some fuel conservation procedures, but failed to apply fuel conservation procedures in areas of the mission and planned with more than 10% unidentified extra.
U	Unaware of fuel conservation procedures. Unable to fuel plan. No understanding of

	dispatch flight management procedures and CAT I, ETOPs/EROPs procedures (if applicable). Failed to apply fuel conservation procedures on the mission.
<b>Area 15, VFR Pattern.</b>	
<b>Q</b>	Performed traffic pattern and turn to final/final approach IAW published procedures. Aircraft control was smooth and positive. Constantly cleared area of intended flight.
<b>Q-</b>	Performed traffic pattern and turn to final/final approach with minor deviations to procedures as published/directed. Aircraft control was safe but not consistently smooth and positive. Over/under shot final approach, but was able to intercept normal glide path. Adequately cleared area of intended flight.
<b>U</b>	Did not perform traffic pattern and/or turn to final/final approach IAW published procedures. Displayed erratic aircraft control. Did not clear area of intended flight.
<b>Area 16, Landings.</b>	
<b>Subarea 16A, Full Flap.</b>	
<b>Subarea 16B, Partial Flap.</b>	
<b>Subarea 16C, Engine Out.</b>	
<b>Subarea 16D, Touch and Go.</b>	
<b>NOTE 1:</b> Specific items to evaluate include threshold altitude/airspeed, runway alignment, flare, touchdown, and crosswind landings.	
<b>NOTE 2:</b> Airspeed tolerances apply to computed threshold speed.	
<b>NOTE 3:</b> Add 5 KIAS, 50 feet (when practical), and 2 degrees to all engines operating criteria for operations with an engine out.	
<b>Q</b>	Performed landings as published/directed IAW flight manual and met the following criteria: <i>Airspeed: +5/-0 KIAS with proper wind corrections</i> <i>Touchdown zone: 800-3,000 feet</i> <i>Centerline: ±15 feet left or right</i> <i>Threshold Crossing Height (TCH): +25/-0 feet</i>
<b>Q-</b>	Performed landings with minor deviation to procedures as published/directed. Landed in a slight crab. Exceeded Q criteria but not the following: <i>Airspeed: +10/-5 KIAS with proper wind corrections</i> <i>Touchdown zone: Threshold-3,500 feet</i> <i>Centerline: ±25 feet left or right</i> <i>TCH: +50/-0 feet</i>
<b>U</b>	Landing not performed as published/directed. Did not include wind corrections on any landings. Exceeded Q- criteria.
<b>Area 17, Landing Roll/Braking/Reverse Thrust.</b>	
<b>Q</b>	Performed as published/directed IAW flight manual. Braking action and reverse thrust

	actuation prompt and smooth. Thrust reverser idle speed limits observed.
Q-	Performed landings with minor deviation to procedures as published/directed. Braking action and reverse thrust actuation unnecessarily delayed or not smooth. Thrust reverser idle speeds unintentionally not observed.
U	Landing not performed as published/directed. Braking or reverse thrust excessively delayed or actuated prior to touchdown. Thrust reverser idle speeds disregarded.
<b>Area 18, All Engine Go-Around (GA).</b>	
Q	Initiated and performed go-around promptly and IAW flight manual and directives. Applied smooth control inputs. Acquired and maintained a positive climb.
Q-	Slow or hesitant to initiate go-around. Slightly over-controlled the aircraft. Minor deviations did not affect mission accomplishment or compromise safety.
U	Did not initiate go-around when appropriate or directed. Major deviations or misapplication of procedures could have led to an unsafe condition.
<b>Area 19, Engine Out Operations.</b> Use approach criteria for the type of approach flown.	
Q	Proper control inputs were used to correct asymmetric condition. Aircraft was properly trimmed. Proper consideration was given to maneuvering the aircraft with regard to the engine out condition. Maintained criteria in Table 2.1 (NOTE 2).
Q-	Minor deviations in aircraft control allowed the aircraft to occasionally fly uncoordinated flight. Momentarily deviated from criteria in Table 2.1 (NOTE 2).
U	Aircraft was not properly trimmed. Aircraft control was erratic and consistently resulted in uncoordinated flight. Maneuvering the aircraft with regard to the engine out condition was potentially unsafe. Exceeded Q- criteria in Table 2.1 (NOTE 2).
<b>Area 20, Engine Out GA/Engine Failure Takeoff Continued (EFTOC).</b>	
Q	Performed all required procedures IAW the flight manual and directives. Applied smooth, positive, and coordinated control inputs. Followed proper EFTOC/MAP routing. Rudder and aileron inputs were in correct direction.
Q-	Procedural errors were made which did not affect safety. Aircraft control was not consistently smooth and positive. Slow to follow proper EFTOC/MAP routing. Rudder and aileron inputs were in correct direction but some over/under control.
U	Rudder and/or aileron inputs were incorrect. . Exceeded Q- criteria.
<b>Area 21, Boldface Emergency Procedures/CAPs (As Applicable) (Critical).</b>	
Q	Correct, immediate responses. Maintained aircraft control. Coordinated proper crew actions.
U	Incorrect sequence, unsatisfactory response, or unsatisfactory performance of corrective actions.
<b>Area 22, Other Observed Emergency Procedures.</b>	

Q	Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used available aircrew aids and checklists.
Q-	Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
U	Attempted to exceed limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklists or available aids effectively.
<b>Area 23, Systems Operations/Knowledge/Limitations.</b>	
Q	Demonstrated/explained a complete knowledge of aircraft systems operations/limitations and proper procedural use of systems.
Q-	Marginal knowledge of aircraft systems operations and limitations in some areas. Used individual technique instead of established procedure and was unaware of differences.
U	Unsatisfactory systems knowledge. Unable to demonstrate/explain the procedures for aircraft systems operations.
<b>Area 24, Receiver Air Refueling.</b>	
Q	Performed maneuver IAW published procedures. Aircraft control was smooth and positive. Constantly cleared area of intended flight.
Q-	Performed maneuver with minor deviations to published procedures. Aircraft control was safe but not consistently smooth and positive. Adequately cleared area of intended flight.
U	Did not perform maneuver IAW published procedures. Displayed erratic aircraft control. Did not clear area of intended flight.
<b>Area 25, Knowledge of Tactical Procedures.</b>	
Q	Demonstrated thorough knowledge of procedures and restrictions. Prepared and executed mission in compliance with associated directives.
Q-	Demonstrated satisfactory knowledge of procedures and restrictions. Prepared and executed mission in compliance with associated directives, but minor errors or omissions detracted from mission effectiveness.
U	Displayed inadequate knowledge of procedures and restrictions. Major errors or omissions precluded compliance with directives or safe mission accomplishment.
<b>Area 26, Tactical Maneuvers.</b>	
Q	Planned, briefed and performed maneuver safely and in accordance with published procedures. Timely and appropriate adjustments made to position and power resulted in stable short final and safe touchdown.
Q-	Planned, briefed and performed maneuver safely. There were minor inconsistencies with published

	procedures. Some missing or inappropriate adjustments to position or energy management. Maneuver still resulted in stable short final.
U	Maneuver flown unsafely or not in accordance with either published procedures or briefing. Consistently missing appropriate or timely corrections. Maneuver resulted in unstable final approach or attempted landing under unsafe parameters.

2.7.3. **INSTRUMENT.** Use the following criteria as general tolerances for airspeed, level-off altitude, and heading/course with all engines operating:

**Q**     *Airspeed: +10/-0 KIAS*  
           *Level-off Altitude:  $\pm 100$  feet*  
           *Heading/Course:  $\pm 5$  degrees*

**Q-**     *Exceeds Q criteria but does not exceed:*  
           *Airspeed: +15/-5 KIAS*  
           *Level-off Altitude:  $\pm 200$  feet*  
           *Heading/Course:  $\pm 10$  degrees*

**U**     Exceeds Q- criteria.

**NOTE 1:** Airspeed tolerances apply when a specific airspeed has been assigned by Air Traffic Control or prescribed in the flight manual. Airspeed “minus” tolerance is based on minimum maneuvering speed for aircraft configuration.

**NOTE 2:** Add 5 KIAS, 50 feet (when practical), and 2 degrees to all engines operating criteria for operations with an engine out.

### **Area 27, Instrument Departure Procedure.**

**Q**     Complied with all restrictions or controlling agency instructions. Made all required reports. Applied course/heading corrections promptly. Demonstrated smooth, positive control.

**Q-**     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.

**U**     Failed to comply with published/directed departure, or controlling agency instructions. Accepted an inaccurate clearance. Aircraft control was erratic.

**Area 28, Enroute Navigation.**

**Q** Satisfactory capability to navigate using all available means. Used appropriate navigation procedures. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.

*TACAN/VOR-DME Arc:  $\pm 2$  NM*

**Q-** Minor errors in procedures/use of navigation equipment. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Slow to adjust for deviations in time and course. Exceeded Q criteria but not by more than the following:

*TACAN/VOR-DME Arc:  $\pm 4$  NM*

**U** Major errors in procedures/use of navigation equipment. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace. Exceeded Q- criteria.

**Area 29, Holding.**

**Q** Performed entry and holding IAW published procedures and directives.

**Q-** Performed entry and holding procedures with minor deviations. Exceeded Q criteria, under instrument tolerances.

**U** Holding was not IAW flight manual, directives, or published procedures. Exceeded Q- criteria, under instrument tolerances.

**Area 30, Use of NAVAIDs.**

**Q** Ensured required NAVAIDs were properly tuned, identified, and monitored.

**Q-** Some deviations in tuning, identifying, and monitoring NAVAIDs.

**U** Did not ensure NAVAIDs were tuned, identified, and monitored.

**Area 31, Descent/Arrival.**

- Q** Performed descent as directed. Complied with all flight manual, controlled-issued, or STAR restrictions in a proficient manner. Accomplished all required checks.
- Q-** Performed descent as directed with minor deviations that did not compromise mission safety. Slow to accomplish required checks.
- U** Performed descent with major deviations. Did not accomplish required checks. Erratic corrections. Exceeded flight manual limitations.

**Area 32, Precision Approaches.**

**NOTE 1:** Use the following criteria as general tolerances for airspeed, altitude, heading, glide slope, and azimuth:

- Q** *Airspeed: +10/-0 KIAS  
Altitude: Initiated missed approach at decision height +50/-0 feet  
Heading:  $\pm 5$  degrees of controller's instructions (PAR)  
Glide Slope: Within one dot (ILS)  
Azimuth: Within one dot (ILS)*
- Q-** *Exceeds Q criteria but does not exceed:  
Airspeed: +15/-5 KIAS  
Altitude: Initiated missed approach at decision height +100/-0 feet  
Heading:  $\pm 10$  degrees of controller's instructions (PAR)  
Glide Slope: Within one dot low, two dots high (ILS)  
Azimuth: Within two dots (ILS)*
- U** *Exceeds Q- criteria.*

**NOTE 2:** Airspeed tolerances are based on computed approach speed.

**Subarea 32A, PAR.**

- Q** Approach was IAW published procedures. Smooth and timely response to controller's instructions. Established initial glide path and maintained with only minor deviations. Complied with decision height. Position would have permitted a safe landing. Elevation did not consistently exceed slightly above or slightly below glide path.
- Q-** Performed approach with minor deviations. Slow to respond to controller's instructions and make corrections. Improper glide path control. Complied with decision height. Position would have permitted a safe landing. Elevation did not exceed well above or well below glide path.
- U** Approach not IAW flight manual, directives, or published procedures. Erratic corrections. Did not respond to controller's instructions. Did not comply with decision height and/or position would not have permitted a safe landing. Erratic glide path control. Exceeded Q- criteria.

**Subarea 32B, ILS.**

- Q** Approach was IAW published procedures. Smooth and timely corrections to azimuth and glide slope/VNAV path. Complied with decision height/altitude. Position would have permitted a safe landing. Maintained glide path with only minor deviations.
- Q-** Performed approach with minor deviations. Slow to make corrections. Slow to comply with decision height/altitude. Position would have permitted a safe landing. Improper course/glide path control.
- U** Approach not IAW flight manual, directives, or published procedures. Erratic corrections. Did not comply with decision height and/or position at decision height would not have permitted a safe landing. Exceeded Q- criteria.

**Subarea 32C, CAT II/III ILS.**

- Q** Approach was IAW published procedures. Smooth and timely corrections to azimuth and glide slope. Complied with decision height/altitude. Position would have permitted a safe landing. Maintained glide path with only minor deviations.

**Q-** Performed approach with minor deviations. Slow to make corrections. Slow to comply with decision height/altitude. Position would have permitted a safe landing. Improper course/glide path control.

**U** Approach not IAW flight manual, directives, or published procedures. Erratic corrections. Did not comply with decision height and/or position at decision height would not have permitted a safe landing. Exceeded Q- criteria.

**Area 33, Non-Precision Approaches.**

**Subarea 33A, NDB.**

**Subarea 33B, Localizer Back Course.**

**Subarea 33C, ASR.**

**Subarea 33D, TACAN.**

**Subarea 33E, VOR.**

**Subarea 33F, RNAV/GPS.**

**NOTE 1:** Use the following description and criteria as general tolerances for airspeed, altitude at MDA, heading, course, timing, and distance with all engines operating.

**Q** Approach was IAW published procedures. Used appropriate descent rate to arrive at MDA/DDA/DA at or before VDP/MAP. Maintained LNAV course and/or VNAV path IAW procedures. Position would have permitted a safe landing. Smooth and timely response to controller's instructions (ASR).

*Airspeed: +10/-0 KIAS*

*MDA: +100/-0 feet*

*Course:  $\pm 5$  degrees at MAP (NDB, VOR, TACAN), less than one dot deflection (LOC), ANP <RNP for RNAV/GPS approach*

**Q-** Performed approach with minor deviations. Arrived at MDA at or before the MAP, but past the VDP. Slow to correct to LNAV course prior to MDA/DDA. Position would have permitted a safe landing. Slow to respond to controller's instructions and make corrections (ASR). Exceeded Q criteria but does not exceed:

*Airspeed: +15/-5*

*MDA: +150/-0 feet*

*Course:  $\pm 10$  degrees at MAP (NDB, VOR, TACAN), more than one dot but less than two dot deflection (LOC, RNAV/GPS) ANP <RNP only at LNAV MDA*

- U** Approach not IAW published procedures. Maintained steady-state flight below the MDA. Unable to maintain ANP<RNP below LNAV MDA. Position would not have permitted a safe landing. Exceeded Q- criteria.

