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**Flying Operations**

**C/KC-135 AIRCREW TRAINING**



**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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AFI 11-2KC-135, Volume 1, *C/KC-135 Aircrew Training*, implements AFPD 11-2, *Aircraft Rules and Procedures*, and AFPD 11-4, *Aviation Service*. It establishes the aircrew training program for the C/KC-135 aircraft. It applies to all commanders, operations supervisors, and aircrew assigned or attached to all flying activities of commands operating C/KC-135 aircraft. MAJCOMs, field operating agencies (FOAs) and HQ USAF direct reporting units (DRUs) may supplement this instruction. Submit suggested improvements to this instruction on AF Form 847, **Recommendation for Change of Publication**, through MAJCOM channels, to HQ AMC/DOT, 402 Scott Drive, Unit 3A1, Scott AFB, IL 62225-5302. 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.

The Privacy Act of 1974 affects this instruction. The Privacy Act System Number F011 AF XO A, Air Force Operations Resource Management Systems (AFORMS) covers required information. The authority for maintenance of the system is 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 93-294 (Aviation Career Incentive Act of 1974), DoDD 7730.57 (Aviation Career Incentive Act and Required Annual Report, February 5, 1976, with changes 1 and 2), and Executive Order 9397.

This instruction contains references to the following field (subordinate level) publications which, until converted to departmental level publications, may be obtained from the respective MAJCOM publication office: AMCP 36-4, *Air Base Operability Training*, and AMCI 14-101, *Unit Intelligence Management*.

**SUMMARY OF REVISIONS**

This change incorporates interim change (IC) 99-1. It changes the OPR to Maj Angelo T. Haygood and incorporates changes recommended by AMC, other major commands (MAJCOM), units, and the Command Curriculum Review Workshop approved by the Training Review Panel (TRP). USAFE Supplement is embedded in the basic AFI and in boldface. Waiver authority has changed from MAJCOM DOs

to MAJCOM DOTs. This change provides guidance and training requirements for Pacer CRAG and MPRS equipped aircraft and three-person training. Pacer CRAG Initial Cadre (**table 2.2.**) and Difference Qualification Training (table 2.2.1) Requirements tables have been added. MPRS Initial Cadre (**table 2.3.**) and Difference Qualification Training (table 2.3.1.) requirements tables have been added. Ground continuation training requirements in table **table 4.2.** are reduced. Table **table 4.3.**, Ancillary ground training, was added for events not affecting mission-ready status. Notes to table **table 5.3.** were changed to delete the 3-year requirement for boom operators to upgrade to instructor. See the last attachment of the publication, IC 99-1, for the complete IC. A bar (|) indicates revisions from the previous edition.

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## Chapter 1

### GENERAL

**1.1. General.** This instruction prescribes basic policy and guidance for training United States Air Force C/KC-135 aircrews according to AFI 11-202, Volume 1, *Aircrew Training*.

**1.1.1. Training Objective.** The overall objective of the aircrew training program is to develop and maintain a high state of mission readiness for immediate and effective employment in exercises, peace operations, or war.

1.1.2. Training requirements are based on operational requirements in designed operational capability (DOC) statements. MAJCOMs will determine additional operational training requirements.

### 1.2. Waiver Authority:

1.2.1. Unless specified in this instruction, MAJCOM DOTs, or equivalent level, are the waiver authority for specific aircrew training requirements in this instruction. For currency training, MAJCOM DOs are the waiver authority.

1.2.2. Waiver approval authority for all formal school prerequisites specified in AFCAT 36-2223, *USAF Formal Schools*, and Aircraft Commander (AC) Upgrade Category I/Pre-Central Flight Instructor Course (CFIC) training requirements is HQ AETC/DOF (Exception: Operations Group Commanders may waive flying hour requirements). Senior officer course waiver approval authority is HQ AETC/DO with concurrence of gaining MAJCOM/DO. 19 AF/DO is waiver approval authority for all AETC flying training syllabi (Exception: Senior officer syllabus waiver approval authority is HQ AETC/DO). Syllabus waiver requests will be in writing, to include the rationale for the waiver. A permanent record of all approved waivers will be maintained by the requesting wing. Units should request waivers through their MAJCOM headquarters or through the numbered Air Force (NAF) if specified in the MAJCOM supplement. Headquarters should submit waivers to HQ AETC/DOF with information copies to 19 AF/DO and HQ AMC/DOTK. Waivers must be submitted and approved prior to crew members arriving for formal training. Copies of all waivers should be filed in the trainee's folder, AF Form 4022, **Aircrew Training Folder**, and hand-carried to the school.

1.2.3. Formal School Training. Formal school operations group commander (or commandant) may waive completion of specific formal school events with concurrence from the gaining unit's operations group commander. If required for squadrons' designated mission, accomplish events waived at formal schools in-unit before assigning mission ready (MR) status. **NOTE:** Additional formal school guidance is in the AETC supplement to this instruction.

1.2.4. Continuation Training. The operations group commander or AFRC/ANG-equivalent may waive MAJCOM-directed ground or non-currency flying continuation training requirements for individuals assigned to their unit on a case-by-case basis. See paragraph 4.6. of this instruction. The OG/CC or AFRC/ANG-equivalent is not required to send copies of the approved waivers to parent MAJCOM or HQ AMC/DOT.

1.2.4.1. The operations group commander will submit all other waiver requests by memo or message through proper MAJCOM channels and send information copies to HQ AMC/DOT. (For MAJCOM specific waivers, see [table 1.1.](#)) Place copies of MAJCOM approved waiver information in the individual's training folder or flight evaluation folder (FEF). The reporting requirement

in this paragraph is exempt from licensing in accordance with paragraph 2.11.12 of AFI 37-124, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*.

1.2.4.2. Units will submit waiver requests according to [table 1.1](#). All waivers must be submitted and approved prior to crew members arriving for formal training. Copies of all waivers will be filed in the trainee's flight evaluation folder and handcarried to school. **(For USAFE, file waivers in trainee's training folder.)**

**Table 1.1. Unit Waivers to AFI 11-2KC-135, Volume 1.**

If waiver is requested by:	Send waiver request to:	Approval or disapproval will be sent to:	With information copies to:
Active Duty AMC Wing or Group	OG training office to HQ AMC/DOTK	OG training office	NAF Training Office (HQ AETC/DOFM if applicable to formal training)
97 AMW	Unit training office through 19 AF/DOM to HQ AETC/DOF	97 AMW	HQ AMC/DOTK
ACC Refueling Unit	OG training office to HQ ACC/DOTV	OG training office	HQ AMC/DOTK
PACAF Refueling Unit	OG training office to HQ PACAF/DOTT	OG training office	HQ AMC/DOTK
<b>USAFE Refueling Wing</b>	SQ/OG training office to 3 AF/DO to HQ USAFE/DOT training office	SQ/OG training office via 3 AF/DO	HQ AETC/DOF, HQ AMC/ DOTK, and 3 AF/DO
AFRC Unit	HQ AFRC/DOT	AFRC Unit	HQ AMC/DOTK
ANG Unit	ANG/XOOM	ANG Unit	HQ AMC/DOTK

**NOTE:** For formal training waiver requests, units will submit requests through above MAJCOM channels. MAJCOMs will in turn submit requests to HQ AETC/DOF for approval.

**1.2.5. Waiver Format .** Provide information on the referenced individual in a waiver request using [figure 1.1](#). to the MAJCOM OPR with info copies to HQ AMC/DOT as applicable. Items should be identified as below; those not utilized should be marked "N/A" ("not applicable"). Asterisked (\*) items must be provided for all waivers; other items as appropriate.

**Figure 1.1. Sample Waiver Request.**

<p>Note: Items should be ordered as below; those not utilized should be marked "N/A" ("not applicable"). Asterisked (*) items must be provided for all waivers; other items as appropriate.</p> <p>MEMORANDUM FOR (<i>Waiver Authority</i>)</p> <p>FROM: (<i>Requester</i>)</p> <p>SUBJECT: Waiver Request – (<i>Individual</i>), (<i>Type of Waiver</i>)</p> <ol style="list-style-type: none"> <li>1. *<i>Name, grade, and Social Security number</i></li> <li>2. *<i>Flying organization (assigned or attached)</i></li> <li>3. *<i>Present crew qualification including special qualifications.</i></li> <li>4. *<i>Total flying time and primary aircraft inventory (PAI) time (include instructor or evaluator time if applicable).</i></li> <li>5. *<i>Specific nature of waiver.</i></li> <li>6. *<i>Reason and valid justification for waiver.</i></li> <li>7. <i>Crew qualification to which person is qualifying or upgrading.</i></li> <li>8. <i>Previous attendance at any formal instructor course (include course identifier and graduation date).</i></li> <li>9. <i>Training start date.</i></li> <li>10. <i>Mandatory upgrade or qualification date.</i></li> <li>11. <i>Date event last accomplished and normal eligibility period.</i></li> <li>12. <i>Remarks, to include formal school courseware required.</i></li> <li>13. *<i>Requesting unit point of contact (include name, rank, telephone number, and functional address symbol).</i></li> </ol> <p style="text-align: center;">(<i>Signature of Requester</i>)</p> <p style="text-align: center;">(<i>Title</i>)</p>
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1.2.6. Aircrew members whose status is "duty not including flying (DNIF)" may log ground training events, including simulator, if the member's physical condition allows it. The flight surgeon who signs the AF Form 1042, **Medical Recommendation for Flying or Special Operational Duty**, placing the crewmember DNIF, should be consulted if the crewmember's ability to complete training is in question.

1.2.7. Aircrew members performing extended alert duty (more than 72 hours) may accomplish any type of ground training, during normal duty hours, that does not degrade required response time or mission accomplishment (or as specified by MAJCOM supplement).

### 1.3. Use of Flying Hours.

1.3.1. Each training mission must be structured to achieve optimum training. Any by-product airlift opportunity resulting from training must not degrade the intended training in any way and must comply with applicable Department of Defense (DoD) instructions. Any use of flying training hours to

accomplish other than direct training requirements must be approved by the appropriate numbered Air Force commander (ANG/CF for Air National Guard). It is essential that all personnel at all levels prevent the misuse of air mobility resources as well as the perception of their misuse. EXCEPTION: The approval authority for Off-Station Training Flights is the wing commander.

**1.3.2. Training on Operational Missions.** Unless specifically prohibited or restricted by weapon system operating procedures or specific theater operations order (OPORD), the operations group commander or air reserve component (AFRC/ANG) equivalent may allow upgrade or special qualification training on operational missions. Commanders will ensure the training will not impact mission effectiveness and the crewmember receiving training is under the supervision of an instructor of like specialty.

**1.4. Responsibilities.** AFI 11-202, Volume 1 outlines responsibilities for aircrew training.

**1.4.1. MAJCOM Headquarters.** HQ AMC, as lead command MAJCOM for the C/KC-135 as specified in AFPD 11-2 *Aircraft Rules and Procedures*, and AFPD 10-9 *Lead Operating Command Weapon System Management*, is responsible for standardizing aircrew flying training requirements in coordination with other user MAJCOMs. HQ AMC is responsible for training course requirements, training tasks, and determining quota requirements in coordination with other headquarters as follows:

1.4.1.1. Courses. The AMC Director of Operations (DO), in coordination with other MAJCOMs, approves continuation training and local upgrade courses. AETC/DO is the approval authority for AETC Formal School courses and syllabi. Send proposals for amending existing course prerequisites or deleting obsolete courses through the appropriate headquarters for approval. MAJCOMs will process the approved changes in coordination with the AFCAT 36-2223, *USAF Formal Schools*, office of primary responsibility (OPR).

1.4.1.2. Command Curriculum Review Workshop (CCRW). HQ AMC/DOT will host a biennial CCRW (or more frequently as required) to review mission design series (MDS) training programs. The CCRW reviews all training programs for currency, applicability, compliance, and effectiveness. Attendees should include training representatives from HQ AMC/DOT/DOV/DOK/SG, AMWC/WCOX, ACC, AETC, AFRC, ANG, PACAF, USAFE, Air Force Special Operations Command (AFSOC), curriculum developers, formal schools, numbered air force (NAF) training and standardization offices, selected unit representatives, and aircrew training system (ATS) contractors.

1.4.1.3. Programmed Flying Training (PFT). HQ AMC/DOT determines the number of training quotas needed to meet operational requirements. AETC/DOF determines the formal school capacity.

1.4.1.3.1. Units will send projected PFT requirements to their respective MAJCOM. MAJCOMs (including ANG and AFRC) will send projected PFT requirements to HQ AMC/DOTK. HQ AMC/DOTK will consolidate and forward requirements to HQ USAF for validation. Upon validation by HQ USAF, HQ AMC/DOTK will allocate quotas. HQ AETC/DOF will publish PFT pamphlets.

1.4.2. MAJCOMs will provide policy and guidance in order for units to develop their respective training programs. MAJCOM unique training requirements will be forwarded by the MAJCOM to HQ AMC/DOT as necessary.

1.4.2.1. HQ AETC/DO is responsible for the formal school syllabus and is the approval authority for any changes. The syllabus will be designed to meet user requirements. All changes to the syllabus will be coordinated with user commands prior to implementation.

1.4.2.2. **Supplements.** MAJCOMs may supplement this instruction as outlined in AFI 11-202, Volume 1. MAJCOM supplements may be more but not less restrictive than this instruction. **USAFE supplement is embedded in the basic AFI.** MAJCOMs are permitted to set requirements lower than those in this instruction when the statement “or as specified in MAJCOM supplement” is indicated as applicable to that item or event. MAJCOM supplements must be approved by HQ AMC and HQ USAF/XOOT IAW AFD 11-2 before publication. After publication, send two copies to HQ AMC/DOTK and one copy to HQ USAF/XOOT.

**1.4.3. Operations Groups.** The operations group will convene a training review panel (TRP) to be chaired by the OG/CC or his designated representative. The operations group will determine frequency, format and content of the meetings. The TRP should review staff and aircrew management actions necessary to complete the squadron’s flight and ground training programs. **(USAFE units provide TRP minutes to 3 AF/DOT and HQ USAF/DOTO. End of training cycle TRP minutes will include end-of-cycle training deficiencies and OG/CC waivers given for semiannual continuation training.)**

1.4.3.1. The operations group will establish procedures with the servicing military personnel flight (MPF) for individual counseling and personnel system updates for the active duty service commitment (ADSC) incurred. Since Pacer CRAG and MPRS conversions do not change the Major Weapon System (MWS) designation, no ADSC is incurred for Pacer CRAG and MPRS initial cadre or differences training.

1.4.3.2. The operations group, in coordination with the flying squadrons, will determine the functions and responsibilities of the operations support squadron (OSS) training flight. **(USAFE: Operations Training Section).** Any flight commander training functions stipulated in this instruction may also be performed by appropriate OG or OSS training flight personnel.

1.4.3.3. Progress Review (PR). If at any time during a trainee’s flight instruction, (ATS ground instruction, see paragraph 6.5.) , progress is considered unsatisfactory by the formal schoolhouse, the training squadron will notify the responsible unit training manager. On receiving documentation and recommendations from the formal schoolhouse, the responsible unit will convene a Progress Review to review the trainee’s record and determine whether to continue, modify, terminate training, or conduct a Flight Evaluation Board.

1.4.3.4. 97th Operations Group. The 97th Operations Group (OG) is responsible for conducting all flight training at the formal school. The 97th OSS/DOT will publish a graduate summary report within 30 working days of each class completion.

**1.4.4. Squadrons.** As a general rule, training management is at the squadron or detachment level; however, the wing or operations group commander is ultimately responsible for squadron training programs.

1.4.4.1. Squadron Commanders (AFRC/ANG: Appropriate Operations Supervisor). Squadron commanders will ensure aircrew members complete training in a timely manner. Failure to reasonably progress mandates action for removal if appropriate.

1.4.4.1.1. Assign Flying Training Levels (FTLs), Ground Training Levels (GTLs), and levels of supervision (evaluator, instructor, etc.) to accomplish the required training (unless specifically directed by this instruction) to assigned and attached aircrew members.

1.4.4.2. Ensure formal school post-graduate questionnaires are accomplished and returned to the formal schools. A copy of the questionnaire answer form will be retained by the gaining squadron for one year after completion of formal school training.

1.4.4.3. Ensure adequate training continuity and supervision of assigned and attached aircrew members. Unit commanders or appropriate AFRC/ANG ops supervisors may assign additional requirements based on individual crew member's experience and proficiency.

1.4.4.4. Review training and evaluation records of newly assigned aircrew members and those completing formal training, to determine the training required to certify them as Basic Aircraft Qualified (BAQ), Basic Mission Capable (BMC), or Mission Ready (MR).

1.4.4.5. Coordinate with the wing and/or group in developing training programs.

1.4.4.6. Operations Officers. Operations Officers are responsible for continuity and quality of training for crewmembers within their flights.

**1.4.5. Formal School - ATS Contractor.** The KC-135 Aircrew Training System (ATS) contractor is responsible for all academic and training device instruction at the formal school and all KC-135 ATS sites. This responsibility includes developing, updating and publishing courseware and the formal school syllabus in accordance with the ATS contract. The syllabus will be reviewed annually and updated as required.

**1.4.6. Formal School - Non-ATS .** AFI 11-202, Volume 1 establishes requirements.

1.4.6.1. MAJCOM/DOT is the approving authority for MAJCOM courses.

**1.5. In-Unit Training Time Limitations.** Comply with the time limitations in table 1.2. Aircrew members entered in an in-unit training program leading to qualification or requalification should be dedicated to that program on a full-time basis. In-unit training should begin no later than 45 days (90 days AFRC/ANG) after reporting or being attached to a new duty station or unit.

**Table 1.2. In-Unit Training Time Limitations.**

<b>Training</b>	<b>Time Limit</b>
Initial Qualification	90 days
Difference Qualification	90 days
Requalification	90 days
Mission Qualification (ACC Boom Operator)	90 days (120 days)
Instructor Upgrade	60 days

**NOTE:** AFRC/ANG 180 days.

1.5.1. Units will notify MAJCOM/DOT (ANG/XOT for ANG and HQ AFRC/DOT for reserve units) through channels of crew members exceeding upgrade training time limits. (Use the waiver format shown in paragraph 1.2.5.) Squadron commanders may extend upgrade training time up to 60 days. Extensions in excess of 60 days require MAJCOM/DO approval (*not applicable to AFRC/ANG units*).

An extension of training time letter, signed by the unit commander, will state the training difficulty, unit corrective action to resolve and prevent recurrence, and estimated completion date.

1.5.2. Training time starts with the first significant training event (a training event directly contributing to qualification and upgrade: Computer-based training (CBT) lesson, part task trainer (PTT), weapon system trainer (WST), ground training, flight, etc.), **or** 45 days after being attached or assigned to the unit after completion of the formal school, whichever occurs first (or as specified in MAJCOM supplement).

## 1.6. Recurrency Training.

1.6.1. For loss of currency up to 6 months, an aircrew member must demonstrate proficiency with an instructor in all delinquent items. Instructors will annotate event for which currency was regained on the back of the AFTO Form 781, **AFORMS Aircrew/Mission Flight Data Document**, for the flight.

1.6.2. Loss of currency exceeding 6 months. The individual is unqualified in the aircraft and must complete requalification as directed in paragraph 1.7.

**1.7. Requalification Training (RQT).** AFI 11-202, Volume 1 specifies requalification training time limits and requirements. When completion of the requalification academic course is required but not practical, or quotas are not available, units will request a waiver through their parent MAJCOM who will coordinate with HQ AMC/DOT. In-unit RQT flying requirements are listed in [table 1.2](#). Formal school RQT requirements are in the Combat Crew Training School (CCTS) syllabus. Copies of the CCTS syllabus are available through HQ AETC TRSS/DOU and the ATS contractor.

1.7.1. [table 1.3](#) lists required in-unit requalification training.

1.7.1.1. Unqualified up to 2 years. See AFI 11-202, Volume 1, paragraph [1.7.1](#).

1.7.1.2. Unqualified 2 to 5 years. See AFI 11-202, Volume 1, paragraph [1.7.2](#).

1.7.1.3. Unqualified over 5 years. See AFI 11-202, Volume 1, paragraph [1.7.3](#).

**Table 1.3. In-Unit Requalification Training (RQT) Requirements.**

Code	Training Event	Pilot	CP	N	Boom	Notes
A006	MPRS Difference Training	*1	*1		*1	10,11
A036	Pacer CRAG Difference Course	*1	*1	*1	*1	6
A028	Difference Course (KC-135R)	1	1	1	1	
A032	Difference Course (KC-135T)	1	1	1	1	
A034	Requalification Course	1	1	1	1	
A052	Receiver AR Indoctrination	1				
AA01	MAJCOM Qualification Evaluation	P	P	P	P	
C110	Fuel Management Advisory Computer (FMAC) training	1	1			8
C200	Air Force Mission Support System (AFMSS) training	1	1	1		8
G025	Aircraft Field Trip	1	1	1	1	
G130	Instrument Refresher Course (IRC)	1	1	1		
G150	BO TERPS				1	

Code	Training Event	Pilot	CP	N	Boom	Notes
G230	Crew Resource Management Refresher	1	1	1	1	
G259	Requalification Simulator	5	5		*2	4,5,6
LS08	Egress Training	1	1	1	1	
LS10	Hanging Harness Training	1	1	1	1	12
M001	Sortie (Does not include MAJCOM Qualification Eval)	5	5	5	5	1,11
N010	Tanker Rendezvous			P		
N015	Tanker Alternate Rendezvous	*P	*P	P		6
N016	Tanker Rendezvous Overrun Procedures	P	*P	P		6
N020	Tanker En Route Rendezvous	*P	*P	P		6
N030	Tanker Point Parallel Rendezvous	*P	*P	P		6
N050	Navigation Leg			2P		
N060	Mission Navigation Leg			P		
N090	Control Time and Position Exercise	*P	*P	P		6
N100	INS Airborne Alignment	*P	*P	2P		6
N120	ARDA			P		7
N131	En Route Rendezvous (Receiver)	*P	*P	P		3,6
N132	Point Parallel Rendezvous (Receiver)	P	*P	P		3,6
N150	Celestial Position			2P		7
N160	General Navigation	P	P	P		7
N160A	FMS Navigation	*P	*P	*P		6
N175	INS/DNS Radar Present Position Update			2P		7
PP01	Flight Physical	1	1	1	1	
PP11	Physiological Training	1	1	1	1	
P007	Approach to Initial Buffet and Recovery	1	1			9
P011	Takeoff, Night	P	P			
P012	Takeoff, Gyro Mode	P	P			
P015	Instrument Departure	4P	4P			
P018	Copilot Takeoff Duties	P	P			
P026	Takeoff and Climb Procedures	4P	4P			
P030	Max Mode T/O, 30 Flap	P	P			
P040	Simulated Engine Failure, Takeoff Continued	3P	3P			
P071	Holding	P	P			
P072	Penetration (Published)	P	P			
P073	En Route Descent	3P	3P			
P102	ILS (Gyro Mode)	2P	2P			
P103	PAR Approach	2P	2P			2
P110	Non-Precision Approach	6P	6P			
P112	TACAN, VOR or Localizer Approach	6P	6P			
P113	ASR Approach	2P	2P			2
P130	Circling Approach	1	1			
P160	Missed Approach	4P	4P			

Code	Training Event	Pilot	CP	N	Boom	Notes
P170	Approach and Go-Around, Simulated Engine-Out	3P	3P			
P171	Approach and Go-Around, Simulated Engine-Out, Rudder Power Off	P	1			
P180	Approach and Landing, Simulated Engine-Out	3P	3P			
P191	Landing, Full Stop, Reverse Thrust (if applicable)	2P	2P			8
P192	Night Landing	P	P			
P194	Landing, 30-Degree flaps	3P	3P			
P196	Landing, Full Stop	3P	3P			
P200	Touch-and-Go Landing	5P	5P			
P240	Landing Gear Alternate Extension	P	P	3P	3P	
P250	Main Flap Manual Operation	P	P	3P	3P	
P260	HAVE QUICK Radio Procedures	2P	2P			
P272	KY 58 Radio Operations	*P	*P	*P	*P	6
P340	Briefing and Control of Passengers				4P	
P345	Inflight Adjustment and Security of Load				4P	
P360	Mission Planning and Briefing	*P	*P	*P		6,10
P360A	AFMSS Mission Planning	*P	*P	*P		6
P361	Preflight	*P	*P	*P	*P	6,10
P364	Cruise	1				
P366	Checklist Procedures and Use	4P	4P	4P	4P	
P367	Crew Coordination	4P	4P	4P	4P	
P369	Aircraft Equipment Operation	4P	4P	4P	4P	11
Q001	Open-Book Qualification Examination	P	P	P	P	
Q002	Closed-Book Qualification Examination	P	P	P	P	
Q012	Supervision of Copilot Takeoffs, Landings and Rcvr AR	2P				
Q014	Difference Certification (MPRS)	*1	*1		*1	10,11
R010	Receiver AR	2P				3
R020	Receiver AR (Night)	2P				3
R050	Receiver AR, Tanker Autopilot Off	2P				3
R060	Tanker AR	3P	3P	3P	3P	
R070	Tanker AR Breakaway and Emergency Separation	2P	2P	*2P	3P	*7
R080	Tanker AR Autopilot Off	2P	2P		1F	
R120	Contacts				15P	
R125	Day Contacts				10P	
R130	Night Contacts				5P	
R135	Preparation for Contact Procedures	*1P	*1P		4P	10,11
R140	Tanker Manual Contact				6P	

Code	Training Event	Pilot	CP	N	Boom	Notes
R180	Radio Silent Visual Signals				2P	
R230	Emergency Boom Hoist		*F		1F	6

**NOTES:** (Any proficiency event with a minimum number may be proficiency advanced with squadron commander approval.)

1. A minimum of five sorties must be planned prior to MAJCOM qualification evaluation. The squadron commander or designated representative may waive the fifth sortie based on proficiency attained in all required training events.
2. If ASR or PAR approaches are not readily available, as determined by the operations officer, then P103 and P113 may be accomplished in the OFT. The method of accomplishment will be annotated on the training report in the individual's training folder. ANG/AFRC, ACC, and USAFE units without on-station OFT may complete training without this event.
3. Required for receiver pilots only.
4. Not required for units without a simulator.
5. N/A ANG/AFRC.
6. \*Required for requalification in units equipped with Pacer CRAG modified aircraft.
7. N/A for Pacer CRAG equipped units.
8. Required only if equipment on aircraft.
9. Accomplished in ATD only. **USAFE will conduct ground prebrief and accomplish this event during next continuation training simulator visit.**
10. \*Required for requalification in units equipped with MPRS modified aircraft. Not required for navigators.
11. Pilots and boom operators require a one-time only certification flight under supervision of a like-specialty MPRS instructor. MPRS certification is required prior to unsupervised equipment and AR Pod refueling operations in-flight. Not required for navigators.
12. Or as directed in the MAJCOM supplement to AFI 11-301, Aircrew Life Support Program.

1.7.2. Table 1.4. lists required training and type of evaluation for requalifying as an instructor.

**Table 1.4. Flight Instructor Requalification.**

Is crew member qualified as a non-instructor in the KC-135?	Instructor Designation	Required Training	Instructor Evaluation
Qualified	Removed for less than 18 months	Directed by the squadron commander	Recurring
Qualified	Removed for 18 months or more, but less than 36 months	Directed by the squadron commander and approved by the wing or group commander	Recurring
Qualified	Removed for 36 months or more	According to table 1.5.	Initial

<b>Is crew member qualified as a non-instructor in the KC-135?</b>	<b>Instructor Designation</b>	<b>Required Training</b>	<b>Instructor Evaluation</b>
Unqualified less than 2 years (Basic requal <u>not</u> required)	Removed for less than 36 months	Directed by the squadron commander and approved by the wing or group commander	Recurring
Unqualified 2 years or more (Basic requal required)	Removed for less than 36 months	According to table 1.5. (may simultaneously requal with basic requal)	Recurring
Unqualified 2 years or more (Basic requal required)	Removed 36 months or more but less than 5 years	According to table 1.5. (may simultaneously requal with basic requal)	Recurring
Unqualified 2 years or more (Basic requal required)	Removed 5 years or more	According to table 1.5. (may not simultaneously requal with basic requal)	Initial

## NOTES:

1. Category is established at the start of requalification and does not change until instructor requalification is complete.
2. Those individuals requiring basic requalification will complete the requirements in table 1.3.
3. Basic and instructor requalification may be conducted simultaneously. Consult MAJCOM supplement to AFI 11-2KC-135, Volume 2 for guidance on simultaneous instructor requalification and basic requalification evaluations.
4. Wing and group DOT should provide a recommendation concerning training events to be accomplished to regain instructor status.

1.7.3. Table 1.5. lists ground and flight training events required for instructor requalification. Individuals who have completed KC-135 CFIC are not required to reaccomplish A010, Instructor Academic Training. Instructor requalification events may be accomplished concurrently with basic requalification events.

**Table 1.5. Instructor Requalification Training Requirements.**

Code	Training Event	Pilot	Nav	Boom	Notes
A010	Academics	1	1	1	
A044	Instructor Pre-Attendance Workbook	1	1	1	1
AA01	Instructor Flight Evaluation	1	1	1	
M001	Sortie (Includes MAJCOM Qualification)	3	3	3	
N060	Mission Navigation Leg		P		5
N140	Celestial Observation			P	5
P007	Approach to Initial Buffet and Recovery	P	F	F	2
P012	Takeoff-Gyro Mode	P			
P015	Instrument Departure	P			
P020	Takeoff	P			
P040	Simulated Engine Failure, Takeoff Continued	P			
P071	Holding	P			
P072	Penetration (Published)	P			
P073	En Route Descent	P			
P101	ILS Approach	P			
P102	ILS (Gyro Mode)	P			
P103	PAR Approach	P			3
P110	Non-Precision Approach	P			
P111	VOR/TACAN Procedures	P			
P130	Circling	P			
P140	Visual Traffic Pattern	P			
P160	Missed Approach	P			
P170	Approach and Go-Around, Simulated Engine Out	P			
P171	Approach and Go-Around, Simulated Engine Out, Rudder Power Off	P			
P180	Approach and Landing, Simulated Engine Out	P			
P190	Landing	P			
P194	Landing, 30-Degree Flaps	P			
P195	Landing, Simulated Engine Out, 4-Engine T/O	P			
P200	Touch-and-Go Landing	P			
P215	Landing Attitude Demonstration	P			
P240	Landing Gear Alternate Extension		P	P	
P250	Main Flap Manual Operation		P	P	
P340	Briefing and Control of Passengers			P	
P345	Troubleshooting AR Equipment Malfunctions			P	
P355	Inflight Adjustment and Security of Load			F	

Code	Training Event	Pilot	Nav	Boom	Notes
P360	Mission Planning and Briefing	P	P	P	
P366	Checklist Procedures and Use	P	P	P	
P369	Aircraft Equipment Operation	P	P	P	
P380	Spoiler and Lateral Control Demonstration	P			
P382	Trim Demonstration	P			
P383	Simulated Jammed Stabilizer Demonstration	P			
Q001	Open-Book Qualification Examination	1	1	1	
Q002	Closed-Book Qualification Examination	1	1	1	
R050	Receiver AR, Tanker Autopilot Off	P			
R060	Tanker AR	P		P	
R070	Tanker AR Breakaway and Emergency Sep	P		P	
R080	Tanker AR Autopilot OFF	P			
R120	Contacts			P	
R135	Preparation for Contact Procedures			P	
R140	Tanker Manual Contact			P	
R180	Radio Silent Visual Signals			P	

#### NOTES:

1. A044, CFIC Preattendance Workbook, is required if individual has been unqualified or removed from instructor status over 36 months. The squadron should request an instructor workbook from the ATS contractor if requalification is done in-unit. The workbook must be completed prior to the flight evaluation and returned to the contractor for grading.
2. Accomplished in ATD only. USAFE will conduct ground prebrief and accomplish this event during next continuation training simulator visit.
3. May be accomplished in the sim.
4. If crew member was not previously qualified in Pacer CRAG and/or certified in MPRS and is requalifying in a unit equipped with Pacer CRAG and/or MPRS aircraft, difference training IAW with the appropriate table must be accomplished.
5. N/A for Pacer CRAG equipped aircraft.