*NOTE 2:* Airspeed tolerances are based on computed approach speed.

**Area 34, Circling Approach.**

- Q** Properly identified aircraft category for the approach and remained within the lateral limits for that 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.

- Q-** Slow to identify aircraft category for the approach and remained within the lateral limits for that category. Slow to comply with controller's instructions. Attained runway alignment, but occasionally required erratic maneuvering.

- U** Did not properly identify aircraft category or exceeded the lateral limits of circling airspace. Did not comply with controller's instructions. Excessive maneuvering to attain runway alignment was potentially unsafe. Descended from the MDA before the aircraft was in a position for a normal glide path or landing. Exceeded Q- criteria.

**Area 35, Missed Approach.**

- Q** Executed missed approach IAW published procedures. Complied with controller's instructions. Applied smooth control inputs.

- Q-** Executed missed approach with minor deviations to published procedures. Slow to comply with controller's instructions. Slightly over controlled the aircraft.

- U** Did not execute missed approach IAW flight manual or published procedures. Did not comply with controller's instructions. Deviation or misapplications of procedures may have led to an unsafe condition. Exceeded Q- criteria.

**Area 36, Automation Management.**

**Q** Established/followed guidelines for the operation of automated systems; aware of when systems should be disabled. Established/followed Pilot Flying (PF) and Pilot Monitoring (PM) responsibilities with regard to automated systems. Periodically reviewed and verified the status of aircraft automated systems. Allowed sufficient time for programming the FMS. Used automated systems at appropriate levels to reduce workload, but reduced or disengaged level of automation when programming demands could have reduced situational awareness or created work overloads.

**Q-** Had limited knowledge of guidelines for the operation of automated systems; unclear as to when systems should be disabled. Slow to establish/follow Pilot Flying (PF) and Pilot Monitoring (PM) responsibilities with regard to automated systems. Slow to review and verify the status of aircraft automated systems. Did not always allow sufficient time for programming the FMS. Inconsistently used automated systems at appropriate levels.

**U** Did not establish/follow guidelines for the operation of automated systems; unaware of when systems should be disabled. Did not establish/follow Pilot Flying (PF) and Pilot Monitoring (PM) responsibilities with regard to automated systems. Did not periodically review and verify the status of aircraft automated systems. Failed to allow sufficient time for programming the FMS. Did not use automated systems at appropriate levels, to decrease workload. Did not reduce or disengage level of automation when programming demands reduced situational awareness or created work overloads.

**Area 37, Use of Heads Up Display (HUD) and Enhanced Vision System (EVS) (if equipped).**

**Q** Effectively operated HUD/EVS IAW published procedures. Knowledgeable of system and limitations.

**Q-** Effective operation of HUD/EVS with some difficulties, but operations remained IAW published procedures. Not fully knowledgeable of system and limitations.

**U** Failed to operate HUD/EVS IAW published procedures. Limited knowledge of system and limitations.

**2.7.4. INSTRUCTOR. Area 38, Instructor Ability (Critical).**

**Q** Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe maneuvers/situations.

**U** Unable to effectively communicate or provide timely feedback to the student. Gave instruction that was unsafe or contradicted published directives. 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.

**Area 39, Demonstrations of Maneuvers (Critical).**

- Q** Effectively demonstrated correct procedures, systems operation, or flight maneuvers. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
- U** Ineffective or incorrect demonstration of procedures, systems operation, or flight maneuvers. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.

**Area 40, Student Briefing/Critique (Critical).**

- Q** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. During the critique, demonstrated an effective ability 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.
- U** Briefings were marginal or non-existent. Did not review student's past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

**2.7.5. ENROUTE (Aircraft Commander Only). Area 41, Aircraft Commander Responsibilities.**

- Q** Was thoroughly aware of aircraft commander's responsibilities and performed them adequately to allow for mission accomplishment without major discrepancies.
- Q-** Was somewhat familiar with aircraft commander responsibilities. Some problems arose which could have been avoided with better leadership/planning but mission accomplishment was unaffected.
- U** Was unsure of aircraft commander responsibilities and would have hindered the accomplishment of the mission if evaluator did not intervene.

**Area 42, Flight Progress.**

- Q** Kept mission on time to the best of the aircrew's capabilities. Timely notification to required agencies of departure and arrival information and maintenance discrepancies.
- Q-** Minor deviation(s) in itinerary caused by insufficient management. Notification to required agencies of departure and arrival information and maintenance discrepancies were sometimes late.
- U** Mission was delayed or degraded due to insufficient management by the evaluatee. Notification to required agencies of departure and arrival information and maintenance discrepancies were not accomplished.

**Area 43, Passenger Contact.**

- Q** Worked closely with the passenger contact to ensure accurate itinerary details and passenger requirements.
- Q-** Slow to interact with the passenger contact that caused (or led to) minor itinerary problems. Did not adversely affect mission accomplishment.
- U** Did not interact with the passenger contact. Led to miscommunications between aircrew and party, which hampered mission accomplishment.

**Area 44, Enroute Procedures.**

- Q** Accurately planned and performed enroute portion of mission to include compliance with ATC and diplomatic requirements.
- Q-** Planning of enroute portion of mission was not always complete. In-flight performance was adequate and no ATC or diplomatic requirements were violated.
- U** Enroute planning was inadequate. Violated ATC instructions or diplomatic requirements.

**Area 45, Post Flight/RON Procedures.**

- Q** Accomplished required checklists and ensured required aircraft servicing was completed. Managed crew to ensure their location and departure times were always known.

- Q-** Slow to complete required checklists or ensure required aircraft servicing was completed. Was sometimes unaware of a crewmember's location during crew rest. Was slow to set an adequate hotel departure time and pass information to the crew.
- U** Did not accomplish the required checklists and aircraft was not properly serviced. Unaware of crewmembers' location during crew rests. Inadequate hotel departure time established causing mission delay. Communication to crew during crew rest was inadequate.

**Area 46, Aircraft Security.**

- Q** Ensured security requirements were met IAW appropriate directives.
- Q-** Was sometimes unaware of security requirements, but ensured they were met when researched.
- U** Was unaware of security requirements, which led to evaluator intervention to ensure they were met.

**Area 47, Block Time Procedures.**

- Q** Was knowledgeable of block time procedures and set realistic times. Block times (when mission dictates) were, at the top of descent, within five minutes when conditions beyond the examinee's control were favorable (i.e. ATC re-routings, weather).
- Q-** Was somewhat knowledgeable of block time procedures and set realistic times. Block times (when mission dictates) were, at the top of descent, within ten minutes when conditions beyond the examinee's control were favorable.
- U** Was not knowledgeable of block time procedures and set unrealistic times. Block times (when mission dictates) were, at the top of descent, not within ten minutes even when conditions beyond the examinee's control were favorable.

**Area 48, Diplomatic Clearances.**

- Q** Obtained or requested all required diplomatic clearances and followed up as necessary.

**Q-** Obtained or requested all required diplomatic clearances but failed to follow up as necessary. Omission could have delayed the mission.

**U** Failed to request necessary diplomatic clearances and the mission was delayed.

**2.8. UNIT.** Include MAJCOM-specific and local evaluation areas in unit supplement to this instruction. Include the evaluation areas on AF Form 3862. See paragraph 1.14 in this instruction for further information.

## Chapter 3

### NAVIGATOR EVALUATIONS

**3.1. General.** This chapter standardizes initial, periodic, and requalification evaluations including requirements for navigator qualification, mission, and instructor evaluations. The examinee must satisfactorily demonstrate the ability to perform all navigator duties safely and effectively, including the operation of appropriate aircraft systems, IAW applicable flight manuals and Air Force Instructions (AFIs).

**3.2. QUAL/MSN Evaluations.** For initial, periodic and requalification evaluations include all areas under GENERAL and QUALIFICATION/MISSION. Navigator mission profile must include a Category I route, or a Category II route using Category I procedures, of sufficient length to demonstrate proficiency in navigation procedures.

3.2.1. Simulator Evaluations. Do not conduct evaluations in the simulator.

3.2.2. Receiver Air Refueling.

3.2.2.1. Commence 10 minutes before ARCT/RZ PT and terminate at end A/R point. Evaluate a Point Parallel or Enroute Rendezvous (one required). Verbally evaluate the type of rendezvous not accomplished in flight.

3.2.2.2. Presidential Pilot may waive Area 22 due to aircraft mission and maintenance demands.

**3.3. INSTR Evaluations.** Flight examiners will place particular emphasis on the examinee's ability to recognize student difficulties and provide timely, effective, corrective action.

3.3.1. Initial or requalification instructor evaluations do not require a qualified navigator occupying the primary navigation seat. As a minimum, demonstrate and instruct a variety of navigation procedures. Evaluate all areas under GENERAL, QUALIFICATION/MISSION and INSTRUCTOR.

3.3.2. Conduct periodic instructor evaluations in conjunction with qualification evaluations. To realign the QUAL/MSN evaluation expiration date during the initial (or requalification) INSTR checkride, evaluate all areas/subareas under GENERAL, QUALIFICATION/MISSION and INSTRUCTOR.

3.3.3. Navigators who desire to realign the QUAL/MSN evaluation expiration date during the initial (or requalification) INSTR evaluation must also demonstrate all required areas/subareas and complete written examinations.

**3.4. Emergency Procedures Evaluation (EPE).** Evaluate a crewmember's knowledge of emergency procedures and systems knowledge during all initial, requalification and periodic evaluations.

**3.5. Navigator Grading Criteria.**

3.5.1. **GENERAL. Area 1, Directives and Publications.**

**Q** Possessed a high level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted.

- Q- Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.
- U Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

## **Area 2, Mission Planning/Preparation.**

### **Subarea 2A, Chart Preparation.**

Q Required charts were constructed accurately to depict the route-of-flight IAW current directives.

Q- Minor errors or omissions that would not have adversely affected mission accomplishment.

U Selected an improper or obsolete chart. Chart contained errors that may have impact on the mission if not corrected.

### **Subarea 2B, Flight Planning.**

Q Obtained and verified current and accurate flight plan.

Q- Minor errors or omissions on the flight plan that would not have a direct (adversely) affected on mission accomplishment.

U Flight plan was not completed. Inability to demonstrate manual flight planning procedures, or computer flight plan was not reviewed. Navigator flight plan contained major errors/omissions that may have a direct impact on mission accomplishment.

### **Subarea 2C, Fuel Planning.**

Q Knowledgeable with the type and use of data contained in the fuel planning regulation. "Enroute fuel" computation errors did not exceed 3%. Correctly computed other time and fuel analysis items. Correctly computed an ETP, when required. Completed all applicable forms. Checked all factors concerning take-off and landing data. Attended all

required briefings. Complied with all directives prior to flight. Calculated mission fuel deviation=less than 5,000 lbs.

- Q- Displayed inadequate knowledge of the fuel planning regulation. Fuel computations and/or ETP were not completed or contained major errors or omissions. If constructed, range control chart had major errors and omissions. Exceeded Q- criteria. Made minor deviations completing forms. Minor omissions checking factors concerning take-off and landing data, which did not detract from safety or mission effectiveness. Did not fully comply with directives, but did not detract from safety or mission effectiveness. Calculated required mission fuel: greater than 5,000 lbs, but less than 7,000 lbs.
  
- U Major omissions completing applicable forms. Failed to check major factors effecting take-off and landing data. Did not comply with directives that would affect mission effectiveness. Calculated required mission fuel exceeds Q- tolerances.

### **Area 3, Use of Checklists.**

- Q Consistently ensured all appropriate checklists were used and individual items completed in a timely manner without omission.
  
- Q- Completed in an untimely manner or with minor omissions, which did not detract from safety or mission effectiveness.
  
- U Used incorrect checklist or omitted checklist items, which detracted from safety or mission effectiveness. Did not complete checklist prior to event.

### **Area 4, Safety Consciousness (Critical).**

- Q Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
  
- U Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft in a dangerous manner.

### **Area 5, Judgment/Compliance (Critical).**

- Q** Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.
- U** Unaware of established 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.

**Area 6, Crew Coordination/Crew Resource Management (CRM).** See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF 4031, *CRM Skills Criteria Training/Evaluation*, as a reference.

- Q** Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers' duties and responsibilities. Effectively applied CRM skills throughout the mission.
- Q-** Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities.
- U** Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight.

**Area 7, Communication Procedures.**

- Q** Demonstrated a thorough knowledge of communication procedures. Accomplished required calls and acknowledgments with standard terminology. Consistently backed up pilots for all ATC calls. Demonstrated satisfactory use of UHF, VHF and HF radios.
- Q-** Occasional deviation or omissions from required procedures, calls or acknowledgments. Occasional backup for ATC calls. Limited knowledge of communication equipment.
- U** Incorrect procedures or poor performance caused confusion. Did not back up pilots for ATC radio calls. Displayed poor operational knowledge of communication equipment.

**Area 8, Life Support Systems/Egress.**

- 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, slide rafts, and escape ropes/pulleys.

- 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.
- U Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.

**Area 9, Knowledge/Completion of Forms.**

- Q All required forms and/or flight plans were complete, accurate, readable, accomplished on time and IAW applicable directives. Related an accurate debrief of significant events to applicable agencies (Intelligence, Maintenance, etc.).
- Q- Minor errors on forms and/or flight plans did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- U Did not accomplish required forms and/or flight plans. Omitted or incorrectly reported significant information to applicable agencies due to major errors, omissions, and/or deviations.

**Area 10, Airmanship/Situational Awareness.**

- Q Executed the assigned mission in a timely, efficient manner. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with a sense of understanding and comprehension.
- Q- Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.
- U Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

**Area 11, Briefings/Advisories.**

- Q** Contributed to the briefing content to ensure it included all applicable information. Briefings effectively organized and presented in a logical sequence. Covered all pertinent items. Effectively used available briefing aids. In-flight briefings/advisories provided clear and concise information in a timely manner.
- Q-** Allowed omission of items pertinent but not critical to the mission. Briefings lacked continuity or contained unnecessary repetition. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Dwelled on non-essential items. In-flight briefings/advisories contained minor errors or omitted non-critical information.
- U** Failed to conduct/attend required briefings. Failed to use briefing aids. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of knowledge of subject. Briefing poorly organized and not presented in a logical sequence, resulting in confusion. Presented erroneous information that would affect safe/effective mission accomplishment. Did not provide required in-flight briefings/advisories.