**1.8. Active Duty Service Commitment (ADSC).** AFI 11-202, Volume 1 specifies ADSC requirements.

**1.9. AF Form 4022, Aircrew Training Folder, Management.** See Attachment 3.

**1.10. Evaluator and Instructor Usage.** Use flight evaluators and instructors for any phase of training to capitalize on their expertise and experience.

- 1.10.1. Units are encouraged to use flight evaluators as instructors for qualification and upgrade training programs as required. However, if an evaluator is used as a primary instructor to train an individual during a training program, the same evaluator should not administer the evaluation that completes the training program.

1.10.2. Any trainee in Initial Qualification Training (IQT), upgrade, or Requalification Training (RQT) should be limited to a maximum of three different flight instructors during the course of their training. Squadron commanders, operations officers, flight commanders, training flight instructors, flight superintendents, and chief boom operators (BO) are not included in the limit.

### 1.11. Instructor Training and Supervision Requirements:

1.11.1. All instructors, with the exception of formal schoolhouse instructors, should be MR (wing-level and below).

1.11.2. The following personnel must be under the supervision of an instructor when performing aircrew duties:

1.11.2.1. All noncurrent aircrew members (See paragraphs 4.1.4.1. through 4.1.4.3. for exceptions).

1.11.2.2. All aircrew members in initial, upgrade, or requalification flying training.

1.11.2.3. FTL E and senior officers as defined in AFI 11-202, Volume 1, and paragraph 2.7. of this volume.

1.11.2.4. Any other personnel designated by the wing, operations group, or squadron commanders.

1.11.3. For unqualified, noncurrent, and training level E pilots, an instructor must be at a set of controls during critical phases of flight.

1.11.4. All instructors and evaluators must be graduates of KC-135 CFIC, or another Major Weapons System (MWS) (non-operational support aircraft (OSA)/non-fighter/non-first assignment instructor pilot (FAIP) formal aircraft instructor upgrade course, to conduct qualification, requalification, and upgrade flight training and evaluations. Instructors who upgrade in-unit, and who were not previously instructors in another MWS (non-OSA/non-fighter/non-FAIP), may only supervise **qualified** crewmembers who are noncurrent, require corrective training, or require inflight instructor supervision.

1.11.4.1. Only those instructors who have completed the faculty training course (FTC) may conduct initial qualification flight training. Initial qualification training is defined as training to obtain qualification in the individual's primary duty in the aircraft for the first time. This includes any pipeline student or any individual who has not been qualified in the aircraft for over five years. Copilots undergoing Aircraft Commander Upgrade and previous aircraft commanders (ACRQ) of another MWS who were selected through the MAJCOM crossflow process are not considered initial qualification students. (FTC requirement may be specified different in MAJCOM supplement.)

1.11.4.2. Those maneuvers designated "CCTS only" or "CFIC only" may only be accomplished by instructors currently assigned to the formal school and who have completed FTC.

**1.12. Administration of AFI 11-2KC-135, Volume 1.** Units will establish requirements for this instruction through MAJCOM publications distribution channels in accordance with AFI 37-161, *Distribution Management*. MAJCOM supplements to this instruction will be distributed within each MAJCOM using requirements from this instruction. Send two copies to HQ AMC/DOT, 402 Scott Drive Unit 3A1, Scott AFB IL 62225-5302 and one copy to HQ USAF/XOOT.

**1.13. Intracommand and Intercommand Transfer of Aircrews.** Validated training completed prior to transfer will be honored by the gaining organization and will be used to determine the appropriate training phase where the newly assigned aircrew member is placed. Aircrew personnel qualified in the same mission-design-series (MDS) are considered qualified in that equipment throughout the force when used for the same mission. KC-135E and KC-135R aircraft are not considered the same MDS and require separate qualification. Conversion training is required for a change in aircraft series. For intra-command and intercommand transfers and exchange officers, instructor training and qualifications may be accepted at the discretion of the gaining unit commander. These personnel must be transferring to the same MDS.

## Chapter 2

### INITIAL QUALIFICATION TRAINING

**2.1. Initial Qualification Training (Phase I).** AFI 11-202, Volume 1 defines initial qualification training. Unless otherwise indicated, the primary method of initial qualification is to attend and complete appropriate formal training course listed in AFCAT 36-2223, *USAF Formal Schools*. The secondary method is to complete initial qualification in unit using formal school courseware to accomplish academics and aircrew training device (ATD) training. The MAJCOM training division (e.g. HQ AMC/DOT) is waiver authority for secondary method (in-unit) training. All individuals will normally attend KC-135 CCTS for qualification training courses with the following exceptions:

2.1.1. In-unit difference training when the course is not available at the CCTS. (Note: Pacer CRAG and MPRS difference training will be accomplished in-unit. Pacer CRAG initial cadre training will be accomplished at McConnell AFB KS.)

2.1.2. In-unit Aircraft Commander Upgrade and requalification when slots are not available at CCTS. In-unit requalification flight training is authorized for those individuals who have been unqualified less than 5 years. Formal academics attendance at CCTS is required.

**2.2. Initial Qualification Training Prerequisites:** Complete initial qualification prerequisites in accordance with AFI 11-202, Volume 1.

2.2.1. In addition to those prerequisites listed with each course in AFCAT 36-2223, the following crew position-specific prerequisites apply:

2.2.1.1. AC prerequisites:

2.2.1.1.1. 1500 hours total flying time, or;

2.2.1.1.2. 1200 hours total flying time with 300 hours jet time, or;

Former or current –135 copilot with 500 hours in –135 aircraft as a mission copilot and 1,000 hours total flying time.

#### **NOTES:**

Total career flying time logged as a military pilot. Includes “student” and “other” time but does **not** include other crew position time.

Operations group commanders may waive flying-hour prerequisites.

All simulator category C+ (as certified by HQ AMC/DOT) time in weapon system may be included in KC-135 time for upgrade.

Navigation Systems Operator (NSO) and Third Pilot (3P) time counts toward AC total flying time prerequisite. Squadron commanders ultimately determine how much NSO or 3P time will count.

**2.3. Ground Training Requirements.** Complete ground training requirements for initial qualification in accordance with AFI 11-202, Volume 1.

**2.4. Flying Training Requirements.** Complete flying training requirements for initial qualification in accordance with AFI 11-202, Volume 1. See MAJCOM supplement.

**2.5. Conversion/Difference Qualification Training (DQT).** When possible, qualified personnel in other units will provide the initial cadre. In some instances, it will be necessary for units to form an initial cadre of aircrew personnel for whom certain training requirements may be waived.

2.5.1. The following conditions apply to management of initial cadre aircrew qualification:

Form a nucleus of instructor and flight examiner personnel (initial cadre) to begin aircrew conversion. Converting units may request initial cadre waiver of a primary aircraft inventory (PAI) time requirement. Send waivers through channels and include the information specified in paragraph 1.5. Additionally, include the most recent aircraft flown and total time in that aircraft in the remarks section of the waiver. Initial cadre will not be designated in a crew position higher than currently held, e.g. C-141 MP to C-17 EP unless previously qualified in the conversion aircraft. After final approval, publish a unit letter to identify initial cadre of instructors and flight examiners by crew qualification.

2.5.2. The unit training manager or flight commander, after examining the training and evaluation records of the individual, will determine which training events are applicable. For Pacer CRAG training, all events in table 2.1 apply. For MPRS training, all events in table 2.4. apply.

2.5.2.1. Pacer CRAG Prerequisites. Accomplish C110, Fuel Management Advisory Computer (FMAC), and C200 AFMSS training prior to beginning Pacer CRAG training. Knowledge of these systems is necessary to be able to accomplish 3 and 4 person operations in Pacer CRAG equipped aircraft.

2.5.2.2. MPRS Prerequisites. Accomplish A006A, Multi-point Refueling System Difference CBT prior to one-time only certification sortie. Knowledge of MPRS systems and equipment is imperative to be able to accomplish AR Pod refueling operations in MPRS equipped aircraft.

2.5.3. Complete all applicable ground and flight instruction involving any equipment, systems or crew procedures which differ from that in the mission series (M/S) –135 aircraft in which qualified.

2.5.4. Training events involving systems and equipment apply only when the applicable aircraft position differs from the one in which qualified.

2.5.5. Complete academic (“A”) and ground (“G”) training events before starting flight training.

2.5.6. Accomplish Q002, Closed Book Qualification Examination, prior to unsupervised flight when emergency procedures are different.

2.5.7. Q014, Difference Certification, is the squadron commander’s certification that all difference training is complete. Unit standardization and evaluation will document difference qualification in the individual’s FEF. When individuals receive difference certification at other than home station, where the records are not available, the host unit will document and maintain difference certification in letter format. Document difference training completion in the trainee’s training folder with AF Form 4025, **Summary/Closeout Training Accomplishment Report**.

**Table 2.1. Pacer CRAG Initial Cadre Qualification Training (ICQT) Requirements.**

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
A036	Pacer CRAG Difference Course	1	1	1	1	
A036A	Pacer CRAG Orientation (CBT)	1	1	1	1	

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
A036B	Flight Management System for Pilots and Navigators (CBT), part 1	1	1	1		6
A036C	Flight Management System for Pilots and Navigators (CBT), part 2	1	1	1		6
A036D	Color Radar for Pilots and Navigators (CBT)	1	1	1		6
A036E	Advanced Pacer CRAG Operations for Pilots and Navigators (CBT)	1	1	1		6
A036F	Practice Exercises for the MFD (PTT)	1	1	1		6
A036G	Practice Exercises for the FMS (PTT), Part 1	1	1	1		6
A036H	Practice Exercises for the FMS (PTT), Part 2	1	1	1		6
A036I	Practice Exercises for the Color Radar (PTT)	1	1	1		6
A036J	Practice Exercises for Pacer CRAG Operations (PTT)	1	1	1		6
A036K	Altitude Alerting System (IBT)	1	1	1	1	
A036L	Pacer CRAG Nav Techniques	1	1	1		
A036M	Pacer CRAG Table Top Trainer	1	1	1		4,6
A101	Multi-Function Display for Pilots (CBT)	1	1			6
A102	Basic Pacer CRAG Operations for Pilots (CBT)	1	1			6
A103	TCAS System (CBT)	1	1	1	1	8
A105	Pacer CRAG FMAC for Pilots (CBT)	1	1			
A106	Practice Exercise for FMAC (PTT)	1	1			
A201	Multi-Function Display for Navigators (CBT)			1		6
A202	Basic Pacer CRAG Operations for Navigators (CBT)			1		6
A301	Multi-Function Display for Booms (CBT)				1	6
AA01	Qualification Check	1	1	1		
F010	Formation Departure and Join-Up	P				
F020	Formation	P				
G025	Aircraft Field Trip	1	1	1	1	4
G080	Communication Procedures	F	F	P	P	7
G258A/B/C/D/E	ATD Difference Training Profiles	5P	5P		1P	3,8
M001	Sortie	4P	4P	3P	2P	3
N010	Tanker Rendezvous	P	P	P		
N030	Tanker Point Parallel Rendezvous	P	P	P		
N040	Tanker RZ and A/R	P	P	P		2
N090	Control Time Exercise (Enroute Rz Substitute)	P	P	P		2
N100	INS Airborne Alignment	F	F	F		2
N130	Receiver Rendezvous	P	P	P		

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
N132	Receiver Point Parallel Rendezvous	P	P	P		
N136	Receiver Rendezvous Overrun Procedures	F	F	F		
N160A	FMS Navigation	P	P	P		
P012	Takeoff, Gyro Mode	P	P			2
P018	Copilot Takeoff Climb Duties	P	P			2
P020	Takeoff	P	P			
P026	Takeoff and Climb Procedures	P	P			2
P070	Instrument Approach	P	P			2,5
P071	Holding	P	P			2
P072	Published Penetration	P	P			2
P073	En Route Descent	P	P			2
P100	Precision Approach	P	P			2,5
P101	ILS Approach	P	P			2
P102	ILS Approach Gyro	P	P			2
P110	Non-Precision Approach	P	P			2,5
P111	VOR/TACAN/FMS Procedures	P	P			2
P112	TAC/VOR/LOC/FMS Approach	P	P			2
P160	Missed Approach	P	P			2,5
P190	Landing	P	P			
P191	Landing, Full Stop, Reverse Thrust	P	1			1
P240	Landing Gear Alternate Extension	F	F		F	
P260	HAVE QUICK Radio Procedures	P	P			
P272	KY 58 Radio Operation	P	P	P	P	
P360A	AFMSS Mission Planning	P	P	P		
P361	Preflight	P	P	P	P	
P366	Checklist Procedures and Use	P	P	P	P	
P367	Crew Coordination	P	P	P	P	
P368	Post Flight	P	P	P	P	
P369	Aircraft Equipment Operations	P	P	P	P	
Q002	Closed Book Qualification Examination	1	1	1		
Q014	Difference Certification				1	
R010	Receiver AR	P	F		A/R	1
R040	Receiver AR Breakaway and Emergency Separation	P	P	P	A/R	1
R050	Receiver AR, Tanker Autopilot Off	P	F			1
R060	Tanker AR	P	P			
R230	Emergency Boom Hoist	P	P		F	

**NOTES:**

1. As applicable.
2. Event creditable in the ATD.
3. May proficiency advance on instructor recommendation and squadron commander approval.

4. Optional but recommended.
5. Only one event per ATD may be logged.
6. Complete up to 60 days prior to Initial Cadre class start date.
7. GPS keys included.
8. 3 Person CRM sim for booms.

2.5.8. Pacer CRAG Prerequisites. Accomplish C110, Fuel Management Advisory Computer (FMAC), and C200 AFMSS training prior to beginning Pacer CRAG training. Knowledge of these systems is necessary to be able to accomplish 3 person operations in Pacer CRAG.

2.5.8.1. Once crew members start the simulator/flight phase of Pacer CRAG training, they will not fly non-modified aircraft until training/qualification/certification is complete. Dual qualification is in accordance with AFI 11-2KC-135, Volume 2.

2.5.8.2. Pacer CRAG Student Team Certification. Instructor pilots will occupy a seat with access to flight controls at all times prior to student's Pacer CRAG qualification evaluation unless Pacer CRAG student team certification has been approved. After directly supervising student performance on at least one flying sortie, the instructor may recommend, and the squadron operations officer or designated representative may approve, Pacer CRAG student team certification. After this certification, the instructor pilot may supervise all future training and evaluation activities from either the jump seat or the pilot/copilot seats. Document student team certification on the AF Form 4025, Summary/Closeout Training Accomplishment Report in the student's training folder.

**Renumber Table 2.1. Difference Qualification Training (DQT) Requirements to Table 2.2.**

**Table 2.2. Difference Qualification Training (DQT) Requirements.**

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
A028	Difference Course (KC-135R)	1	1	1	1	
A032	Difference Course (KC-135T)	1	1	1	1	
A035	R to E Difference Course	1	1	1	1	
AA01	Qualification Evaluation	A/R	A/R	A/R	A/R	3,4
G025	Aircraft Field Trip	1	1	1	1	
G258	ATD Difference Training Profiles	3	3			2,6
LS08	Egress Training	P	P	P	P	
N010	Tanker Rendezvous			P		
N016	Tanker Rendezvous, Overrun Procedures	P	F	P		
N030	Tanker Point Parallel Rendezvous	P	F	P		
N120	ARDA			P		5
N130	Receiver Rendezvous			P		1
N132	Receiver Point Parallel Rendezvous	P	F	P		1
N136	Receiver Rendezvous Overrun Procedures	P	F	P		1
P007	Approach to Initial Buffet and Recovery	P	1			2
P018	Copilot Takeoff Climb Duties	P	P			
P020	Takeoff	P	P			

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
P026	Takeoff and Climb Procedures	P	P			
P035	PMC Off Takeoff	1	F			2
P040	Simulated Engine Failure, Takeoff Continued	P	F			
P170	Approach and Go-Around, Simulated Engine-Out	P	1			
P171	Approach and Go-Around, Simulated Engine-Out, Rudder Power Off	P	1			
P180	Approach and Landing, Simulated Engine-Out	P	1			
P190	Landing	P	P			
P191	Landing, Full Stop, Reverse Thrust	P	1			1
P194	Landing 30-Degree Flaps	P	1			
P200	Touch-and-Go Landing	P				
P240	Landing Gear Alternate Extension	P	P	P	P	
P250	Main Flap Manual Operation	P	P	P	P	
P366	Checklist Procedures and Use	P	P	P	P	
P367	Crew Coordination	P	P	P	P	
Q002	Closed Book Qualification Examination	1	1	1	1	
Q014	Difference Certification	A/R	A/R	A/R	A/R	1,4
R010	Receiver AR	P	F		A/R	1,4
R011	Receiver AR, Indoctrination		P	1	1	1
R020	Receiver AR (Night)	P	F			1
R035	Receiver AR (Heavy Onload)	P	F			1
R040	Receiver AR Breakaway and Emergency Separation	P	P	P	A/R	1,4
R050	Receiver AR, Tanker Autopilot Off	P	F			1
R060	Tanker AR	P	P			
R061	Tanker AR Indoctrination		P			
R070	Tanker Breakaway and Emergency Separation	P	P	P	P	
R080	Tanker AR, Autopilot Off	P	F			
R180	Radio Silent Visual Signals (Receiver Pilots, Tanker Booms)	P	F		1	

**NOTES:**

1. As applicable.
2. Events accomplished in the ATD only.
3. Pilots completing DQT in -135 aircraft with different power plants (fan versus non-fan) will complete AA01 according to AFI 11-2KC-135, Volume 2, C/KC-135 Aircrew Evaluation Criteria, MAJCOM supplement.
4. A/R = as required.
5. Required only if or when a difference exists in the aircraft radar (e.g., APN 59 to color weather radar).
6. See MAJCOM supplement.

| **Table 2.2.1. Pacer CRAG Difference Qualification Training (DQT) Requirements.**

<b>Code</b>	<b>Training Event/Lesson</b>	<b>Pilot</b>	<b>Copilot</b>	<b>Nav</b>	<b>Boom</b>	<b>Notes</b>
A036	Pacer CRAG Difference Course	1	1	1	1	6
A036A	Pacer CRAG Orientation (CBT)	1	1	1	1	6
A036B	Flight Management System for Pilots and Navigators, Part 1 (CBT)	1	1	1		6
A036C	Flight Management System for Pilots and Navigators, Part 2 (CBT)	1	1	1		6
A036D	Color Radar for Pilots and Navigators (CBT)	1	1	1		6
A036E	Advanced Operations for Pilots and Navigators (CBT)	1	1	1		6
A036F	Practice Exercises for the MFD (PTT)	1	1	1		6
A036G	Practice Exercises for the Flight Management System, Part 1 (PTT)	1	1	1		6
A036H	Practice Exercises for the Flight Management System, Part 2 (PTT)	1	1	1		6
A036I	Practice Exercises for the Color Radar (PTT)	1	1	1		6
A036J	Practice Exercises for Pacer CRAG Operations (PTT)	1	1	1		6
A036K	Altitude Alerting System (IBT)	1	1	1	1	6
A036M	Pacer CRAG Table Top Trainer	1	1	1		4
A101	Multi-Function Display for Pilots (CBT)	1	1			6
A102	Basic Pacer CRAG Operations for Pilots (CBT)	1	1			6
A103	TCAS System (CBT)	1	1	1	1	
A105	Pacer CRAG FMAC for Pilots (CBT)	1	1			
A106	Practice Exercise for FMAC (PTT)	1	1			
A201	Multi-Function Display for Navigators (CBT)			1		6
A202	Basic Pacer CRAG Operations for Navigators (CBT)			1		6
A301	Multi-Function Display for Booms (CBT)				1	6

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
AA01	Pacer CRAG Difference Qualification Checkride	1	1	1		
G025	Aircraft Field Trip	1	1	1	1	4
G080	Communication Procedures	F	F	P	P	7
G258A/B/C/D/E	ATD Difference Training Profiles	5P	5P		1P	3,4,8
M001	Sortie	2P	2P	2P	2P	3
N010	Tanker Rendezvous	P	P	P		
N030	Tanker Point Parallel Rendezvous	P	P	P		
N040	Tanker RZ and A/R	P	P	P		2
N090	Control Time Exercise (En route Rz Substitute)	P	P	P		2
N100	INS Airborne Alignment	P	P	P		2
N130	Receiver Rendezvous	P	P	P		1
N132	Receiver Point Parallel Rendezvous	P	P	P		1
N136	Receiver Rendezvous Overrun Procedures	F	F	F		1
N160A	FMS Navigation	P	P	P		
P012	Takeoff, Gyro Mode	P	P			2
P018	Copilot Takeoff Climb Duties	P	P			2
P020	Takeoff	P	P			
P026	Takeoff and Climb Procedures	P	P			2
P070	Instrument Approach	P	P			2,5
P071	Holding	P	P			2
P072	Published Penetration	P	P			2
P073	En Route Descent	P	P			2
P100	Precision Approach	P	P			2,5
P101	ILS Approach	P	P			2
P102	ILS Approach Gyro	P	P			2
P110	Non-Precision Approach	P	P			2,5
P111	VOR/TACAN/FMS Procedures	P	P			2
P112	TAC/VOR/LOC/FMS Approach	P	P			2
P160	Missed Approach	P	P			2,5
P190	Landing	P	P			
P191	Landing, Full Stop, Reverse Thrust	P	1			1

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
P240	Landing Gear Alternate Extension	F	F		F	
P260	HAVE QUICK Radio Procedures	P	P			
P272	KY 58 Radio Operation	P	P	P	P	
P360A	AFMSS Mission Planning	P	P	P		
P361	Preflight	P	P	P	P	
P366	Checklist Procedures and Use	P	P	P	P	
P367	Crew Coordination	P	P	P	P	
P368	Post Flight	P	P	P	P	
P369	Aircraft Equipment Operations	P	P	P	P	
Q002	Closed Book Qualification Examination	1	1	1		
Q014	Difference Certification				1	
R010	Receiver AR	P	F		A/R	1
R040	Receiver AR Breakaway and Emergency Separation	P	P	P	A/R	1
R050	Receiver AR, Tanker Autopilot Off	P	F			1
R060	Tanker AR	P	P			
R230	Emergency Boom Hoist	P	P		F	

**NOTES:**

1. As applicable.
2. Event creditable in the ATD.
3. May proficiency advance on instructor recommendation and squadron commander approval.
4. Optional but recommended.
5. Only one event per ATD may be logged.
6. Complete up to 60 days prior to beginning simulator/flying training.
7. GPS key included.
8. 3 Person CRM sim for booms.

**Table 2.2.2. MPRS Difference Qualification Training (DQT) Requirements.**

Code	Training Event	Pilot	CP	Boom	Note
A006	MPRS Difference Course	1	1	1	
A006A	MPRS Difference (CBT)	1	1	1	
G025	Aircraft Field Trip	1	1	1	

Code	Training Event	Pilot	CP	Boom	Note
M001	Sortie (Does not include MAJCOM Qualification Evaluation)	1P	1P	1P	1
P360	Mission Planning and Briefing	1P	1P	1P	
P361	Preflight	1P	1P	1P	
P366	Checklist Procedures and Use	1P	1P	1P	
P367	Crew Coordination	1P	1P	1P	
P369	Aircraft Equipment Operation	1P	1P	1P	
Q002	Closed-Book Qualification Examination	P	P	P	
Q014	Difference Certification	1	1	1	1
R073	AR Pod Bkwy and Emer Separation	1P	1P	1P	
R135	Preparation for Contact Procedures	1P	1P	1P	
R155	Probe and Drogue Contact			2P	
R160	Radio Silent Breakaway	1P	1P	1P	
R180	Radio Silent Visual Signals			1P	
R195	Tanker Wing Pod AR	1P	1P	1P	

**NOTE:**

1. Pilots and boom operators require a one-time only certification flight under supervision of a like-specialty MPRS instructor. MPRS certification is required prior to unsupervised equipment and AR Pod refueling operations in-flight. Not required for navigators.

2.5.9. MPRS Prerequisites. Accomplish A006A, Multi-point Refueling System Difference computer based training (CBT) prior to one-time only certification sortie. Knowledge of MPRS systems and equipment is imperative to be able to accomplish AR Pod refueling operations in MPRS equipped aircraft.

2.5.9.1. MPRS one-time certification sortie. Supervision of a like-specialty MPRS instructor is required to observe equipment and AR Pod refueling operations prior to unsupervised use in-flight. The instructor pilot may supervise training activities from either the jump seat or the pilot/copilot seats. The instructor boom operator will observe training activities from the instructor position in the boom operator's compartment. Document certification on the AF Form 4025, Aircrew Summary/Close-Out Report in the student's training folder. Annotate "MPRS Difference Certification" in the individuals FEF on the AF Form 1381.

**2.6. Multiple Qualification.**

2.6.1. Crew members maintaining dual qualification in different model aircraft will, as a minimum, maintain FTL A currency requirements in each aircraft (N/A for senior officers; see paragraph 2.7.). [table 2.1.](#) lists training to qualify a qualified –135 crewmember in another mission and series (M/S) – 135 aircraft.

2.6.2. HQ AFRC and ANGRC may designate individuals as SIOP dual qualified. SIOP dual qualified pilots will be designated by name by HQ AFRC and ANGRC. SIOP dual qualification allows

pilots to sit SIOP alert in Pacer CRAG and non-Pacer CRAG aircraft and fly either as necessary to maintain currency.

**2.7. Senior Officer Qualification and Performance Requirements.** AFI 11-202, Volume 1 identifies senior officer qualification and performance requirements. Table 2.2. contains additional senior officer qualification and requalification requirements.

2.7.1. Senior officers who maintain FTL E maintain basic aircraft qualification (BAQ) requirements.

**Renumber Table 2.2. Senior Officer Qualification and Requalification Requirements to Table 2.3.**

**Table 2.3. Senior Officer Qualification and Requalification Requirements.**

Code	Training Event	Pilot	Nav	Notes
A004	Senior Staff Qualification Course	1	1	
AA01	Qualification Evaluation	P	P	
G230	Crew Resource Management Refresher	1	1	
LS08	Egress Training	1	1	
M001	Sortie (Includes MAJCOM Qualification )	3	3	2
N016	Tanker Rendezvous Overrun Procedures	F	1	
N020	Tanker En Route Rendezvous	F	1P	
N030	Tanker Point Parallel Rendezvous	F	1P	
PP01	Flight Physical	1	1	
PP11	Physiological Training	1	1	
P012	Takeoff-Gyro Mode	1		
P015	Instrument Departure	2P		
P020	Takeoff	2P		
P026	Takeoff and Climb Procedures	2P		
P040	Simulated Engine Failure, Takeoff Continued	2P		
P071	Holding	1		
P072	Penetration (Published)	1		
P073	En Route Descent	2P		
P100	Precision Approach	3P		
P102	ILS (Gyro Mode)	1P		
P110	Non-Precision Approach	3P		
P112	TACAN, VOR, and Localizer Approach	3P		
P160	Missed Approach (Manual)	3P		
P170	Approach-and-Go, Simulated Engine-Out	2P		
P171	Approach and Go, Simulated Engine-Out, Rudder Power Off	1		
P180	Approach-and-Land, Simulated Engine-Out	2P		

Code	Training Event	Pilot	Nav	Notes
P190	Landing	2P		
P194	Landing, 30-Degree Flaps	1		
P200	Touch-and-Go Landing	3P		
P360	Mission Planning and Briefing	1P	2P	
P365	Autopilot Off Cruise	1		
P366	Checklist Procedures and Use	2P	2P	
P367	Crew Coordination	2P	2P	
P369	Aircraft Equipment Operation	2P	2P	
Q001	Open-Book Qualification Examination	1	1	
Q002	Closed-Book Qualification Examination	1	1	
R060	Tanker AR	P	2P	1
R070	Tanker AR Breakaway and Emergency Separation	P	1P	1

**NOTES:**

(Any proficiency event with a minimum number may be proficiency advanced with squadron commander approval.)

1. Required when qualification includes tanker AR.
2. Includes MAJCOM Qualification Evaluation.

2.7.2. Flying NAF/CCs and OG/CCs must be fully qualified flight examiners (FE) in their primary assigned aircraft. These individuals do not require nor do they have to maintain instructor certification or mission ready status. To become an FE, NAF/CCs and OG/CCs must maintain a minimum of FTL E requirements and be FE certified IAW AFI 11-2MDS, Vol 2 (i.e., require AF Form 8, **Certificate of Aircrew Qualification**). This policy is based on the premise that these individuals already possess a strong history of experience, judgment, and superior airmanship to evaluate high standards of performance in the air. As a result, additional currency/proficiency requirements to maintain FE status are not required. Also, FE status for additional aircraft assigned to the unit is not required. NAF/CCs and OG/CCs maintaining FTL E require instructor supervision when at the controls of an aircraft. (**NOTE:** OG/CCs must attend either initial or requalification courses (as required) to qualify in their primary assigned aircraft. Use of senior officer course is not authorized.)

**2.8. Flight Surgeons.** AFI 11-202, Volume 1 establishes flight surgeon initial qualification requirements.

**2.9. Reports:**

2.9.1. The ATS contractor will distribute CCTS post-graduate training critiques to each student's unit approximately 60 days after the student's graduation date. The student will complete one critique, with the student's commander or supervisor completing the other. The unit will return both critiques to: Det 2 AMCAOS; 510 North 6<sup>th</sup> Street, Suite 3; Altus AFB OK 73523-5089. CCTS will maintain critique findings and actions taken for 24 months.

2.9.2. 97 OSS/DOT will submit a CCTS graduate summary report (RCS: HAF-XOO(AR)9810) by memo to HQ AETC/DOFA and HQ AMC/DOTK not later than 30 working days after each class completion. Send copies to 19 AF/DOM, 15 AF/DOVT, and 21 AF/DOVT. This report is designated emergency status code C-3. Continue reporting during emergency conditions, delayed precedence. Submit data requirements as prescribed, but they may be delayed to allow the submission of higher precedence reports. Submit by nonelectronic means, if possible. Discontinue reporting during MINIMIZE. Include the following in the report:

2.9.2.1. Class number, crew numbers, and previous aircraft flown, if different

2.9.2.2. Total number of WST/OFT missions, aircraft sorties, and flight time scheduled and flown in CCTS

2.9.2.3. Analysis by crew position of inflight evaluation results including substandard activity or unqualified areas

2.9.2.4. Training items waived and reason for waiver

**NOTE:** This report is designated emergency status code C3. Continue reporting during emergency conditions, delayed precedence. Submit data requirements as prescribed, but they may be delayed to allow submission of higher precedence reports. Submit by nonelectronic means if possible. Discontinue electronic reporting during MINIMIZE.

**2.10. Failure to Progress.** If a student fails to progress according to syllabus requirements, the command accomplishing the training will conduct a progress review (PR). The PR can recommend continuation in training or AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Badges*, action, e.g., a Flying Evaluation Board (FEB) to the individual's unit commander. (**NOTE:** The ATS contractor will identify students who fail to progress IAW the applicable ATS contract as outlined in [chapter 6](#).)

**2.10.1. Failure to Complete Training.** If any crew member fails to complete a formal course for reasons other than those described in 2.10., the formal school will send a recommendation to the individual's unit on whether he or she should complete training in-unit, or return to the formal school to complete training. In addition, requests to recall a student from a formal school course must be sent from the student's MAJCOM to HQ AETC/DOF. HQ AETC/DOF will accomplish all necessary coordination with 97 OSS. Emergency recall during non-duty hours may be coordinated directly with the 97 OSS with notification to HQ AETC/DOF on the next duty day.

## Chapter 3

## MISSION QUALIFICATION TRAINING

**3.1. Mission Qualification Training (MQT) (Phase II).** [table 3.1.](#) and [table 3.2.](#) list minimum training an individual must complete to become MR. Training may be accomplished concurrently with other training. Each unit should conduct a training program designed to mission qualify crewmembers while preventing regression of flying skills gained at CCTS. Complete CCTS waived proficiency (P) events before declaring the individual MR. Crewmembers will complete mission qualification training within 90 days of entering MQT, or as specified in MAJCOM supplement.

3.1.1. Crossflow program selectees will be entered into AC mission qualification training upon arrival at the unit. Delays to mission AC upgrade are contrary to the intention of the crossflow program and will be avoided.

**3.2. Ground Training Requirements.** All academic ground training required for mission qualification will be completed prior to certification or qualification in the unit operational mission. **(not applicable for senior officers or staff officers maintaining BAQ).**

**Table 3.1. Mission Qualification Ground Training Requirements.** *If conventional taskings prevent completion of mission qualification training prior to deployment, contact parent MAJCOM for waiver approval. Waivers will be approved on a case-by-case basis. Previously certified and qualified mission-ready crew members transferring between units only need any unit specific training in these events and any applicable events in which they have lost currency.*

Code	Training Event	Pilot	Copilot	Nav	Boom	Note
A037	SIOP Performance Training	P	P			1,2
G002	Aircraft Marshaling Training and Examination	1	1	1	1	1,5,8, 12
G003	Flightline Drivers Training and Examination	1	1	1	1	1,5,7
G010	Chemical Biological Warfare Training	1	1	1	1	1,8,11
G031	Initial Command and Control Procedures	P	P	P	P	1,2
G033	Unit Alert Procedures	P	P	P	P	1,2,5
G034	MITO Training	P	P	P	1	2,8
G035	PLZT Goggle Training	1	1	1	1	1,2,4
G036	Flash Blindness and Thermal Protection	P	P	P	P	1,2
G040	SIOP Study	P	P	P	P	2
G041	Unit Mission Briefing	1	1	1	1	5,11
G060	Tactics	1	1	1	1	5,11
G070	Aircrew Intelligence Training	1	1	1	1	11
G080	Communications Procedures	1	1	1	1	1,12
G090	Anti-hijacking	1	1	1	1	1
G100	Laws of Armed Conflict	1	1	1	1	1
G110	Force Protection Requirements	1	1	1	1	1
G120	ISOPREP Review	1	1	1	1	11
G130	IRC	1	1	1		12

Code	Training Event	Pilot	Copilot	Nav	Boom	Note
G150	TERPS				1	12
G182	Hazardous Cargo Training	1			1	3,10
G183	Floor Loading				1	10
G184	Palletized Cargo Loading				1	3,10
G190	Aircraft Servicing	1	1	1	1	1,2
G210	Alert Start Procedures	P	P	F	F	2
G230	CRM	1	1	1	1	12,14
G240	CRM/MOST Simulator	1	1	1	1	8,10,11,14
G257	KC-135E Simulator	1	1			8,9
G280	Small Arms Training	1	1	1	1	3,11
LS04	Aircrew Chemical Defense Training (ACDT)	1	1	1	1	8,11
LS05	Egress Training with ACDE	1	1	1	1	8,11,13
LS08	Egress Training	1	1	1	1	1,8,12
LS10	Hanging Harness Training	1	1	1	1	1,8
LS12	Hanging Harness Training with ACDE	1	1	1	1	8,11,13
PP01	Flight Physical	1	1	1	1	12
PP11	Physiological Training	1	1	1	1	12
Q010	SIOP Certification	1	1	1	1	2,5,6
Q016	Conventional Certification	1	1	1	1	5,6,11
S-V80-A	Initial Combat Survival Training	1	1	1	1	
S-V90-A	Initial Water Survival Training	1	1	1	1	

## NOTES:

1. AC upgrades are not required to accomplish if previously accomplished as a copilot.
2. Required for units with SIOP DOCs. Units with a primary or secondary SIOP DOC must have 100 percent of their line crews SIOP certified. With the exception of G035, all items must be completed prior to Q010, SIOP Certification.
3. Individuals may be declared MR without completing events G182, G184, and G280. G182/G184 must be completed not later than 180 days following certification or prior to cargo or passenger mission, whichever comes first. G280 must be completed not later than 180 days following certification or prior to flying a mission requiring arming, whichever comes first.
4. G035 must be completed within 60 days of helmet modification; crew member may be declared MR prior to completing G035.
5. Previously certified and qualified mission-ready crew members in a cross-flow program (between flying units) only need any unit specific training in these events, and any applicable events in which they have lost currency.
6. Q010 and Q016 may be accomplished prior to aircraft qualification/requalification, however, an individual cannot be signed off as certified or mission ready until all training is complete. Individuals who are at their unit and awaiting the start of the formal school may begin MQ ground training and establish reference dates.

7. Required only for those crew members who need to drive on the flightline as determined by the squadron commander.
8. Or as directed in the associated MAJCOM supplement.
9. E-model qualified pilots and copilots only.
10. Credit may be awarded if the event was accomplished at the formal school.
11. Not required for formal schoolhouse instructors.
12. Formal schoolhouse crew members will complete these items prior to certification in their unit mission.
13. One-time-only event in each MDS.
14. USAFE: Contractor CRM training fulfills this requirement.

3.2.1. Ground training accomplished during mission qualification establishes due dates for subsequent continuation training. Completion of S-V80-A, S-V90-A, and initial life support equipment training during formal school establishes the due date (based on date of first completed course) for recurring Combat Survival (LS02), Water Survival (LS03), and Hanging Harness (LS10) training. Completion of S-V80-A establishes the due date for recurring Law of Armed Conflict (G100), and Force Protection (G110) training.

### 3.3. Flying Training Requirements.

3.3.1. Basic aircraft qualified aircrew members pursuing MR status will accomplish Training Level "D" continuation training requirements.

3.3.2. After arrival at duty station, crewmembers must receive a supervised duty familiarization or orientation flight and local flying area or associated hazards brief (**not applicable for in-unit initial, requal, or upgrade training**).

**Table 3.2. Mission Qualification Flight Training Requirements.** *Previously certified and qualified mission-ready crew members transferring between units only need any unit specific training in these events, and any applicable events in which they have lost currency.*

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
F020	Formation Flight	P	P			10
P260	HAVE QUICK Radio Procedures	P	P			4,11
P270	SECURE RADIO Operation	P	P	P		4,11
P280	ACDTQT	1	1	1	1	4,11
P290	Alert Start	P	P			9,11
Q011	Formation Lead Certification Program	1				12
Q021	BRAVO Qualification (Probe)				P	2,7
Q022	CHARLIE (Day) Qualification (Fighter)				P	2,7,8
Q023	CHARLIE (Night) Qualification (Fighter)				P	2,7,8

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
Q028	GOLF Qualification (KC-10, C-17, C-5)	P			P	1,3,7,8
Q031	JULIET Qualification (B-2 Night)				P	6,7,8
R160	Radio Silent Breakaway				P	
R165	Radio Silent AR				P	

## NOTES:

1. Pilots may be declared mission-ready when qualified in category receivers required by unit mission.
2. When day and night AR qualification is required, day qualification must be accomplished prior to commencing night training and qualification.
3. All receiver category qualification will be conducted under direct supervision of a like-specialty instructor.
4. AC upgrades are not required if deemed proficient at schoolhouse.
5. Deleted
6. Must be supervised by a Q031 qualified instructor.
7. With program manager recommendation and squadron commander approval, boom operators may be declared qualified in a specific air refueling category.
8. Boom Operators may be declared mission-ready and can deploy forward when qualified in category receivers required by unit mission or when items Q22, Q23, and Q28 have been accomplished. Completion of the remaining events may be accomplished in theater with an instructor. Unit SIOP mission required events will be accomplished within 60 days of return to home station; all other events will be accomplished at the earliest opportunity.
9. Required for units with SIOP DOCs.
10. Required for Pacer CRAG mission ready status.
11. Not required for formal schoolhouse.
12. Pilots may be considered mission qualified without Q011. Pilots must complete Q011 at earliest possible opportunity.

**3.4. Theater Indoctrination (USAFE).**

**3.4.1. Theater Indoctrination (TI).** All USAFE aircrews will complete TI ground training prior to flight training. TI flight training may be combined with initial MQT sorties, but must be the first sortie flown in theater. Supervision will be an IP or IN.

3.4.1.1. Ground Training. The wing/group will develop the TI ground training program. The unit may develop procedures specific to their mission and location, however the following blocks of instruction will be covered as a minimum:

3.4.1.1.1. Instrument training: a thorough review of theater-unique instrument requirements and procedures to include but not limited to: nav aids, European air traffic control, Flight Infor-

mation Publications/Foreign Clearance Guide study, non-DoD approach procedures (Jeppesen), required instrumentation for specific approaches, local publications and regulations, flight planning, European weather phenomena (emphasis on local conditions), spatial disorientation, and theater buffer zone procedures.

3.4.1.1.2. Video presentations: Jeppesen approach charts.

3.4.1.1.3. Basic airmanship review: visual illusions, command special interest items, and USAFE local area exercise procedures.

3.4.1.2. Flight Training. The wing/group developed TI program will consist of a minimum of one sortie emphasizing European flying environment, ATC procedures, basic airmanship, and local orientation. Individual TI events may be accomplished during MQT, however, all TI events will be complete prior to MR or theater certification. Aircrews will demonstrate proficiency in the following minimum events:

3.4.1.2.1. Route abort (when applicable).

3.4.1.2.2. All instrument procedures including each type of instrument approach (precision and non-precision) procedure the aircraft is capable of flying.

3.4.1.2.2.1. At least one approach will be flown at a non-USAFE base.

3.4.1.2.2.2. At least one approach will be flown at the unit's primary divert base or location.

3.4.1.2.3. Operational mission or unit specific mission training requirements.

## Chapter 4

### CONTINUATION TRAINING

**4.1. Continuation Training (Phase III).** C/KC-135 aircrew are assigned to either mission ready (MR), basic mission capable (BMC), or basic aircraft qualification (BAQ) status. As a minimum, formal schoolhouse instructors will maintain BMC status as described below.

**4.1.1. Mission Ready (MR).** For status of resources and training system (SORTS), operational tasking, and deployments, a mission ready aircrew member is defined as one who is available, qualified, certified in the squadron's mission (completed mission qualification training for applicable crew position), current, and has completed the required continuation training at the end of the training period.

4.1.1.1. For additional information, see AFI 11-202, Volume 1.

**4.1.2. Basic Mission Capable (BMC).** A Non-Mission Ready aircrew member assigned to MAJCOM headquarters, NAF, Tanker Airlift Control Center (TACC), Air Mobility Warfare Center (AMWC), Tanker Airlift Control Element (TALCE), Air Mobility Operations Group (AMOG), formal schoolhouse, or direct reporting unit (DRU) who has satisfactorily completed mission qualification training, does not maintain MR status, but maintains familiarization in the command or unit operational mission. The aircrew member may maintain qualification in some aspects of the unit mission, and is able to attain full qualification in the unit mission within 45 days. See note after paragraph 4.2.1.1.1. for training level requirement. Formal schoolhouse BMC crews are qualified to conduct all aspects of the formal schoolhouse training mission. Formal schoolhouse instructors must be qualified in the training/unit mission prior to performing instructor duties.

**4.1.3. Basic Aircraft Qualification (BAQ).** An aircrew member who has satisfactorily completed training and is qualified to perform aircrew duties in the unit aircraft. The member must perform at the minimum frequency necessary to meet the most recent sortie and flight standards.

**4.1.4. Non-Mission Ready (NMR).** An individual who is noncurrent or unqualified in the aircraft, incomplete in required continuation training, or not certified to perform the unit mission is a nonmission ready (NMR) crew member.

4.1.4.1. If the crew member is NMR for failure to maintain currency per paragraph 4.6.1.1., place the crew member in supervised status for that event (individual flies with an instructor of like specialty) until required training is accomplished. Loss of currency prohibits an individual from flying outside of the CONUS or accomplishing unsupervised inflight duties in the noncurrent event(s). For example, if the individual is noncurrent for an event such as tanker air refueling or tanker rendezvous, the individual may fly unsupervised on CONUS sorties which are not scheduled for and do not accomplish tanker air refueling. MAJCOMs outside of the CONUS may allow individuals to fly local, routine, and non-contingency overseas sorties in their respective theater (OG is the approval authority). **EXCEPTION:** An individual noncurrent in takeoffs (P020), full stop landings (P190), approaches (P070), and night landings (P192) will not fly unsupervised on any sortie. The crew member cannot deploy until currency is regained.

4.1.4.2. If a crew member is NMR for failure to complete required continuation training, the operations group commander has two options:

4.1.4.2.1. Waive the required training in accordance with paragraph 4.6.1. or 4.6.2. The individual is then a MR crew member.

4.1.4.2.2. Place the crew member in supervised status (individual flies with an instructor of like specialty) until required training is accomplished. The operations group commander may allow individuals to fly unsupervised on CONUS sorties if loss of MR status was for failure to complete ground/flying continuation training. MAJCOMs outside of the CONUS may allow individuals to fly local, routine, and non-0contingency overseas sorties in their respective theater (OG is approval authority).

4.1.4.3. Copilots, navigators, and boom operators who are undergoing mission qualification training and are current and qualified, may fly without an instructor of like specialty on CONUS only sorties. Aircraft commanders will not fly unsupervised until they have been approved by the Review and Certification (R&C) Board per AFI 11-2KC-135, Volume 2, *Aircrew Evaluation Criteria*. Upon completion of the R&C board, aircraft commanders, provided they are current and qualified, may fly unsupervised. For example, if a boom operator is current and qualified on refueling C-141s, the OG/CC can allow him/her to fly on a CONUS only mission that is scheduled to refuel a C-141. Exercise caution as the scheduled receiver could cancel and a new receiver might be scheduled for which the boom operator is not qualified to refuel. MAJCOMs outside of the CONUS may allow individuals to fly local, routine, and non-contingency overseas sorties in their respective theater (OG is approval authority).

4.1.5. In addition to the above, MR, BMC, and BAQ crew members must have accomplished and/or maintained the requirements in AFI 11-202, Volume 1 for their respective status, as well as all events listed in the applicable ground and semiannual flying continuation tables.

## 4.2. Responsibilities:

**4.2.1. Squadron commander.** The squadron commander or designated representative determines the training level (TL) of each assigned (or attached, for USAFE) crewmember and will ensure individuals receive training to successfully complete unit missions and maintain individual proficiency. The squadron commander will also determine the following:

4.2.1.1. Which pilots will be formation-lead certified (Q011)

4.2.1.2. Which aircraft commanders will be certified to accomplish their own touch and go landings (Q050)

4.2.1.3. Which aircraft commanders will be certified to supervise unit copilot touch and go landings and receiver air refueling (P320)

4.2.1.4. Which crewmembers are emission control (EMCON) 3 or 4 certified (Q060/Q070)

4.2.2. Training Levels (TL). Before each semiannual period, the squadron commander will assign each crew member a TL. TL assignment is based on experience and aircraft proficiency. Crew members may be assigned ground training levels that are more restrictive, but never less restrictive than the requirements in paragraph 4.2.2.2. Use the date of the initial qualification inflight evaluation for determining an individual's time in the weapon system. TL definitions follow:

4.2.2.1. Flying Training Levels (FTL):

**NOTE:** NMR crewmembers assigned to MAJCOM headquarters, NAF, TACC, AMWC, TALCE, AMOG, formal schoolhouse, or a direct reporting unit are categorized as Basic Mission Capable (BMC) and assigned to FTL "A" and GTL "4". In addition to GTL "4" requirements, these individuals must also accomplish annual crew resource management (CRM) training (G230 and G240) requirements. These

individuals may fly unsupervised on local training missions provided they are current and qualified. They require instructor supervision on all other missions. Since these crewmembers do not maintain MR status, they cannot log MP, MN, MF, or MB time. For example a pilot may log EP, IP, or FP time. If G230 or G240 requirements are not met, the individual must fly with an instructor of like specialty unless waived (see paragraph 4.1.4.).

4.2.2.1.1. FTL “A”—highly experienced crewmembers. This may include MR or NMR MAJ-COM headquarters and TACC personnel; formal schoolhouse instructors; NAF personnel; AMWC instructors; wing, operations group, and squadron commanders; operations officers, personnel assigned to OG evaluation positions, and any instructors assigned primarily to staff duties. Squadron commanders have the discretion to assign highly experienced MR line crewmembers to this level.

4.2.2.1.2. FTL “B”—experienced, mission ready crewmembers.

4.2.2.1.3. FTL “C”—MR crewmembers. Copilots should be assigned to FTL “C.” If desired, squadron commanders may assign highly proficient copilots to FTLs “A” or “B.”

4.2.2.1.4. FTL “D”—basic aircraft qualified crewmembers. Designated primarily for BAQ crewmembers who are pursuing MR status.

4.2.2.1.5. FTL “E”—BAQ or BMC, noninstructor staff (may include senior officers, MAJ-COM, NAF, and TACC individuals who are not maintaining MR or instructor status). FTL E requirements are insufficient for MR status. Crewmembers assigned to FTL E will fly with an instructor of like specialty at all times.

#### 4.2.2.2. Ground Training Levels (GTL):

4.2.2.2.1. GTL “1”—highly experienced crew members with 10 or more years operational flying (operational flying does not include UFT time).

4.2.2.2.2. GTL “2”—experienced crew members with at least 5 years but less than 10 years operational flying.

4.2.2.2.3. GTL “3”—inexperienced crew members with less than 5 years operational flying.

4.2.2.2.4. GTL “4”—NMR senior officers, staff officers, and those not required to maintain MR status. For GTL 4, use table 4.4.

4.2.2.2.5. Change of FTL or GTL. Once the semiannual period begins, personnel should not be moved to a level requiring fewer events. Personnel may be moved to FTL “E” or GTL “4” when appropriate. Basic aircraft qualified crewmembers may be placed in a different FTL any time after attaining MR status.

4.2.2.3. Change of FTL or GTL. Once the semiannual period begins, personnel should not be moved to a level requiring fewer events. Personnel may be moved to FTL “E” or GTL “4” when appropriate. Basic aircraft qualified crew members may be placed in a different FTL any time after attaining MR status.

**4.2.3. Flight commanders.** Flight commanders will check quality of training accomplished, identify deficiencies, and advise squadron staff of additional training needs.

4.2.4. Unit schedulers will tailor training sorties to increase training and use flying time effectively.

**4.3. Training Events/Tables.** Standardized AFORMS training event identifiers and descriptions are located in [attachment 2](#). Unit defined events will be designated “X” events (i.e. X020). Squadron commanders will determine how X events affect MR status.

**4.3.1. Crediting Event Accomplishment.** In addition to events accomplished on training and operational missions, those flight events accomplished on a satisfactory qualification, mission qualification, specialized mission qualification, or requalification evaluation may be credited towards the individual’s currency requirements and establishes a subsequent due date.

4.3.2. Aircrew members who are unqualified in the aircraft due to an unsatisfactory flight evaluation will not log continuation training requirements for those events graded Q-3 until requalified.

4.3.3. Make-up training (ground or flying) is creditable towards the new training period.

4.3.4. All AC Upgrade and CFIC training may be credited for continuation training. This includes category I AC Upgrade training done in the left seat and pre- or post-CFIC pilot training done in the right seat. (See [table 4.2](#) for specific creditable events.)

**4.4. Currency for Aircrew Members.**

**4.4.1. Ground Continuation Training Events.** Aircrew members will comply with requirements of [table 4.1](#). All items are MR events except flight records review.

4.4.1.1. Crewmembers attached to units (i.e., NAF, MAJCOM, AMWC, etc.) may accomplish ground training events at locations other than their units of attachment. Individuals are responsible for reporting accomplished training to their unit of attachment AFORMS office.

4.4.1.2. Flight Surgeons comply with requirements of table 4.5.

**Table 4.1. Ground Continuation Training Requirements.** (Definitions also apply to flying tables.)

1. Course descriptions can be found in Attachment.							
2. Use the following definitions for the regular frequency of ground training:							
2.3. <b>B—Biennial.</b> Accomplished every 2 calendar years. Initial accomplishment establishes a currency reference year.							
2.4. <b>A—Annual.</b> Accomplished once each calendar year. Initial accomplishment establishes a currency reference year.							
2.5. <b>SA—Semiannual.</b> Accomplished each 6 month training period.							
2.6. <b>T—Triennial.</b> Accomplished every 3 calendar years. Initial accomplishment establishes a currency reference year.							
2.7. <b>Q—Quarterly.</b> Accomplished twice each training period, once in the first 3 months and once in the second 3 months.							
2.8. <b>M—Monthly.</b> Accomplished each calendar month.							
2.9. <b>A/R—As Required.</b>							
2.10. <b>C—Cycle.</b> In conjunction with qualification evaluation (i.e., every 17 months).							

Pilot/Copilot		Pilot Training Level			Copilot Training Level			Notes
Code	Training Event	1	2	3	1	2	3	
G010	Chem-Biological Warfare Defense Training	T	B	B	B	B	B	5,11
G030	SIOP Command & Control Procedures	Q	Q	Q	Q	Q	Q	1,8,11
G034	MITO Procedures	A	A	A	A	A	A	12
G040	SIOP Study	Q	Q	Q	Q	Q	Q	1,8,11
G041	Unit Mission Briefing	AR	AR	AR	AR	AR	AR	
G060	Tactics	T	A	A	A	A	A	11
G070	Aircrew Intelligence Training	A	A	A	A	A	A	11
G080	Communications Procedures	A	A	A	A	A	A	
G130	Instrument Refresher Course	C	C	C	C	C	C	
G182	Hazardous Cargo Training	T	B	A				
G210	Alert Start Procedures	A	A	A	A	A	A	1
G222	Hydraulics	A	A	A	A	A	A	6
G223	Flight Controls	A	A	A	A	A	A	6
G224	Fuel Systems	A	A	A	A	A	A	6
G225	Electric Systems	A	A	A	A	A	A	6
G226	Environmental Systems	A	A	A	A	A	A	6
G227	Engines, Propulsion, APU	A	A	A	A	A	A	6,7
G230	CRM/MOST Refresher	A	A	A	A	A	A	7,15
G240	CRM/MOST Simulator	A	A	A	A	A	A	5,6,11,15
G252	Electrics Simulator	A	A	A	A	A	A	5,6,7,13
G253	Hydraulics Simulator	A	A	A	A	A	A	5,6,7,13
G254	Engines Simulator	A	A	A	A	A	A	5,6,7,13
G255	Fuels Simulator	A	A	A	A	A	A	5,6,7,13
G256	Pneumatics/Aerodynamics Simulator	A	A	A	A	A	A	5,6,7,13
G270	Tactics Simulator	A	A	A	A	A	A	5,11,13,14
G280	Small Arms Training (SAT)	B	B	B	B	B	B	10,11
G802	SOAR Ground Training	A	A	A	A	A	A	4
LS02	Combat Survival Training	T	T	T	T	T	T	5,11
LS03	Water Survival Training	T	T	T	T	T	T	5
LS04	Aircrew Chemical Defense Training	B	B	B	B	B	B	5,11
LS08	Egress Training	T	T	B	T	T	B	5,9

LS10	Hanging Harness Training	A/R	A/R	A/R	A/R	A/R	A/R	3,5
PP01	Flight Physical	A	A	A	A	A	A	9
PP11	Physiological Training	T	T	T	T	T	T	9
Q010	SIOP Certification	A	A	A	A	A	A	1,2,11
Q016	Conventional Certification	AR	AR	AR	AR	AR	AR	
RR01	Flight Records Review	A	A	A	A	A	A	3

## NOTES:

1. Required for units with SIOP DOCs.
2. Includes SIOP Certification and Preparation for SIOP Certification.
3. Included as ground training for documentation or AFORMS tracking only.
4. Required for SOAR certified aircrews only.
5. Or as directed in the associated MAJCOM supplement.
6. Credit during initial, upgrade, and requalification training to establish reference dates.
7. Creditable during CCTS and CFIC training.
8. If not completed in the previous quarter, the present quarter's training must include the previous quarter's training.
9. Mandatory grounding item on expiration date. Individual will not fly until required training is complete. **For PP11, USAFE personnel are required to accomplish every 4 years. (If 3 years is exceeded, person must accomplish within 90 days of PCS to CONUS). See further instructions in AFI 11-403.**
10. Expires 2 years from the date of accomplishment.
11. Not required for formal schoolhouse instructors.
12. Required for units whose SIOP DOCs require this capability.
13. AFRC pilots and copilots are required two of the five refresher simulators per year. Log G990/991.
14. Not required for units without simulators.
15. USAFE: Contractor CRM training fulfills this requirement.

4.4.1.3. Senior Officer, BMC, and Staff Officers Ground Continuation Training Requirements. Senior officers and all other crewmembers maintaining BMC and BAQ (TL E) in the KC-135 are required to complete, as a minimum, the courses listed in [table 4.2](#). Senior officers maintaining MR status will comply with [table 4.1](#).

**Table 4.2. Ground Continuation Training Requirements.**

Navigator/Boom Operator		Nav Training Level			Boom Training Level			Notes
Code	Training Event	1	2	3	1	2	3	
G010	Chem-Biological Warfare Defense Training	T	B	B	T	B	B	9,12
G030	SIOP Command & Control Procedures	Q	Q	Q	Q	Q	Q	1,8

Navigator/Boom Operator		Nav Training Level			Boom Training Level			Notes
Code	Training Event	1	2	3	1	2	3	
G034	MITO Procedures	A	A	A	*A	*A	*A	14,16
G040	SIOP Study	Q	Q	Q	Q	Q	Q	1,8
G041	Unit Mission Briefing	AR	AR	AR	AR	AR	AR	
G060	Tactics	T	A	A	A	A	A	12
G070	Aircrew Intelligence Training	A	A	A	A	A	A	12
G080	Communications Procedures	A	A	A	A	A	A	
G130	Instrument Refresher Course	C	C	C				
G150	Boom TERPS				T,*A	B,*A	A	16
G160	Overwater Navigation Procedures	T	B	A				12
G161	Polar Navigation Procedures	A	A	A				12
G170	Celestial Training Device	A	A	SA				
G171	Polar Grid CTD	T	T	B				3
G172	Twilight CTD	T	T	B				3
G173	Southern Latitude CTD	T	T	B				3
G174	Unit Option CTD	AR	AR	AR				3
G182	Hazardous Cargo Training				A	A	A	12
G183	Floor Loading				A	A	A	12
G184	Palletized Cargo Loading				A	A	A	12
G227	Engines, Propulsion, APU	A	A	A	A	A	A	4,7,12
G228	Electrics and Fuel Systems for Boom Operators				A	A	A	7,12
G229	AR Systems for Boom Operators				A	A	A	7,12
G230	CRM Refresher	A	A	A	A	A	A	7,12,17
G240	CRM/MOST Simulator	A	A	A	A	A	A	9,12,13,15,17
G270	Tactics Simulator	A	A	A	A	A	A	9,12,18
G280	Small Arms Training (SAT)	B	B	B	B	B	B	11,12
G802	SOAR Ground Training	A	A	A	A	A	A	6
LS02	Combat Survival Training	T	T	T	T	T	T	9,12
LS03	Water Survival Training	T	T	T	T	T	T	9
LS04	Aircrew Chemical Defense Training	T	B	B	T	B	B	9,12
LS08	Egress Training	T	T	B	T	T	B	9,10
LS10	Hanging Harness Training	A/R	A/R	A/R	A/R	A/R	A/R	5,9
PP01	Flight Physical	A	A	A	A	A	A	10
PP11	Physiological Training	T	T	T	T	T	T	10
Q010	SIOP Certification	A	A	A	A	A	A	1,2,12
Q016	Conventional Certification	AR	AR	AR	AR	AR	AR	

**NOTES:**

1. Required for units with SIOP DOCs.
2. Includes SIOP Certification and Preparation for SIOP Certification.

3. Dual-log with G170.
4. To credit G227, navigators and boom operators must complete the APU portion.
5. Included as ground training for documentation or AFORMS tracking only.
6. Required for SOAR certified aircrews only.
7. Creditable during CCTS and CFIC training.
8. If not completed in the previous quarter, the present quarter's training must include the previous quarter's training.
9. Or as directed in the associated MAJCOM supplement.
10. Mandatory grounding item on expiration date. Individual will not fly until required training is complete. **For PP11, USAFE personnel are required to accomplish every 4 years. (If 3 years is exceeded, person must accomplish within 90 days of PCS to CONUS.) See further instructions in AFI 11-403.**
11. Expires 2 years from the date of accomplishment.
12. Not required for formal schoolhouse instructors.
13. Credit during initial, upgrade, and requalification training to establish reference dates.
14. Required for units whose SIOP DOCs require this capability.
15. OG/CCs may waive G240 for Navigators and Boom Operators when either the unit is not co-located with a simulator or when the simulator is not equipped with the applicable crew position.
16. \*Pacer CRAG qualified boom operators flying on 3 person crews.
17. USAFE: Contractor CRM training fulfills this requirement.

18. Not required for units without simulators.

**Table 4.3. Ancillary Ground Training Requirements. (Does not affect MR status.)**

Pilot/Copilot/Navigator/Boom Operator		Training Level			Notes
Code	Training Event	1	2	3	
RR01	Flight Records Review	A	A	A	
G090	Anti-hijack	B	B	B	
G100	Laws of Armed Conflict	A	A	A	
G110	Protection From Terrorism	T	B	A	NA for formal schoolhouse instructors
G120	ISOPREP Review	180	180	180	NA for formal schoolhouse instructors
G190	Aircraft Servicing	T	T	T	

**4.4.2. Flying Continuation Training Requirements.** KC-135 flying continuation training requirements are in [table 4.4](#).

4.4.2.1. Aircraft commanders will be dual seat qualified, and may accomplish training events in either seat. Copilots may not fly in the left seat unless under direct IP supervision. IPs may fly in either seat.

4.4.2.2. ATD Credit for Training Requirements. Simulator training augments aircraft flight training; it does not replace it. *Flight currency cannot be updated in the simulator.* However, pilots may credit flight training events in [table 4.6](#) in the ATD if the simulator certification (SIMCERT) documentation shows a training value code of 1 for the event listed.

4.4.2.3. Senior officers and staff crewmembers maintaining basic aircraft qualification will, as a minimum, maintain FTL E requirements. This requirement also applies to additional aircraft an individual may be qualified in.