#### **Area 12, Weather Avoidance/Windshear (Critical).**

- Q** Recognized enroute weather hazards and avoided the hazards to meet minimum requirements in AFI 11-2VIPV3.
- U** Failed to recognize enroute weather hazards. Attempted to penetrate minimum prescribed distances which (or had the potential to) caused unnecessary passenger discomfort or wear and tear on the aircraft.

#### **3.5.2. QUALIFICATION/MISSION. Area 13, Pre-Flight.**

- Q** Accomplished all preflight duties with minimal errors.
- Q-** Minor errors, omissions or deviations not affecting mission conduct.
- U** Significant errors, omissions or deviations from prescribed checklists and procedures.

#### **Area 14, Takeoff/Climb/Level Off/Departure.**

- Q** Monitored headings, airspeeds, altitudes and aircraft position throughout departure. Used a SID and/or appropriate scale departure area chart. Provided headings, ETAs, and other required information in a timely manner. Monitored appropriate radios and clearances to ensure crew compliance. Provided updated information when the clearance caused a change in the planned departure.

- Q-** Monitored aircraft position, but slow to provide headings, ETAs or other required information. Performance did not degrade mission accomplishment, or compromise flight safety.
- U** Did not monitor departure headings, airspeeds or altitudes. Unaware of aircraft position and unable to provide updated information when required. Did not use a SID and/or an appropriately scaled departure area chart. Allowed major deviations that degraded mission accomplishment or compromised safety.

**Area 15, General Navigation/Enroute Procedures.**

- Q** Accurately tuned, identified, read and interpreted readings of TACAN, VOR or NDB. Consistently selected stations that afforded the best LOPs. Demonstrated thorough knowledge and understanding of radar equipment. Used correct procedures for radar operation and weather avoidance procedures.
- Q-** Better use of radio aids could have enhanced navigation. Displayed weakness in fixing or plotting procedures. Demonstrated adequate knowledge of equipment, but occasionally used improper operating procedures. Had difficulty identifying radar returns.
- U** Unable to accurately tune and identify radio aids. Did not understand VOR/TACAN/NDB bearing procedures or was unable to obtain position by means of radio aids. Unsatisfactory knowledge of radar equipment. Used improper operating procedures that were potentially harmful to system components.

**Area 16, Grid Procedures.** Not Used.

**Area 17. Navigation Equipment/Systems Operations.** All references to navigation systems refer to actual systems onboard unit aircraft (i.e., INS, GPS, etc).

- Q** Thorough knowledge of onboard navigation system operating procedures. Effectively used navigation systems to direct the aircraft and update system as required.
- Q-** Had only a basic knowledge of onboard navigation systems. Made minor errors in operation/interpretation of navigation system data. More selective updating could have increased system effectiveness.

- U Displayed inadequate knowledge of onboard navigation system procedures. Improper operation procedures could have resulted in damage to equipment or affected mission accomplishment. Failed to update or correctly interpret navigation system data.

#### **Area 18, Enroute Planning.**

- Q Remained within 10 NMs of course centerline. ETA/RETA was within 2 minutes of actual times of arrival (ATA). Accurately determined course deviation for weather.
- Q- Remained within 15 NMs of course centerline. ETA/RETA was within 3 minutes of ATA.
- U Exceeded Q- criteria and/or evaluator directed altering the aircraft heading to remain within course tolerance, clear special use airspace, or correctly deviate around weather.

#### **Area 19, Descent, Approach Monitor, and Landing.**

- Q Monitored aircraft position, approach instructions and primary approach navigation aids. Furnished headings, ETAs and other information to the pilot as required. Thoroughly understood approach and missed approach procedures. Ensured terrain clearance during approach by use of all available aids and area chart.
- Q- Monitored aircraft position but did not fully understand approach instructions/procedures. Slow to provide headings, ETAs or other appropriate information.
- U Failed to monitor aircraft position. Did not ensure terrain clearance for approach. Area chart not available.

#### **Area 20, Radio Transmission - Usage and Discipline.**

- Q Radio communications (both inter- and intra-cockpit) were concise, accurate, and effectively used to direct actions by the crew to update appropriate agencies of the tactical situation.
- Q- Minor terminology errors or omissions occurred, but did not significantly detract from situational awareness, threat warning, or mission accomplishment. Extraneous comments over primary and secondary radios presented minor distractions.

- U Radio communications over primary/secondary radios were inadequate or excessive. Inaccurate or confusing terminology significantly detracted from situational awareness, threat warning, or mission accomplishment.

### Area 21, Emergency Procedures.

- Q Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency.
- Q- Correctly analyzed and understood aircraft emergencies but had difficulty stating the EP. Performed required procedures to correct the emergency.
- U Failed to analyze, state, and did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency.

### Area 22, Receiver Air Refueling.

#### Subarea 22A, Rendezvous.

#### Subarea 22B, A/R Track Adherence/Altitude.

#### Subarea 22C, Receiver Breakaway Procedures.

- Q Rendezvous – Point Parallel: Maintained A/R track after ARIP not more than 3 NM. Directed radar closure to in-trail position under IFR conditions not more than 1 NM.  
Rendezvous – Enroute: Arrived over RZ PT or ARCP (as coordinated time or 15 minutes before Tanker/Receiver radio call) within 1-minute timing. Directed radar-closure to in-trail position under IFR conditions not more than 1 NM. Breakaway procedures response was according to the appropriate air refueling flight manual (T.O. 1-1C-36, as appropriate).
- Q- Rendezvous -- Point Parallel: A/R track after ARIP more than 3 NM but less than 6 NM. Directed radar closure to in-trail under IFR condition greater than 1 NM without mission degrade (pilot visual with tanker).  
**Rendezvous -- Enroute: Arrived over RZ PT or ARCP greater than 1 minute, but less than 2 minutes and failed to advise tanker of timing delay. Directed radar-closure to in-trail under IFR condition greater than 1 NM without mission degrade (pilot visual with tanker). Exceeded ATC defined A/R track boundaries with no mission degrade. Breakaway procedures had minor errors with no mission degrade.**

**U** Exceed Q- tolerances. Unable to direct radar-closure to tanker without mission degrade, and/or missed rendezvous. Exceeded ATC defined A/R track boundaries or incorrect Breakaway procedures with potential for direct mission impact.

3.5.3. **INSTRUCTOR.** Wing instructors may instruct a fully qualified navigator or student to complete this evaluation.

**Area 23, Instructor Ability/Knowledge (Critical).**

**Q** Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe maneuvers/situations.

**U** Unable to effectively communicate or provide timely feedback 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.

**Area 24, Student Briefing/Critique (Critical).**

**Q** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Showed an excellent 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.

**U** Briefings were marginal or non-existent. Did not review students past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

**3.6. UNIT.** Include MAJCOM-specific and local evaluation areas in unit supplement to this instruction. Include the evaluation areas on AF Form 3862 (see paragraph 1.14.).

## Chapter 4

### FLIGHT ENGINEER EVALUATIONS

**4.1. General.** This chapter standardizes initial, periodic, and requalification evaluation requirements for second (FF) and first (MF) flight engineer qualification. VC-25, C-20 and C-37 flight engineers may qualify initially as FF. USAFE C-20H flight engineers normally qualify initially as MF. The examinee must satisfactorily demonstrate the ability to perform all engineer duties safely and effectively, including the operation of appropriate aircraft systems, IAW applicable flight manuals and Air Force Instructions (AFIs).

#### **4.2. C-20/C-37 QUAL/MSN Evaluations.**

4.2.1. Overview. Initial evaluation will be to MF position.

4.2.1.1. Initial. Conduct the initial QUAL/MSN evaluation on an operational or training mission consisting of at least 2 mission legs with the DV/VIP onboard (if possible) and monitor at least one instrument approach and landing. Include all areas under GENERAL and QUALIFICATION/MISSION and requisite exams. Upon successful completion of the evaluation, annotate AF Form 8 as crew position MF. Annotate any restrictions on AF Form 8.

4.2.2. Periodic. Include all areas under GENERAL and QUALIFICATION/MISSION. Use MF designated criteria. Complete the evaluation on one mission, if possible.

4.2.3. Qualification and Difference Certification.

4.2.3.1. C-20B, C-20H, C-37A and C-37B Qualification and Certification. C-20B, C-20H, C-37A and C-37B are considered the same type MDS for qualification and evaluation purposes following an initial evaluation in the primary type MDS and a SPOT evaluation in each additional type MDS.

4.2.3.1.1. Qualification. Qualification evaluations are conducted in approved ATD and/or aircraft. After completion of an evaluation in each type MDS, FEs may complete recurring periodic evaluations in any type MDS qualified. FEs should alternate successive recurring periodic evaluations between MDS types.

4.2.3.1.2. Certification. Transition between MDS types will be accomplished via MAJCOM/A3T approved difference training. Certification will be documented IAW AFI 11-202V2 and associated MAJCOM supplements.

#### **4.3. VC-25 QUAL/MSN Evaluations.**

4.3.1. Overview: VC-25 flight engineers initially upgrade to second engineer by combined INIT QUAL/MSN evaluation with a crew position identifier of FF. Unsupervised, VC-25 second engineers are limited to performing scanners duties. Second engineers upgrade to first engineer by combined INIT QUAL/MSN evaluation with a crew position identifier of MF.

4.3.2. Evaluation Requirements:

4.3.2.1. All initial, periodic, and requalification evaluations include (as a minimum) the following required areas:

4.3.2.2. All items under GENERAL.

4.3.2.3. All items under QUALIFICATION. Those areas specifically required for MF evaluations only are identified “MF Only”.

**4.4. INSTR Evaluations.** Flight examiners will place emphasis on the examinee’s ability to recognize student difficulties and provide corrective action. Evaluate instructor candidate demonstrating and instructing a variety of FE tasks during instrument/visual approaches, departures and arrivals. Initial or requalification instructor evaluations may be with a qualified engineer occupying the engineer seat. The examiner may occupy the engineer seat and play role of student.

4.4.1. Initial. Include all areas under GENERAL, QUALIFICATION/MISSION (MF criteria), and INSTRUCTOR. **NOTE:** Flight engineers who desire to realign their QUAL/MSN evaluation during the initial instructor evaluation (update qualification expiration date) must “demonstrate” all areas under QUALIFICATION/MISSION and complete all required written examinations.

4.4.2. Periodic. Evaluate all areas under INSTRUCTOR during all flight evaluations.

**4.5. Emergency Procedures Evaluations (EPE).** Evaluate a crewmember’s knowledge of emergency procedures and systems knowledge during all initial, requalification and periodic evaluations.

**4.6. Taxi Evaluation.** IAW AFI 11-218, flight engineers qualified to perform taxi operations will complete a periodic taxi evaluation administered by a pilot flight examiner.

4.6.1. Evaluate the flight engineer’s ability to taxi the aircraft under its own power while in the pilot’s seat. The evaluation should include proper use of normal and emergency braking systems, throttles, aircraft controls, checklists, radios, egress systems, fire extinguishing systems, control tower light signals, marshalling signals, airport markings, lights, and signs.

4.6.2. Document the taxi evaluation as a ground phase item on the AF Form 8.

**4.7. Flight Engineer Grading Criteria.**

4.7.1. **GENERAL. Area 1, Directives and Publications.**

**MF**

**Q** Possessed a high level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted.

**Q-** Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.

**U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

**FF**

- Q** Possessed a necessary level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Knowledge level is partially proficient and not necessarily to desired levels of speed, accuracy, and safety. Publications were current and properly posted.
- Q-** Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

**Area 2, Mission Planning/Preparation/Performance (FF and MF).**

- Q** Completed all applicable forms. Checked all factors concerning take-off and landing data. Properly computed required performance data. Attended all required briefings. Complied with all directives prior to flight.
- Q-** Made minor deviations completing forms. Minor omissions checking factors concerning take-off and landing data, which did not detract from safety or mission effectiveness. Minor errors computing performance data, which did not detract from safe conditions or mission effectiveness. Did not fully comply with directives, but did not detract from safety or mission effectiveness.
- U** Major omissions completing applicable forms. Failed to check major factors effecting take-off and landing data. Major errors computing performance data. Did not comply with directives that would affect mission effectiveness.

**Area 3, Use of Checklists.****MF**

- Q** Consistently ensured all appropriate checklists were used and completed in a timely manner without omission.
- Q-** Completed in an untimely manner or with minor omissions, which did not detract from safety or mission effectiveness.

U Used incorrect checklist or omitted checklist items, which detracted from safety or mission effectiveness. Did not complete checklist prior to event.

**FF**

Q Consistently ensured all appropriate checklists were used and completed in a minimum acceptable level of speed, accuracy, and safety without the assistance of an instructor.

Q- Completed in an untimely manner or with minor omissions, which did not detract from safety or mission effectiveness.

U Used incorrect checklist or omitted checklist items, which detracted from safety or mission effectiveness. Did not complete checklist prior to event.

**Area 4, Safety Consciousness (FF and MF) (Critical).**

Q Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

U Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft in a dangerous manner.

**Area 5, Judgment/Compliance (FF and MF) (Critical).**

Q Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.

U Unaware of established 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.

**Area 6, Crew Coordination/Crew Resource Management (CRM) (FF and MF).** See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF 4031, *CRM Skills Criteria Training/Evaluation*, as a reference.

- Q** Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers' duties and responsibilities. Effectively applied CRM skills on the mission.
- Q-** Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities.
- U** Poor crew coordination or unsatisfactory knowledge of other crewmembers' duties and responsibilities negatively affected mission accomplishment or safety of flight.

**Area 7, Communication Procedures (FF and MF).**

- Q** Demonstrated a thorough knowledge of communication procedures. Accomplished required calls and acknowledgments with standard terminology. Consistently backed up pilots for all ATC calls. Demonstrated satisfactory use of UHF, HF and VHF radios.
- Q-** Occasional deviation or omissions from required procedures, calls or acknowledgments. Occasional backup for ATC calls. Limited knowledge of communication equipment.
- U** Incorrect procedures or poor performance caused confusion. Did not back up pilots for ATC radio calls. Displayed poor operational knowledge of communication equipment.

**Area 8, Life Support Systems/Egress.**

**MF**

- Q** Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated the proper operating procedures to operate aircraft egress devices.
- 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.
- U** Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.

**FF**

- Q** Displayed minimal necessary knowledge to the desired levels of speed, accuracy, and safety for the location and use of life support systems and equipment without the assistance of an instructor. Demonstrated the proper operating procedures to operate aircraft egress devices.
- 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.
- U** Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.

#### **Area 9, Knowledge/Completion of Forms.**

##### **MF**

- Q** All required forms were complete, accurate, readable, accomplished on time and IAW applicable directives. Related an accurate debrief of significant events to applicable agencies.
- Q-** Minor errors on forms did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- U** Did not accomplish required forms. Omitted or incorrectly reported significant information to applicable agencies due to major errors, omissions, and/or deviations.

##### **FF**

- Q** All required forms were complete, accurate, readable, and accomplished to the minimally acceptable level of speed, accuracy, and safety and IAW applicable directives. Related an accurate debrief of significant events to applicable agencies.
- Q-** Minor errors on forms did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- U** Did not accomplish required forms. Omitted or incorrectly reported significant information to applicable agencies due to major errors, omissions, and/or deviations.

**Area 10, Airmanship/Situational Awareness.****MF**

- Q** Executed the assigned mission in a timely, efficient manner. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with a sense of understanding and comprehension.
- Q-** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used in that specific mission objectives were not achieved.
- U** Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

**FF**

- Q** Executed the assigned mission in a minimally acceptable level of speed, accuracy, and safety without the assistance of an instructor. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with an acceptable sense of understanding and comprehension.
- Q-** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.
- U** Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

**4.7.2. C-20/C-37 QUALIFICATION/MISSION. Area 11, Interior Inspection.****MF**

- Q** Timely completion of all pre-flight checks and procedures without omissions. Proper coordination with maintenance and crew when required. Ensured readiness of aircraft for flight.
- Q-** Same as above except for minor omissions or deviations which did not detract from safety or directly contribute to a late take-off

**U** Failed to pre-flight a critical component or system. Errors, omissions or deviations directly contribute to a late take-off or detracted from safety or mission effectiveness.

**FF**

**Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions. Proper coordination with maintenance and crew when required. Ensured readiness of aircraft for flight.

**Q-** Same as above except for minor omissions or deviations which did not detract from safety or directly contribute to a late take-off

**U** Failed to pre-flight a critical component or system. Errors, omissions or deviations directly contribute to a late take-off or detracted from safety or mission effectiveness.

**Area 12, Exterior Inspection.**

**MF**

**Q** Timely completion of all pre-flight checks and procedures without omissions. Proper coordination with maintenance and crew when required. Ensured readiness of aircraft for flight.

**Q-** Same as above except for minor omissions or deviations which did not detract from safety or directly contribute to a late take-off.

**U** Failed to pre-flight a critical component or system. Errors, omissions or deviations directly contribute to a late take-off or detracted from safety or mission effectiveness.

**FF**

**Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions. Proper coordination with maintenance and crew when required. Ensured readiness of aircraft for flight.

- Q- Same as above except for minor omissions or deviations which did not detract from safety or directly contribute to a late take-off.
- U Failed to pre-flight a critical component or system. Errors, omissions or deviations directly contribute to a late take-off or detracted from safety or mission effectiveness.

**Area 13, Before Starting/Starting Engines.**

**MF**

- Q Timely completion of all checklists and procedures without omissions
- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

**FF**

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions.
- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

**Area 14, Before Taxi/Taxi.**

**MF**

- Q Timely completion of all checklists and procedures without omissions.

**Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.

**U** Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

**FF**

**Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions.

**Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.

**U** Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

**Area 15, Before Takeoff/Takeoff/Departure Monitoring.**

**MF**

**Q** Timely completion of all checklists and procedures without omissions. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.

**Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.

**U** Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety. Did not monitor appropriate radios.

**FF**

**Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions. Monitored

engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.

- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U** Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety. Did not monitor appropriate radios.

**Area 16, Climb/Cruise/Descent/Approach Monitoring.**

**MF**

- Q** Timely completion of all checklists without omission. Computed required performance data for cruise and flight maneuvers (when required). Monitored systems indicators. Informed pilot of malfunctions/ abnormalities. Monitored and adjusted engine throttles when required. Maintained aircraft CG within limits. Monitored, and informed the pilot of fuel burn and fuel remaining. Monitored appropriate radios and backed up pilots as required. Timely back up of altitudes and airspeeds. Accurately completed all required in-flight documentation.
- Q-** Same as above, except for minor procedural deviations. Occasionally monitored fuel burn. Occasional back up for radio calls, altitudes and airspeeds. Minor documentation errors.
- U** Errors directly degraded mission effectiveness or caused delays. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items. Failed to monitor or detect system malfunction/abnormal indication. Did not monitor fuel burn. Did not complete required in-flight documentation. Did not back up pilots for radio calls or altitudes/airspeeds.

**FF**

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions. Computed required performance data for cruise and flight maneuvers (when required). Monitored systems indicators. Informed pilot of malfunctions/abnormalities. Monitored and adjusted engine throttles when required. Maintained aircraft CG within limits. Monitored, and informed the pilot of fuel burn and fuel remaining. Monitored

appropriate radios and backed up pilots as required. Timely back up of altitudes and airspeeds. Accurately completed all required in-flight documentation.

**Q-** Same as above, except for minor procedural deviations. Occasionally monitored fuel burn. Occasional back up for radio calls, altitudes and airspeeds. Minor documentation errors.

**U** Errors directly degraded mission effectiveness or caused delays. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items. Failed to monitor or detect system malfunction/abnormal indication. Did not monitor fuel burn. Did not complete required in-flight documentation. Did not back up pilots for radio calls or altitudes/airspeeds.

### **Area 17, Landing/After Landing.**

#### **MF**

**Q** Timely completion of all checklists and procedures without omissions. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.

**Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.

**U** Errors directly contributed to degrading the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety. Did not monitor appropriate radios.

#### **FF**

**Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.

**Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.

- U Errors directly contributed to degrading the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety. Did not monitor appropriate radios.

**Area 18, Engine Shutdown/Before Leaving Aircraft.**

**MF**

- Q Timely completion of all checklists and procedures without omissions.

- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.

- U Errors directly contributed to degrading the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

**FF**

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions.

- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.

- U Errors directly contributed to degrading the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

**Area 19, Knowledge of Emergency Procedures.**

**Subarea 19A, Ground Emergencies.**

**MF**

- Q** Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

**FF**

- Q** Operated within minimum acceptable levels of speed, accuracy, and safety limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

**Subarea 19B, Take-off Emergencies.****MF**

- Q** Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

**FF**

- Q** Operated within minimum acceptable levels of speed, accuracy, and safety limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

**Subarea 19C, In-flight Emergencies.****MF**

- Q** Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

**FF**

- Q** Operated within minimum acceptable levels of speed, accuracy, and safety limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.

U Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

**Subarea 19D, Landing Emergencies.**

**MF**

Q Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.

Q- Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.

U Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

**FF**

Q Operated within minimum acceptable levels of speed, accuracy, and safety limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/or available aids.

Q- Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.

U Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

**Area 20, Boldface Emergency Procedures/CAPs (FF and MF) (As Applicable) (Critical).**

Q Correct, immediate responses. Proper crew coordinated actions.

U Incorrect sequence, unsatisfactory response, or unsatisfactory performance of corrective actions.

**Area 21, Systems Knowledge/Operation/Tolerances.**

<b>Subarea 21A</b>	<b>Engines/APU</b>
<b>Subarea 21B</b>	<b>Oxygen</b>
<b>Subarea 21C</b>	<b>Fuel</b>
<b>Subarea 21D</b>	<b>Hydraulic</b>
<b>Subarea 21E</b>	<b>Flight Controls/Surfaces (Primary/Secondary)</b>
<b>Subarea 21F</b>	<b>Landing Gear/Brakes/Steering</b>
<b>Subarea 21G</b>	<b>Hatches/Doors/Exits</b>
<b>Subarea 21H</b>	<b>Pneumatic/Bleed Air</b>
<b>Subarea 21I</b>	<b>Pressurization/Air Conditioning</b>
<b>Subarea 21J</b>	<b>Anti-ice/De-ice</b>
<b>Subarea 21K</b>	<b>Windows/Windshields</b>
<b>Subarea 21L</b>	<b>Electrical/Lighting</b>
<b>Subarea 21M</b>	<b>Fire Detection/Extinguishing</b>
<b>Subarea 21N</b>	<b>ELT/Voice/Flight Data Recorder</b>
<b>Subarea 21O</b>	<b>INS or IRS/FMS/GPS</b>
<b>Subarea 21P</b>	<b>Climate/Environmental Systems</b>

<b>Subarea 21Q</b>	<b>Airframe</b>
<b>Subarea 21R</b>	<b>Avionics/Autopilot</b>
<b>Subarea 21S</b>	<b>Radios</b>
<b>Subarea 21T</b>	<b>Radar/TCAS</b>

**MF**

- Q** Fully knowledgeable of system component location; able to identify basic system functions and limitations. Analyzed simulated or actual malfunctions and applied proper maintenance action; fully determined status of related systems.
- Q-** Limited knowledge of system component location; minor deviations in determining basic system functions, limitations or applying maintenance actions; adequately determined status of related systems.
- U** Inadequate knowledge of system component locations. Unable to determine basic system functions and limitations. Unable / failed to analyze simulated or actual malfunctions or applied improper maintenance action. Could not determine status of related systems.

**FF**

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor in system component location knowledge, identification of basic system functions and limitations. Analyzed simulated or actual malfunctions and applied proper maintenance action; fully determined status of related systems.
- Q-** Limited knowledge of system component location; minor deviations in determining basic system functions, limitations or applying maintenance actions; adequately determined status of related systems.
- U** Inadequate knowledge of system component locations. Unable to determine basic system functions and limitations. Unable / failed to analyze simulated or actual malfunctions or applied improper maintenance action. Could not determine status of related systems.

**Area 22, Flight Engineer Responsibilities (MF Only).**

- Q** Was thoroughly aware of flight engineer responsibilities and performed them adequately to allow for mission accomplishment without major discrepancies.
- Q-** Was somewhat familiar with flight engineer responsibilities. Some problems arose which could have been avoided with better leadership/planning but mission accomplishment was unaffected.
- U** Was unsure of flight engineer responsibilities and would have hindered the accomplishment of the mission if evaluator did not intervene.

**Area 23, Flight Progress (MF Only).**

- Q** Kept mission on time to the best of the aircrew's capabilities. Timely notification to required agencies of departure and arrival information and maintenance discrepancies.
- Q-** Minor deviation(s) in itinerary caused by insufficient management. Notification to required agencies of departure and arrival information and maintenance discrepancies were sometimes late.
- U** Mission was delayed or degraded due to insufficient management by the evaluatee. Notification to required agencies of departure and arrival information and maintenance discrepancies were not accomplished.

**Area 24, Crew Contact (MF Only).**

- Q** Worked closely with the crew to ensure accurate itinerary details and passenger/crew requirements.
- Q-** Was slow to interact with crew, which led to minor itinerary problems. Did not adversely affect mission accomplishment.
- U** Did not interact with crew. Led to miscommunications between aircrew, which hampered mission accomplishment.

**Area 25, Enroute Procedures (MF Only).**

- Q Accurately planned and performed enroute portion of mission requirements.
- Q- Planning of enroute portion of mission was not always complete. In-flight performance was adequate and no requirements were violated.
- U Enroute planning was inadequate. Violated requirements.

**Area 26, Post Flight/RON Procedures (MF Only).**

- Q Accomplished required checklists and ensured required aircraft servicing was completed. Managed enlisted crew to ensure their location and departure times were always known.
- Q- Slow to complete required checklists or ensure required aircraft servicing was completed. Was sometimes unaware of enlisted crewmember's location during crew rest. Was slow to set an adequate hotel departure time and pass information to the enlisted crew.
- U Did not accomplish the required checklists and aircraft was not properly serviced. Unaware of enlisted crewmembers' location during crew rests. Inadequate hotel departure times were set. Communication to enlisted crew during crew rest was inadequate.

**Area 27, Aircraft Security (MF Only).**

- Q Ensured security requirements were met IAW appropriate directives.
- Q- Was sometimes unaware of security requirements, but ensured they were met when researched.
- U Was unaware of security requirements, which led to evaluator intervention to ensure they were met.

**4.7.3. VC-25 QUALIFICATION/MISSION. Area 11, Flight Engineer's Preflight (MF Only).**

- Q Timely completion of all pre-flight checks and procedures without omissions. Proper coordination with maintenance and crew when required. Ensured readiness of aircraft for flight.

- Q- Same as above except for minor omissions or deviations which did not detract from safety or directly contribute to a late take-off
- U Failed to pre-flight a critical component or system. Errors, omissions or deviations directly contribute to a late take-off or detracted from safety or mission effectiveness

**Area 12, Scanner's Preflight.**

- Q Timely completion of all pre-flight checks and procedures without omissions. Proper coordination with maintenance and crew when required. Ensured readiness of aircraft for flight.
- Q- Same as above except for minor omissions or deviations which did not detract from safety or directly contribute to a late take-off.
- U Failed to pre-flight a critical component or system. Errors, omissions or deviations directly contribute to a late take-off or detracted from safety or mission effectiveness.

**Area 13, Weight and Balance (MF Only).**

- Q Satisfactory knowledge of weight and balance directives. Was able to complete DD Form 365-4, Weight and Balance Clearance Form F-Transportation Tactical, accurately and legibly; errors were within tolerances listed in Table 4.1 not to exceed aircraft limits.
- Q- Same as Q, but completed DD Form 356-4 with minor errors or omissions not affecting safety. Limited knowledge of weight and balance directives. Errors exceeded Q tolerances, but were within the tolerances listed in Table 4.1 not to exceed aircraft limits.
- U Unable to complete DD Form 365-4. Errors exceeded Q- tolerances in Table 4.1 and/or aircraft limitations. Inadequate knowledge of weight and balance directives.

**Area 14, Aircraft Performance (MF Only).**

**Subarea 14A, Takeoff**

**Subarea 14B, Climb**

**Subarea 14C, Range**

**Subarea 14D, Endurance**

**Subarea 14E, Air Refueling**

**Subarea 14F, Descent****Subarea 14G, Approach and Landing.**

- Q** Completed aircraft performance in accordance with directives. Fully knowledgeable of performance data and all factors which affect performance data. Computed data within the tolerances listed in Table 4.1.
- Q-** Completed performance in accordance with existing directives with minor deviations which would not detract from mission effectiveness. Adequate knowledge of performance data and most factors which affect performance data. Computed data outside of Q criteria but within the tolerances of Q- in Table 4.1.
- U** Unable to complete performance. Computations exceeded criteria for Q- in Table 4.1. Inadequate knowledge of performance data.