**Table 4.4. Ground Training Level 4 Continuation Training Requirements (NMR Senior Officer, BMC, and Staff Officer).**

Code	Event	Frequency
G130	Instrument Refresher Course (IRC)	C
G230	CRM Refresher	A
G240	CRM/MOST Simulator	A
LS08	Egress Training	B
PP01	Flight Physical	A
PP11	Physiological Training	T
RR01	Flight Records Review	A

**NOTE:** LS08, PP01, PP11 are mandatory grounding items for non-accomplishment (**PP11, USAFE every 4 years**). For PP11, rated officers with greater than 25 years time in service, only require physiological training every 5 years. G240 is as directed in MAJCOM supplement. **USAFE: Contractor CRM training fulfills requirement for G230/G240.**

**Table 4.5. Flight Surgeon Ground Continuation Training Events.**

<b>Event</b>	<b>Code</b>	<b>Frequency</b>
Chemical-Biological Defense Training <sup>2</sup>	G010	B
Anti-hijack <sup>2</sup>	G090	B
Laws of Armed Conflict <sup>2</sup>	G100	A
Force Protection Requirements <sup>2</sup>	G110	A
ISOPREP Review <sup>2</sup>	G120	180
CRM (One-time requirement in primary assigned aircraft) <sup>3</sup>	G230	Initial
High-Threat Combat Survival <sup>2</sup>	LS02	T
Water Survival <sup>2</sup>	LS03	T
Aircrew Chemical Defense Training <sup>2</sup>	LS04	B
Aircraft Ground Egress Training <sup>1</sup>	LS08	B
Flight Physical <sup>1</sup>	PP01	A
Physiological Training <sup>1</sup>	PP11	T
Written Exam	Q001	C
Flight Records Review	RR01	A

**NOTES:**

1. Mandatory grounding item.
2. Flight Surgeons without a mobility requirement do not need to accomplish this training.
3. **USAFE: Contractor CRM training fulfills this requirement.**



Code	Training Event	Pilot						Copilot					Notes
		A	B	C	D	E	CUR	A	B	C	D	CUR	
P053	Spiral Up Departure	A	A	A	A								3,13
P055	Tactical GPS Approach	*A	*A	*A	*A								11,13
P061	VFR Overhead	A	A	A	A								3,13
P064	Random Steep Arrival	A	A	A	A								3,13
P065	Curvilinear Approach	A	A	A	A								3,13
P070	Instrument Approach	15	20	26	32	6	<i>M</i>	15	20	26	32	<i>M</i>	12
P100	Precision Approach	6	6	8	10	2		6	6	8	10		
P110	Non-Precision Approach	6	6	8	10			6	6	8	10		
P130	Circling	2	2	2	2			2	2	2	2		10
P140	Visual Traffic Pattern	2	2	2	2			2	2	2	2		
P160	Missed Approach	2	3	3	3			2	3	3	3		
P170	Appr & GA (Sim Eng Out)	2	3	3	3								
P180	Appr & Landing (Sim Eng Out)	2	2	2	2								
P190	Landing	12	18	24	30	6	<i>M</i>	12	18	24	30	<i>M</i>	12
P191	Landing, FS, Reverse Thrust	2	2	2	2		<i>Q</i>						6
P192	Landing, Night	2	2	2	2		<i>SA</i>	2	2	2	2	<i>SA</i>	
P200	Touch and Go Landing						<i>M</i>						9,12
P240	Landing Gear Alternate Extension	A	1	1	1			A	1	1	1		7
P250	Main Flap Manual Operation	A	1	1	1			A	1	1	1		7
P260	HAVE QUICK Radio Procedures	2	2	2	2			2	2	2	2		
P270	SECURE RADIO Operation	2,*1	2	2	2			2	2	2	2		3,11
P271	Authentication Procedures	*1	*1	*1	*1			*1	*1	*1	*1		11
P280	ACDTQT	A	A	A	A			A	A	A	A		1
P290	Alert Start	A	A	A	A	A		A	A	A	A		1,2,8
P310	Instructor and Evaluator Duties	2	2										
R010	Receiver AR	4	5	6	7		<i>Q</i>						5
R020	Receiver AR (Night)	1	2	3	3								5
R035	Receiver AR (Heavy Onload)						<i>A</i>						5
R040	Receiver AR Bkwy and Emergency Separation	1	1	1	1			1	1	1	1		5
R050	Receiver AR Tanker Autopilot Off	2	2	2	2								5
R060	Tanker AR	8	9	12	15		<i>Q</i>						10
R070	Tanker AR Bkwy Procedures	2	2	2	2			2	2	2	2		
R080	Tanker AR Autopilot Off	2	3	3	3								
R100	Tanker AR Heavy Receiver	2	2	2	2								
S036	SOAR Rendezvous	A	A	A	A			A	A	A	A		4
S200	NVG Operation	A	A	A	A			A	A	A	A		4

**NOTES:**

1. Pilots assigned to MAJCOM Headquarters, NAF, TACC, formal schoolhouse, and AMWC are not required to accomplish.
2. NAF evaluators may receive credit when observing, instructing, or evaluating these events.
3. Not required for formal schoolhouse instructors.
4. Required for SOAR certified pilots only.
5. Required for receiver qualified pilots only.
6. E-model requirement only.
7. MAJCOMs may substitute "A" for "1" as directed in MAJCOM supplement.
8. Only required for units with SIOP DOCs.
9. Currency requirement for ACs only; no currency requirement for IPs.
10. Or as directed by MAJCOM supplement. (P020, ANG may substitute number of times event is accomplished; R060 currency is Q, MAJCOMs may lower number of times required.)
11. \*Pacer CRAG qualified crew members only.
12. For dual qualified pilots, one event every 60 days will be accomplished in Pacer CRAG and non-Pacer CRAG equipped aircraft.
13. N/A for units permanently based overseas.

**4.6. Failure to Complete Training Requirements.** Declare individuals NMR if they fail to complete ground or semiannual flying continuation training requirements. The following guidance applies:

**4.6.1. Flight Training.** At the end of the semiannual training period, the squadron commander will review AFORMS products for those crewmembers who failed to accomplish all required semiannual flying training events (includes all events listed in the flying continuation training tables). The squadron commander will either direct training necessary for the individual to regain MR status or request an operations group commander waiver. If the AFORMS review shows enough flying events were recently accomplished to ensure MR proficiency, the operations group commander or equivalent may waive the requirements. The same flying training events will not be waived for two consecutive training periods. This waiver authority must be used judiciously. The intent is to ensure crewmembers receive the proper quantity of flying events to remain proficient and allow the operations group commander to determine MR status and additional training requirements when those training quotas are not met. **EXCEPTION:** Flight currency will only be waived under extreme circumstances and only at the MAJCOM level. Flight currency is associated with those events denoted in the flying continuation training tables by a specific period of time (monthly, quarterly, semiannual, or annual) within which an event must be accomplished (listed in the "CUR" column).

**4.6.1.1. Loss of Currency.** Place individuals delinquent in one or more currency events in supervised training status for that event and declare them NMR. Comply with paragraph **4.1.4.1. Crewmembers noncurrent for less than 6 months will maintain their current training level and a training folder need not be accomplished.** Crew members are noncurrent the day after event currency expires; (i.e., a crew member who accomplished an event with monthly currency on 1

September becomes non-current on 1 November). Regain currency based on the time elapsed since becoming non-current as described in paragraph 1.6.

#### **4.6.1.2. Dual-Seat Qualification:**

4.6.1.2.1. IPs may fly in either seat. Additionally, aircraft commanders will be dual-seat qualified. These dual-seat qualified individuals must accomplish recurring qualifications to AFI 11-2KC-135 Volume 2. Copilots may not fly in the left seat unless under direct IP supervision.

4.6.1.2.2. Dual-seat aircraft commanders may accomplish training events in either seat. Accomplishing a currency event in either seat is sufficient to maintain currency for that event in both seats.

**4.6.2. Ground Training.** The OG/CC or equivalent may waive ground continuation training. This waiver authority must be used judiciously. The decision to grant a waiver will be based on the individual crewmember's experience and proficiency level (i.e., waivers will not be based on a crewmember's availability). The operations group commander will determine the allowable time period of the waiver (the training should be completed at the earliest opportunity). This waiver is allowed for unforeseen circumstances and only for events that will not degrade mission accomplishment.

4.6.3. Refer to AFI 11-202, Volume 1 for individuals transferring between aircraft or leaving active flying status. The provisions of AFI 11-202, Volume 1 also apply to all simulator training.

4.6.4. Failure to accomplish recurring ground egress training (LS08), flight physical (PP01), or physiological training (PP11) results in immediate grounding until the training is accomplished.

4.6.5. Make-up training (ground or flying) is creditable towards the new training period.

**4.7. Requirements Before PCS or TDY by Rated Members on Active Flying Status.** AFI 11-202, Volume 1 specifies requirements before PCS or TDY.

**4.8. Requirements Before Removal From Active Flying.** AFI 11-202, Volume 1 specifies requirements before removal from active flying.

**4.9. Requirements While in Inactive Flying Status.** AFI 11-202, Volume 1 specifies requirements while in inactive flying status.

**4.10. Retraining.** AFI 11-202, Volume 1 specifies retraining restriction before separation, retirement, or mandatory inactive flying status.

**4.11. Aircrew Flying With Other Than US Air Force Units.** AFI 11-202, Volume 1 addresses individuals flying in this status.

**4.12. Flight Surgeon Requirements.** Flight surgeons will comply with the flying requirements in AFI 11-202, Volume 1.

**4.13. Training Period.** Continuation training program is based on static 6-month periods (1 January - 30 June and 1 July - 31 December).

Table 4.7. Flying Continuation Training Semiannual Requirements (KC-135E/R/T).

Navigator		Training Level						
Code	Training Event	A	B	C	D	E	CUR	Notes
F010	Formation Departure & Join-up	1	2	2	2			1,2,3
F020	Formation	1	2	3	4			1,2,3
F030	Large Formation Dept and Join-up	A	A	A	A			1,2,3
F040	Large Formation	A	A	A	A			1,2,3
F060	AR Formation	1	1	2	2			1,2,3
M005	Dual Qualification Sortie	1	1	1	1		60	9
M020	Unit Specific Training Sortie	3	5	6	6			3,6,9
M030	Overseas Sortie	2A	2A	2A	2A			1,2,3,10
N010	Tanker Rendezvous	4	5	6	7	1	60	
N020	Tanker En Route Rendezvous	1	2	2	2			
N030	Tanker Point Parallel Rendezvous	1	2	2	2			
N040	Tanker Anchor Rendezvous and AR	1	1	1	1			3
N050	Navigation Leg	1	2	3	4			8
N060	Mission Navigation Leg	A	1	2	3			8
N065	Tactical Navigation Leg	A	1	1	1			8
N080	Grid Entry and Exit Exercise	1	1	2	2			8
N090	Control Time and Position Exercise	A	1	1	1			
N100	INS Airborne Alignment	A	1	2	3			8
N110	Communications Procedures	1	2	3	3			6,7
N120	ARDA	1	1	2	2			8
N130	Receiver Rendezvous	1	2	2	2			4
N136	Rcvr Rendezvous Overrun Procedures	A	1	2	2			4
N150	Celestial Position	2	3	4	5			8
P240	Landing Gear Alternate Extension	A	1	1	1			6
P250	Main Flap Manual Operation	A	1	1	1			6
P270	SECURE RADIO Operation	1	1	2	2			3
P271	Authentication Procedures	1	1	1	1			
P280	ACDTQT	A	A	A	A			1,3
P310	Instructor and Evaluator Duties	2	2					
R040	Receiver AR Breakaway and Emergency Separation	1	1	2	2			4
R070	Tanker AR Breakaway and Emergency Separation	A	1	2	2			8
S003	Parallel Converging Rendezvous	A	A	A	A			5
S004	En Route Overtaking Rendezvous	A	A	A	A			5
S036	SOAR Rendezvous	A	A	A	A			5
S101	Inflight Comm Training	A	A	A	A			5

**NOTES:**

1. Navigators assigned to MAJCOM Headquarters, NAF, TACC, formal schoolhouse, and AMWC are not required to accomplish.
2. NAF evaluator instructors may receive credit when observing, instructing, or evaluating these events.
3. Formal schoolhouse instructors are not required to accomplish.
4. Required for receiver qualified navigators only.
5. Required for SOAR certified navigators only.
6. MAJCOMs may substitute "A" for "1" as directed in MAJCOM supplement.
7. Only required for units with SIOP DOCs.
8. N/A for Pacer CRAG qualified navigators.
9. For dual qualified navigators, one event every 60 days will be accomplished in Pacer CRAG and non-Pacer CRAG equipped aircraft.
10. N/A for units permanently based overseas.

**Table 4.8. Flying Continuation Training Semiannual Requirements (KC-135E/R/T).**

Boom Operator		Training Level						CUR	Notes
Code	Training Event	A	B	C	D	E			
M005	Dual Qualification Sortie	1	1	1	1		<b>60</b>	9	
M010	Proficiency Sortie	3	3	3	3			2,6	
M030	Overseas Sortie	A	A	2A	2A			2,10,11	
N140	Celestial Observation	1	2	2	3			5	
P240	Landing Gear Alternate Extension	A	1	1	1			4	
P250	Main Flap Manual Operation	A	1	1	1			4	
P270	SECURE RADIO Operations	1,*1	1,*1	1,*2	*2			8	
P280	ACDTQT	A	A	A	A			2,10	
P300	Cargo Loading	1	1	1	1			1,2,4,10	
P310	Instructor and Evaluator Duties	2	2						
R070	Tanker AR Breakaway and Emergency Separation	1	1	2	3	1			
R100	Tanker AR, Heavy Receiver	1	2	2	3				
R120	Contacts	15	18	24	30	5	<b>45</b>	1	
R130	Night Contacts	5	6	8	10		<b>180</b>	1,7	
R140	Tanker Manual Contact	2	3	4	5				
R150	Fighter Contact	2	2	2	3	1	<b>180</b>	1,6	
R160	Radio Silent Breakaway	1	1	1	1			2,6	
S036	SOAR Rendezvous	A	A	A	A			3	
S101	Inflight Comm Training	A	A	A	A			3	
S200	NVG Operation	A	A	A	A			3	

**NOTES:**

1. BOs assigned to MAJCOM headquarters, TACC, NAF, AMWC, TALCE, formal schoolhouse, and AMOG will use these tables with the following exceptions:

(1) P300 currency requirement is expanded to 1/365 days for MAJCOM; (2) R120 currency requirement is expanded to 1/60 days; (3) R150 currency is 1/365 days with no frequency requirements; and (4) M030 is not required.

2. Not required for formal schoolhouse instructors.

3. Required for SOAR certified BOs only.

4. MAJCOMs may substitute "A" for "1" as directed in MAJCOM supplement.

5. N/A for Pacer CRAG.

6. Or as directed by MAJCOM supplement. (R150; MAJCOMs may require "1" for TL A.)

7. Alaska ANG night requirements waived during summer months.

8. \*Required for Pacer CRAG qualified boom operators.

9. For dual qualified boom operators, one event every 60 days will be accomplished in Pacer CRAG and non-Pacer CRAG equipped aircraft.

10. Boom operators assigned to MAJCOM Headquarters, NAF, TACC, and AMWC are not required to accomplish.

11. N/A for units permanently based overseas.

**Table 4.9. Flight Events Creditable In ATD.**

Code	Training Event	Number Creditable
N040	Tanker RZ and A/R	ALL
N090	Control Time Exercise (En Route RZ Substitute)	ALL
N100	INS Airborne Alignment	ALL
N165	Fixing	ALL
P006	Airwork	ALL
P015	Instrument Departure	ALL
P018	Copilot Takeoff Climb Duties	ALL
P026	Takeoff and Climb Procedures	ALL
P027	EWO Departure	ALL
P051	Tactical VFR Departure	ALL
P070	Instrument Approach	1 Per Sim
P071	Holding	ALL
P072	Penetration (Published)	ALL
P073	En Route Descent	ALL
P100	Precision Approach	1 Per Sim
P101	ILS Approach	ALL
P102	ILS (Gyro Mode)	ALL
P103	PAR Approach	ALL
P110	Non-Precision Approach	1 Per Sim

<b>Code</b>	<b>Training Event</b>	<b>Number Creditable</b>
P111	VOR/TACAN Procedures	ALL
P112	TACAN, VOR, and Localizer Approach	ALL
P113	ASR Approach	ALL
P160	Missed Approach (Manual)	1 Per Sim
P171	Approach and Go-Around Simulated Engine-Out, Rudder Power Off	ALL
P280	ACDTQT	ALL
P310	Instructor and Evaluator Duties	ALL
P311	Flight with an Instructor	ALL
P365	Autopilot Off Cruise	ALL

## Chapter 5

### UPGRADE TRAINING

**5.1. Upgrade Training.** This chapter identifies general prerequisites and training requirements for upgrade.

#### **5.2. Aircraft Commander (AC):**

**5.2.1. General.** Flying time prerequisites required for upgrade are based on a copilot having gained knowledge and judgment required to effectively accomplish unit missions. Unit commanders must ensure continuation training programs emphasize these areas. Flying experience should include left-seat time prior to entering formal school upgrade training. AC candidates must have an in-depth knowledge of systems, procedures, and instructions before entering the formal upgrade program. The aircraft commander upgrade program (KC-135AC) (formerly PUP) is a formal training course for KC-135 copilots upgrading to AC. The minimum flying hour requirements for AC are listed in paragraph 2.3.1. All AC upgrades, including in-unit AC upgrades (KC-135ACA), will complete ATS courseware at the formal school. Additionally, the following guidance applies:

- 5.2.1.1. Select upgrade candidates based on upgrade potential, retainability, and mission requirements.
- 5.2.1.2. Attempt to fill all available quotas before requesting in-unit upgrade.
- 5.2.1.3. Use the approved ATS courseware.
- 5.2.1.4. Complete applicable ground and flying requirements of this instruction.

**NOTE:** AFCAT 36-2223 details prerequisites and special requirements for the formal school AC upgrade course. Units should send names of candidates to fill allocated AC upgrade quotas to HQ AMC/DOTF, or MAJCOM equivalent, no later than 45 days prior to the class start date. The CCTS syllabus lists training events for upgrade training at the formal school.

**5.2.2. In-Unit Upgrade.** Formal school attendance is the primary method for AC qualification training. In-unit upgrade using courseware provided by the formal school is the secondary method.

- 5.2.2.1. In-unit AC upgrade flight training will be accomplished only when formal school upgrade quotas are not available. Units request approval from respective MAJCOM to accomplish in-unit AC upgrade flight training. AC upgrade academic only (ACA) quotas will be allocated to MAJCOMs by HQ AETC/DOFA on request. Flight training requirements for in-unit AC upgrade training are listed in [table 5.1](#). Units should design in-unit AC upgrade training programs to provide quality training in a structured program similar to CCTS.

**Table 5.1. In-Unit AC Upgrade Requirements.**

<b>Code</b>	<b>Training Event</b>	<b>Number</b>	<b>Notes</b>
A002	KC-135 AC Upgrade Academic Course	1	
A052	Receiver AR Indoctrination	1	5
AA01	MAJCOM Qualification Evaluation	P	
F010	Formation Departure and Join Up	2P	
F020	Formation	2P	
F060	AR Tanker Formation	2P	
G025	Aircraft Field Trip	1	
G130	Instrument Refresher Course	1	
G250	Aircrew Training Device	3	
LS08	Aircraft Ground Egress Training	1	6
M001	Sortie (includes Flight Evaluation)	8P	
N015	Tanker Alternate Rendezvous	P	
N016	Tanker Rendezvous Overrun Procedures	P	
N020	Tanker En Route Rendezvous	2P	
N030	Tanker Point Parallel Rendezvous	2P	
N130	Receiver Rendezvous	4P	5
N132	Receiver Point Parallel Rendezvous	2P	
N135	Receiver Alternate Rendezvous	2P	5
P007	Approach to Initial Buffet and Recovery	P	4
P011	Takeoff-Night	2P	
P012	Takeoff-Gyro Mode	2P	
P015	Instrument Departure	5P	
P020	Takeoff	5P	
P026	Takeoff and Climb Procedures	7P	
P030	Max Mode T/O, 30 Flap	2P	
P040	Simulated Engine Failure, Takeoff Continued	5P	
P071	Holding	2P	
P072	Penetration (Published)	2P	
P073	En Route Descent	2P	
P080	Instrument Approach (Auto or Coupled)	1	
P100	Precision Approach	4P	
P101	ILS Approach	6P	
P102	ILS (Gyro Mode)	2P	

<b>Code</b>	<b>Training Event</b>	<b>Number</b>	<b>Notes</b>
P103	PAR Approach (If available)	P	2
P110	Non-Precision Approach	6P	
P111	VOR/TACAN Procedures	7P	
P112	TACAN, VOR, and Localizer Approach	7P	
P113	ASR Approach	P	2
P130	Circling	2P	
P160	Missed Approach	6P	
P170	Approach and Go-Around, Simulated Engine-Out	5P	
P171	Approach and Go-Around, Simulated Engine-Out, RPO	2P	
P180	Approach and Landing, Simulated Engine-Out	7P	
P190	Landing	20P	
P191	Landing, Full Stop, Reverse Thrust (If Applicable)	2P	
P192	Night Landing	4P	
P194	Landing, 30-Degree Flaps	2P	
P196	Landing, Full-Stop	7P	
P200	Touch-and-Go Landing	10P	
P240	Landing Gear Alternate Extension	2P	
P250	Main Flap Manual Operation	2P	
P260	HAVE QUICK Radio Procedures	P	
P360	Mission Planning and Briefing	6P	
P365	Autopilot Off Cruise	1	
P366	Checklist Procedures and Use	7P	
P367	Crew Coordination	7P	
P369	Aircraft Equipment Operation	P	
P380	Spoiler and Lateral Control Demonstration	1	
P382	Trim Demonstration	1	
P383	Simulated Jammed Stabilizer Demonstration	1	
Q001	Open-Book Qualification Examination	P	
Q002	Closed-Book Qualification Examination	P	
Q012	Supervision of Copilot Takeoffs, Landings and Rcvr AR	3P	
R010	Receiver AR	7P	5
R020	Receiver AR (Night)	2P	5
R035	Receiver AR (Heavy Onload)	P	5
R040	Receiver AR Breakaway and Emergency Separation	2P	5

Code	Training Event	Number	Notes
R050	Receiver AR, Tanker Autopilot Off	3P	5
R060	Tanker AR	6P	
R070	Tanker AR Breakaway and Emergency Separation	4P	
R080	Tanker AR Autopilot Off	4P	
R180	Radio Silent Visual Signals	2P	
R225	Reverse AR	F	3

**NOTES:** (Any proficiency event with a minimum number may be proficiency advanced with squadron commander approval.)

1. For in-unit AC upgrade, accomplish F010 FTO training once as lead and once in any following position. For in-unit pilot requalification, F010 will not be accomplished as lead.
2. For in-unit AC upgrade, if ASR and PAR approaches are not readily available as determined by the operations officer, this training event may be accomplished in OFT. Method of accomplishment will be annotated in the individual's training record. ANG units without on-station OFT may complete training without this event.
3. For in-unit AC upgrade, accomplish reverse refueling training as an instructor-led ground training seminar.
4. Accomplished in ATD only. **USAFE will conduct ground prebrief and accomplish this event during next continuation training simulator visit.**
5. Required for receiver AR qualification only.
6. Must be accomplished if training will establish a new credit reference year, otherwise credit if accomplished as a copilot during the current year.

5.2.2.2. AC upgrade training is divided into two categories (or as specified in MAJCOM supplement):

5.2.2.2.1. Category I is a maximum 45-day orientation period covering AC responsibilities. The individual may continue to perform copilot duties on a crew. Category I training consists of ground and flight training completed prior to commencing category II training. Proficiency is not required for category I training. All ground training currency events, e.g., altitude chamber, annual physical, etc., will cover the period up to category II training completion. Category I training requires a minimum of two left-seat familiarization sorties within 45 days prior to arrival at CCTS and will consist of the training events listed in [table 5.2](#). One sortie will include a full mission profile. The other sortie need not be a full mission profile, but will include at least 1 hour dedicated to left-seat pattern training for the AC upgrade candidate. AC upgrade candidates must hand-carry copies of category I training reports to CCTS.

**Table 5.2. AC Upgrade Category I Training Events.**

Code	Training Event	Number
P020	Takeoff	2
P040	Simulated Engine Failure, Takeoff Continued	3
P170	Approach and Go-Around, Simulated Engine-Out	3
P171	Approach and Go-Around, Simulated Engine-Out, Rudder Power Off	1
P180	Approach and Landing, Simulated Engine-Out	3
P190	Landing (to include one full stop)	6
P194	Landing, 30-Degree Flaps	3
P200	Touch-and-Go Landing	6
P360	Mission Planning and Briefing	2
P366	Checklist Procedures and Use	2
P367	Crew Coordination	2
P369	Aircraft Equipment Operation	2
R010	Receiver AR (If applicable)	1
R060	Tanker AR	1

5.2.2.2.2. Category II consists of the formal flight and academic training.

5.2.2.3. Declare individuals formally entered in the formal AC upgrade program at CCTS or in-unit AC upgrade CAT II training program NMR and remove from continuation training. However, individuals remain a MR resource for real world, nonexercise purposes as long as they are current. Qualification evaluations may expire while the individual is completing AC upgrade flight training. Declare individuals MR ACs on completion of mission qualification training and validation by a review and certification board or as directed in MAJCOM supplement.

5.2.2.4. Units should submit the inflight evaluation completion date for individuals completing AC upgrade in-unit to the appropriate MAJCOM training management branch within 30 days of checkride completion for purposes of computing active duty service commitments (or as specified in AFRC/ANG supplements). Course completion information must include the course number, with ACA class start and graduate dates.

5.2.3. Graduates of an aircraft commander course will be designated NMR aircraft commanders. MR status, on completion of mission qualification training and associated evaluation and certification, will be validated by a review and certification board. There is no flying-hour requirement for MR status.

5.2.4. Crossflow program-selects will attend aircraft commander training for the crossflow aircraft. Crossflow selects will be entered into AC mission qualification training upon arrival at the unit. Delays to mission AC upgrade are contrary to the intention of the crossflow program and will be avoided.

### 5.3. Other Crew Positions. N/A for KC-135.

**5.4. Aircrew Instructor Program.** To assure a professionally-trained instructor force, all KC-135 crewmembers initially upgrading to instructor must graduate from the KC-135 CFIC. Course is designed to teach selected crewmembers fundamentals and concepts of instructing. Instructor candidates will be selected based on experience, judgment, ability to instruct, flying skill, and technical knowledge. Individuals who previously attended a formal major weapon system instructor school and were qualified instructors in another MWS, and meet the minimum flying hour requirements of [table 5.3.](#), may upgrade to KC-135 instructor in-unit. Completion of A010, Instructor Academic Training, is not required. Use Table 1.4. to conduct in-unit instructor upgrade.

**5.4.1. Instructor Upgrade Prerequisites.** minimum flying time requirements for instructor upgrade are in [table 5.3.](#)

**Table 5.3. Instructor Upgrade Flying Time Prerequisites.**

Crew Position	Total Flying Time(3)	Total 135 Time
Pilot (1)	1500 hours	and 300 hours
Navigator	750 hours	and 150 hours
BO (2)	1500 hours 700 hours	and 300 hours or and 500 hours

**NOTES:**

1. Requires minimum of 6 months experience as an AC.
2. Total flying time is career military flying time logged in the crew position the individual will upgrade in. Time includes "student," "other," and level C+ simulator time, but does **not** include time logged in other simulators.
3. All "level C+" (as certified by HQ AMC/DOT) simulator time in weapon system may be included as -135 time and total time for upgrade.
4. The operations group commander may waive the minimum flying hour requirements for instructor upgrade.

**5.4.2. CFIC:**

5.4.2.1. Serves as the formal aircrew instructor upgrade program for the KC-135.

5.4.2.2. Units should send the names of candidates to fill allocated CFIC quotas to HQ AMC/DOTF, or MAJCOM equivalent, no later than 30 days prior to class start date.

5.4.2.3. Instructor candidates must arrive at CFIC current and qualified in their unit assigned aircraft. Units will provide additional training to CFIC candidates prior to school attendance. Training must include, but is not limited to the following: (Additional requirements are in MAJCOM supplements.)

5.4.2.3.1. Pilots—Minimum of 3 right seat flights with one full profile sortie (to include AR). Table 5.4 lists required events to prepare IP candidates for CFIC profiles. Pilots from Pacer CRAG units will also perform the items with (PC) indicated.

**Table 5.4. Pilot Pre-CFIC Training.**

Code	Event	Number	Code	Event	Number
N010	Tanker Rendezvous (PC)	2	P193	Landing, 50-Degree Flaps	2P
N020	Tanker En Route Rendezvous (PC)	1	P194	Landing, 30-Degree Flaps	2
N030	Tanker Pt Parallel Rendezvous (PC)	1	P215	Landing Attitude Demonstration	2
N100	INS Airborne Alignment (PC)	1	P240	Landing Gear Alternate Extension	1
P012	Takeoff-Gyro Mode	1	P250	Main Flap Manual Operation	1
P040	Simulated Eng Failure, Takeoff Cont	2	P360	Mission Planning and Briefing	1
P100	Precision Approach	2P	P361	Preflight (Right Seat)	1
P110	Non-Precision Approach	2P	P382	Trim Demonstration	1
P171	App & Go, Sim Eng Out, Rud Pwr Off	2	P383	Simulated Jammed Stabilizer Demonstration	2
P180	Landing, Simulated Engine Out	2	P380	Spoiler and Lateral Control Demonstration	1

5.4.2.3.2. Navigators—Minimum of two flights with IN candidate acting in the role of instructor on both flights. [table 5.5.](#) lists required events to prepare IN candidates for CFIC profiles.

**Table 5.5. Navigator Pre-CFIC Training.**

Code	Event	Number	Code	Event	Number
N005	Mag Course Departure	F	N120	ARDA	2
N010	Tanker Rendezvous	2	N175	INS/DNS Radar Present Pos Update	1
N020	Tanker En Route Rendezvous	1	N176	INS/DNS Manual Position Update	1
N030	Tanker Pt Parallel Rendezvous	1	N180	Target Timing Wind	1
N060	Mission Nav Leg	1	P240	Landing Gear Alternate Extension	2
N070	Degraded Equipment Nav Leg	1	P250	Main Flap Manual Operation	2
N080	Grid Entry and Exit Exercise	1	P360	Mission Planning and Briefing	2
N100	INS Airborne Alignment	2	P361	Preflight	1

5.4.2.3.3. BOs—Minimum of 3 flights with IBO candidate acting in role of instructor on all flights. The first sortie should concentrate on instructor positioning, instructor techniques, and note taking. One sortie, preferably the final one, should be flown with operations superintendent or training manager. Review of manual moment computations is also recommended. [table 5.6.](#) lists required events to best prepare IBO candidates for CFIC profiles.

**Table 5.6. Boom Operator Pre-CFIC Training.**

Code	Event	Number	Code	Event	Number
A017	Publication/Directive Knowledge/Use	2	P340	Briefing and Control of Passengers	2
N140	Celestial Observation	1	P360	Mission Planning and Briefing	2
P240	Landing Gear Alternate Extension	2	R140	Tanker Manual Contact	2
P250	Main Flap Manual Operation	2			

5.4.2.4. Each instructor candidate is responsible for bringing necessary personal flying equipment, required regulations, and completed preattendance materials. Copies of preattendance training reports, aircrew training folder, medical records, individual data summary, flight history, and any required waivers should be hand-carried to CFIC in-processing. The flight evaluation folder is not required.

5.4.2.5. The instructor candidate's squadron will ensure the preattendance workbook and flights are completed prior to the candidate departing for CFIC. The squadron commander or operations officer will sign the preattendance workbook certifying completion of the prerequisites. Failure to complete the pre-attendance workbook or flights without a waiver will result in the candidate being returned to home unit before training begins.

5.4.2.6. Squadrons should provide candidates with the following publications with appropriate supplements for use at CFIC:

- |   |       |
|---|-------|
| 5.4.2.6.1. AFI 11-202, Volumes 1, 2, and 3  | All   |
| 5.4.2.6.2. AFI 11-218, <i>Aircraft Operation and Movement on the Ground</i>   | Pilot |
| 5.4.2.6.3. AFI 11-401, <i>Flight Management</i>   | All   |
| 5.4.2.6.4. AFI 11-2KC-135, Volume 2, <i>C/KC-135 Aircrew Evaluation Criteria</i> , with appropriate MAJCOM supplement | All   |
| 5.4.2.6.5. AFMAN 11-217, Volume 1, <i>Instrument Flight Procedures.....</i>   | Pilot |
| 5.4.2.6.6. AFM 51-40 (AFPAM 11-216), <i>Air Navigation</i>  | Nav   |
| 5.4.2.6.7. AFI 11-2KC-135, Volume 1, <i>C/KC-135 Aircrew Training</i>   | All   |
| 5.4.2.6.8. AFI 11-2KC-135, Volume 3, <i>C/KC-135 Operations Procedures</i>  |       |
| 5.4.2.6.8.1. Chapters 1-9, 17, 21 and 25  | All   |
| 5.4.2.6.8.2. Chapter 11   | Nav   |
| 5.4.2.6.8.3. Chapters 13 and (forthcoming) 26   | BO    |
| 5.4.2.6.9. AFI 11-301, <i>Aircrew Life Support (ALS) Program</i>  | All   |

5.4.2.7. CFIC Training Requirements:

5.4.2.7.1. The CFIC syllabus lists CFIC training requirements.

5.4.2.7.2. The ATS contractor administers post-academic tests to each candidate.

5.4.2.7.3. Multiple simulated emergencies are accomplished during CFIC flight training. These maneuvers are included in the curriculum to broaden the experience base of the candidate and will only be accomplished at CFIC.