**Table 4.1. VC-25 Aircraft Performance Criteria.**

<b>ITEM</b>	<b>Q</b>	<b>Q-</b>
Aircraft gross weight	± 2000lbs	±7000lbs
T/O gross weight	± 4000lbs	±7000lbs
Landing gross weight	±7000lbs	±10000lbs
% MAC	±1%	±1.5%
Airspeeds	±2kts	±4kts
Takeoff FAR	±200ft	±400ft
Landing Distance	±400ft	±600ft
Assumed Temp	±2C	±5C
N1	±.3%	±.6%
Stab Trim	±.2	±.4

**Area 15, Engine Start/Before Takeoff (MF Only).**

- Q** Timely completion of all checklists and procedures without omissions. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.
- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.

- U Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items which detracted from safety. Did not monitor appropriate radios.

**Area 16, After Takeoff/Climb (MF Only).**

- Q Timely completion of all checklists without omission. Computed required performance data. Monitored systems indicators. Informed pilot of malfunctions/abnormalities. Monitored and adjusted engine throttles when required. Maintained aircraft CG within limits. Monitored, and informed the pilot of fuel burn and fuel remaining. Monitored appropriate radios and backed up pilots as required. Timely back up of altitudes and airspeeds. Accurately completed all required in-flight documentation. Performed all other duties IAW the flight manual.

- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.

- U Errors directly degraded mission effectiveness or caused delays. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items. Failed to monitor or detect system malfunction/abnormal indication. Did not monitor fuel burn. Did not complete required in-flight documentation. Did not back up pilots for radio calls or altitudes/airspeeds.

**Area 17, Cruise (MF Only).**

- Q Timely completion of all checklists without omission. Computed required performance data. Monitored systems indicators. Informed pilot of malfunctions/abnormalities. Monitored and adjusted engine throttles when required. Maintained aircraft CG within limits. Monitored, and informed the pilot of fuel burn and fuel remaining. Monitored appropriate radios and backed up pilots as required. Timely back up of altitudes and airspeeds. Accurately completed all required in-flight documentation. Performed all other duties IAW the flight manual.

- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.

- U Errors directly degraded mission effectiveness or caused delays. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items. Failed to monitor or detect system malfunction/abnormal indication. Did not monitor fuel burn. Did not complete required in-flight documentation. Did not back up pilots for radio calls or altitudes/airspeeds.

**Area 18, Descent/Approach (MF Only).**

- Q** Timely completion of all checklists without omission. Computed required performance data. Monitored systems indicators. Informed pilot of malfunctions/abnormalities. Monitored and adjusted engine throttles when required. Maintained aircraft CG within limits. Monitored, and informed the pilot of fuel burn and fuel remaining. Monitored appropriate radios and backed up pilots as required. Timely back up of altitudes and airspeeds. Accurately completed all required in-flight documentation. Performed all other duties IAW the flight manual.
- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U** Errors directly degraded mission effectiveness or caused delays. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items. Failed to monitor or detect system malfunction/abnormal indication. Did not monitor fuel burn. Did not complete required in-flight documentation. Did not back up pilots for radio calls or altitudes/airspeeds.

**Area 19, After Landing/Before Leaving Airplane (MF Only).**

- Q** Timely completion of all checklists and procedures without omissions. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.
- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U** Errors directly degraded mission effectiveness or caused delays. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items which detracted from safety. Did not monitor appropriate radios.

**Area 20, Traffic Pattern/Multiple Full Stop Landings (MF Only).**

- Q** Timely completion of all checklists and procedures without omissions. Computed required performance data. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.

- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U** Errors directly degraded mission effectiveness or caused delays. Failed to complete checklists and procedures or calculate performance data in a timely and accurate manner. Omitted major checklist items which detracted from safety. Did not monitor appropriate radios.

**Area 21, Emergency/Abnormal Procedures General (MF and FF).**

- Q** Recognized actual/simulated malfunctions. Applied proper corrective actions. Effectively used checklist/flight manual. Thoroughly familiar with additional emergency procedures. Properly conducted emergency procedures with other crewmembers without delay.
- Q-** Recognized actual/simulated malfunctions. Slow response to non-critical situations or additional emergency procedures. Procedures were correct, but evaluatee was slow to locate required checklist/flight manual data. Slow or hesitant to coordinate emergency procedures with other crew members.
- U** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood or unaware of additional emergency procedures. Improperly coordinated emergency procedures with other crewmembers causing delay or confusion.
- NOTE 2<sup>nd</sup> engineers are only responsible for those procedures that specifically identify the 2<sup>nd</sup> engineer/scanner for response or action.

**Area 22, Emergency Critical Action Items (MF and FF) (Critical).**

- Q** Made correct and timely responses. Coordinated proper actions.
- U** Incorrect sequence, unsatisfactory response, and/or unsatisfactory performance of corrective action.

NOTE 2<sup>nd</sup> engineers are only responsible for those procedures that specifically identify the 2<sup>nd</sup> engineer/scanner for response or action.

**Area 23, Systems Knowledge/Operation.**

**Subarea 23A, The Airplane**

**Subarea 23B, Engines**  
**Subarea 23C, APU**  
**Subarea 23D, Fire Protection**  
**Subarea 23E, Fuel**  
**Subarea 23F, Electrical**  
**Subarea 23G, Hydraulics**  
**Subarea 23H, Flight Controls**  
**Subarea 23I, Landing Gear**  
**Subarea 23J, Brake and Antiskid**  
**Subarea 23K, Pneumatics**  
**Subarea 23L, Air Conditioning**  
**Subarea 23M, Equipment Cooling**  
**Subarea 23N, Pressurization**  
**Subarea 23O, Self Defense**  
**Subarea 23P, Ice and Rain Protection**  
**Subarea 23Q, Oxygen**  
**Subarea 23R, Lighting**  
**Subarea 23S, Cargo Loading and Stowage**  
**Subarea 23T, Personnel Accommodations**  
**Subarea 23U, Emergency Equipment**  
**Subarea 23V, Miscellaneous Equipment**  
**Subarea 23W, Pitot-Static System**  
**Subarea 23X, Instruments**  
**Subarea 23Y, Altitude Alert System**  
**Subarea 23Z, Mach/Airspeed Warning System**  
**Subarea 23AA, Navigation Equipment**  
**Subarea 23BB, Automatic Flight Control**  
**Subarea 23CC, Terrain Awareness and Warning System**  
**Subarea 23DD, Communication**  
**Subarea 23EE, Flight Characteristics**  
**Subarea 23FF, Adverse Weather**  
**Subarea 23GG, Air Refueling**  
**Subarea 23HH, Servicing and Ground Handling**

- Q MF:** Satisfactory knowledge of system components, functions and limitations; demonstrated proper management and operation of system; analyzed simulated or actual malfunctions and applied proper corrective action; fully determined status of related systems.
- FF:** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor in system component location knowledge, identification of basic system functions and limitations. Analyzed simulated or actual malfunctions and applied proper maintenance action; fully determined status of related systems
- Q- MF:** Incomplete knowledge of system components, functions and limitations; minor deviations in management or operation of systems when analyzing simulated or actual malfunctions and applying corrective action; adequately determined status of related systems.
- FF:** Limited knowledge of system component location; minor deviations in determining basic system functions, limitations or applying maintenance actions; adequately determined status of related systems.
- U MF.** Inadequate knowledge of system components, functions and limitations; improper management or operation of systems; unable to analyze simulated or actual malfunctions or apply corrective action; could not determine status of related systems.
- FF:** Inadequate knowledge of system component locations. Unable to determine basic system functions and limitations. Unable / failed to analyze simulated or actual malfunctions or applied improper maintenance action. Could not determine status of related systems

**Area 24, Mission Execution (MF and FF).**

- Q** Accomplished mission goals. Applied operational procedures consistent with objectives, current directives, and applicable flight manuals. Aircraft/equipment was properly configured IAW mission priorities and timing. Adapted to meet changing situations.
- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness. Slow to adapt to changing situations.
- U** Did not accomplish mission goals. Applied operational procedures inconsistently with objectives and current directives. Aircraft/equipment was not properly configured effecting mission success. Failed to adapt to changing situations.

**Area 25, Post Flight/RON Procedures (MF and FF).**

- Q Accomplished required checklists and ensured required aircraft servicing was complete.
- Q- Slow to complete required checklist or ensure required aircraft servicing was completed.
- U Did not accomplish the required checklists and aircraft was not properly serviced.

**4.7.4. INSTRUCTOR. Area 28, Instructor Ability (Critical).**

- Q Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe maneuvers/situations.
- U Unable to effectively communicate or provide timely feedback 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.

**Area 29, Instructor Demonstration (Critical).**

- Q Demonstrated/explained a complete knowledge of aircraft systems operations/limitations and proper procedural use of systems.
- U Unsatisfactory systems knowledge. Unable to demonstrate/explain the procedures for aircraft systems operations.

**Area 30, Student Briefing/Critique (Critical).**

- Q Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Showed an excellent 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.
- U Briefings were marginal or non-existent. Did not review student's past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

**4.7.5. ENROUTE (C-20/C-37 Flight Engineer Only). Area 31, Flight Engineer Responsibilities.**

- Q** Was thoroughly aware of flight engineer responsibilities and performed them adequately to allow for mission accomplishment without major discrepancies.
- Q-** Was somewhat familiar with flight engineer responsibilities. Some problems arose which could have been avoided with better leadership/planning but mission accomplishment was unaffected.
- U** Was unsure of flight engineer responsibilities and would have hindered the accomplishment of the mission if evaluator did not intervene.

### **Area 32, Flight Progress.**

- Q** Kept mission on time to the best of the aircrew's capabilities. Timely notification to required agencies of departure and arrival information and maintenance discrepancies.
- Q-** Minor deviation(s) in itinerary caused by insufficient management. Notification to required agencies of departure and arrival information and maintenance discrepancies were sometimes late.
- U** Mission was delayed or degraded due to insufficient management by the evaluatee. Notification to required agencies of departure and arrival information and maintenance discrepancies were not accomplished.

### **Area 33, Crew Contact.**

- Q** Worked closely with the crew to ensure accurate itinerary details and passenger/crew requirements.
- Q-** Was slow to interact with crew, which led to minor itinerary problems. Did not adversely affect mission accomplishment.
- U** Did not interact with crew. Led to miscommunications between aircrew, which hampered mission accomplishment.

### **Area 34, Enroute Procedures.**

- Q** Accurately planned and performed enroute portion of mission requirements.
- Q-** Planning of enroute portion of mission was not always complete. In-flight performance was adequate and no requirements were violated.
- U** Enroute planning was inadequate. Violated requirements.

**Area 35, Post Flight/RON Procedures.**

- Q** Accomplished required checklists and ensured required aircraft servicing was completed. Managed enlisted crew to ensure their location and departure times were always known.
- Q-** Slow to complete required checklists or ensure required aircraft servicing was completed. Was sometimes unaware of enlisted crewmember's location during crew rest. Was slow to set an adequate hotel departure time and pass information to the enlisted crew.
- U** Did not accomplish the required checklists and aircraft was not properly serviced. Unaware of enlisted crewmembers' location during crew rests. Inadequate hotel departure times were set. Communication to enlisted crew during crew rest was inadequate.

**Area 36, Aircraft Security.**

- Q** Ensured security requirements were met IAW appropriate directives.
- Q-** Was sometimes unaware of security requirements, but ensured they were met when researched.
- U** Was unaware of security requirements, which led to evaluator intervention to ensure they were met.

**4.8. UNIT.** Include MAJCOM-specific and local evaluation areas in unit supplement to this instruction. Include evaluation areas on AF Form 3862 (see paragraph 1.14.).

## Chapter 5

### COMMUNICATION SYSTEMS OPERATOR (CSO) / DATA SYSTEM OPERATOR (DSO) EVALUATIONS

**5.1. General.** This chapter standardizes initial, periodic, and requalification evaluations including requirements for CSO/DSO qualification, mission, and instructor evaluations. The examinee must satisfactorily demonstrate the ability to perform all CSO/DSO duties safely and effectively, including the operation of appropriate aircraft systems, IAW applicable flight manuals and Air Force Instructions (AFIs).

**5.2. QUAL/MSN Evaluations.** Log mission evaluation with qualification/requalification requirements (e.g. INIT QUAL/MSN). Include all areas under GENERAL and QUALIFICATION/MISSION and complete all requisite testing. This evaluation leads to unsupervised MK qualification. For VC-25, PAG determines which QUALIFICATION/MISSION areas apply for FK and MK qualifications.

5.2.1. Qualification evaluations should be conducted and completed on one continuous mission. Upon successful completion of evaluation, document the crew position as MK.

5.2.2. Multiple Qualification and Difference Certification.

5.2.2.1. Multiple Qualification.

5.2.2.1.1. CSOs may obtain additional qualification in MDS-aircraft with a designated crew complement for the CSO position.

5.2.2.1.2. Multiple qualification is only available to CSOs after they are qualified in their primary aircraft.

5.2.2.1.3. Complete an initial QUAL/MSN evaluation in each type MDS. Annotate a separate AF Form 8 as a QUAL/MSN evaluation (in the flight phase) for each initial evaluation.

5.2.2.1.4. Recurring evaluations may be accomplished in any type MDS qualified. CSOs should alternate successive recurring periodic evaluations between MDS types. Annotate the crew position as MK and add the appropriate MDS description remarks on the AF Form 8 (e.g., "This also satisfies qualification in xx MDS.")

5.2.2.1.5. CSOs who desire to align their qualifications during a subsequent MDS evaluation must demonstrate all required areas under GENERAL and QUALIFICATION/MISSION. Add the appropriate MDS description remarks on the AF Form 8 (e.g., "This also satisfies qualification in xx MDS.")

5.2.2.1.6. The C-32A and C-40B are considered the same type MDS for qualification and evaluation purposes.

5.2.2.2. Difference Certification.

5.2.2.2.1. CSOs require difference certification for significant communication equipment modifications accomplished on same type MDS. See paragraph 1.17. for further guidance.

5.2.2.2.2. C-20B, C-20H, C-37A and C-37B Qualification and Certification. C-20B, C-20H, C-37A and C-37B are considered the same type MDS for qualification and evaluation purposes following an initial evaluation in the primary type MDS and a SPOT evaluation in each additional type MDS.

5.2.2.2.2.1. Qualification. Initial qualification evaluation is conducted in the aircraft. An initial evaluation is only required in one type MDS. For each additional type MDS, a SPOT evaluation will be accomplished. CSOs should alternate successive recurring periodic evaluations between MDS types.

5.2.2.2.2.2. Certification. Transition between MDS types will be accomplished via MAJCOM/A3T approved difference training. Certification will be documented IAW AFI 11-202V2 and associated MAJCOM supplements.

**5.3. INSTR Evaluations.** CSO flight examiners will place particular emphasis on the examinee's ability to recognize student difficulties and provide corrective action. Initial instructor CSO evaluations will include instructing a CSO. Furthermore, CSOs may qualify directly to the highest qualification they hold in their primary aircraft. If the CSO will upgrade from UK to anything other than MK, then it shall be so noted under examiner's remarks on the AF FORM 8 (e.g. "Individual is C-32A/IK qualified and is being qualified to IK on this MDS"). See paragraph 1.9.4. for further guidance.

**5.4. Emergency Procedures Evaluations (EPE).** Evaluate a crewmember's knowledge of emergency procedures and systems knowledge during all initial, requalification and periodic evaluations.

### **5.5. Communication System Operator (CSO) Grading Criteria.**

#### **5.5.1. GENERAL. Area 1, Directives and Publications.**

- Q** Possessed a high level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted.
- Q-** Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

#### **Area 2, Mission Preparation.**

- Q** Checked communications requirements and publications in accordance with established procedures and directives. Ordered and prepared classified communications kit and obtained all necessary documents and forms. Complied with local directives.

- Q-** Same as above except for minor deviations or omissions which would not impair mission effectiveness. Did not fully comply with local directives.
- U** Did not order or incorrectly prepared classified communications kit. Failed to comply with local directives.

### **Area 3, Use of Checklists.**

- Q** Procedures and checklist items required by flight manual and applicable directives were accomplished in a thorough and proficient manner.
- Q-** Procedures and checklist items required by flight manuals and applicable directives were accomplished with omission, deviation, or error, which detracted from the overall efficient conduct of the mission. Performance was the minimum acceptable.
- U** Procedures or checklist items required by flight manual and applicable directives were accomplished with omissions, deviations, or errors, which did, or could adversely affect the successful accomplishment of the mission or task.

### **Area 4, Safety Consciousness (Critical).**

- Q** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
- U** Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft in a dangerous manner.

### **Area 5, Judgment/Compliance (Critical).**

- Q** Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.
- U** Unaware of established 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.

**Area 6, Crew Coordination/Crew Resource Management (CRM).** See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF 4031, *CRM Skills Criteria Training/Evaluation*, as a reference.

- Q** Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers' duties and responsibilities. Practiced CRM skills developed during CRM and associated aircrew training programs.
- Q-** Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities. Displayed an inability to practice CRM skill during normal operations that did not adversely affect the mission.
- U** Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight.

**Area 7, Communication Procedures.**

- Q** Complete knowledge of, and compliance with, correct communication procedures. Makes radio and interphone transmissions concise with proper terminology.
- Q-** Occasional deviation or omissions from required procedures, calls or acknowledgments.
- U** Incorrect procedures or poor performance caused confusion. Did not call or acknowledge interphone transmissions with mission impact. Displayed poor operational knowledge of communication equipment.

**Area 8, Life Support Systems/Egress.**

- 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, slide rafts, and escape ropes/pulleys.
- 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.
- U** Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.

**Area 9, Knowledge/Completion of Forms.**

- Q** All required forms were complete, accurate, readable, and accomplished on time and IAW applicable directives. Relayed an accurate debrief of significant events to applicable agencies (safety, maintenance, etc.)
- Q-** Minor errors on forms that did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- U** Did not accomplish required forms. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.

**Area 10, Airmanship/Situational Awareness.**

- Q** Executed the assigned mission in a timely, efficient manner. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with a sense of understanding and comprehension.
- Q-** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.
- U** Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

**5.5.2. QUALIFICATION/MISSION. Area 11, Equipment Inspection and Preflight Procedures.**

- Q** Checked AFTO 781. Correctly and efficiently determined equipment status. Accomplished required inspections in a proficient manner as outlined in applicable manuals, checklists, or directives. No omissions or deviations noted.
- Q-** Slow to determine equipment status from information contained in AFTO 781. Minor deviations or omissions from applicable manuals, checklists, or directives.
- U** Major deviations from checklist sequence. Failed to check AFTO 781. Could not determine equipment status. Did not accomplish required inspections as prescribed in applicable manuals, checklists, or directives.

**Area 12, Boldface Emergency Procedures/CAPs (As Applicable) (Critical).**

- Q** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.
- U** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crewmembers causing delays or confusion, which did or could have compounded the situation.

**Area 13, Equipment System Knowledge.****Subarea 13A, High Frequency (HF) Equipment.**

- Q** In-depth knowledge of HF communication components, functions, and limitations. Properly demonstrated management and operation of HF communications systems. Adequately determined status of related systems.
- Q-** Limited knowledge of HF communication components, functions, and limitations. Minor deviations in management or operation of HF communications systems. Adequately determined status of related systems.
- U** Unsatisfactory knowledge HF communications systems, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

**Subarea 13B, Ultra High Frequency (UHF) Equipment.**

- Q** In-depth knowledge of UHF communication components, functions, and limitations. Properly demonstrated management and operation of UHF communications systems. Adequately determined status of related systems.
- Q-** Limited knowledge of UHF communication components, functions, and limitations. Minor deviations in management or operation of UHF communications systems. Adequately determined status of related systems.

- U Unsatisfactory knowledge UHF communications systems, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

**Subarea 13C, UHF Satellite Voice/Data Communications (SATCOM) Equipment.**

- Q In-depth knowledge of UHF SATCOM components, functions, and limitations. Properly demonstrated management and operation of UHF SATCOM systems. Adequately determined status of related systems.
- Q- Limited knowledge of UHF SATCOM components, functions, and limitations. Minor deviations in management or operation of UHF SATCOM systems. Adequately determined status of related systems.
- U Unsatisfactory knowledge UHF SATCOM systems, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

**Subarea 13D, Computer & Fax Equipment.**

- Q In-depth knowledge of computer and fax components, functions, and limitations. Properly demonstrated management and operation of computer and fax components. Adequately determined status of related systems.
- Q- Limited knowledge of computer and fax components, functions, and limitations. Minor deviations in management or operation of computer and fax components. Adequately determined status of related systems.
- U Unsatisfactory knowledge computer and fax components, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

**Subarea 13E, Cryptographic (CRYPTO) Equipment.**

- Q In-depth knowledge of Crypto equipment, functions, and limitations. Properly demonstrated management and operation of Crypto equipment. Adequately determined status of related systems.
- Q- Limited knowledge of Crypto equipment, functions, and limitations. Minor deviations in management or operation of Crypto equipment. Adequately determined status of related systems.

- U Unsatisfactory knowledge Crypto equipment, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

**Subarea 13F, Narrowband Equipment (INMARSAT Aero H/TARS/Iridium-based systems—where installed).**

- Q In-depth knowledge of Narrowband equipment, functions, and limitations. Properly demonstrated management and operation of Narrowband equipment. Adequately determined status of related systems.
- Q- Limited knowledge of Narrowband equipment, functions, and limitations. Minor deviations in management or operation of Narrowband equipment. Adequately determined status of related systems.
- U Unsatisfactory knowledge of Narrowband equipment, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

**Subarea 13G, Avionics Equipment.**

- Q In-depth knowledge of avionics equipment, functions, preflight and limitations. Properly demonstrated management, operation and preflight of avionics equipment. Adequately determined status of related systems.
- Q- Limited knowledge of avionics equipment, functions, preflight and limitations. Minor deviations in management, operation and preflight of Avionics equipment. Adequately determined status or relates systems.
- U Unsatisfactory knowledge of Avionics equipment, functions, preflight and limitations. Inadequate knowledge of procedures for applicable related systems

**Subarea 13H, Entertainment System.**

- Q In-depth knowledge of Entertainment system equipment, functions and limitations. Properly demonstrated management and operation of Entertainment system equipment. Adequately determined status of relates systems.

- Q-** Limited knowledge of Entertainment systems equipment, functions and limitations. Minor deviations in management or operation of Entertainment system equipment. Adequately determined status of related systems.
- U** Unsatisfactory knowledge of Entertainment systems equipment, equipment limitations and functions. Inadequate knowledge of procedures for applicable related systems.

**Subarea 13I, Wideband Systems (BBSN/HSD).**

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Demonstrated ability to properly configure and operate system to meet passenger requirements in accordance with applicable directives.
- Q-** Some discrepancies in configuring or operating system. Incorrect operation causing slight delay in wideband service to aircraft commander or DV/Staff.
- U** Did not properly configure or operate system. Major deviations or incorrect operation that caused significant delay in communications service.

**Subarea 13J, Local Area Network (LAN) System.**

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Demonstrated ability to properly configure and operate system to meet passenger requirements in accordance with applicable directives.
- Q-** Some discrepancies in configuring or operating system. Incorrect operation causing slight delay in service to aircraft commander or DV/Staff.
- U** Did not properly configure or operate system. Major deviations or incorrect operation that caused significant delay in communications service.

**Area 14, Equipment/Systems Operation.**

- Q** Demonstrated in-depth ability to properly configure and operate system for reception and transmission of information/messages in accordance with applicable directives. Practiced good circuit discipline.

- Q- Minor discrepancies in configuring or operating system. Incorrect operation causing slight delay in communications service to aircraft commander or DV/Staff.
- U Did not properly configure or operate system. Major deviations or incorrect operation that caused significant delay in communications service.

#### **Area 15, Communications Security (Critical).**

- Q In-depth familiarity with communication security requirements and procedures. Demonstrated proper use and responsible handling of classified information and/or equipment. Continuous watch and protection given to classified materials.
- U Limited knowledge of communications security requirement and procedures. Improper handling of classified information or equipment. Information left unattended or inappropriately protected.

#### **Area 16, After Landing/Post Mission.**

- Q In-depth knowledge and performance of required procedures. Correctly determined condition and status of the equipment. Completed AFTO 781 and satisfactorily debriefed maintenance personnel as required. Accomplished thorough area security check/COMSEC checklist.
- Q- Limited knowledge of required procedures. Unsure of condition or status of the equipment. AFTO 781 entries and maintenance debriefing were not concise or thorough.
- U Unsatisfactory knowledge of required procedures. Major deviations in procedures; could not determine condition or status of equipment. Inadequate completion of AFTO 781 and maintenance debriefing. Area security check/ COMSEC checklist not performed.

#### **5.5.3. INSTRUCTOR. Area 17, Instructor Ability (Critical).**

- Q Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe situations.
- U Unable to effectively communicate or provide timely feedback to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe situations in a timely manner. Made no attempt to instruct.

**Area 18, Instructor Demonstration (Critical).**

- Q** Effectively demonstrated procedures and techniques. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
- U** Did not demonstrate correct procedure or techniques. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.

**Area 19, Student Briefing/Critique (Critical).**

- Q** Briefings were well organized, accurate, and thorough. Reviewed students' present level of training and defined mission events to be performed. During the critique, demonstrated an effective ability 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.
- U** Briefings were marginal or non-existent. Did not review the students past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

**5.6. UNIT.** Include MAJCOM-specific and local evaluation areas in unit supplement to this instruction. Include the evaluation areas on AF Form 3862. See paragraph 1.14 in this Instruction for further information.

## Chapter 6

### FLIGHT ATTENDANT (FA) EVALUATIONS

**6.1. General.** This chapter standardizes initial, periodic and requalification evaluations, including requirements for qualification, mission, difference and instructor evaluations. The examinee must satisfactorily demonstrate the ability to perform all FA duties safely and effectively, including the operation of appropriate aircraft systems, IAW applicable flight manuals and Air Force Instructions (AFIs).

**6.2. QUAL/MSN Evaluations.** FAs normally receive a combined initial QUAL/MSN evaluation. This evaluation leads to unsupervised FT qualification (C-9, C-32 and C-40) or MT qualification (C-20, C-37 and VC-25). A follow-on QUAL/MSN evaluation upgrades an FT to MT (C-9, C-32 and C-40).

6.2.1. Conduct evaluation on an operational mission. The squadron commander may approve an FT evaluation on a training flight. For initial FT and MT evaluations, include all areas under GENERAL and QUALIFICATION/MISSION and complete all requisite testing. Upon successful completion of the evaluation indicate the crew position as FT (C9, C-32 or C-40) or as MT (C-20, C-37 and VC-25). Upon successful completion of the follow-on QUAL/MSN evaluation indicate the crew position as MT (C-9, C-32 or C-40).

6.2.2. Multiple Qualification and Difference Certification.

6.2.2.1. Multiple Qualification.

6.2.2.1.1. FAs may obtain additional qualification in MDS-aircraft with a designated crew complement for the FA position.

6.2.2.1.2. Multiple qualification is only available to FAs after they are qualified in their primary aircraft.

6.2.2.1.3. Complete an initial QUAL/MSN evaluation in each type MDS. Annotate a separate AF Form 8 as a QUAL/MSN evaluation (in the flight phase) for each initial evaluation.

6.2.2.1.4. Recurring evaluations may be accomplished in any type MDS qualified. FAs should alternate successive recurring periodic evaluations between MDS types. Annotate the crew position as MT and add the appropriate MDS description remarks on the AF Form 8 (e.g., "This also satisfies qualification in xx MDS.")

6.2.2.1.5. FAs who desire to align their qualifications during a subsequent MDS evaluation must demonstrate all required areas under GENERAL and QUALIFICATION/MISSION. Add the appropriate MDS description remarks on the AF Form 8 (e.g., "This also satisfies qualification in xx MDS.")

6.2.2.2. Difference Certification.

6.2.2.2.1. C-20B, C-20H, C-37A and C-37B Qualification and Certification. C-20B, C-20H, C-37A and C-37B are considered the same type MDS for qualification and evaluation purposes following an initial evaluation in the primary aircraft type.