5.4.2.7.4. All active duty R-model pilots, navigators, and boom operators will receive an initial inflight instructor evaluation. AFRC/ANG has the option to request an evaluation at Altus or complete at home station. The evaluation will be in compliance with AFI 11-2KC-135, Volume 2, and AETC Supplements as applicable.

5.4.2.7.5. CFIC candidates demonstrating unsatisfactory progress will be removed from training and returned to home station. (See paragraph 2.10.)

5.4.2.8. CFIC Documentation for AFRC/ANG personnel or active duty personnel not completing a CFIC administered evaluation:

5.4.2.8.1. The closeout CFIC AF Form 4025 will contain remarks by the 97 TRS/CC recommending the candidate for an instructor evaluation, removal from instructor considerations, or reconsideration for instructor training at a later date. The closeout report will include results of academic tests and the inflight progress check. The course and class numbers and class start and graduation dates for completed courses will be annotated on the closeout report.

5.4.2.8.2. When an instructor candidate has successfully completed CFIC and a copy of the AF Form 8, **Certification of Aircrew Qualification**, has been received by the 97 TRS, a CFIC certificate of completion in memo format will be sent to the individual's squadron.

5.4.2.8.3. Successful completion of an initial instructor check and certification by the unit review and certification board is the closing actions of CFIC. Failure to accomplish this final step for any reason requires appropriate action in accordance with AFI 11-402.

**5.4.3. Central Flight Instructor Short Course (CFICS).** An abbreviated CFIC course for highly experienced ANG and AFRC candidates only. AFRC/ANG crewmembers should see MAJCOM-specific guidance for pre-CFICS flight training. To attend CFICS, AFRC/ANG crewmembers must meet the following prerequisites:

**5.4.3.1. Pilots.** Candidates should meet one of these requirements:

5.4.3.1.1. Locally upgraded KC-135 IPs requiring CFIC to conduct upgrade training, or

5.4.3.1.2. KC-135 ACs with a minimum of 2,500 total flying hours, and 12 months as an aircraft commander, or

5.4.3.1.3. Former fully qualified instructors from another major weapon system who meet flying hour requirements of [table 5.3](#).

**5.4.3.2. Navigators.** Candidates must meet the flying time prerequisites of [table 5.3](#).

**5.4.3.3. Boom Operators.** Candidates must meet the flying time and experience requirements of [table 5.3](#) with the exception that the minimum total flying time requirement is 1,000 hours.

**5.4.4. Faculty Training Course (FTC).** FTC is taught at the formal school to prepare newly assigned instructors for CCTS duties. All instructors conducting initial qualification flying training will be graduates of FTC. Due to unique circumstances, AFRC/ANG instructors conducting initial qual training do not have to be FTC graduates. Training requirements are listed in the CCTS syllabus.

**5.5. Flight Examiner Qualifications.** Squadron commanders will recommend instructors for the KC-135 flight examiner upgrade program. Crewmembers authorized to evaluate aircrews are qualified in accordance with AFI 11-2KC-135, Volume 2, and applicable MAJCOM supplements. All flight examiners must be fully qualified instructors (Exception: NAF/CC or OG/CC).

## **5.6. Special Qualifications:**

**5.6.1. Air Refueling (AR) Qualifications.** Document additional AR qualifications on AFORMS using events Q21-Q32. Other qualifications may be added as required.

### **5.6.2. Receiver AR:**

5.6.2.1. Training required to qualify ACs and navigators in receiver rendezvous and AR procedures specified in AR TOs. Document receiver AR qualification in the individual's FEF according to AFI 11-2KC-135, Volume 2.

5.6.2.2. The training program consists of practice in rendezvous and AR to include closure, contacts and breakaways. Instructor will demonstrate all limits and manual boom latching. Student must be able to establish contact under simulated conditions of radio silence, pilot-director lights out, and tanker autopilot off. Student must be declared safe in day activity by an instructor prior to advancing to night activity. During the hours of darkness, conduct practice in rendezvous, closure, and contacts until able to maintain contact for 5 minutes without a disconnect.

### **5.6.3. Low-Altitude AR (LAAR):**

5.6.3.1. Limit LAAR training to crewmembers specifically selected by the operations group commander based on experience, demonstrated airmanship, and retainability. Crewmembers trained under previous taskings may be considered qualified based on squadron commander determination and recertification. Document certification in AFORMs using event Q017.

5.6.3.2. Training Program. Flight training will be in concert with operational taskings. Conduct all associated LAAR training no lower than 3000 feet AGL. Include low altitude awareness training, low-altitude navigation ground training, and the hazards involved in flying at high speeds in the low-altitude environment. Topics will include deconfliction with general aviation traffic, see-and-avoid techniques, migratory bird routes, chart updating procedures, terrain features to include effects of ridges, valleys, and low-level wind shear. AR formation considerations such as rendezvous, missed rendezvous, and breakaway procedures will also be discussed. Low-altitude navigation ground instruction will include segments on governing directives, chart preparation and updating, flight and fuel planning, navigation aids available and their use, and course and time control. After initial familiarization, the operations group commander will direct crew training. Schedule the familiarization sortie against the same type receiver as the unit is tasked to support when possible, i.e., fighter type aircraft or heavy aircraft. The familiarization sortie will include rendezvous, cell descent to AR altitude, AR cell breakup and climb-out. A flight commander or previously trained instructor of like specialty will conduct familiarization flight training. Do not conduct chemical warfare defense (CWD) flight training during LAAR training. While supported plans may require LAAR during chemical warfare conditions, CWD training will transfer from high-altitude CWD training.

### **5.6.4. EMCON Options 3 and 4:**

5.6.4.1. Squadron commander certification is required to accomplish EMCON 3 or 4 procedures during formation, rendezvous, and AR on both operational and training sorties. All members of the crew must be certified or in training under the supervision of a like specialty instructor. Thorough coordination with the receiver aircrew is required for units to practice EMCON 3 or 4 on nonoperational training missions. Coordination should be accomplished during mission planning, and in no case will crews launch under EMCON 3 or 4 without prior coordination with the receiver crew. Document certification on AFORMS using events Q060 and 070.

5.6.4.2. Training Program. Training requirements will be determined by the squadron commander based on the crewmember's experience and the unit's mission. BOs with less than 200 flying hours must receive a minimum of two flights with an instructor stressing radio silent procedures prior to certification.

### **5.6.5. Formation Lead:**

5.6.5.1. The intent of the program is to give ACs in-depth training in formation lead responsibilities. Squadron commanders should certify only those ACs who have completed the minimum training requirements listed below and who possess experience in all facets of their unit's formation missions. Document certification on AFORMS using event Q011.

5.6.5.2. Training Program. The minimum formation lead training program should include:

5.6.5.2.1. Study of formation procedures found in AFI 11-2KC-135, Volume 3, Chapter 25, AR TOs, and other associated directives and study guides.

5.6.5.2.2. Squadron administered closed book examination critiqued to 100 percent.

5.6.5.2.3. Minimum of 3 full profile formation flights (minimum of 2 as lead) under the supervision of an instructor pilot. To the maximum extent possible, flights should include AR operations with multiple receivers, both heavy and fighter-type aircraft. At least one formation flight should be flown as part of a large formation (3 or more aircraft). AC upgrades may credit up to 2 formation flights accomplished during upgrade to AC.

5.6.5.2.4. Certification by the squadron commander.

**NOTE:** Formation lead certification activity should **not** be accomplished concurrently with initial qualification training. Formation training accomplished during CCTS or in-unit upgrade is creditable for AC upgrades and requalification only. Formation lead certification is a mission qualification training requirement.

### **5.6.6. Aircraft Commander Touch and Go Landings, Supervision of Copilot Touch and Go Landings and Receiver Air Refueling:**

5.6.6.1. Certification by SQ/CC to allow aircraft commanders to perform their own touch and go landings (Q050) and to supervise unit copilot touch and go landings, and receiver air refueling (if applicable) (Q051). ACs must have accumulated a minimum of 50 hours (not including other time) since AC qualification prior to touch and go certification. Document certification in AFORMS using event Q050 and Q051.

5.6.6.2. Training Program. The following will be accomplished prior to ACs performing his/her own touch and go landings (Phase I) and supervising a unit copilot's touch and go landings (Phase II), and receiver air refueling:

5.6.6.2.1. SQ/CC directed ground and in-flight certification training in touch and go procedures.

5.6.6.2.2. SQ/CC's certification allowing an AC to supervise copilot touch and go landings (Phase II). Phase II should normally occur after completion of Phase I, however, both phases may be completed simultaneously if approved by SQ/CC.

5.6.6.2.3. Touch and go training may be accomplished concurrently with an in-unit upgrade or qualification program.

5.6.6.3. See AFI 11-2KC-135, Volume 3 for conditions under which certified ACs are authorized to conduct/supervise touch and go landings.

### **5.6.7. Special Operations:**

5.6.7.1. Training and squadron commander certification for designated crewmembers flying AR missions in support of special operations forces. Document in AFORMS using event Q015.

5.6.7.2. Training Program. Training should emphasize those procedures that vary from standard tanker AR procedures found in Air Refueling Technical Orders.

5.6.7.2.1. Initial ground training events include:

5.6.7.2.1.1. G801 Initial SOAR Training

5.6.7.2.1.2. G803 NVG Training and Qualification

5.6.7.2.1.3. G804 Ground Communications Training

5.6.7.2.1.4. G805 Missed Rendezvous Procedures

5.6.7.2.2. Initial flight events include:

5.6.7.2.2.1. N013 Emission Option 3

5.6.7.2.2.2. S003 Parallel Converging Rendezvous

5.6.7.2.2.3. S004 En Route Overtaking Rendezvous

5.6.7.2.2.4. S022 SOAR Tanker Formation

5.6.7.2.2.5. S036 SOAR Rendezvous (Navigator Only)

5.6.7.2.2.6. S101 Inflight Comm Training Profile

5.6.7.2.2.7. S200 NVG Operation

## Chapter 6

### AIRCREW TRAINING SYSTEM (ATS)

**6.1. Aircrew Training System.** Guidance in this chapter is extracted from the ATS contract, quality assurance directives, and contractor-provided courseware procedures. This chapter applies to all aircrew members attending formal schools using ATS courseware or attending ATS refresher or phase training.

**6.2. Dedicated Training Time.** It is imperative that students complete their training in a timely and uninterrupted manner. Students will enroll on a full-time basis. Relieve students of duties not directly related to training. *EXCEPTION:* Supervisory personnel may continue their normal duties as time permits.

**6.3. ATS Course Prerequisites.** Each ATS course is designed and based on student prerequisites being met. Prerequisites may include a minimum number of flying hours, squadron operations officer recommendation, and completion of applicable training guides.

**6.4. Lesson Objectives.** Contractor-developed lesson objectives are based on the requirements in this instruction. Changes may be made through the aircrew critique program run by contractor or by contacting Det 2 AMCAOS/97th OSS/DOU or the ATS contractor.

#### **6.5. Unsatisfactory Student Progress.**

6.5.1. The ATS contractor will provide feedback to the unit operations officer for trainees displaying substandard performance, lack of preparation or participation, or poor attitude during any ATS contractor-conducted training.

6.5.2. If at any time during a trainee's ATS ground instruction, progress is considered unsatisfactory, the ATS contractor will notify the responsible unit training manager. On receiving documentation and recommendations from the ATS contractor, the responsible unit will convene a Progress Review Board to review the trainee's record and determine whether to continue, modify, terminate training, or conduct a Flight Evaluation Board.

**6.6. Courseware Changes.** Submit changes via a change request (currently a quality assurance change proposal (QACP)) to Det 2 AMCAOS for recurring courseware and HQ AETC TRSS/DOU for formal school courseware.

#### **6.7. Government and Contractor Interface:**

##### **6.7.1. Training Evaluation:**

6.7.1.1. General. The decision of the Air Force evaluator as to the ability of a crewmember to meet qualification levels as set forth in the applicable MAJCOM supplement to AFI 11-2KC-135, Volume 2 shall be final and will not be subject to question by the contractor.

6.7.1.2. Initial Qualification Evaluations. In the event of an unqualified rating, the contractor is responsible for all retraining (ground-based) in those phases and subphases determined to be under the direct control of the contractor. A joint contractor and Air Force review board will review crewmember performance and determine those phases of the ground-based courses that require additional training to meet qualification levels.

6.7.1.3. Periodic Evaluations. In the event of an evaluation failure, the appropriate ATD should be used to the maximum extent possible for retraining and rechecks. In all cases, the unit must coordinate with the ATS contractor for ATD and instructor availability. In some cases, it may be necessary to cancel or reschedule training to accomplish the desired corrective actions.

## **6.7.2. Responsibilities:**

6.7.2.1. ATS Contractor. Each ATS site will provide academic and ATD training for KC-135 aircrew requalification, upgrade, senior staff, difference and continuation training programs to meet course objectives.

### **6.7.2.2. HQ AMC/DOT:**

6.7.2.2.1. Provide overall management authority for KC-135 contract training.

6.7.2.2.2. Serve as OPR for AFI 11-2KC-135, Volume 1.

6.7.2.2.3. Ensure that contractor provided academic and ATD training complies with policies, guidelines, and directives established by AMC headquarters and the current training contract.

6.7.2.2.4. Ensure KC-135 contractor aircrew training performance objectives are achieved by monitoring overall contractor performance and submitting quality assurance program documentation when required.

6.7.2.2.5. Act as focal point for review of all recommended initiatives directed toward the KC-135 training contract. This includes recommendations for changes submitted by contractor or other Air Force agencies.

6.7.2.2.6. Convene and chair KC-135 Command Curriculum Review Workshop to periodically review the entire program for currency, applicability, and effectiveness. Publish meeting minutes, assign taskings to appropriate agencies, and monitor suspenses.

### **6.7.2.3. HQ AMC/DOTV, HQ ACC/DOTV, HQ AETC/DOFM, HQ AFRC/DOTA, ANG/XOOM, HQ PACAF/DOTT, and HQ USAFE/DOTO:**

6.7.2.3.1. Monitor all actions associated with the KC-135 training program through close coordination with their associated KC-135 units; DET 2, AMCAOS/DOU; HQ AETC TRSS/DOU and HQ AMC/DOT. Provide constructive reports and inputs concerning the training program as required.

6.7.2.3.2. Provide assistance and support to HQ AMC/DOT (program manager) and other appropriate agencies, as required, to support the overall KC-135 training program.

### **6.7.2.4. HQ AETC TRSS/DOU:**

6.7.2.4.1. Ensuring instruction is of the highest quality through the review of crewmember critiques, evaluator feedback, CCTS feedback, and their own evaluations.

6.7.2.4.2. Reviewing and evaluating the task analysis, objective hierarchy, and contractor courses and training materials for accuracy, currency, and effectiveness.

6.7.2.4.3. Act as the focal point for proposed formal school syllabus changes at Altus AFB. Work with AMC AOS/DOU in the preparation and development of syllabus change requests. Prepare proposed changes for HQ AETC/DO approval.

### **6.7.2.5. Det 2 AMC AOS/DOU:**

6.7.2.5.1. Detachment 2 will conduct an annual SIMCERT on all ATDs. SIMCERT is run on a two-cycle system and includes inventory inspection and quality assurance issues inspection for the contract.

6.7.2.5.2. Monitoring training device utilization, availability, and ensure equipment malfunctions are corrected through coordination with the ATS contractor when required.

6.7.2.5.3. Det 2, AMCAOS will conduct annual contract compliance evaluations on all KC-135 ATS sites and report to HQ AMC/DOT on the results.

6.7.2.5.4. Detachment 2 will schedule subject matter experts for technical interchange meetings with the ATS contractor. Det 2 will also schedule crewmembers required by the contractor for courseware development in Individual Tryouts (ITOs) and Small Group Tryouts (SGTOs).

6.7.2.6. Air Force-Appointed ATS Project Officers (PO) and Quality Assurance Representatives (QAR). POs and QARs are primary focal points and liaisons between the Air Force and contractors at each ATS site. POs and QARs are the only Air Force personnel empowered to evaluate contractor compliance with the ATS contract. These individuals are the only unit-level office that can direct the contractor to perform or stop work.

6.7.2.7. Wings and Groups:

6.7.2.7.1. Provide constructive reports and inputs concerning the KC-135 training program as specified in [chapter 1](#) of this regulation.

6.7.2.7.2. Provide assistance and support with subject matter expertise (SME) when requested by HQ AMC/DOTK, Det 2 AMCAOS, or HQ AETC/TRSS.

6.7.2.7.3. Review AFCAT 36-2223 and adhere to guidance and procedures concerning requesting, allocating, sub-allocating, and confirming attendance at scheduled formal training courses. Close coordination with the formal school quota manager (HQ AMC/DOTF) is imperative to ensure effective utilization of training slots and contractor resources.

## 6.8. ATS Courses:

**6.8.1. Formal School Courses.** [table 6.1](#) lists the courses offered by the KC-135 schoolhouse. [table 6.2](#) lists the courses offered at the McClellan AFB C-135 Flight Simulator Trainer site for KC-135E and non-tanker C-135B/E units. MAJCOMs determine C-135 course suitability for their particular requirements and may use these courses as if they were AFCAT 36-2223 formal courses.

6.8.1.1. ATS Formal Course Prerequisites—Each ATS course is designed and based on certain prerequisites being met by the trainee prior to course entry. In order for the ATS contractor to guarantee a trainee is trained to meet government standards and will satisfactorily complete flight training and evaluations, all prerequisites must be complied with unless waived by the appropriate agency in accordance with the guidance in [chapter 1](#).

## 6.8.2. Recurring Academic and ATD Training:

6.8.2.1. General. Recurring academic and ATD training is designed to ensure that prescribed subject material is presented in a realistic manner on a programmed basis. Instruction will be provided by instructors trained and employed by the ATS contractor and through course materials developed by the training contractor.

6.8.2.2. Objective. Ensure all aircrews maintain the proficiency required to safely operate the aircraft and effectively perform the assigned mission. Crewmembers will utilize the training devices to enhance the training areas that the ATDs are particularly well suited to accomplish (e.g., wind-shear/microburst training, low visibility approaches, systems knowledge, emergency/abnormal procedures, degraded navigation systems, etc.).

6.8.2.3. Responsibilities:

6.8.2.3.1. ATS contractor will:

6.8.2.3.1.1. Ensure the operational flight trainer (OFT), WST, celestial training device (CTD), boom operator part-time task trainer (BOPTT), cockpit procedures trainer (CPT), FST, and cargo loader trainer (CLT), along with other devices and training aids, enhance flight training programs. Scheduled lessons and mission overviews will be conducted by the instructor prior to each ATD lesson. All necessary data to complete the training device mission or assigned task will be provided during the premission period.

6.8.2.3.1.2. The ATS contractor will ensure their instructors:

6.8.2.3.1.2.1. Provide an environment for simulator training that is as realistic as possible. Attention will be directed to crew coordination throughout all phases of flight. Crews will utilize equipment in the trainer the same as in flight. This shall include communications, personal, and emergency equipment. Correct communications phraseology; techniques; checklist usage and regimentation; and instrument, flight, and AR procedures will be stressed at all times. Realistic aircraft systems and NAVAID failures and malfunctions will be included in a logical and timely manner.

6.8.2.3.1.2.2. Conduct a post lesson critique to reinforce the desired learning outcomes.

6.8.2.3.1.2.3. Provide comments on the recurring training documentation. The intent of these comments is to provide meaningful feedback to the appropriate levels of supervision (Air Force and contractor) on the student's continuation training. In those rare cases where the student requires more training than the time available, exhibits less than required preparation, or displays an attitude problem, the instructor must provide immediate documentation/feedback to the student's unit through appropriate channels.

6.8.2.3.1.2.4. Provide all students with a training critique.

6.8.2.3.2. DET 2, AMCAOS will review all continuation training courses and mission scenarios. Changes should be made as necessary when aircraft systems, operating procedures, or mission and command training requirements are modified or changed.

**Table 6.1. ATS Formal School Courses.**

Course ID	Title	Length	Notes
KC135ACIQ	Aircraft Commander Initial Qualification	13 weeks	
KC135ACIQA	Aircraft Commander Initial Qualification Academics	7 weeks, 1 day	
KC135AC	Aircraft Commander Upgrade	10 weeks, 4 days	
KC135ACA	Aircraft Commander Academics	5 weeks	

Course ID	Title	Length	Notes
KC135ACRQ	Aircraft Commander Requalification	11 weeks, 3 days	3
KC135ACRQA	Aircraft Commander Requalification Academics	5 weeks, 4 days	
KC135IAC	Instructor Aircraft Commander Course (PCFIC)	4 weeks, 4 days	
KC135IACS	Instructor Aircraft Commander Short Course (PCFICS)	2 weeks, 2 days	4
KC135PFTC	Pilot Faculty Training Course	4 weeks	
KC-135CIQ	Copilot Initial Qualification	13 Weeks	
KC135NIQ	Navigator Initial Qualification	12 weeks, 1 day	
KC135NIQA	Navigator Initial Qualification Academics	5 weeks, 2 days	
KC135NRQ	Navigator Requalification	6 weeks, 3 days	3
KC135NRQA	Navigator Requalification Academics	2 weeks, 1 day	
KC135IN	Instructor Navigator (formerly NCFIC)	4 weeks, 4 days	
KC135INS	Instructor Navigator Short Course (formerly NCFICS)	2 weeks	4
KC135NFTC	Navigator Faculty Training Course	4 weeks	
KC135BIQ	BO Initial Qualification	14 weeks, 4 days	
KC135BIQA	BO Initial Qualification Academics	7 weeks	
KC135BRQ	BO Requalification	8 weeks, 2 days	3
KC135BRQA	BO Requalification Academics	4 weeks	
KC135IB	Instructor Boom Operator (formerly BCFIC)	4 weeks, 4 days	
KC135IBS	Instructor Boom Operator Short Course (BCFICS)	2 weeks, 2 days	4
KC135BFTC	BO Faculty Training Course	4 weeks	
KC135SSOC	Senior Officer Course	4 days	5
KC135SOC	Senior Officer Course Flying	2 weeks	5

## NOTES:

1. Course lengths are approximate and for planning purposes only. Actual course lengths are in AFCAT 36-2223.
2. Aircraft commander requalification includes pilots previously qualified in the KC-135.
3. These courses have proficiency advancement option that allows for accelerated completion of the flying portion of the training.

4. Instructor upgrade course for highly experienced AFRC/ANG crewmembers only. See [chapter 5](#) for prerequisites.
5. Pilot and navigator courses for senior officers (O-6 selectees and above) who will fly under instructor supervision.

**Table 6.2. C-135 Training Site Courses.**

Title	Length	Notes
Transition	3 weeks, 2 days	2
KC-135E Systems Refresher	4 days	5
C-135B/E Systems Refresher	4 days	5
ARIA Systems Refresher	4 days	5
KC-135E Survival (G990/991)	2 days	
KC-135E AC Upgrade Academics	2 weeks	
KC-135E E-Difference	5 days	
Instructor Upgrade Preparation	4-5 days	3
Senior Officer Course	3-4 days	6
Instrument Flying Proficiency (G260)	1 day	4
CRM/MOST (G240)	1 day	4

**NOTES:**

1. Course lengths are approximate and for planning purposes only. See C-135 syllabus for actual course lengths and detailed description.
2. Suitable for non-tanker initial qualification, and KC-135E and non-tanker requalification, as a lead-in to in-unit flying.
3. CFIC preparation only. See syllabus.
4. Optional enhancement to Systems Refresher. May be taken alone.
5. At Unit/MAJCOM discretion, the full Refresher course will satisfy all G25X requirements.
6. Pilot and navigator courses for senior officers (O-6 selectees and above) who will fly under instructor supervision.

## 6.8.2.4. OFT Profile Overview:

6.8.2.4.1. Self-Study. The crewmember is responsible for adequate preparation prior to reporting for each training device mission. This includes a review of the mission profiles, pre-course study material, all associated normal, abnormal, and emergency procedures, and applicable aircraft systems. Each pilot must review the applicable portions of the flight publications and provide answers to review exercises located in the OFT profile.

6.8.2.4.2. Prepermission. Instructor will conduct a prepermission briefing before each OFT that covers the following: mission overview, academic session and systems video tapes, aircraft loading, performance data, route of flight, communications, takeoff weather, simulator discrepancies, and OFT emergency egress. The instructor will brief crewmembers on mission

objectives, specific training items to be accomplished, scheduled systems and performance training, CRM, and any additional area of emphasis. Briefing should include data and information necessary to complete the mission, special procedures, and aircraft systems. Information presented in the briefing should correlate to the tasks to be reinforced in the ATD. It should include any changes or adjustments to prepositioned data and review of the overall mission and coordination of individual crewmember responsibilities.

6.8.2.4.3. Mission. Fly the sortie in accordance with the applicable profile. It is imperative that the pilot team cope with emergencies while continuing to fly the aircraft. Freeze OFT only when necessary to complete training objectives.

6.8.2.4.4. Postmission. Instructor will critique the crew's performance in all phases of the mission. Complete applicable postmission documentation to include AFTO Form 781 and AFORMS products. Requests or recommendations for additional training will be sent to the unit training manager for action. Additional training times must be coordinated with the unit training manager and ATS contractor. Additional training will be accomplished as soon as possible, schedule permitting, but not later than the next scheduled simulator session. Individuals will not be considered refresher complete with the refresher simulator requirement until all additional training is completed.

6.8.2.5. Aircrew Systems Refresher Courses (G222 to G227). The contractor will implement and maintain an aircraft systems refresher program (Air Force-approved) to supplement the simulator training course as specified by training events G222 to G227. Completion of these CBTs is mandatory whether or not units have a simulator.

### **6.8.3. KC-135 ATS Syllabi:**

6.8.3.1. KC-135 ATS syllabi describe the KC-135 training program conducted at formal school and ATS sites. Syllabi supplement applicable Department of Defense, US Air Force, AMC, AETC, and 19 AF directives pertaining to the content and administration of aircrew flying training courses. Syllabi act as blueprints for various KC-135 ATS courses and programs and provide units a description of the training crewmembers receive from the contractor.

6.8.3.2. ATS contractor produces syllabi and is responsible for curriculum development as described in the KC-135 ATS statement of work (SOW) and system specification (SPEC). Contractor will review syllabi annually and update as required.

## **6.9. Scheduling:**

6.9.1. Annual throughput for specific ATS courses is established in the ATS contract. The programmed flying training (PFT) document reflects the planned annual formal school throughput based on Air Force requirements, formal school and ATD capacities, and contract authorizations.

6.9.1.1. Courses conducted at the McClellan C-135 site are not part of the PFT process. Units requiring these courses should forecast their throughput estimates to 940 OSF/FS, by mail or facsimile, by 1 August each year, listing requirements for the ensuing fiscal year. Units who require training, but did not forecast a fiscal year throughput, or will exceed their forecasted throughput, should contact HQ AMC/DOTK to have their additional requirements processed.

**6.9.2. Cancellation of ATS formal school course quotas.** According to AFCAT 36-2223, HQ AMC/DOTF must be notified 45 days prior to class start date if a quota cancellation or no-fill is pend-

ing. All formal school quota cancellations must be made no later than 30 days prior to class start date to enable the quota to be reallocated. If necessary, cancel McClellan C-135 courses with the site scheduler as early as possible to permit reallocation/rescheduling.

6.9.3. Local procedures will be developed at each MOB for scheduling ATS courses. The unit training manager is responsible for procedures that minimize schedule changes and maximize training in the available time. The ATS contractor should be kept apprised of scheduling changes and special training requirements.

**6.10. Administration.** Submit unit for ATS courseware or syllabi to Det 2 AMCAOS/DOU for continuation training courses or HQ AETC TRSS/DOU for formal school courses.