6.2.2.2.1.1. Qualification. Initial qualification evaluation is conducted in the

aircraft. An initial evaluation is only required in one type MDS. FAs should alternate successive recurring periodic evaluations between aircraft types.

6.2.2.2.1.2. Certification. Transition between MDS types will be accomplished via MAJCOM/A3T approved difference training. Certification will be documented IAW AFI 11-202V2 and associated MAJCOM supplements.

**6.3. INSTR Evaluations.** Flight Examiners will place particular emphasis on the examinee's ability to recognize student difficulties and provide corrective action.

6.3.1. Initial and requalification INSTR evaluations should be administered with examinee instructing a qualified FA. See paragraph 1.9.4 in this Instruction for further guidance.

6.3.2. Periodic INSTR evaluations will be administered in conjunction with QUAL/MSN evaluations and require all areas/subareas under GENERAL, QUALIFICATION/MISSION and INSTRUCTOR and complete requisite testing.

6.3.3. Instructor upgrade in secondary aircraft. The squadron commander may approve an initial instructor evaluation in a secondary aircraft during a flight or ground evaluation (flight evaluation can be accomplished on an operational mission or OST). The squadron commander may approve this provision for multiple-qualified FAs who hold IT status in their primary aircraft. Add the appropriate MDS description remarks on Form 8 (e.g., This also satisfies qualification in xx aircraft).

6.3.4. Initial Instructor upgrade for multiple qualification. See paragraph 1.9.4. for further guidance. Add appropriate MDS description remarks on Form 8 (e.g., This Initial Instructor Evaluation upgrades examinee to IT on primary (xx) and secondary (xx) MDSs).

**6.4. Emergency Procedures Evaluations (EPE).** Evaluate a crewmember's knowledge of emergency procedures and systems knowledge during all initial, requalification and periodic evaluations.

**6.5. Flight Attendant Evaluation Criteria.**

6.5.1. **GENERAL. Area 1, Directives and Publications.**

**Subarea 1A, Knowledge.**

- Q** Possessed an appropriate level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment.
- Q-** Unsure of some directives but could locate information in appropriate publications.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner.

**Subarea 1B, Currency.**

- Q Possessed all required publications. Publications were current and properly posted.
- Q- Possessed all publications. Publications were current but improperly posted but would not have jeopardized mission accomplishment.
- U Fails to possess all required publications or in serviceable condition. Publications were not current and could have jeopardized mission accomplishment.

**Area 2, Crew Coordination/Crew Resource Management (CRM).** See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF Form 4031, *CRM Skills Criteria Training/Evaluation*, as a reference.

- Q Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers' duties and responsibilities. Practiced CRM skills developed during CRM and associated aircrew-training programs.
- Q- Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities. Displayed an inability to practice CRM skills during normal operations that did not adversely affect the mission.
- U Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight.

**Area 3, Use of Checklists.**

- Q Procedures and checklist items required by flight manual and applicable directives were accomplished in a thorough and proficient manner.
- Q- Procedures and checklist items required by flight manuals and applicable directives were accomplished with omission, deviation, or error, which detracted from the overall efficient conduct of the mission. Performance was the minimum acceptable.
- U Procedures or checklist items required by flight manual and applicable directives were accomplished with omissions, deviations, or errors, which did, or could adversely affect the successful accomplishment of the mission or task.

**Area 4, Judgment/Compliance (Critical).**

- Q** Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.
- U** Unaware of established 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.

**Area 5, Safety Consciousness (Critical).**

- Q** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
- U** Not aware of, or did not comply with, safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft or equipment in a dangerous manner.

**Area 6, First Aid.**

- Q** Aware of first aid procedures. Knew location of on-board First Aid equipment.
- Q-** Unsure of First Aid procedures or on-board First Aid equipment locations. Knowledge was the minimum acceptable.
- U** Not aware of First Aid procedures. Did not know First Aid equipment locations.

**Area 7, Knowledge/Completion of Forms.**

- Q** Read and initialed for all items in FCIF. Completed/obtained all applicable forms. Complied with all local directives.
- Q-** Same as above except for minor deviations or omissions, which would not impair mission effectiveness. Did not fully comply with local directives.
- U** FCIF was not reviewed or initialed. Failed to obtain/complete all applicable forms, or made major errors or omissions. Did not obtain adequate mission information. Failed to comply with local directives.

**6.5.2. QUALIFICATION/MISSION. Area 8, Emergency Procedures (Critical).**

**Subarea 8A, Emergency Landing.**

- Q** Demonstrated or explained knowledge of all planned/unplanned Emergency Landing procedures for all flight attendant positions.
- U** Unsatisfactory knowledge of planned/unplanned Emergency Landing procedures.

**Subarea 8B, Ground Evacuation.**

- Q** Demonstrated or explained knowledge of all Ground Evacuation procedures for all flight attendant positions.
- U** Unsatisfactory knowledge of Ground Evacuation procedures.

**Subarea 8C, Ditching.**

- Q** Demonstrated or explained knowledge of all planned/unplanned ditching procedures for all flight attendant positions.
- U** Unsatisfactory knowledge of planned/unplanned ditching procedures.

**Subarea 8D, Loss of Cabin Pressure.**

- Q** Demonstrated or explained knowledge of all loss of cabin pressurization procedures.
- U** Could not demonstrate or explain loss of cabin pressurization procedures. Major deviations/omissions noted.

**Subarea 8E, Aircraft Fire/Smoke/Fume.**

- Q** Demonstrated or explained knowledge of all aircraft fire/smoke/fume procedures.
- U** Unsatisfactory knowledge of aircraft fire/smoke/fume procedures.

**Area 9, Emergency Equipment.****Subarea 9A, Emergency Equipment Location and Use.**

- Q** Demonstrate in-depth knowledge of use and location of all emergency equipment. Knowledgeable to explain how to remove all equipment from securing brackets.
- Q-** Limited knowledge of use and location of all emergency equipment. Unsure of some operating procedures.
- U** Unsatisfactory knowledge of equipment and equipment location that jeopardizes safety of passengers and crew.

**Subarea 9B, Doors/Exits.**

- Q** Demonstrated/explained the operation and emergency use of all doors and exits. Was able to explain Flight Attendant's responsibilities for normal and emergency operations. Able to open and close correctly. Knowledgeable on associated caution and warnings with each exit.
- Q-** Limited operational knowledge of doors and exits. Difficulty opening or closing doors and exits or explain emergency use of exits in emergency situations.
- U** Unsatisfactory knowledge of operation on doors and exits.

**Subarea 9C, Oxygen System.**

- Q** Demonstrated proper use of and explained oxygen system to include any distinct features. Explained any Notes/Cautions/Warnings associated with oxygen system.
- Q-** Limited demonstration or knowledge of oxygen system.
- U** Unsatisfactory oxygen systems and equipment knowledge that could result in adverse mission accomplishment/safety.

**Area 10, Professional Equipment.**

**Q** Demonstrated/Knowledgeable of required professional equipment. Equipment on-hand and operational.

**Q-** Knowledgeable of professional equipment. Some equipment not on hand or operational.

**U-** Unsatisfactory knowledge of professional equipment. Some equipment not on hand or operational.

**Area 11, Anti-Hijacking/Bomb Threat.**

**Q** Knowledgeable and can explain local directives and procedures for anti-hijacking, aircraft security, and bomb threats. Is knowledgeable of duress code and familiar with bomb threat checklist.

**Q-** Limited in knowledge of local procedures but can obtain answers in a timely manner.

**U** Unsatisfactory knowledge of procedures and is unable to obtain answers in a timely manner. Could jeopardize safety of flight.

**Area 12, Load/Secure Cargo Compartments.**

**Q** Demonstrated satisfactory knowledge of passenger baggage/equipment handling, mission supplies/equipment, and frozen/refrigerated food items (as applicable) securing prior to and during flight. Demonstrated awareness of safety procedures while loading passenger and hand carried baggage.

**Q-** Minor errors/omissions, which did not detract from satisfactory mission accomplishment, safety or result in undue passenger inconveniences.

**U** Major errors/omissions or inadequate knowledge that detracted from satisfactory mission accomplishment or compromised safety.

**Area 13, Aircraft Systems Knowledge Operations.**

**Subarea 13A, Exterior.**

- Q** Demonstrated aircraft safe distance requirements. Able to identify location of service panels and exterior emergency lighting.
- Q-** Limited knowledge of aircraft safe distance requirements but was able to locate information in a timely manner.
- U** Unsatisfactory knowledge on distance requirements. Not able to locate information in a timely manner.

**Subarea 13B, Seats/Tables/Couches.**

- Q** Demonstrated/explained the operation and emergency use of all seats/tables/couches. Was able to explain flight attendant responsibilities for normal use. Knowledgeable on Notes/Cautions/Warnings associated with each area. Demonstrated proper stowing for takeoffs and landings.
- Q-** Limited operational knowledge for seats/tables/couches. Unable to operate in proper manner. Able to locate information in a timely manner on proper operation and procedures.
- U** Unsatisfactory knowledge of operation and seats/tables/couches. Unable to locate information to properly operate seats/table/couches. Could not explain proper use of seats/table/couches in emergency and or normal situations. Failed to properly stow for takeoffs and or landings.

**Subarea 13C, Lavatories.**

- Q** Demonstrated/explained systems located in lavatory to include any distinct features. Explained all Notes/Cautions/Warnings associated with equipment. Demonstrated ability to maintain a clean lavatory.
- Q-** Limited demonstration or knowledge of lavatory systems.

U Unsatisfactory lavatory systems knowledge that could result in adverse mission accomplishment/safety.

**Subarea 13D, Galley.**

Q Demonstrated/explained systems and equipment located in each galley to include any distinct features. Explained any Notes/Cautions/Warnings associated with systems and equipment. Demonstrated ability to maintain a clean and sanitary galley.

Q- Limited demonstration or knowledge of galley systems and sanitary procedures.

U Unsatisfactory galley systems and equipment knowledge that could result in adverse mission accomplishment/safety. Failed to properly sanitize galley and/or equipment.

**Subarea 13E, Communication Systems.**

Q Demonstrated use of and explained communication systems and equipment located on aircraft to include any distinct features. Explained any Notes/Cautions/Warnings associated with systems and equipment.

Q- Limited demonstration or knowledge of communications systems.

U Unsatisfactory communications systems and equipment knowledge that could result in adverse mission accomplishment/safety.

**Subarea 13F, Water Systems.**

Q Demonstrated use of and explained water system on aircraft to include any distinct features. Explained any Notes/Cautions/Warnings associated with water system.

Q- Limited demonstration or knowledge of water systems

U Unsatisfactory water systems and equipment knowledge that could result in adverse mission accomplishment/safety.

**Subarea 13G, Heating/Ventilation System.**

- Q Knowledgeable or explained heating/ventilation system to include any distinct features.
- Q- Limited knowledge of heating/ventilation system.
- U Unsatisfactory knowledge of heating/ventilation system that could result in adverse mission accomplishment/safety.

**Subarea 13H, Lighting/Electrical Systems.**

- Q Demonstrated proper use and locations of electrical outlets, interior emergency lighting, circuit breakers and flight attendant panels to include any distinct features. Explained any Notes/Cautions/Warnings associated with lighting/electrical system.
- Q- Limited demonstration or knowledge of lighting/electrical system.
- U Unsatisfactory lighting/electrical systems and equipment knowledge that could result in adverse mission accomplishment/safety.

**Area 14, Customs.**

- Q Satisfactory handling of custom requirements; did not cause additional or undue inconvenience to passengers or flight. Displayed satisfactory knowledge of proper form completion. Complied with local directives and applicable instructions.
- Q- Minor errors/omissions that did not detract from mission effectiveness
- U Major errors or omissions that detracted from mission effectiveness or success. Did not follow prescribed directives/instructions.

**Area 15, Loading/Securing/Passenger Boarding.****Subarea 15A, Equipment/Supplies/Passengers.**

- Q** Demonstrated satisfactory knowledge of passenger seating, baggage handling, baggage/equipment, mission supplies/equipment, and frozen/refrigerated food items (as applicable) securing prior to and during flight. Demonstrated awareness of safety procedures while loading and seating passengers and hand carried baggage.
- Q-** Minor errors/omissions, which did not detract from satisfactory mission accomplishment, safety or result in undue passenger inconveniences.
- U** Major errors/omissions or inadequate knowledge that detracted from satisfactory mission accomplishment or compromised safety.

**Subarea 15B, Manifest/Security.**

- Q** Demonstrated/knowledgeable on security procedures and completion/obtain manifests. Is aware of local procedures for the release and security of passenger and crew manifests.
- Q-** Limited knowledge of established procedures. No effect on mission security or safety.
- U** Unsatisfactory knowledge of established procedures jeopardizing safety and/or security.

**Subarea 15C, Passenger Briefing.**

- Q** Demonstrated passenger/emergency briefing procedures
- Q-** Minor deviations noted during passenger/emergency briefings.
- U** Failed to give a passenger briefing when required. Major deviations noted during passenger/emergency briefings.

**Area 16, In-flight Duties.**

- Q** General passenger service was efficient, professional and added to passenger comfort. Accomplished all cruise checklist items as necessary. All phases of passenger handling/safety carried out in accordance with mission requirements.

- Q-** Same as above except for minor errors/omissions, which did not detract from mission effectiveness or success.
- U** Major errors or omissions that detracted from mission effectiveness or success. Did not follow prescribed directives/instruction.

**Area 17, After Landing/Post-flight Duties.**

- Q** Accomplished after landing and post mission procedures as prescribed in applicable directives and checklists. Completed cleaning, forms, equipment status reports and coordinated necessary ground support.
- Q-** Minor errors or omissions that did not detract from mission effectiveness or compromise safety.
- U** Major errors or omissions that caused undue delay or confusion in passenger offloading. Detracted from mission effectiveness or compromised safety.

**Area 18, Mission Coordination (MT only).**

**Subarea 18A, Menu Planning/Mission Planning (MT only).**

- Q** Demonstrated/explained procedures for making contact with flight crew and passenger point-of-contact (POC). Planned meals according to POC and flight time requirements. Presentation/quantity to meet mission requirements. Had all needed forms/supplies to complete the mission.
- Q-** Limited knowledge in menu planning. Difficulty establishing mission requirements with the contact. Minor deviations from POC requests. Poor presentation skills/low quantity to meet mission requirements.
- U** Unable to plan meals effectively. Unable to establish contact. Menu did not meet mission requirements.