MARVIN R. ESMOND, Lt General, USAF  
DCS/Air and Space Operations

## Attachment 1

## GLOSSARY OF SUPPORTING INFORMATION

*Abbreviations and Acronyms*

A—Annual

AAS—Altitude Alerting System

AC—Aircraft commander

ACDE—Aircrew Chemical Defense Ensemble

ACDT—Aircrew chemical defense training

ACDTQT—Aircrew chemical defense task qualification training

AFFSA—Air Force Flight Standards Agency

AFORMS—Air Force Operations Resource Management System

AFRC—Air Force Reserve Command

AFSIR—Air Force Spectrum Interference Resolution

AIFC—Advanced Instrument Flight Center

AMOG—Air Mobility Operations Group

AMWC—Air Mobility Warfare Center

ANG—Air National Guard

APU—Auxiliary Power Unit

AQP—Airport qualification program

AR—Air refueling

A/R POD—Air Refueling POD

ARC—Air Reserve component

ARDA—Airborne radar-directed approach

ARPTT—Air refueling part task trainer

ATD—Aircrew training device

ATMS—Automated Training and Maintenance Subsystem

ATOC—Air terminal operations center

ATS—Aircrew training system

ATSO—Ability To Survive and Operate

BAI—Backup aircraft inventory

BAQ—Basic Aircraft Qualification

BIT—Built-In Test

- | **BITE**—Built-In Test Equipment
- BMC**—Basic Mission Capable
- BO**—Boom Operator
- BOPS**—Boom Operator Proficiency Sortie
- BOPTT**—Boom operator part task trainer
- C**—Cyclical (17-month qualification evaluation cycle)
- CBT**—Computer-based training
- CBWD**—Chemical-Biological Warfare Defense
- CCP**—Command and control procedures
- CCRW**—Command curriculum review workshop
- CCTS**—Combat Crew Training School
- | **CDU**—Control Display Unit
- CFIC**—Central Flight Instructor Course
- CFT**—Cockpit Familiarization Trainer
- CLRP**—Cargo Loading Review Panel
- CLT**—Cargo Loading Trainer
- COMSEC**—Communications security
- CONUS**—Continental United States
- COOP-AMC**—Continuity of Operations, Air Mobility Command
- CP**—Copilot
- CPT**—Cockpit procedures trainer
- CRAF**—Civil Reserve Air Fleet
- CRM**—Crew resource management
- CSD**—Course summary document
- CSO**—Communication systems operator
- CST**—Combat survival training
- CTA**—Chemical threat area
- CTD**—Celestial Training Device
- CUR**—Currency
- CWD**—Chemical Weapons Defense
- DNIA**—Duties Not Including Alert
- DNIF**—Duty not including flying

**DOC**—Designed operational capability

**DOT**—Director of Training

**DQT**—Difference qualification training

| **DRCU**—Digital Refueling Control Unit

**EAM**—Emergency Action Message

**EAR**—Event Accomplishment Report

**EB**—Evaluator boom operator

| **EHSI**—Electronic Horizontal Situation Indicator

**EMCON**—Emission control

**EN**—Evaluator navigator

**EP**—Evaluator pilot

**ERCC**—Engine-Running Crew Change

**ERD**—Evaluation reference date

**ESD**—Evaluator standards document

**FAIP**—First Assignment Instructor Pilot

**FB**—Basic qualified boom operator

**FC**—Basic qualified copilot

| **FCV**—Fuel Control Valve

| **FDE**—Fault Detection and Exclusion

**FE**—Flight examiner

**FEF**—Flight evaluation folder

**FLT CC**—Flight Commander

| **FMAC**—Fuel Management Advisory Computer

| **FMS**—Flight Management System

**FN**—Basic qualified navigator

**FP**—Basic qualified aircraft commander

**FST**—Flight Simulator Trainer

**FTC**—Faculty Training Course

**FTD**—Field Training Detachment

**FTL**—Flying Training Level

**FTO**—Formation Takeoff

**GATM**—Global Air Traffic Management

- | **GCAS**—Ground Collision Avoidance System
- | **GPWS**—Ground Proximity Warning System
- GT**—Ground Training
- GTAR**—Ground Training Accomplishment Report
- GTL**—Ground Training Level
- HOSM**—Host operations systems management
- HQ**—HAVE QUICK or Headquarters
- IB**—Instructor boom operator
- IBT**—Instructor-Based Training
- ICAO**—International Civil Aviation Organization
- IFF/SIF**—Identification, Friend or Foe, Selected Identification Features
- IN**—Instructor navigator or intelligence officer or branch
- IP**—Instructor pilot
- IPSS**—Inflight passenger service specialist
- IQT**—Initial qualification training
- IR**—Infrared
- IRC**—Instrument Refresher Course
- ISD**—Instructional systems development
- ISOPREP**—Isolated personnel report
- | **ISO VLV**—Isolation Control Valve
- ISS**—Instrument simulator sortie
- ITUD**—Integral Tanker Unit Deployment
- L**—Lead
- L-BAND**—Satellite communications frequency
- LA**—Low Altitude
- LAAR**—Low Altitude Air Refueling
- LL**—Low-level
- LSE**—Life support equipment
- MB**—Mission boom operator
- MC**—Mission copilot
- MDS**—Mission-design-series (i.e., KC-135R)
- | **MFD**—Multi-Function Display

**MITO**—Minimum interval takeoff

**MN**—Mission navigator

| **MPRS**—Multi-point Refueling System

**MOB**—Main operations base

**MOST**—Mission-oriented simulator training

**MP**—Mission pilot (**not applicable for copilots**)

**MQT**—Mission qualification training

**MR**—Mission ready

**MRP**—Mission Review Panel

**M/S**—Mission series

**MTL**—Master task listing

**MWS**—Major Weapons System

**NAF**—Numbered Air Force

| **NOT STW**—Not Stowed

**NSO**—Navigation Systems Operator

**NMR**—Non-mission ready

**NVG**—Night-vision goggles

**OCONUS**—Outside the continental United States

**OFT**—Operational flight trainer

**OG**—Operations group

**ONP**—Overwater Navigation Procedures

**OPORD**—Operation order

**OPR**—Office of primary responsibility

**OPT**—Optional

**OSA**—Operational Support Airlift

**P**—Proficient

**PAI**—Primary aircraft inventory

| **PCBT**—Portable Computer Based Training

| **PCP**—Pod Control Panel

| **PCMCIA**—Personal Computer Memory Card Interface Association

**PDO**—Publications distribution office

**PFT**—Programmed flying training

- | **POD EGD**—Pod Engaged
- PPS**—Pilot Proficiency Sortie
- PTT**—Part task trainer
- PUP**—Pilot upgrade program
- QAR**—Quality assurance representative
- | **RAIM**—Receiver Autonomous Integrity Monitoring
- | **RAT**—Ram Air Turbine
- | **RNP**—Required Navigation Performance
- RQT**—Requalification training
- SAAF**—Small, austere airfield
- SAT**—Small Arms Training
- SATCOM**—Satellite communications
- | **SELCAL**—Selective Calling System
- SG**—Surgeon general
- SIOP**—Single-integrated operations plan
- SIMCERT**—Simulator certification
- SKE**—Station-keeping equipment
- SOAR**—Special Operations Air Refueling
- SORTS**—Status of Resources and Training System
- | **SPR**—Single-point Refueling Manifold
- SS**—Single-ship
- STAN/EVAL**—Standardization and evaluation
- TACC**—Tanker/Airlift Control Center (USAF)
- TALCE**—Tanker airlift control element
- | **TCAS**—Traffic Alert Collision Avoidance System
- TEQ**—Training Effectiveness Questionnaire
- TERPS**—Terminal instrument procedures
- TG**—Training guide
- TL**—Training level
- TMO**—Tanker Manual Operation
- TMS**—Training management system
- TOSM**—Tenant Operations Systems Management

**TPS**—Tactical proficiency sortie

**TRP**—Training review panel

**TTF**—Tanker task force

**TTNRT**—Table Top Navigation and Rendezvous Trainer

**TVT**—Tactical visual flight rule (VFR) training

**UB**—Unqualified boom operator

**UC**—Unqualified copilot

**UE**—Unit-equipped

**UMD**—Unit manning document

**UN**—Unqualified navigator

**UP**—Unqualified aircraft commander

**USAFSAM**—United States Air Force School of Aerospace Medicine

**UTA**—Unit training assembly

**WST**—Weapon system trainer or water survival training

### *Terms*

**Academic training**—A course of instruction that includes, but is not limited to, classroom instruction related to aircraft systems and operation, flight characteristics and techniques, performance, normal procedures, abnormal procedures, and emergency procedures. To adequately prepare students, academic courses should be completed prior to simulator or flight training.

**Aircraft commander (AC)**—Pilot who has been certified to perform "pilot-in-command" duties.

**Aircraft systems refresher**—Aircraft and crew position unique systems refresher courses.

**AR mission**—Flight that involves AR procedures as a tanker or receiver aircraft.

**Air Reserve Component (ARC)**—ANG and AFRC units and aircrews, both associate and unit-equipped.

**Aircrew training device (ATD)**—Includes cockpit procedures trainer, boom operator part task trainer, weapons systems trainer, operational flight trainer, celestial training device, table top navigation and rendezvous trainer, cargo loading trainer, and other flight simulators.

**Aircrew training system (ATS)**—Integrated qualification, upgrade, and continuation training program for crewmembers. Civilian contractors conduct most academic and ATD training: Air Force conducts all flight training.

**Annual**—Training required once every calendar year.

**Basic aircraft qualified (BAQ)**—Aircrew member who has successfully completed an inflight evaluation but is not mission qualified in his or her assigned aircraft.

**Biennial**—Training required once every two calendar years.

**Boom operator (BO)**—Crewmember qualified in boom operator duties.

**Communication systems operator (CSO)**—Crewmember fully qualified to perform all communication systems operator functions.

**Communications security (COMSEC) aid**—COMSEC material, other than equipment or devices, that assists in securing communications and which is required in the production, operation, or maintenance of COMSEC systems and their components. Examples are keys, codes, authentication information in physical or electronic form, call signs, frequencies, and supporting documents.

**COMSEC Responsible Officer (CRO)**—Individual appointed by a unit commander to oversee the unit's COMSEC program as outlined in AFI 33-211, *Communications Security (COMSEC) User Requirements*.

**Computer-Based training (CBT)**—Ground training system that uses computer-generated graphics or text in conjunction with interactive programs as the primary medium of instruction.

**Continuation training**—Ground and flight training events necessary to maintain mission-ready or basic aircraft qualification status.

**Copilot (CP)**—Pilot qualified to perform duties in the right seat only.

**Crew Resource Management (CRM) training**—Training to improve the teamwork, dynamics, and effectiveness of aircrews.

**Critical phases of flight**—Take-off, AR, formation, low level, approach, and landing. (AFI 11-2KC-135, Volume 3)

**Currency event**—Flying continuation training events with prescribed maximum interval-between-accomplishment shown in the "CUR" column.

**Cycle**—17-month cycle based on inflight evaluation completion date. Instrument refresher course (IRC), open and closed-book testing, and inflight evaluations are required 17 months after previous inflight evaluation. Testing and evaluation will be accomplished during the 6-month period that includes the qualification expiration month and the 5 preceding months. See AFI 11-2KC-135, Volume 2, *KC-135 Aircrew Evaluation Criteria*, and appropriate MAJCOM supplement.

**Difference qualification training (DQT)**—Training necessary to qualify an individual in a different tactic or system within the same aircraft or an aircraft that is a different series other than the one in which currently qualified.

**Direct instructor supervision**—Instructor of like specialty with immediate access to controls (for pilots, instructor will occupy either aircraft commander or copilot seat).

**Event or task**—A training event to be accomplished. Several events or tasks constitute a training profile.

**Experienced Copilot**—Copilot with over 500 total flying hours (not including "other" time) of which a minimum of 200 hours are in the Primary Assigned Aircraft (PAA). Individual must also be designated "experienced copilot" by the squadron commander. Designation indicates the squadron commander certifies the individual is progressing normally toward upgrade to aircraft commander.

**Familiarization Item**—An item completed by demonstration, observation, briefing, or in-seat experience. Proficiency is not required.

**Flight examiner or evaluator**—A crewmember designated to administer evaluations.

**Flight surgeon (FS)**—Medical doctor qualified to perform flight surgeon duties and has current

aeronautical orders in that AFSC.

**Flying Training Level (FTL)**—A standard assigned to crewmembers, by the squadron commander, directing flying continuation training requirements.

**Ground Training Level (GTL)**—A standard assigned to crewmembers, based upon experience and squadron commander recommendation, directing ground continuation training requirements.

**Inflight passenger service specialist**—Crewmember qualified in inflight passenger service specialist duties.

**Instructor**—Crewmember trained, qualified, and certified by the squadron commander as an instructor.

**Instructor-candidate**—An aircrew member undergoing upgrade training to instructor.

**Instructor supervision**—A qualified instructor of like specialty supervising a maneuver or training event. For critical phases of flight, the instructor must occupy one of the seats or stations, with immediate access to the controls.

**Instrument simulator sortie**—Simulator training focusing primarily on instrument procedures.

**Mission-Oriented Simulator Training (MOST)**—Part of a training program (e.g., crew resource management) that includes a practical application, full-mission scenario in the simulator or weapons system trainer.

**Mission-ready (MR)**—Aircrew member who is current, qualified, and certified in the unit's designated missions.

**Mission Review Panel (MRP)**—Locally established panel to review previous day's flight and ground training accomplishment.

**Monthly**—Training required once every calendar month.

**Navigator**—Crewmember fully qualified in navigator duties.

**Night**—Defined as after official sunset until before official sunrise (AFI 11-401, *Flight Management*).

**Non-mission ready (NMR)**—Individual who is non-current or unqualified in the aircraft, incomplete in required continuation training, or not certified to perform the unit missions.

**Overseas Sortie (OCONUS Sortie)**—A sortie that includes a take-off or landing outside the 48 conterminous states of the United States.

**Part Task Trainer (PTT)**—A device used to practice a specific task such as cargo door operation, cargo loading training, or receiver AR. PPT also refers to the computer-based system trainer used in Pacer CRAG, FMAC, and other system modifications.

**Pipeline**—An initial qualification trainee directed for training via the Air Force Personnel Center process.

**Primary method**—Training conducted normally at a location designated to train a course using a MAJCOM approved syllabus.

**Quarterly**—3-month periods defined as 1 October to 31 December (first quarter of the fiscal year), 1 January to 31 March, 1 April to 30 June, and 1 July to 30 September.

**Refresher simulator**—Simulator training emphasizing aircraft systems, normal and emergency procedures, and mission-specific training requirements. Refresher simulators may be integrated into a

block of training termed "phase training" for some weapon systems.

**Requalification training**—Training required to qualify aircrew members in an aircraft in which they have been previously qualified. See [chapter 2](#) for requalification training requirements.

**Semiannual**—6-month training periods from 1 January to 30 June and 1 July to 31 December.

**Simulated engine failure take-off continued (EFTOC)**—Practice procedure simulating engine failure after a take-off or touch and go.

**Supervised training status**—Crewmember will fly under instructor supervision as designated by the squadron commander or evaluator. This status is a result of loss of currency or qualification, or due to less-than-qualified evaluation.

**Table Top Trainer**—Training device using actual aircraft hardware to train Pacer CRAG FMS and flight display system operation.

**Tactical Visual Flight Rules (VFR) Training (TVT)**—Weapons system-specific tactical maneuvers. Instruction includes ground training, simulator training, and (if approved by HQ AMC/DO) inflight training. Normal rectangular VFR overheads are not considered TVT maneuvers.

**Training devices**—All trainers, computer assisted instruction, sound-on-slide programs, videos, and mockups designed to prepare students for flight training or augment prescribed continuation training.

**Training Level (TL)**—A standard assigned to crewmembers, by the squadron commander, directing continuation training requirements.

**Triennial**—Training required once every three calendar years.

**Upgrade Training**— Training to qualify an aircrew member in a higher crew position.

**Weapon System Trainer (WST)**—Device that provides synthetic flight and tactics environment in which aircrews learn, develop, improve, and integrate skills associated with their crew position. Aircrew members may operate individually or as a team.

**Attachment 2****TRAINING EVENT DESCRIPTIONS**

**A2.1. Event Identifiers and Descriptions.** Listed by function.

**A2.2. KC-135 Academic ("A") Training Identifiers. A001—Initial Qualification Academic Course.** Credit may not be awarded until all course requirements are satisfied. This course will be provided in accordance with the CCTS syllabus.

**A002—Aircraft Commander Upgrade (KC-135ACA) Academic Course.** Accomplish in accordance with CCTS syllabus. Training will include A017. For KC-135E, accomplish in accordance with C-135B/E syllabus.

**A003—Senior Staff Orientation Course.** Two day orientation course for senior officers. Does not meet the requirements for A004, Senior Staff Course, and does not result in a qualification in the KC-135.

**A004—Senior Staff Qualification Course.** Senior officer basic qualification academics and ATDs.

**A005—PACER CRAG Difference Training.**

**A006—MPRS Difference Training**

**A006A—MPRS Difference (CBT)**

**A010—Instructor Academic Training.** Accomplish in accordance with CCTS syllabus.

**A017—Publication/Directive Knowledge/Use.** For AC upgrades, a minimum of AFI 11-202, Volume 3, AFI 11-401, AFI 11-2KC-135 (Volumes 2, *C/KC-135 Aircrew Evaluation Criteria*, and 3, *C/KC-135 Operations Procedures*), and AFMAN 11-217. For IBO upgrade, a minimum of AFI 11-2KC-135, Volume 1, *C/KC-135 Aircrew Training*, Volume 3, and applicable MDS Tech Orders, with an emphasis on amplified checklist and systems knowledge.

**A024—Difference Course (KC-135E).**

**A026—Difference Course (KC-135E to KC-135R).**

**A028—Difference Course (KC-135R).**

**A029—Difference Course.** Designed to qualify crewmembers in a different M/S aircraft. Administer when a specific course is not designated.

**A032—Difference Course (KC-135T).** Pilots must be qualified in KC-135R prior to completing this course.

**A034—Requalification Course.** Used as abbreviated academic course during requalification for pilots, navigators, and BOs.

**A035—R to E Difference Course.**

**A036—Pacer CRAG Difference Training.**

**A037—SIOP Performance Training.** Thorough review of SIOP performance data computations.

**A044—Instructor (CFIC) Preattendance Workbook.** Must be completed prior to beginning instructor academic training (A010).

**A052—Receiver AR Indoctrination.** Familiarization training consisting of AR missions in AR part task trainer.

**A053—Receiver AR (Initial).**

**A060 —Flight Examiner Course.**

**AA01—Qualification Check**

**A2.3. Formation ("F") Training Events:** Copilots will log applicable events when performing copilot duties.

**F010—Formation Departure and Join-Up.** Includes buddy departure. Procedures specified in AFI 11-2KC-135, Volume 3, Chapter 18, and Technical Order (TO) 1-1C-3. For initial qualification and AC Upgrade training, pilots must accomplish once as lead and once in trail. For continuation training, credit may be taken for all formation positions. Copilots must demonstrate proficiency in copilot duties to receive credit.

**F020—Formation.** Follow procedures from AFTTP 3-1, Volume 22, *Tactical Employment, KC-135/KC-10*, and AFI 11-2KC-135, Volume 3, Chapter 18. At least 30 minutes of formation should be planned and accomplished. Crew commanders must brief that portion of the mission their crew will lead. Accomplish using EMCON 2 procedures (**not applicable for formal schoolhouse**). Accomplish P260 and P270 during each formation flight. Essential radio communications required for safety of flight or failure to accomplish a P260 or P270 does not preclude crediting the event. For continuation training, credit may be taken for all formation positions. Copilots must demonstrate proficiency in copilot duties to receive credit. Log only one F020 per sortie. For Pacer CRAG mission-ready training, the intent is to gain proficiency preflighting and operating TCAS for station keeping. For Pacer CRAG crews, this item is creditable from lead or wing position.

**F030—Large Formation Departure and Join-Up.** Three or more aircraft in cell formation (either KC-135s or a mix with KC-10s). Dual log with F010. Any position is creditable. Must be flow through completion of level-off or join-up, whichever occurs first. Emission options 2 and 3 should be used the entire flight to include preflight, formation departure, and join-up. Does not preclude required air traffic control (ATC) reporting procedures on peacetime training missions or other emissions required for safety of flight.

**F040—Large Formation.** In addition to F020 requirements, accomplish 30 minutes of formation with a flight of three or more aircraft (either KC-135s or a mix with KC-10s). Dual log with F020. Copilots must demonstrate proficiency in copilot duties to receive credit.

**F060—AR Formation.** 15 minutes of AR formation required. Consists of rendezvous and AR procedures prescribed by AR TOs and AFI 11-2KC-135, Volume 3. Every attempt should be made to accomplish once as lead and once as number two in the semiannual training period.

**A2.4. Ground Training ("G") Events:**

**A2.4.1. Responsibilities:**

A2.4.1.1. The wing commander will ensure ground training programs are supported by all agencies involved. Host and tenant units will develop agreements to provide required support for training.

A2.4.1.2. The operations group commander is responsible for establishing and maintaining the academic training program for non-ATS courses. The operations group commander may delegate this responsibility to squadron OPRs. The operations group or squadron OPR will:

A2.4.1.2.1. Appoint primary and alternate instructors for each non-ATS course to be taught.

A2.4.1.2.2. Publish a weekly ground training schedule to include date, time, location, attending students and instructor for each course (ATS and non-ATS) scheduled (AFRC/ANG may publish monthly due to UTA schedule). If a designated instructor for any course is not available, another academic instructor may teach the course. This substitute instructor must be approved either by the squadron commander or designated representative (non-ATS only) and must be given sufficient time to prepare. If either condition is not met, the course will be rescheduled.

A2.4.1.2.3. Utilize MAJCOM, ATS, or unit-developed products or syllabus for all courses as applicable. Local supplements to courseware is encouraged. Units will locally reproduce MAJCOM provided courseware. Also, units will manage and administer computer-based training (CBT) programs and interactive courseware (ICW) products when made available.

A2.4.1.2.4. Develop a procedure to monitor the academic training program for course content, currency of materials, instructor availability, and status of training aids. Recommend to the commander changes to existing courses or additional academic training courses required, based on crewmember feedback.

A2.4.1.2.5. Send recommendations for changes, additions, and deletions of courses through appropriate channels to appropriate MAJCOM with an information copy to HQ AMC/DOT.

A2.4.1.3. Instructor Selection and Training. The operations group commander will select course instructors for non-ATS courses on the basis of professional qualifications and aptitude to teach. Instructors must complete either a formal school or a local training program before assuming instructor duties. Local academic instructor program will follow guidance in AFMAN 36-2236, *Guidebook for Air Force Instructors*.

**NOTE:** An individual who instructs a class receives credit for that academic training requirement.

A2.4.1.4. Records and Documentation. Units will use AF Form 1522, **AFORMS Additional Training Accomplishment Input**, and AF Form 3526, **AFORMS OMR Event Accomplishment Report**. Course instructors will deliver completed forms to the appropriate scheduling and training documentation sections within one duty day after the class is taught. Small arms training will be recorded on AF Form 522, **USAF Ground Weapons Training Data**.

#### **A2.4.2. Course Descriptions :**

##### **G002—Aircraft Marshaling Training and Examination:**

**Purpose.** To ensure crewmembers understand proper marshaling procedures preventing aircraft taxi incidents.

**Description.** Review of AFI 11-218, *Aircraft Operation and Movement on the Ground*, followed by a 20-question test.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Squadron

**G003—Flightline Drivers' Training and Examination:**

**Purpose.** To ensure crewmembers understand proper flightline driving and security procedures. Crewmembers who are required to drive on the flightline must receive this course.

**Description.** Training, examination, and certification to drive vehicles on the flightline according to local procedures. Also, includes a briefing by the flightline constable covering the physical layout of restricted areas and owner or user responsibility for security reporting and detection.

**OPR:**

MAJCOM: HQ AMC/DOA/SFO

Unit: Chief, Airfield Management and Flightline Constable

**G010—Chemical-Biological Warfare Defense (CBWD):**

**Purpose.** To successfully survive and fight in a chemical or biological environment while wearing the ground crew individual protective equipment.

**Description.** Lesson summary: Academic and hands-on training on ground crew protective equipment components (AFI 32-4001, *Disaster Preparedness Planning and Operations* and AMCP 36-4, *Air Base Operability Training*). Units may combine this training with LS04 (Aircrew Chemical Defense Training), provided both aircrew and ground ensembles are fully covered. Aircrew specific procedures will be covered by Aircrew Life Support personnel. Ground crew protective equipment will be covered by instructed by qualified CE readiness personnel under the auspices of the CE Readiness Flight.

**OPR:**

MAJCOM: HQ AMC/CEO

Unit: Civil engineering readiness flight

Curriculum development: HQ AFCESA/CEX, local civil readiness flight

Instructor: Qualified CE readiness instructor

**G025—Aircraft Field Trip:**

**Purpose.** To familiarize students with all crew stations and functions of other crewmembers to facilitate proper crew coordination.

**Description.** Instructors determine field trip content based on the experience and training status of the student. Instructors will discuss or demonstrate crewmember responsibilities during emergency conditions.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: Squadron

**Additional Information.** Must be accomplished before initial flight in the KC-135 or in a different mission or series of a -135 aircraft. May be accomplished in conjunction with G020, Egress Training.

Initial qualification navigators and BOs must install nose gear down lock pin from lower nose compartment through observation window.

**G030—SIOP Command and Control Procedures:**

**Purpose.** To ensure positive control (PC) crewmembers understand command and control procedures as they relate to the SIOP mission.

**Description.** Practice in SIOP message decoding and operational reporting procedures as outlined in EAP-STRAT, volume 5. Includes self-study time, emergency action message (EAM) practice tape tests and a EAM tape evaluation with an open-book written test on concepts from EAP-STRAT, volume 5.

**OPR:**

MAJCOM: HQ AMC/DOOC

Unit: Command post

Training aids and media: PC training material as required

Instructor: Command post personnel designated in writing as a CCP instructor

**G031—Initial SIOP Command and Control Procedures:** Overview of SIOP command and control procedures as outlined by EAP-STRAT, volume 5, and will include a review of operational reports in annex A to EAP-STRAT, volume 6.

**G033—Unit Alert Procedures:**

**Purpose.** To ensure newly assigned crewmembers understand local procedures, policies, and requirements associated with Alpha and Bravo alert duty.

**Description.** Course includes required professional gear, crew rest requirements, alerting procedures, alert area entry and exit procedures, standard maintenance procedures, alert response routing, specialized briefing requirements, aircraft acceptance and cocking, uncocking and recocking, scramble procedures, daily alert preflight, and alert postures. Scramble and alert start procedures require a tour of the physical layout of local alert taxi routes for launch, increased posture, and exercise recoveries. Emphasis is given to hazards of taxi obstacles, sharp turns, excessive taxi speed, adverse weather, and darkness. Covers all local base and wing directives concerning local and satellite alert operations.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: Squadron

**G034—Minimum Interval Take-Off Procedures:**

**Purpose.** Review of procedures and techniques used to launch the maximum number of aircraft in a minimum time interval to improve the survivability of the KC-135 force in an emergency war order situation.

**Description.** Instructor-lead discussion on the aerodynamic differences between a 12- to 15-second MITO and a 30-second formation takeoff, to include local area procedures.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Curriculum Development: ATS contractor and squadron

Training aids and media: CBT (when available) and MITO instructor guide

**G035—PLZT Goggle Training:**

**Purpose.** Familiarize crews with proper handling, donning, testing and storage of EEU-series PLZT goggles.

**Description.** On modification of their helmet, and with the assistance of a life support technician, each crewmember will demonstrate how to properly handle, don, test and store the PLZT goggles to include locating and installing the power cables. In addition, crews will be familiar with all contents of the flash blindness kits.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Squadron life support

Training aids and media: PLZT goggles, modified helmet

Instructor: Life support technician

**G036—Flash Blindness and Thermal Protection:**

**Purpose.** Familiarize crews with proper handling and installation of thermal curtains and donning the eye patch or gold goggles, if available.

**Description.** Each crewmember will demonstrate where to locate and how to properly handle and install the thermal curtains and don the eye patch or gold goggles, if available.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Squadron

Training aids and media: CBT and instructor led demonstration in the aircraft.

Instructor: Squadron instructor

**G040—SIOP Study:**

**Purpose.** To provide certified crewmembers the information necessary for the effective and successful completion of the unit's SIOP mission.

**Description.** This course will review USSTRATCOM and AMC SIOP procedures. The lesson should be based on any procedural changes that have been implemented. Crews should be given a period of crew-study to assist in strengthening weak areas. Staff specialists should be available to answer crewmember questions. The unit's SIOP study should cover the overall SIOP with emphasis on the unit's SIOP mission.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: XP

Instructors: XP and applicable wing staff agencies as required.

**Additional Information.** All crewmembers in units with a primary or secondary SIOP DOC statement will receive this training.

**G041—Unit Mission Briefing.** Briefing by unit operations plans on sortie requirements and operations procedures applicable to the unit's mission

**G060—Tactics:**

**Purpose.** To provide the crewmember with information necessary for the effective and successful completion of the unit's assigned employment mission.

**Description.** This course will include both specialized briefings and individual or crew study of all areas pertinent to the completion of the unit's assigned tasking. The lesson will be based on information contained in AFTTP 3-1, volumes 1, 2, and 22, and any documents pertinent to completing the unit's assigned mission. Staff specialists will be available during periods of crew self-study to assist in strengthening weak areas and answering any questions. Each unit's initial tactics training should be tailored to unit's mission tasking, however, as a minimum, the course should cover the following:

<b>Unit Mission Brief:</b>	<b>Composite Force Structure:</b>
SIOP (if applicable)	Operations theory
Conventional employment	Threat warning and information dissemination
Tasking under regional OP plans	Close control versus broadcast (bullseye) control
Peacekeeping operations	High value airborne asset (HVAA) protection
<b>Aircraft Systems:</b>	Low level navigation and AR (if required)
Have Quick	Large formation operations
KY-58	<b>Exercise and Conflict Lessons Learned:</b>
Unit specific equipment (NVG, etc.)	Unit lessons learned
<b>ATO and SPINS:</b>	MAJCOM and theater lessons learned
ATO breakout and use	<b>Threat System Description and Capabilities:</b>
SPIN usage	Surface-to-air and air-to-air systems( including
Use of code words	Blue and gray threat)
IFF procedures	Threat employment doctrine
<b>Aircraft Aerodynamics:</b>	<b>SAFE PASSAGE:</b>
Energy Management	Friendly air defense systems
Fighter maneuvers against AMC aircraft	Authentication procedures
Tactical maneuvering against threat	Airspace control and air defense measures
Compare threat aircraft to AMC aircraft	Unit and theater specific SAFE PASSAGE procedures
<b>Defensive Maneuvering:</b>	<b>Tactical Deception:</b>
Long range and radar missile defense	Basic principle and concepts

Short range IR and guns	AMC aircraft participation and involvement
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**OPR:**

MAJCOM: AMWC, HQ AMC/DOT

Unit: Tactics Branch

Training aids: As required (video: Safe Passage Procedures for Aircrews)

Instructors: Tactics instructors and applicable wing staff agencies, as required

**Additional Information.** Written criterion tests (as required) may be given individually or as a crew effort.

**G070—Aircrew Intelligence Training:**

**Purpose.** Enhances crewmember understanding of the threat to unit assets and directly contributes to mission success and aircrew survival. Includes unit mission intelligence brief. Training will be conducted by intelligence personnel in coordination with tactics officers, base judge advocate general and security police, as appropriate, to meet aircrew training requirements. This 3-hour annual training requirement may be separated into two 1.5 hour sessions taught semiannually. Credit event on completion of all required training.

**Description.** See AMCI 14-101, *Unit Intelligence Management*. (AFI 14-103, *Threat Recognition Training Program*).

**OPR:**

MAJCOM: HQ AMC/INF

Unit: Intelligence officer, JA, SF

Curriculum development: Unit

Instructor: Qualified intelligence instructor.

**Additional Information.** "Laws of armed conflict" (LOAC) and "protection from terrorism" (PFT) may be taught in conjunction with Aircrew Intelligence Training (requires scheduling additional time beyond 3 hours scheduled for AIT). Coordinate with the staff judge advocate for LOAC training and the security police for PFT training. The unit intelligence officer may administer an aircrew intelligence related test to determine if additional training is required.

**G080—Communications Procedures:**

**Purpose.** To ensure crewmembers possess a thorough knowledge of all communication and COMSEC requirements.

**Description.** This course includes detailed discussion of equipment operation, procedures, and training requirements applicable to peacetime and wartime communications operations. The following subjects will be covered:

Authentication procedures	SIOP
IFF/SIF codes and equipment operation	AFSIR

HAVE QUICK

KY-58, SECURE VOICE Radio

L-Band SATCOM

Other communications information pertinent to unit

Flight Information Handbook

AMCH 33-1, *Aircrew Communications Handbook*

COMSEC user requirements

**OPR:**

MAJCOM: HQ AMC/DOT/DOA/CPSS/STSP

Unit: ATS contractor, Combat Crew Communications, COMSEC responsible officer (CRO), and wing, operations group, and squadron training personnel.

Training Aids: CBT only fulfills requirements for COMSEC handling procedures. CSO will ensure classified portion is briefed during quarterly SIOP study. Do not log complete in AFORMS until both parts are complete.

Instructor: Wing, operations group, and squadron training personnel if instructor led.

**G082—KY58 Radio Academics.****G090—Anti-Hijacking:**

**Purpose.** To provide aircrews with training on US Air Force policy and guidance on preventing and resisting aircraft piracy (hijacking).

**Description.** This training will consist of a review of AFI 13-207 and a criterion test (AFI 13-207, *Preventing and Resisting Aircraft Piracy [Hijacking]*).

**OPR:**

MAJCOM: HQ AMC/DOT.

Unit: ATS contractor and squadron.

Curriculum development: As required.

Training aids: CBT fulfills requirement. May use AFI 13-207 and unit developed criterion test.

Instructor: Unit designated instructor if instructor led.

**G100—Laws of Armed Conflict:**

**Purpose.** To ensure crewmembers understand the LOAC.

**Description.** This training includes the principles and rules of the LOAC for aircrews to carry out their duties and responsibilities according to the Hague Convention IV of 1907, the 1949 Geneva Conventions, and status of forces agreements.

**OPR:**

MAJCOM: HQ AMC/JAG

Unit: ATS contractor and JA

Training aids: CBT fulfills requirement. May be instructor led.

Instructor: JA or intelligence officer if instructor led.

**Additional Information.** Due to the different mission requirements, units have the option of putting increased emphasis on those areas in the course of particular interest to them. During wartime or contingency operations, the intelligence officer may brief LOAC with prior coordination between JA and intelligence. Intelligence is only responsible for presenting the JA's scripted briefing.

**G110—Force Protection Requirements:**

**Purpose.** To provide detailed guidance for reporting and preventing terrorist activity.

**Description.** This course covers information on threat conditions (THREATCON), security reporting, safeguarding aircraft and COMSEC equipment, and individual responsibilities and protective measures. (AFI 31-210, *The Air Force Antiterrorism (AT) Program*).

**OPR:**

MAJCOM: HQ AMC/SF

Unit: ATS contractor and Security Police Squadron

Training Aids: CBT fulfills requirement. May be instructor led.

Instructor: Flight constable or resource protection NCO (if instructor led).

**G120—ISOPREP Review:** Review of isolated personnel report (ISOPREP) card

**Purpose.** To generate, review, and ensure accuracy of crewmembers isolated personnel report (ISOPREP) card.

**Description.** Currency expires 180 days from date of accomplishment (AFDD 34, *Combat Search and Rescue Operations*).

**OPR:**

MAJCOM: HQ AMC/IN

Unit: Intelligence officer

**G130—Instrument Refresher Course (IRC):**

**Purpose.** To ensure pilots and navigators possess sufficient knowledge of all applicable directives, procedures, and techniques to assure safe and professional instrument flying.

**Description.** Guidance for development of unit IRC programs, including topics and subject outlines, course length, instructor prerequisites, and methods of instruction are contained in AFMAN 11-210, Instrument Refresher Course Program. IRC is accomplished according to AFI 11-2KC-135, Volume 2 and applicable MAJCOM Supplement. For those weapon systems that receive contractor provided IRC on an annual basis, log IRC upon completion of the ATS course. However, the IRC test must be completed within the checkride eligibility period. (AFMAN 11-210, *Instrument Refresher Course (IRC) Program*).

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Operations group commander

Curriculum development: Air Force Flight Standards Agency (AFFSA)

Training aids: 436th Training Squadron (ACC) Dyess AFB, Texas, Program 1115, Instrument Refresher Course (instructor guide, student guide, 35mm slide presentation). (**NOTE:** Although this program is an ACC product, it can be modified, based on the unit mission, for application all weapon systems.) USAF Core IRC available from HQ AFFSA at URL <http://www.aon.af.mil/affsa/irc.htm> fulfills part of AFMAN 11-210 IRC requirements. Additional support is available from HQ AMC/

DOT. Unit program development assistance can be obtained by contacting HQ AFFSA, as part of their IRC Roadshow.

**G190—Aircraft Servicing:**

**Purpose.** To ensure all crewmembers are familiar with the procedures necessary to service their aircraft at a post-SIOP recovery base when qualified maintenance support is not available. Completion of this course does NOT qualify crews to perform maintenance tasks, but does allow them to assist qualified maintenance personnel in ground refueling operations.

**Description.** Classroom instruction or CBT covering servicing requirements of the aircraft, safety, approved fuels, lubricants and fluids, frequency of servicing, and aircraft servicing locations and requirements. Course includes field trip for hands-on demonstration by qualified maintenance personnel or a unit instructor boom operator who has completed the Maintenance Qualification Training Program (MQTP) for servicing. **For USAFE CBT fulfills requirement.**

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Training aids and media: CBT or classroom instruction.

Instructor: Qualified maintenance personnel/unit instructor boom operator who has completed MQTP.

**G150—TERPS.** Seminar for boom operators providing instruction to safely monitor all instrument departures and approaches.

**Purpose.** Provide boom operators with the knowledge and skills necessary to monitor the briefed departure and approach and advise the pilots of any deviations that would compromise safety.

**Description.** Training for boom operators to monitor navigation equipment for correct settings and pilots instruments to ensure the departure and approach procedures are being accomplished as briefed. Course includes:

A breakdown of standard DoD approach plates

Explanation of aircraft navigation equipment

Departure and terminal arrival procedures

Instrument approach types

The initial approach portion to the final approach portion

Final approach procedures

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: ATS contractor and squadron

Training Aids: CBT fulfills requirement

**G155—Supervised FLIP Study and International Civil Aviation Organization (ICAO) Procedures:**

**Purpose.** Instructor-led review of flight rules and procedures in overseas areas of operation. Course is appropriate for predeployment training.

**Description.** Instruction on the location of information, flight rules, and procedures in overseas areas. Includes a review of Foreign Clearance Guide use, organization, and content. Also includes review of FLIPs in relation to ICAO procedures. Supplemental information on Jeppesen publications, summary of airfield restrictions, and aircrew border clearance guide is also presented.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Training aids and media: G607/G155 instructor guide with listed classroom aids and graphics.

**G160—Overwater Navigation Procedures:**

**Purpose.** To ensure navigators understand overwater navigation procedures and techniques, as well as inherent equipment limitations, to successfully accomplish extended overwater navigation missions.

**Description.** Course provides navigational techniques, equipment limitations, and safety considerations to be used in overwater navigation. Essential elements of overwater mission planning, such as ICAO procedures, FIRs, overwater track system, reporting and fix requirements will be covered.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Training aids and media: CBT or instructor led discussion/CTD. CBT fulfills requirement.

**Additional Information.** If instructor led, instructors have the option to use a CTD exercise as an evaluation or criterion test.

**G161—Polar Navigation Procedures:**

**Purpose.** To ensure navigators have sufficient knowledge of polar navigation procedures to deploy to and navigate in polar regions.

**Description.** Course provides navigators with a thorough review of polar navigation procedures and techniques, celestial considerations, equipment operations and limitations, and inflight operations. An associated CTD requires working knowledge of polar chart projections, polar and subpolar grid formulas, chart transition, and high latitude celestial computations.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Training aids and media: CBT, G161 Instructor Guide. CBT fulfills requirement.

**G170—Celestial Training Device:**

**Purpose.** To provide navigators practice in celestial navigation procedures, pacing, and computations on a real-time ATD.

**Description.** The CTD consists of a keyboard, CRT, printer, and microcomputer. The CTD program simulates worldwide sun, moon, and planet data for the performance of day and night celestial navigation. Continuation training requirements call for all navigators to complete a minimum of one CTD per year. Ground Training Level 3 navigators will complete at least one per semiannual period. Units may be more restrictive in their local instructions.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: Squadron

**G171—Polar Grid CTD Profile.**

**G172—Twilight CTD Profile.**

**G173—Southern Latitude CTD Profile.**

**G174—Unit Option CTD Profile.** CTD profile determined by unit training managers.

**G175—Table Top Navigation and Rendezvous Trainer.**

**G182—Hazardous Cargo:**

**Purpose.** To familiarize crewmembers with procedures and restrictions when carrying hazardous materials.

**Description.** Provides instruction reviewing AMC aircrew hazardous materials procedures and AFI 11-204. (AFJMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments*; AFI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Materials*). The syllabus includes:

Hazardous Classification	Aircraft Loading and Passenger Movement
Packaging	Tactical and Contingency Airlift
Marking and Labeling	Aircrew Responsibilities
Certification	

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: ATS contractor

Training Aids: CBT

**G183—Floor Loading:**

**Purpose.** To provide BOs instruction in loading non-palletized cargo on KC-135s not fitted with cargo roller systems.

**Description.** Training consists of CBTs, a cargo loading exercise, manual DD Form 365-4, **Weight and Balance Clearance Form F—Tactical**, computation, and emergency procedures review. Planned cargo load plans will be loaded on the aircraft and critiqued by the instructor. Aerial refueling

program managers may exempt highly experienced boom operators from the aircraft loading exercise; boom operators assigned to HQ AMC agencies and NAF/DOV are also exempt from this requirement.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Training aids and media: Load plans, CBT

Instructor: Qualified cargo loading instructor

**G184—Palletized Cargo Loading:**

**Purpose.** Provide BOs instruction in loading palletized cargo on KC-135s fitted with the cargo roller system.

**Description.** Training consists of classroom instruction and a cargo loading exercise. Topics include roller system installation and removal, cargo limitations and restrictions, loading and unloading procedures, ATOC communications and coordination, passenger considerations and customs procedures.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Training aids and media: CBT fulfills requirement

Instructor: Qualified cargo loading instructor

**G190—Aircraft Servicing:**

**Purpose.** To ensure all crewmembers are familiar with the procedures necessary to service their aircraft at a post-SIOP recovery base when qualified maintenance support is not available. Completion of this course does NOT qualify crews to perform maintenance tasks, but does allow them to assist qualified maintenance personnel in ground refueling operations.

**Description.** Classroom instruction or CBT covering servicing requirements of the aircraft, safety, approved fuels, lubricants and fluids, frequency of servicing, and aircraft servicing locations and requirements. Course includes field trip for hands-on demonstration by qualified maintenance personnel or a unit instructor boom operator who has completed the Maintenance Qualification Training Program (MQTP) for servicing.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Training aids and media: CBT or classroom instruction.

Instructor: Qualified maintenance personnel/unit instructor boom operator who has completed MQTP.

**G210—Alert Start Procedures:**

**Purpose.** To ensure pilots are able to perform the procedures required to quick start an aircraft cocked on alert status.

**Description.** Course covers the physical characteristics, operating procedures, checklists, and cockpit indications of normal and abnormal APU alert starts. Pilots will review hazardous area limits during alert starts.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor

Training Aids: CBT fulfills requirement.

**Additional Information.** G210 must be completed prior to the initial accomplishment of P290, Alert Start. Initial accomplishment of G210 may be done in conjunction with G033, Alert Procedures.

**G215—PACER CRAG Continuation Training.** CBT designed for Pacer Crag continuation training.

**G222 through G227—Aircraft Systems Refresher:**

**Purpose.** To provide an annual review of critical aircraft systems in conjunction with systems refreshers accomplished in the ATD.

**Description.** Lessons cover hydraulic system (G222), flight controls (G223), fuel system (G224), electrical system (G225), environmental system (G226), and engines, propulsion system and APU (G227). In addition, BOs have special lessons in electrics and fuel systems (G228) and AR system (G229).

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor

Training aids and media: CBT fulfills requirement.

**Additional Information.** Pilots must complete systems refresher courses G222-G227. Navigators need complete only the APU portion of G227. BOs must complete G228-G229 and the APU portion of G227.

**NOTE:** G222-G227 are required annual refresher training CBTs in aircraft systems knowledge for all pilots, whether or not a simulator is available.

**G230—Crew Resource Management (CRM) Refresher:**

**Purpose.** Mission-specific continuation CRM training conducted according to AFI 11-290.

**Description.** Reinforces initial CRM training through an academic review of the common core subjects (according to AFI 11-290) with specific emphasis on an annual refresher topic.

OPR:

MAJCOM: HQ AMC/DOT

Unit: ATS contractor

**Additional Information:** G230 must be accomplished before G240, CRM Simulator (N/A for ACC). Completion of any CRM prework is required prior to attending CRM refresher training. Prework will be distributed to organizations in sufficient time and supply to allow completion. USAFE: Contractor CRM training fulfills this requirement.

**G231—Initial Crew Resource Management (CRM):**

**Purpose.** Aircraft and crew-specific CRM training conducted according to AFI 11-290, *Cockpit/Crew Resource Management Program*.

**Description.** Introduces common core subjects (according to AFI 11-290). If initial CRM is not accomplished at the formal school, it must be accomplished within 1 year of reporting to home station. Dual log with G230 for AFORMS tracking purposes.

OPR:

MAJCOM: HQ AMC/DOT

Unit: ATS contractor

**Additional Information.** Completion of any CRM prework, if applicable, is required prior to attending CRM training. Prework will be distributed to organizations in sufficient time and supply to allow completion. Dual log accomplishment of G231 with G230 for AFORMS tracking purposes. **USAFE: Contractor CRM training fulfills this requirement.**

**G232—Instructor and Evaluator CRM.** One-time requirement taught during instructor upgrade.

**G234—FSA/CAS.** Instruction on the operation of the FSA/CAS in the E model. Available on CBT.

**G240—Crew Resource Management (CRM) Mission Oriented Simulator Trainer (MOST) Simulator:**

**Purpose.** To provide hands-on application of classroom-presented CRM refresher concepts through CRM simulator training addressing human factors issues in a realistic mission scenario.

**Description.** CRM Mission Oriented Simulator Training conducted according to AFI 11-290.

OPR:

MAJCOM: HQ AMC/DOT

Unit: ATS contractor

**Additional Information.** Should be accomplished in conjunction with G230, CRM Refresher. Optimal scheduling of CRM simulator is not later than 5 days following completion of G230. **USAFE: Contractor CRM training fulfills this requirement.**

**G244—Crew Coordination.**

**Purpose.** To improve non-pilot crewmembers knowledge of standard indications and settings for the pilot's instruments and flight controls for takeoff, approach and landing.

**Description.** Course details the proper settings for trim, spoilers, flaps, brakes, etc., and proper indications for altimeters, starter switches, fuel panel, etc., for takeoff, approach, and landing phases. Also includes required briefing items.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor

Training Aids: CBT

**Additional Information.** Course is available on CBT and is available for units as a unit directed training event if desired.

**G252-G256—Refresher Simulators:**

**Purpose.** To review annually normal, abnormal, and emergency procedures; aircraft performance; and aircraft systems.

**Description.** ATS contractor-administered simulator courses for pilot and copilots. Simulators accomplished annually: G252, Electrics; G253, Hydraulics, G254, Engines, G255, Fuels, and G256, Pneumatics/Aerodynamics.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor

**Additional Information.** Completion of AC Upgrade and CFIC sims are creditable for continuation training.

**G257—KC-135E Simulator.** Duel log with G990/G991.

**G258—Boom Operator Part Task Trainer (BOPTT).** Training emphasizing boom operator AR training.

**G258A-E--Pacer CRAG Differences Training OFT Profiles.** Five profiles beginning with basic and normal procedures and progressing through more challenging scenarios, culminating in a CRM period in OFT 5. Boom operators attend the second (B) and fifth (E) OFT periods.

**G259—Requalification Simulator.**

**G260—Instrument Simulator:**

**Purpose.** To review annually the instrument flying procedures found in AFMAN 11-217 with special emphasis on ICAO instrument flying procedures.

**Description.** ATS contractor administered simulator courses for pilots and copilots. Includes pre-attendance study materials and prebrief. Profile includes ICAO low altitude instrument approaches, fix-to-fix navigation, and holding pattern and procedure turn entries.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS Contractor

**G270—Tactics Simulator:**

**Purpose.** To practice tactical maneuvers applicable to the KC-135 in the simulator prior to attempting maneuvers in flight.

**Description.** Units should tailor the simulator to their specific taskings. Prebrief should discuss threat briefs, ATOs and SPINs, mission planning, and threat awareness and avoidance. Profile includes maneuvers described in AFI 11-2KC-135, Volume 3, Chapter 22. Maneuvers include but are not limited to: retrograde and extension maneuvers, IR missile defense and gun jink maneuvers, combat departures and arrivals, and toboggan descent to low altitude AR.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: Tactics program manager

Instructor: Unit tactics instructors

**Additional Information.** Because no specific threat information is required for this training, the simulator is unclassified. Tactic simulators can only be given during unit directed (i.e., government use) periods and should not interfere with ATS contract training. Instruction will be given by tactics instructors, but actual simulator operation will be done by the ATS contractor. A full crew complement is highly recommended to enhance crew coordination, aircrew survival, and overcome systems degrades. **NOTE:** Not required for units without a simulator.

**G280—Small Arms Training:**

**Purpose.** To train crewmembers in successful engagement of enemy targets within the range and capabilities of their assigned weapon.

**Description.** Academics and firing range exercise; includes use of force, live fire, or firearms simulator training; simulator training may not be used for initial training (AFI 36-2226, *Combat Arms Training and Maintenance (CATM) Program*, AFI 31-207, *Arming and Use of Force by Air Force Personnel*).

**OPR:**

MAJCOM: HQ AMC/SFX

Unit: Security police squadron (SF)

Instructor: Qualified SF combat arms instructor

**Additional Information.** Course will meet requirements outlined in AFI 36-2226 and includes use of force training from AFI 31-207.

**G290—AMC Airport Qualification Program (AQP):**

**Purpose.** Aircrews are required, for global operations, to familiarize themselves with worldwide destination airfields. Although this familiarization should be accomplished prior to every mission, the squadron commander will determine the need and associated currency requirement for logging G290 prior to departure. (See the applicable AFI 11-XXXX volumes for additional information.)

**Description.** Familiarization includes applicable review of: FLIP documents, AMC Summary of Airfield Suitability and Restrictions Report (ASRR), AQP video tapes (24 audiovisual documentaries of

168 select worldwide airports), DoD Foreign Clearance Guide, and notices to airmen. A review of the Theater Indoctrination Program is also included when applicable for deployment or as directed by unit commanders. The commander, operations officer, or their designee's signature on the flight orders signifies the aircrew has accomplished all required pre-departure training.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Squadron or airfield management (reference material and video tapes)

Instructor: Self-paced

**Additional Information.** The squadron commander will determine the need and the associated currency requirement for accomplishing G290 prior to deployment. The commander, operations officer, or their designee's signature on the flight orders signifies the aircrew has accomplished all required pre-deployment training.

**G300—Hydroplaning:**

**Purpose.** To teach pilots how to react to hydroplaning situations on wet runways.

**Description.** Course describes how to recognize hydroplaning on wet runway surfaces and what actions to take for braking.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor

Training aids and media: CBT

**Additional Information.** Course is available on CBT and is available for units as a unit directed training event if desired.

**G310—Weather Avoidance Radar:**

**Purpose.** To teach pilots and navigators how to tune radar for weather detection and avoidance.

**Description.** In-depth review on procedures and techniques for optimum tuning of the radar indicator for thunderstorm detection.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor

Training aids and media: CBT

**Additional Information.** Course is available on CBT and is available for units as a unit directed training event if desired.

**G320—INS/DNS:**

**Purpose.** To teach pilots how to operate and understand the INS/DNS.

**Description.** In-depth review on procedures and techniques for operating the INS/DNS.

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor

Training aids and media: CBT

**Additional Information.** Course is available on CBT and is available for units as a unit directed training event if desired.

**G801—Initial SOAR Training.** In-depth discussion of AFI 11-2KC-135, Volume 3, Chapter 27, special operations AR procedures.

**G802—Recurring SOAR Ground Training.** Recurring special operations training to include communications, AR, and operations security procedures.

**G803—NVG Training and Qualification.** Instruction and qualification on the operation, care, and use of night vision goggles.

**G804—Ground Communications Training.** Instruction on all phases of SECURE VOICE communications used in SOAR. Includes keying, over the air rekeying, and operation of SECURE VOICE equipment.

**G805—SOAR Missed Rendezvous Procedures.** Instruction on procedures in AFI 11-2KC-135, Volume 2, Chapter 27, for emergency or missed rendezvous.

**G990—AFRC/ANG Refresher Sim A.** First of two required sims for AFRC/ANG pilots. Log when complete in lieu of G252, G253, G254, G255, or G256.

**G991—AFRC/ANG Refresher Sim B.** Second of two required sims for AFRC/ANG pilots. Log when second sim is complete in lieu of G252, G253, G254, G255, or G256.

**H140--Anthrax (Initial Series)**

H141--Anthrax (Recurrent)

**A2.5. Life Support (LS) Training Event Descriptions.****LS01—Local Area Survival.**

**Purpose.** One time event conducted prior to the first flight at home station to familiarize aircrew members with local equipment and rescue procedures.

**Description.** Unit specific equipment (i.e. different variants of the same airframe; EC-135/KC-135) and local rescue procedures may be peculiar to home station or local training area. See AFI 11-301 and MAJCOM the supplement (**For USAFE, reference USAFE 11-301**).

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**Additional Information.** Each unit is responsible for tailoring training to meet unit needs.

**LS02—High Threat Combat Survival Training (CST):**

**Purpose.** To provide aircrews with the information necessary to survive in any peacetime or wartime environment.

**Description.** Aircrew members demonstrate their ability to operate LSE, employ survival/evasion techniques, and rescue procedures under simulated combat conditions. Course satisfies self-aid and buddy care requirements of AFI 36-2238, *Self-Aid and Buddy Care Training*. See AFI 11-301 for course description and MAJCOM supplement (**For USAFE, reference USAFE 11-301.**)

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**Additional Information.** Each unit is responsible for tailoring training to meet unit needs, IAW AFI 36-2209, *Survival and Code of Conduct Training*. CST “hands on” requirement may be met by classroom or field training at unit commander discretion based on unit mission. Course length will not exceed one training day. Units may schedule aircrew members to complete both CST and WST events in a single training day.

**LS03—Water Survival Training (WST):**

**Purpose.** To provide aircrews the opportunity to demonstrate their ability to use weapon system specific flotation devices and LSE components available during an overwater emergency.

**Description.** Crew members will demonstrate the ability to employ water survival techniques and rescue procedures. Survivor needs using water-related equipment, accessories, and procedures will be stressed. An emphasis will be placed on the appropriate use of passenger support equipment and the proper care of passengers during a survival situation. See AFI 11-301 and MAJCOM supplement (**For USAFE, reference USAFE 11-301.**)

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**Additional Information.** Each unit is responsible for tailoring training to meet unit needs. WST “hands on” requirement may be met by classroom or pool training at unit commander discretion based on unit mission. Course length will not exceed six hours. Units may schedule aircrew members to complete both WST and CST in a single training day.

**LS04—Aircrew Chemical Defense Training (ACDT):**

**Purpose.** Provide training to all crew members stationed in or subject to deployment or operations through a chemical threat area (CTA).

**Description.** Academic and equipment training in which the aircrew member demonstrates and performs donning, doffing, buddy dressing procedures using either the first generation ACDE or Aircrew Eye/Respiratory Protection (AERP) equipment and Contamination Control procedures. Donning, doffing of equipment, and decontamination during exercises fulfills training requirement. Units may combine this training with G010 (Chemical-Biological Warfare Training), provided both aircrew and ground ensembles are fully covered (AFPD 11-3, AFI 11-301). See AFI 11-301 for course description and MAJCOM supplement (**For USAFE, reference USAFE 11-301.**)

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**LS05—Egress Training with ACDE:**

**Purpose.** Provide aircrews with the training required to safely egress assigned aircraft while wearing ACDE.

**Description.** Each aircrew member must demonstrate the ability to safely egress while wearing ACDE. Training must be accomplished at least once in each assigned MDS aircraft. Accomplishing this training also satisfies the requirements in LS08. See AFI 11-301 for course description.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**LS06—Life Support Equipment (LSE):**

**Purpose.** Provides training on the use of available life support equipment and the principles, procedures, and techniques needed to permit survival in varying climatic conditions and environmental regions based on the unit mission.

**Description.** The class is conducted as part of the training for initial qualification students. LSE for continuation training will be taught as part of WST, CST and Egress. See AFI 11-301 and the MAJCOM supplement for course description.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**LS08—Egress Training:**

**Purpose.** To ensure all crew members can explain ground and inflight egress procedures, are able to identify and document equipment discrepancies, can perform required egress procedures, and are able to identify, locate and utilize appropriate emergency equipment. Also, to ensure all crew members understand the operation of fire extinguishers located in the aircraft and fire bottles positioned outside the aircraft. The course should also address egress difficulties associated with the Aircrew Chemical Defense Ensemble (ACDE) and emergency contamination control when combined with LS05.

**Description.** Training will include discussion of primary and secondary air and ground egress exit points. If unit elects to conduct training at the aircraft, practice “hands-on” egress scenarios to enforce the importance of aircrew coordination actions required for emergency situations. See AFD 11-3, *Life Support*, AFI 11-301, *Life Support Program*, AFOSH Standard 127-100 and applicable MAJCOM guidance.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Squadron

Curriculum development: Unit

Instructor: Certified aircrew and life support instructors will provide egress training to all aircrew and operational support crew members. Fire department personnel will provide fire extinguisher training.

**Training aids:**

CBT (for continuation training)

Fire extinguisher and fire bottle

Aircrew Eye/Respiratory Protection (AERP) equipment (if unit-equipped)

**Additional Information.** Accomplish initial egress training in the aircraft. CBT may be used to accomplish continuation training (with the exception of the fire extinguisher and fire bottle training) Actual performance of ground emergency egress procedures at the aircraft is desired. Scheduling will coordinate with maintenance to ensure aircraft availability for training. An appropriate maintenance stand and safety equipment must be immediately below windows and hatches being used. A safety observer or instructor must be positioned on the maintenance stand to assist as necessary. Contact the fire department for extinguisher training.

**LS10—Hanging Harness Training (HHT):**

**Purpose.** To ensure aircrew members can perform critical post egress and parachute malfunction procedures while suspended under the parachute canopy.

**Description.** Aircrew members demonstrate the ability to modify, steer, and land parachutes. This training is required for all aircrew members who carry parachutes aboard their aircraft. Hanging harness may be demonstrated in lieu of suspending each aircrew member as determined by the unit commander. See AFI 11-301 and MAJCOM supplement for course description.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**LS12—Hanging Harness Training with ACDE.** Dual log with LS10.

**Purpose.** To ensure aircrew members can perform critical post egress and parachute malfunction procedures while suspended under the parachute canopy.

**Description.** Aircrew members demonstrate the ability to modify, steer, and land parachutes while wearing ACDE. Hanging harness may be demonstrated in lieu of suspending each aircrew member as determined by the unit commander. This training is required for all aircrew members who carry parachutes aboard their aircraft. This is a one-time event.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**A2.6. Mission-Specific ("M") Training Events:**

**M001—Sortie.** Log one M001 for each AFTO 781 sortie flown.

**M005—Dual Qual Sortie.** Use this event to track sorties in the secondary aircraft. The secondary aircraft is the aircraft less frequently flown.

**M010—Proficiency Sortie.** The following requirements are listed by crew position:

Pilots—Must be accomplished with an IP (formal school instructors are exempt from the IP requirement). IPs should accomplish their M010 requirements with another IP on board the aircraft. Once the exercise commences, it should not be disrupted for any other type of training. A minimum of 1.5 hours (*or as specified in MAJCOM supplement*) should be scheduled for this event. As a minimum, a pilot proficiency sortie will consist of the following:

Review of boldface emergency procedures

Three instrument approaches

Missed approach

VFR traffic pattern (weather permitting)

In addition, the following should be accomplished when available and applicable:

Holding pattern or procedure turn (to include entry)

Circling approach

Simulated engine-out landing (if applicable to aircraft type and weather permitting, not applicable to copilots)

Simulated engine-out go-around or missed approach (if applicable to aircraft type and weather permitting, not applicable to copilots)

Partial flap landing (if applicable)

Engine Failure Take-Off Continued (AFRC/ANG E/D model qualified pilots only)

If circumstances prevent completion on one sortie, credit may be taken after a second IP-supervised sortie, provided the combined activity fulfills the intent of this paragraph. Instructors should tailor each M010 to the individual pilot's needs. Particular emphasis should be placed on simulated systems malfunctions, simulated-engine out operations and instrument procedures.

Communication system operators (CSO)—May credit a proficiency sortie when they complete predeparture activities applicable to the mission being flown and accomplish all normal tasks through post-mission debriefing.

Boom operators—Must accomplish preflight through engine shutdown checklist items and an AR, channel sortie, or cargo load operations. Instructor and examiner boom operators may credit proficiency sortie (M010) while instructing or evaluating.

Inflight passenger service specialists—Must accomplish duties associated with their crew position.

**M020—Unit Specific Training Sortie.** Unit defined sortie to accomplish mission specific training events. The following is a suggested listing of events that can be used on a M020:

Any individual training event (approaches, landings, ARs)

Exercise training (RED FLAG, MAPLE FLAG)

US Navy or Marine Corps drogue training

Practice mobility training

Night formations

Large formations

Night receivers and refueling

Special mission tasking

Special operations tasking

Tactical navigation training

Composite exercises

**M025—Supplemental Training Sortie.** Training sortie that provides transportation of personnel or cargo aboard -135 aircraft and results in the expenditure of additional flying hours through modification of a scheduled training sortie. All supplemental training sorties must be coordinated and approved by the OG Commander.

**M030—Overseas Sortie.** Sortie that includes take-off or landing outside the 48 conterminous states of the United States. Primary crew and crewmembers performing instructor or evaluator duty log accomplishment of M030. This event does not apply to units that are permanently based overseas.

**M200—Precrew Training Sortie (CCTS Only).** Training sortie designated to permit student to observe duties and responsibilities. These sorties should be accomplished before starting regular aircrew flying training phase.

**M250—Silent Launch Procedures.** Procedures required to generate and launch aircraft in a radio silent environment. Units should develop local procedures for single ship and formation departures. For training purposes, silent launch procedures will terminate with the initial radio call to departure control when airborne.

## | A2.7. Navigation ("N") Events:

**N005—Mag Course Departure (CFIC/Pre-CFIC Only).** Departure directed by the navigator using the radar and mag course procedures. (*NOTE:* For Pre-CFIC training, the instructor navigator will brief procedures on the ground to the instructor navigator candidate and demonstrate proper radar configuration during departure. The instructor navigator and navigator will monitor the pilots departure but not direct it.)

**N010—Tanker Rendezvous.** Any rendezvous accomplished using the procedures in the AR TO. Includes point parallel, en route, GCI/AWACs directed, and alternate rendezvous methods. AETC instructors and evaluators may take credit for any rendezvous instructed or evaluated during IQT and RQT training. Pilots may dual log this event with the navigator.

**N011—Rendezvous—Emission Option 1 (Unrestricted Communications and Emissions).** Procedures primarily used for CCTS training.

**N012—Rendezvous—Emission Option 2 (Limited Communications).** Normal procedure for rendezvous and AR. See AR TO for authorized communications and emissions.

**N013—Rendezvous—Emission Option 3 (Radio Silent).** See AR TO for complete description and requirements. The use of other emitters is authorized unless prohibited by supported operations plans.

**N014—Rendezvous—Emission Option 4 (No Emissions).** See AR TO for complete description and requirements. No emitter will be used unless specifically authorized by the air tasking order (ATO), rules of engagement, operations plans, safe passage procedures, or other mission directives. This includes radios, doppler, radio navigation transmitters, radar, radio altimeters, IFF, exterior lighting, etc. This option will not be practiced during peacetime operations unless specifically tasked by NAF or higher headquarters due to the FAA identification requirement.

**N015—Tanker Alternate Rendezvous.** Any tanker rendezvous not utilizing the INS/DNS and TACAN as the primary means. Dual-log with N010.

**N016—Tanker Rendezvous Overrun Procedures**

**N020—Tanker En Route Rendezvous.** Dual-log with N010. Pilots may dual log this event with the navigator.

**N030—Tanker Point Parallel Rendezvous.** Dual-log with N010. Pilots may dual log this event with the navigator.

**N040—Tanker Anchor Rendezvous and AR.** Includes any rendezvous and AR in an anchor area. Can be tanker, receiver, or GCI and AWACs directed. Dual-log with N010 and R060. Pilots may dual log this event with the navigator.

**N050—Navigation Leg.** Any navigation leg of at least 1 hour duration. AETC instructors and evaluators may take credit for any navigation leg instructed or evaluated during IQT or RQT.

**N055—Category I/Overwater Navigation Leg.** See AFI 11-2KC-135, Volume 3, Chapter 11, for description. Dual-log with N050.

**N060—Mission Navigation Leg.** See AFI 11-2KC-135, Volume 3, Chapter 11 for description. Dual-log with N050.

**N065—Tactical Navigation Leg.** See AFI 11-2KC-135, Volume 3, Chapter 11 for description. Dual-log with N050.

**N070—Degraded Systems Navigation Leg.** See AFI 11-2KC-135, Volume 3, Chapter 11 for description. Dual-log with N050.

**N080—Grid Entry and Exit Exercise.** Use grid entry and exit checklist to configure compass systems and DNS (if applicable) for grid navigation. May be completed in conjunction with any navigation leg or during general navigation.

**N090—Control Time/Position Exercise.** Establish ETA to a control point at least 30 minutes in duration and meet control time +/- 30 seconds. May be flown in conjunction with any navigation leg or during general navigation.

**N100—INS Airborne Alignment.** Simulates INS operation under SIOP launch conditions. INS should be left in STBY until after takeoff and air aligned using flight manual procedures. However, for continuation training, air alignment may be initiated any time inflight.