**Subarea 18B, Shopping/Catering/Local Programs (MT only).**

- Q Demonstrated/explained procedures for catering. Able to coordinate with crewmembers for shopping requirements at home station and during RONS. Menus/shopping list prepared in advance of shopping. Completed shopping requirements in a timely manner.
- Q- Demonstrated limited knowledge in shopping preparation and failed to complete in a timely manner. Some items were not purchased, but did or would not affect the overall accomplishment of the meal.
- U Unable to shop for meal requirements effectively. Excessive over or under buying of items. Shopping requirements did not meet mission accomplishment with a direct negative effect on meal service.

#### **Subarea 18C, Special Request Requirements (MT only).**

- Q Demonstrated/explained the use of special request letters and forms for use during contact meeting. Demonstrated knowledge of correct bill requirement/annotations.
- Q- Some items were not procured, but proper steps were taken to inform the DV as to why request could not be filled. Alternative suggestions were made to the point of contact.
- U Failed to obtain special request items without notification to the contact. Did not use proper billing procedures leading to over/under billing the correct amount.

#### **Area 19, Supervisory Ability (MT only).**

- Q Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers duties and responsibilities. Offered assistance to flight attendants as needed.
- Q- Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers duties and responsibilities. Showed a lack of situational awareness in the accomplishment of mission tasks.
- U Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight. Unwilling to freely assist other flight attendants with mission tasks.

**Area 20, Meal Preparation (MT only).**

- Q** Demonstrated satisfactory knowledge of the proper care and use of food service equipment. Safety considerations and sanitation were observed through all phases of food preparation, service and clean-up. Able to provide a quality meal to passengers and/or crew with proper serving size.
- Q-** Minor deviations/omissions that did not detract from mission effectiveness or success. Limited effort or ability to provide a quality meal to passengers and/or crew.
- U** Major deviations/omissions that detracted from mission effectiveness or success. Did not follow sanitation or storage requirements. Failure to provide a quality meal to passengers and/or crew.

**Area 21, Enroute Requirements (MT only).**

- Q** Demonstrated knowledge to plan for and accomplish enroute requirements (shopping, itinerary changes, transportation, etc) needed for mission accomplishment.
- Q-** Limited knowledge to plan for and accomplish flight requirements affecting mission accomplishment.
- U** Unsatisfactory knowledge of flight requirements. Items not available during mission resulting in adverse mission accomplishment.

**Area 22, Mission Termination (MT only).**

- Q** Demonstrated satisfactory knowledge of the proper mission termination procedures and disposal of food/beverage items. All forms and required paperwork turned in to the applicable agency in a timely manner.
- Q-** Minor deviations/omissions of mission termination procedures or disposal of food/beverage items. Limited knowledge of mission termination forms.
- U** Major deviations/omissions that detracted from proper mission termination. Forms were improperly filled out and requirements not met in a timely manner.

**6.5.3. INSTRUCTOR. Area 23, Instructor Ability (Critical).**

- Q** Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe maneuvers/situations.
- U** Unable to effectively communicate or provide timely feedback 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.

**Area 24 , Instructor Demonstrations (Critical).**

- Q** Properly documented training folder and/or forms.
- U** Did not properly document training folder and/or forms.

**Area 25 , Training Folder Documentation (Critical).**

- Q** Effectively demonstrated procedures and techniques. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
- U** Did not demonstrate correct procedure or techniques. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.

**Area 26, Student Briefing/Critique (Critical).**

- Q** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Showed an excellent 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.
- U** Briefings were marginal or non-existent. Did not review the students past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

**6.6. UNIT.** Include MAJCOM-specific and local evaluation areas in unit supplement to this instruction. Include the evaluation areas on AF Form 3862 (see paragraph 1.14.).

**6.7. Forms Adopted.** AF Form 8, *Certificate of Aircrew Qualification*, AF Form 942, *Record of Evaluation*, AF Form 3862, *Flight Evaluation Worksheet*, AF Form 4031, *CRM Skills Criteria Training/Evaluation*.

PHILIP M. BREEDLOVE, Lt Gen, USAF  
DCS, Operations, Plans and Requirements

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

AFI 11-2VIPV1, *VIP Aircrew Training*, Pending  
AFI 11-2VIPV3, *VIP Operations Procedures*, Pending  
AFI 11-202V1, *Aircrew Training*, 17 May 2007  
AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, 8 December 2006  
AFI 11-202V2, AMCSUP1, *Aircrew Standardization/Evaluation Program*, 17 May 2007  
AFI 11-215, USAF *Flight Manuals Programs (FMP)*, 22 December 2008  
AFI 11-218, *Aircraft Operations and Movement on the Ground*, 11 May 2005  
AFI 11-290, *Cockpit/Crew Resource Management Training Program*, 11 April 2001  
AFI 11-401, *Aviation Management*, 7 March 2007  
AFI 33-360, *Publications and Forms Management*, 18 May 2006  
AFMAN 11-210, *Instrument Refresher Program (IRP)*, 3 February 2005  
AFMAN 33-363, *Management of Records*, 1 March 2008  
AFPD 11-2, *Aircraft Rules and Procedures*, 14 January 2005

***Abbreviations and Acronyms***

**AO**—Aeronautical order  
**ARIP**—Air Refueling Initial Point  
**ARCP**—Air Refueling Control Point  
**ATC**—Air Traffic Control  
**ATD**—Aircrew Training Device  
**CAP**—Critical Action Procedure  
**CSM**—Commander Support Mission  
**CSO**—Communication Systems Operator  
**DA (H)**—Barometric Decision Height  
**ELT**—Emergency Locator Transmitter  
**EOC**—End of Course  
**EPE**—Emergency Procedures Evaluation  
**EVS**—Enhanced Vision System  
**FA**—Flight Attendant  
**FCIF**—Flight Crew Information File

**FE**—Flight Engineer

**FEF**—Flight Evaluation Folder

**FF**—Qualified in Basic Weapon System (F), Flight Engineer (F)

**FK**—Qualified In Basic Weapon System (F), Communications Systems Operator (K)

**FMS**—Flight Management System

**FP**—First Pilot

**FT**—Qualified in Basic Weapon System (F) Flight Attendant (T)

**GA**—Go-Around

**GPS**—Global Positioning System

**HUD**—Heads Up Display

**IAN**—Integrated Approach Navigation

**ILS**—Instrument Landing System

**IMT**—Information Management Tool (IAW AFI 33-360, Publications and Forms Management, the IMT designator is being phased out, but will continue to be used until all publications and forms bearing the IMT reference are updated. The IMT designator has been replaced by “Form” in this AFL.)

**INS**—Inertial Navigation System

**IRS**—Inertial Reference System

**KIAS**—Knots Indicated Airspeed

**MDA**—Minimum Descent Altitude

**MF**—Mission Qualified in Weapon System (M), Flight Engineer (F)

**MK**—Mission Qualified in Weapon System (M), Communication Systems Operator (K)

**MDS**—Mission Design Series

**MQF**—Master Question File

**MT**—Mission Qualified in Weapon System (M), Flight Attendant (T)

**OME**—Operational Mission Evaluation

**OST**—Off-Station Trainer

**PAG**—Presidential Airlift Group

**PAR**—Precision Approach Radar

**PIC**—Pilot-in-Command

**QRH**—Quick Reference Handbook

**RON**—Remain Overnight

**RQ**—Re-qualification

**RNAV**—Area Navigation

**RZ PT**—Rendezvous Point

**SAM**—Special Air Mission

**SID**—Standard Instrument Departure

**SQB**—Secure Question Bank

**TAA/D**—Threat Avoidance Approach/Departure

**TCH**—Threshold Crossing Height

**VIP**—Very Important Person

**VIPSAM**—Very Important Person Special Air Mission



AREAS/SUB-AREAS	Q	G	U	REMARKS
GENERAL				
1. Directives and Publications				
2. Man Preparation/Planning/Performance				
3. Use of Checklists				
4. Safety Consciousness (Critical)				
5. Judgement/Compliance (Critical)				
6. Crew Coordination/CRM				
7. Communication Procedures				
8. Life Support Systems/Egress				
9. Knowledge/Completion of Forms				
10. Airmanship/Situational Awareness				
QUALIFICATION/MISSION				
11. Ground Operations/Taxi				
12. Takeoff				
13. Radar Ops/Wx Avoidance/Windshear				
14. Fuel Planning/Conservation				
15. VFR Pattern				
16. Landings				
16A. Full Flap				
16B. Partial Flap				
16C. Engine Out				
16D. Touch and Go				
17. Landing Roll/Braking/Reverse Thrust				
18. All Engine Go-Around (GA)				
19. Engine Out Operations				
20. Engine Out GA/EFTOC				
21. Boldface Emer Procs/CAFs (Critical)				
22. Other Observed Emergency Procs				
23. System Ops/Knowledge/Limitations				
24. Receiver A/R				
25. Knowledge of Tactical Procedures				
26. Tactical Maneuvers				
INSTRUMENT				
27. Instrument Departure Procs				
28. Enroute Navigation				
29. Holding				

AREAS/SUB-AREAS	Q	G	U	REMARKS
30. Use of NAVAIDS				
31. Descent/Arrival				
32. Precision Approaches				
32A. PAR				
32B. ILS				
32C. CAT I/III ILS				
33. Non-Precision Approaches				
33A. NDB				
33B. Localizer Back Course				
33C. ASR				
33D. TACAN				
33E. VOR				
33F. RNAV/GPS				
34. Circling Approach				
35. Missed Approach				
36. Automation Management				
37. Use of HUD & EVS				
INSTRUCTOR				
38. Instructor Ability (Critical)				
39. Demo of Maneuvers (Critical)				
40. Student Briefing/Critique (Critical)				
ENROUTE				
41. Aircraft Commander Responsibilities				
42. Flight Progress				
43. Passenger Contact				
44. Enroute Procedures				
45. Post Flight/RON Procedures				
46. Aircraft Security				
47. Block Time Procedures				
48. Diplomatic Clearances				







AREA/SUB-AREAS	Q	Q	U	REMARKS
GENERAL				
1. Directives and Publications				
2. Mission Planning/Prep/Performance				
3. Use of Checklists				
4. Safety Consciousness (Critical)				
5. Judgement/Compliance (Critical)				
6. Crew Coordination/CRM				
7. Communication Procedures				
8. Life Support Systems/Egress				
9. Knowledge/Completion of Forms				
10. Airmanship/Situational Awareness				
QUALIFICATION/MISSION				
11. Interior Inspection				
12. Exterior Inspection				
13. Before Starting/Starting Engines				
14. Before Taxi/Taxi				
15. Before T/O /T/O /Dep Monitoring				
16. Climb/Cruise/Descnt/App Monitoring				
17. Landing/After Landing				
18. Eng Shutdown/Before Leaving Acft				
19. Knowledge of Emergency Procedures				
19A. Ground Emergencies				
19B. Take-off Emergencies				
19C. In-flight Emergencies				
20. Boldface Emer Proc/CAPs (Critical)				
21. Systems Knowledge/Ops/Tolerances				
21A. Engines/APU				
21B. Oxygen				
21C. Fuel				
21D. Hydraulic				
21E. Flight Controls/Surfaces				
21F. Landing Gear/Brakes/Steering				
21G. Hatches/Doors/Exits				
21H. Pneumatic/Bleed Air				
21I. Pressurization/Air Conditioning				
21J. Anti-ice/De-ice				
21K. Windows/Windshields				

AREA/SUB-AREAS	Q	Q	U	REMARKS
21L. Electrical/Lighting				
21M. Fire Detection/Extinguishing				
21N. ELT/Voice/Flight Data Recorder				
21O. INS or IRS/FMS/GPS				
21P. Climate/Environmental Systems				
21Q. Airframe				
21R. Avionics/Autopilot				
21S. Radios				
21T. Radar/TCAS				
22. Flight Engineer Responsibilities				
23. Flight Progress				
24. Crew Contact				
25. Enroute Procedures				
26. Post Flight/IRON Procedures				
27. Aircraft Security				
INSTRUCTOR				
28. Instructor Ability (Critical)				
29. Instructor Demonstration (Critical)				
30. Student Briefing/Critique (Critical)				
ENROUTE (C-20/C-37 FH Engineer Only)				
30. Flight Engineer Responsibilities				
31. Flight Progress				
32. Crew Contact				
33. Enroute Procedures				
34. Post Flight/IRON Procedures				
35. Aircraft Security				







AREAS/SUB-AREAS	Q	G	U	REMARKS
GENERAL				
1. Directives and Publications				
1A. Knowledge				
1B. Currency				
2. Crew Coordination/CRM				
3. Use of Checklists				
4. Judgement/Compliance (Critical)				
5. Safety Consciousness (Critical)				
6. First Aid				
7. Knowledge/Completion of Forms				
QUALIFICATION/MISSION				
8. Emergency Procedures (Critical)				
8A. Emergency Landing				
8B. Ground Evacuation				
8C. Ditching				
8D. Loss of Cabin Pressure				
8E. Aircraft Fire/Smoke/Fume				
9. Emergency Equipment				
9A. Emer Equipment Location & Use				
9B. Doors/Exits				
9C. Oxygen System				
10. Professional Equipment				
11. Anti-Hijacking /Bomb Threat				
12. Load/Secure Cargo Compartments				
13. Aircraft Systems Knowledge Ops				
13A. Exterior				
13B. Seats/Tables/Couches				
13C. Lavatories				
13D. Galley				
13E. Communication Systems				
13F. Water Systems				
13G. Heating/Ventilation System				
13H. Lighting/Electrical Systems				
14. Customs				
15. Loading/Securing/Passenger Boarding				
15A. Equipment/Supplies/Passengers				

AREAS/SUB-AREAS	Q	G	U	REMARKS
15B. Manifest/Security				
15C. Passenger Briefing				
16. In-flight Duties				
17. After Landing/Post-flight Duties				
18. Mission Coordination				
18A. Menu Planning/Mission Planning				
18B. Shopping/Catering/Local Programs				
18C. Special Request Requirements				
19. Supervisory Ability				
20. Meal Preparation				
21. Enroute Requirements				
22. Mission Termination				
INSTRUCTOR				
23. Instructor Ability (Critical)				
24. Instructor Demonstrations (Critical)				
25. Tag Folder Documentation (Critical)				
26. Student Briefing/Critique (Critical)				