**N110—Communication Procedures.** Crewmembers will copy at least one emergency action message using both HF or UHF radios (only the first six elements of a UHF message are necessary). Contact a global command and control station using HF radio. Crewmembers will also accomplish launch and authentication check. A log will be maintained of all communications.

**N120—Airborne Radar-Directed Approach.** Approach directed by the navigator using airborne radar as the primary means.

**N130—Receiver Rendezvous.** Accomplish in accordance with the AR TO. Navigators must direct their aircraft to 1 NM in trail to receive credit.

**N131—Receiver En Route Rendezvous.** Dual-log with N130.

**N132—Receiver Point Parallel Rendezvous.** Dual-log with N130.

**N135—Receiver Alternate Rendezvous.** Dual-log with N130.

**N136—Receiver Rendezvous Overtake Procedures.**

**N140—Celestial Observation.** Minimum of 3 celestial observations per event. May be accomplished in conjunction with any navigation leg or during general navigation. One celestial observation may be logged per sortie.

**N150—Celestial Position.** Locate, shoot and plot celestial position in-flight. At least 3 lines of position and a heading check are required. May be accomplished in conjunction with any navigation leg or during general navigation. One celestial position may be logged per sortie. Sextant observations may be accomplished by the navigator or boom operator.

**N160—General Navigation.** Comply with general navigation procedures in AFI 11-2KC-135, Volume 3, Chapter 11. Includes directing the aircraft, maintaining inflight log and chart information, fixing and maintaining track, establishing reliable ETAs, and meeting control times. For navigator IQT, sufficient information must be recorded on inflight log to accurately reconstruct the mission, including wind.

**N160A—Flight Management System (FMS) Navigation.** Comply with FMS navigation procedures in AFI-112KC-135, Volume 3. Includes directing the aircraft, monitoring navigation systems for accuracy, maintaining track, establishing reliable ETAs, and meeting control times.

**N165—Fixing.** Obtain and plot precision fixes (VOR, TACAN, or radar). Individual must understand navigation corridor scoring procedures and responsibilities.

**N170—INS/DNS TACAN Aided Operation.**

**N175—INS/DNS Radar Present Position Update.**

**N176—INS/DNS Manual Present Position Update.**

**N180—Target Timing Wind.**

#### **A2.8. Crew and Individual Proficiency ("P") Events:**

**P006—Airwork.** Block of time scheduled and devoted to learning and maintaining basic flying skills. Objective of this event is to demonstrate or reinforce understanding of aircraft flight characteristics. Recommend accomplishment in an airwork area with reserved altitude blocks.

**NOTE:** The following is a list of events which may be accomplished:

Steep Turns. Target bank angle should not exceed 45 degrees of bank. Target airspeed is 250 KIAS.

Lateral Control Demonstration.

Trim Demonstration.

Approved inflight tactics events.

Additional items such as vertical "S."

**P007—Approach to Initial Buffet and Recovery.** ATD Only. Not required for USAFE; conduct ground prebrief and accomplish this event during next continuation training simulator.

**P010—Takeoff—Initial.** Includes all activity from initiation of the takeoff checklist up to and including establishment of climb configuration and airspeed. The takeoff following a touch-and-go is not creditable. EXCEPTION: Senior pilots (colonels and above) who require inflight supervision and instructor pilots may log a P010 after accomplishing (pilot flying) an initial takeoff or touch-and-go. Dual log with P020.

**P011—Takeoff—Night**

**P012—Takeoff—Gyro Mode.** Takeoff using max mode climb procedures without assistance of RGA command bars.

**P015—Instrument Departure.** That portion of flight after establishing climb configuration and airspeed through SID routing or first en route point on the radar departure.

**P018—Copilot Takeoff Climb Duties.** Perform copilot takeoff duties, to include setting takeoff power and monitoring aircraft performance and acceleration through cleanup altitude. May be accomplished in ATD.

**P020—Takeoff.** Initial takeoff or takeoff following touch and go landing.

**P026—Takeoff and Climb Procedures.**

**P027—EWO Departure.** 330 KIAS climb airspeed will be established after flap retraction and maintained until level off or climb Mach is attained. Pilots may receive credit when occupying either pilot or copilot position.

**P030—Max Mode T/O, 30 Flap.** Dual log with P020.

**P035—PMC Off Takeoff.** Takeoff with simulated outboard engine PMC inoperative. PMC switch for the engine will be set to off and TO PMC-off procedures accomplished. Accomplish only in the ATD.

**P040—Simulated Engine Failure, Takeoff Continued.** Authorized for IPs, ACs, and experienced copilots. Requires direct IP supervision; may dual log with P020, P190, and P192.

**P045—Simulated Engine Failure on the Runway (CFIC Only).**

**P053—Spiral Up Departure.** See AFI 11-2KC-135, Volume 3 for procedures.

**P055—Tactical GPS Approach.** Approach directed by pilot using the aircraft GPS as the primary means. For Pacer CRAG qualified crew members only.

**P061—VFR Overhead.** See AFI 11-2KC-135, Volume 3 for procedures.

**P064—Random Steep Approach.** See AFI 11-2KC-135, Volume 3 for procedures.

**P065—Curvilinear Approach.** See AFI 11-2KC-135, Volume 3 for procedures. Dual log with P070.

**P070—Instrument Approach.**

**P071—Holding.**

**P072—Penetration (Published).**

**P073—En Route Descent.**

**P080—Instrument Approach (Auto or Coupled).** Approach flown with the autopilot coupled to the ILS.

**P100—Precision Approach.**

**P101—ILS Approach.** Dual log with P100 and P070.

**P102—ILS (Gyro Mode).** Dual log with P100 and P070.

**P103—PAR Approach.** Dual log with P100 and P070.

**P110—Non-Precision Approach.**

**P111—VOR/TACAN/FMS Procedures.** Includes fix-to-fix navigation, course interception, and general radio aid navigation. This event does not include an instrument approach.

**P112—TACAN, VOR, and Localizer Approach.** Dual log with P110 and P070.

**P113—ASR Approach.** Dual log with P110 and P070.

**P115—Backcourse LOC.** Dual log with P110 and P070.

**P130—Circling.** Dual-log with type approach flown.

**P140—Visual Traffic Pattern.** Maneuver flown to position aircraft for landing from the visual traffic pattern.

**P160—Missed Approach**

**P170—Approach and Go-Around, Simulated Engine-Out.** Accomplish under IP supervision or qualified AC.

**P171—Approach and Go-Around, Simulated Engine-Out, Power Rudder Off.** Accomplish under IP supervision.

**P172—Approach and Go-Around, Simulated Engine-Out, FCAS Off.** (Simulated loss of an outboard engine with loss of SYD/EFAS.) Accomplish with rudder power on to low approach only.

**P180—Approach and Landing, Simulated Engine-Out.** Accomplish under IP supervision or qualified AC.

**P190—Landing.**

**P191—Landing, Full Stop, Reverse Thrust.** Landing rollout will be made using reverse thrust on symmetric engines. For qualification training, KC-135E pilots should accomplish at least one event at a minimum gross weight of 175,000 pounds. Gross weight requirements do not apply to continuation training events. Loss of currency does not result in a loss of mission ready status.

**P192—Night Landing.** Dual log with P190.

**P193—Landing, 50-Degree Flaps.** Dual log with P190.

**P194—Landing, 30-Degree Flaps.** Dual log with P190.

**P195—Landing, Simulated Engine-Out, 4 Engine Takeoff.** Direct IP supervision.

**P196—Landing, Full-Stop.**

**P200—Touch-and-Go Landing.** Currency requirement for AC. Loss of currency does not result in a loss of mission ready status. Dual log with P020, P190, and P192 as applicable.

**P211—Simulated Two Engine Landing (CFIC Only).**

**P212—No Airspeed/No AOA Approach (CFIC Only).**

**P215—Landing Attitude Demonstration.** Dual-log with P190 and P200. Direct IP supervision.

**P216—Right Seat Braking Exercise (CCTS/CFIC Only).** Exercise teaching braking from the right seat. Event may be accomplished as a taxi exercise on the runway or on a full-stop landing. Maximum gross weight is 150,000 pounds and a dry runway is required.

**P240—Landing Gear Alternate Extension.**

**P250—Main Flap Manual Operation (Main Flap Alternate Operation - E-model).** May be accomplished on the ground (if applicable). See restrictions in AFI 11-2KC-135, Vol 3.

**P260—HAVE QUICK Radio Procedures.** Training consists of properly configuring the radio for HAVE QUICK operation and making at least one transmission and reception using HAVE QUICK mode of operation with any source. When practical, rendezvous and refueling should be accomplished utilizing the HAVE QUICK mode of operation. The TOD should be updated from a ground station master clock when possible.

**P270—SECURE RADIO Operation.** Training consists of properly loading SECURE VOICE code and making at least one transmission and reception using SECURE VOICE with like equipped aircraft.

**P271—Authentication Procedures.** Training consists of demonstrating proper challenge and reply authentication procedures using the TRIAD authenticator. Units will determine how best to accomplish the training (i.e., authenticate a transmission with command post, between aircraft in formation, etc.).

**P272—KY 58 Radio Operation.** Trainee must demonstrate keying KIK-13, loading KY-58, completing secure radio transmission with another aircraft, and proper zeroizing of KY-58 and KIK-13.

**P280—Aircrew Chemical Defense Qualification Training (ACDTQT).** An exercise emphasizing hands-on training, dressed out in partial chemical defense (CD) ensemble. Do not accomplish in conjunction with a formation take-off or a night formation departure. The purpose of the exercise is to enable crewmembers to become aware of their limitations while wearing the equipment. Complications of heat exhaustion, fatigue, hyperventilation, limited dexterity, and hampered communication can all be experienced during the exercise. Observers must closely monitor crewmember actions during the exercise. If a crewmember experiences difficulties such as excessive thermal stress, hyperventilation, headaches, etc., and either the observer or crewmember believes it is unsafe to continue, the equipment will be immediately removed.

The following aircrew CD items will be used:

Flying helmet (if applicable)

MBU-19/P hood and mask assembly

Filter pack with filters and CQU-7/P blower assembly with filter canisters and batteries

MXU-835 intercom assembly

Filter pack suspension straps

Glove set (cotton, butyl, Nomex“)

ACDTQT should be accomplished in a simulator with visual displays, provided a simulator exists or is available. If accomplished in a simulator, ATS instructors will observe the exercise, no other supervision is required, and no restrictions apply on who and how many crewmembers may wear the gear.

If performed in the aircraft, only one pilot will be dressed out at any time. Navigators and boom operators will not dress out simultaneously.

The aircraft commander will be supervised by an instructor pilot occupying the copilot seat. Copilot will be supervised by an instructor pilot or experienced aircraft commander (determined by the squadron commander) in the pilot seat. A safety observer crewmember will occupy the jump seat. Pilots will don the gear and accomplish at least one take-off, approach, and landing, and complete all crew position checklists associated with approach and landing.

Navigators will be supervised by another navigator (boom operator may supervise KC-135 navigators) and wear the gear for a minimum of 30 minutes while performing navigator duties.

Boom operators, supervised by crewmembers of like specialty or a navigator, will wear the gear during take-off, approach, and landing.

Prior to being scheduled for this event, each aircrew member must have completed LS02.

**P290—Alert Start Procedures.** The initial accomplishment must be in an aircraft that has been cocked to simulate alert status, i.e., windshield cover, pitot covers, engine plugs, engine cartridges, etc., installed, if appropriate. Crew must respond via normal alert notification (which requires engine start) or from a wing tip position and accomplish alert start and taxi checklist items while in the chocks. Pilots and copilots must receive a thorough briefing by a unit instructor pilot on APU or cartridge start operation prior to performing an alert start. Subsequent requirements may be accomplished in an ATD or the aircraft.

**P300—Cargo Loading.** Accomplishment of either floor loading or palletized cargo loading during a deployment, operational or training mission, or exercise. A locally accomplished static load may be used for P300 credit. BOs must complete G182, G183, or G184 annually to be authorized to complete this event unsupervised. The actual accomplishment with an instructor is creditable toward G183 or G184, as applicable.

**P310—Instructor and Evaluator Duties.** Creditable when instruction or AFI 11-2KC-135, Volume 2 evaluation is performed inflight or in the training device. Instructors may receive credit while instructing unlike specialties during initial and mission qualification and instructor upgrade.

**P311—Flight With An Instructor.**

**P312—Instructor Techniques (CFIC Only).**

**P335—Prep for Contact**

**P340—Briefing and Control of Passengers.**

**P345—Inflight Adjustment and Security of Load.**

**P355—Trouble Shooting AR Equipment Malfunctions.**

**P360—Mission Planning and Briefing.**

| **P360A—AFMSS Mission Planning.**

**P361—Preflight.**

**P362—Pretakeoff.**

**P363—Climb.**

**P364—Cruise.**

**P365—Autopilot Off Cruise.**

**P366—Checklist Procedures and Use.**

**P367—Crew Coordination.**

**P368—Postflight.**

**P369—Aircraft Equipment Operation.** Demonstrated proficiency in operating the following equipment:

Ground start and taxi procedures (P, CP)	Hydraulic system (P, CP)	Fuel panel mgt (P, CP)
Pneumatic system (P, CP)	APU (P,CP, N, BO)	Comm radios (P, CP, N)
Radar and navigation systems (P, CP, N)	AR system (BO)	Sextant (BO)

**P380—Spoiler and Lateral Control Demonstration.** Demonstration of roll rates and aileron forces required for different spoiler settings and the reduced lateral control effectiveness after spoiler or hydraulic malfunction. Must be accomplished above 10,000 feet AGL.

**P382—Trim Demonstration.** IP supervised.

**P383—Simulated Jammed Stabilizer Demonstration.** Direct IP supervision.

## **| A2.9. Examinations, Qualifications and Certifications ("Q") Events:**

**Q001—Open-Book Qualification Examination.** Administered and graded according to AFI 11-2KC-135, Volume 2, as supplemented. Must be accomplished as part of all qualification training.

**Q002—Closed-Book Qualification Examination.** Administered and graded according to AFI 11-2KC-135, Volume 2, as supplemented. Must be accomplished as part of all qualification training.

**Q005—ATD Evaluation.** Administered in ATD (OFT, CTD, BOPPT), according to AFI 11-2KC-135, Volume 2 as supplemented. Completion of AC Upgrade simulator KPTD8 or CFIC simulator #4 are creditable toward Q005.

**Q010—SIOP Certification.** Preparation for SIOP certification and SIOP certification. Certification by wing or operation group commander or designated representative that the individual can perform the SIOP mission.

**Q011—Formation Lead Certification Program.** Designed to certify ACs as formation lead.

**Q014—Difference Certification.** Documents all training required to qualify individuals in a different mission-series aircraft or different tactic requiring certification is complete. Q014 is not required when AA01 difference evaluation is accomplished.

**Q015—Special Missions and Operations Certification.** Certifies completion of all training required to air refuel special operations aircraft. Commanders will determine the requirement for this event and missions to be certified using this event.

**Q016—Conventional/Mobility Certification.** Wing or group commander (or designated representative) certification that a crewmember is prepared to accomplish the unit's conventional or mobility mission as specified in the unit's DOC statement. Commanders will determine the requirement for this event.

**Q017—LAAR Certification**

**Q021-Q032—AR Qualifications.** BOs—Q021, 022, 023, 026, 030, 031, and 032. ACs—Q028. BOs initially qualified in accordance with AFI 11-2KC-135, Volume 2 are qualified to refuel any receiver not listed in the following categories:

**Q021—BRAVO Probe Equipped Receivers.** Program # 1918 may be used if probe receivers are not available. CCTS may be completed in BOPTT. In-unit qualification must complete Q22 and Q23 before starting Q21.

**Q022—CHARLIE Receptacle Equipped Fighters, Day.** Complete program #1919 prior to flight.

**Q023—CHARLIE Receptacle Equipped Fighters, Night.** Complete program #1919 prior to flight.

**Q026—FOXTROT C-5.** May be accomplished in the BOPTT. Qualification in category FOXTROT qualifies boom operators in category JULIET (If a day B-2 AR is not previously accomplished, initial B-2 night refueling must be supervised by a JULIET qualified instructor).

**Q028—GOLF KC-10, C-5, or C-17.** Accomplishment with one receiver aircraft qualifies pilot for all three.

**Q030—INDIA F-117 Night.** Must be category CHARLIE qualified with a solid fighter AR back-ground. When possible, a day sortie should precede night qualification. Two night contacts are required.

**Q031—JULIET B-2.** Must be category FOXTROT qualified. When possible, a day sortie should precede initial night B-2 AR. If initial B-2 contact is at night it must be supervised by a Q031 qualified instructor.

**Q032—KILO C-17.** Prior category FOXTROT qualification is desired but not required. Qualification in category KILO qualifies BOs in both category FOXTROT and JULIET (If a day B-2 AR is not previously accomplished, initial B-2 night refueling must be supervised by a JULIET qualified instructor).

**NOTES:**

1. All category qualification training requires supervision by an instructor qualified in that category.
2. Prior to attempting initial contact, the trainee must monitor radio communication procedures and observe an instructor demonstrated contact.
3. The squadron will review CCTS records to determine category qualifications obtained at CCTS and ensure entry in AFORMS System.

**Q050—Aircraft Commander Touch and Go Landing Certification.** Designed to certify ACs by the SQ/CC to allow the ACs to accomplish unsupervised touch and go landings.

**Q051—Supervision of Copilot Touch and Go Landings and Receiver Air Refueling.** Designed to certify ACs by the SQ/CC to perform unsupervised touch and go landings and supervise unit copilot's touch and go landings and receiver air refueling.

**Q060—EMCON 3 Certification.** Requires SQ/CC certification for crewmembers to accomplish EMCON 3 procedures during formation, rendezvous, and AR on both operational and training sorties.

**Q070—EMCON 4 Certification.** Requires SQ/CC certification for crewmembers to accomplish EMCON 4 procedures during formation, rendezvous, and AR on both operational and training sorties.

**Q081—Avionics Relocation Program (ARP) Qualification.** Qualification for pilots and BOs to fly the KC-135 in the ARP configuration without a qualified navigator.

**Q091—PACER CRAG Qualification.** Qualification for pilots, navigators, and boom operators to fly a KC-135 with the PACER CRAG flight deck modification.

**Q160—Instrument Refresher Course Examination.**

**Q180—Cargo Qualification (Active Duty)/Certification (AFRC/ANG).** Demonstrate and certify on a 17-month recurring basis, cargo loading procedures. The cargo check/certification is required to be completed by each boom operator on a recurring basis. Initial qualification or the latest cargo certification establishes a certification reference month. The recurring certification will be accomplished during the 6-month eligibility period that includes the currency reference month and the 5 preceding months. The certification will consist of actual cargo loading observed and certified by an instructor on a one-on-one basis. A cargo load is defined as floor loaded or palletized cargo (e.g., mobility bins, AGE equipment, etc.). Passenger baggage bins do not constitute a cargo load. The certification may be administered under static or flight conditions. Dual log with P300 in conjunction with a recurring cargo certification. Document certification on AF Form 1381, **USAF Certification of Aircrew Training**, and place in the individual's FEF. Individuals exceeding the 17-month certification period, will be unable to perform cargo loading operations unsupervised. (This does not include passenger-only missions). Senior OG/OGV boom operators may receive their cargo certification from NAF if approved by the OG/CC. This certification should be accomplished in conjunction with the pyramid qualification evaluation.

## **| A2.10. Air Refueling ("R") Training Events:**

### **R010—Receiver AR:**

**Qualification Training.** Consists of practice in AR including closure and contacts. The instructor will demonstrate all limits and manual boom latching. The student must be able to establish contact under simulated conditions of radio silence, pilot director lights out, and tanker auto pilot off. Students must be declared safe in day activity by an instructor prior to advancing to night activity. The first night mission should include training during twilight and extend into the hours of darkness. During the hours of darkness, conduct practice in rendezvous, closure, and contacts until able to maintain contact for 5 minutes without a disconnect.

**Continuation Training.** Pilots may credit one R010 per sortie by accomplishing a closure from the pre-contact position and maintaining a 5 minute toggles-engaged contact. Instructors and evaluators should accomplish at least two receiver ARs while occupying the right seat.

**NOTE:** Dual-seat qualified (non-instructor) ACs must be under direct instructor pilot supervision when attempting contacts from the right seat. Copilots must be under direct instructor supervision when attempting contacts from either seat.

**R011—Receiver AR, Indoctrination.** Ability to maintain pre-contact position, recognize any unsafe condition, and safely separate one aircraft from the tanker.

**R012—Receiver AR (Day).**

**R020—Receiver AR (Night).**

**R030—Receiver AR (Heavyweight).** Requires minimum onload of 25,000 pounds and end refueling gross weight of 250,000 pounds. A 1 percent deviation from these weights is authorized. For qualification training, the pilot must complete a total of 15 minutes toggles-engaged time.

**R035—Receiver AR (Heavy Onload).** Requires minimum onload of 50,000 pounds of fuel. For qualification training, the pilot must accomplish a total of 15 minutes toggle-engaged time.

**R040—Receiver AR Breakaway and Emergency Separation.** Initiated with the receiver in the AR envelope. Pilots must demonstrate proficiency in executing the breakaway. For copilots, includes check-list duties only.

**R050—Receiver AR, Tanker Auto Pilot-Off.** The tanker autopilot must be disengaged and AR contacts must be practiced for a minimum of 10 minutes.

**R060—Tanker AR.** Credit only one R060 for each receiver cell/ARCT regardless of the number of aircraft. Credit may be awarded if AR contact can be established. 10-minute toggles engaged time is desired. Pilots may receive credit when occupying either pilot or copilot position. Additional pilots and BOs may also log an R060 provided they actually accomplish a refueling in their primary position.

**R061—Tanker AR, Indoctrination.**

**R064—Pressure Disconnect. (CFIC only)**

**R065—Receiver Lateral Stability. (CFIC only)**

**R067—Simulator Receiver Engine-Out (CFIC only)**

**R070—Tanker AR Breakaway and Emergency Separation.** Breakaway should be initiated with the receiver in the AR envelope. Pilots and BOs must demonstrate proficiency in executing breakaway. Copilots must demonstrate proficiency in copilot procedures while the pilot executes the breakaway. Navigators must demonstrate proficiency in navigator duties during a breakaway.

**R071—Receiver Only Separation. (CFIC only)**

**R072—Tanker Only Separation. (CFIC only)**

**R080—Tanker AR Autopilot Off.** All axes of the tanker auto pilot must be disengaged and AR contacts must be practiced for a minimum of 10 minutes.

**R100—Tanker AR, Heavy Receiver.** For this event, -135, -130, C-141, E-3, E-4, E-6, C-5, C-17, B-52, B-1, B-2, and KC-10 are considered heavy. Dual-log with R060.

**R120—Contacts.** For qualification, satisfactory progress in day contacts must be demonstrated prior to attempting radio silent or night contacts. Includes the total number of contacts accomplished.

**R125—Day Contacts.** For qualification, satisfactory progress in day contacts must be demonstrated prior to attempting radio silent or night contacts.

**R130—Night Contacts.** Loss of night currency will not cause loss of MR status for day operations. Dual-log with R120.

**R135—Preparation for Contact Procedures.**

**R140—Tanker Manual Contact.** Prior to attempting, students must demonstrate knowledge of tanker manual operational equipment and procedures.

**R150—Fighter Contact.** Log the actual number of contacts accomplished. Boom operators must obtain a contact with the fighter. Additional boom operators may also log a R150 if they accomplish a contact. Formal school, AMWC, and NAF/DOV may credit one R150 accomplished in the BOPTT between actual contacts in the aircraft. Currency not required for alert duty. BOs may log R150 for B-1 refueling, provided he or she is Q022 qualified.

**R155—Probe and Drogue Contact.**

**R160—Radio Silent Breakaway.** Event is to be accomplished using radio silent procedures. No radio call will be made during accomplishment of breakaway unless it is needed due to actual emergency or system malfunction. This event may take place with the receiver in either the contact or precontact position. For the event to occur from the contact position, prior coordination must take place among the boom operator, tanker pilot and receiver pilot. As a minimum, the time of occurrence must be coordinated. Should this event be scheduled as part of a radio silent AR, coordination can be done any time prior to the flight. This event may also be accomplished during an AR that does not involve radio silent procedures.

**R165—Radio Silent AR.** BOs must demonstrate their ability to A/R radio silent to an instructor BO during an actual AR. Any type receiver may be used for this training. The individual's training records must show qualification in radio silent AR prior to achieving mission qualification status, or participating in EMCON operations.

**R170—Tanker Heavyweight Offload.** Requires a minimum offload of 50,000 pounds and a start AR gross weight of 250,000 pounds. A 1 percent deviation from these weights is authorized.

**R180—Radio Silent Visual Signals.****R190—Tanker Drogue AR.****R195—Tanker Wing Pod AR.**

**R210—Low Altitude Air Refueling.** AR below 10,000 feet AGL or 12,000 feet MSL. Crew must complete LAAR training and be certified by the unit commander prior to unsupervised flight. Dual-log with R060. Refer to AFI 11-2KC-135, Volume 3, Chapter 17, for additional information.

**R220—Manual Boom Latching.**

**R225—Reverse AR.** Practice of this procedure by KC-135s in the tanker role is restricted to CCTS/CFIC only. KC-135R/Ts may practice procedure under direct IP supervision on aircraft equipped with the Boeing ARR system.

**R230—Emergency Boom Hoist.****R400—Tanker Power Management. (CFIC only)****R410—Aerodynamic Effects of Boom Position. (CFIC only)****R420—Simulated Loss of Tanker Engine During AR. (CFIC only)****R440—Aerodynamic Effects of Various Closures. (CFIC only)****A2.11. Special Operations ("S") Training Events:**

**NOTE:** These events are required for SOAR qualified aircrews per the specific continuation training table. Failure to complete the continuation training in the required training period does not result in NMR status. The crew member can still deploy forward in the same manner a non-SOAR crew member would. However, place the crew member in supervised status for the SOAR event (individual must fly with an instructor of like specialty on missions requiring that event) until required training is complete.

**S003—Parallel Converging Rendezvous.** AFI 11-2KC-135, Volume 2, Chapter 27, en route rendezvous used with C-5, C-141, KC-135RT or other heavy type aircraft.

**S004—En Route Overtaking Rendezvous.** AFI 11-2KC-135, Volume 2, Chapter 27, procedures used with C-130 type receivers.

**S036—SOAR Rendezvous.** Special operations rendezvous procedures accomplished with aircraft and aircrews certified in these procedures.

**S101—Inflight Communications Training.** Keying, over the air rekeying and operating procedures using SECURE VOICE equipment. S101 is creditable on exercise and operational missions in which secure communications equipment is installed and keyed, with no additional radio calls required.

**S200—NVG Operation.** Inflight operation of NVGs, including preflight check.

#### | **A2.12. Air Force Specified ("XX") Training Events:**

**AA01—Qualification Check.**

**AA02—Qualification Check, Simulator**

**AA11—Instrument Check**

**AA12—Instrument Check, Simulator**

**AA21—Combined Qualification and Instrument Check**

**AA22—Combined Qualification and Instrument Check, Simulator**

**PP01—Flight Physical**

**PP11—Physiological Training** (AFI 11-403 *Aerospace Physiological Training*). Currency expires 3 years after the last day of the month in which accomplished (example: if training was accomplished 19 Oct 1995, training is due not later than 31 Oct 1998). **USAFE personnel are required to accomplish every 4 years. If 3 years is exceeded, person must accomplish within 90 days of PCS to CONUS.** Rated officers with greater than 25 years time in service only require physiological training every 5 years. See further instructions in AFI 11-403.

**RR01—Flight Records Review.** Governed by AFI 11-401 *Flight Management*.

#### | **A2.13. Additional Event Identifiers.** These identifiers will be used if units choose to track the associated events and items in AFORMS:

**E010—Standards of Conduct Briefing**

**E020—AMC Escort Training**

**E030—Passport**

**E040—Base Populace Briefing**

- E050—Newcomer Substance Abuse Awareness Briefing**
- E060—Newcomers Social Actions Briefing**
- E070—Protection of the President**
- E080—Report Counter Human Resources Intelligence Threat Briefing**
- E090—Hostile Human Intelligence Threat Briefing**
- E100—Security and Awareness Training**
- C010—CWD Driver Operations**
- C020—Mass Casualty Exercise**
- C030—Mobility Briefing**
- C040—Mobility Folder Review**
- C050—Unit Disaster Training**
- LE01—Helmet Inspection**
- LE02—Oxygen Mask Inspection**
- H010—Ergometry Testing**
- H020—Dental Exam**
- H030—Cholera**
- H040—Flu Shot**
- H050—Smallpox**
- H060—Oral Polio**
- H070—Tetanus**
- H080—Yellow Fever**
- H090—TB Tine**
- H100—Meningococcal**
- H110—Typhoid**
- H120—Hepatitis A**
- H130—Hepatitis B**

### Attachment 3

#### AIRCREW TRAINING DOCUMENTATION

**A3.1. General Information.** This attachment provides guidelines on proper training documentation. Instructions are provided for AF Form 4022, **Aircrew Training Folder**, AF Form 4023, **Aircrew Training Progress Report**, AF Form 4024, **Aircrew Training Accomplishment Report**, and AF Form 4025, **Summary/Closeout Training Accomplishment Report**, and aircrew training guides.

A3.1.1. Initiate a training folder (AF Form 4022) for AFCAT 36-2223 formal training (either at formal school or in-unit), mission qualification, special qualification or certification training, in-unit upgrade program to the next higher crew qualification, requalification training (either at formal school or in-unit), or for any corrective action or additional training.

A3.1.1.1. The unit operations officer may waive the training folder requirement if corrective action or additional training is limited. If initiated, the instructor or flight examiner who evaluated the aircrew member's performance will enter comments pertinent to the training deficiency on AF Form 4023 or the training guide. Use the existing training folder for end-of-course evaluations that result in additional training.

A3.1.1.2. At the unit's discretion, training folders for an individual undergoing more than one training program in a short period of time may combine all training into one AF Form 4022; e.g., a tanker copilot upgrading to AC may have his or her upgrade, mission qualification, and formation lead training combined in one folder.

A3.1.2. Formal schools will send AF Form 4022 with all training records to the trainee's gaining unit. Squadron commanders will review formal school training records and enter appropriate comments on the training guide progress record or AF Form 4023.

A3.1.3. Squadrons will maintain the training folders for their personnel in a location readily accessible to instructors and supervisory personnel. The trainee may review his or her folder at any time.

A3.1.4. The instructor or trainer will review the training folder, to include AF Forms 4023 and 4024 or the training guide, prior to all training periods. Those areas not previously accomplished or those in which crewmembers require additional training, will be noted for possible inclusion during the current training period. Operations officers will review active training folders quarterly, and flight commanders or squadron training representatives will conduct a monthly review. Monthly and quarterly reviews will be annotated on AF Form 4023 or in the training guide.

A3.1.5. Upon completion of training, place the summary/closeout report (AF Form 4025) in the individual's flight evaluation folder (FEF) (**For USAFE, follow USAFE guidance in AFI 11-2KC-135, Vol 2**). Squadrons will retain all AF Forms 4022 for 1 year, then return to the crewmember. Do not insert AF Forms 4022, 4023, or 4024 or training guide into FEFs (**For USAFE, follow USAFE guidance in AFI 11-2KC-135, Vol 2**).

A3.1.6. If training guides are not used, AF Forms 4023, 4024, and 4025 should be used for ATS and formal school courses.

A3.1.7. For purposes of training documentation, classroom only training conducted at the unit should be identified as Academic Training (AT). Ground Training (GT) will be considered all training conducted outside the classroom not associated with a flight or artificial training device.

**A3.2. Instructions for AF Form 4022.** This folder is constructed of hard stock paper. The inside covers have tables for documenting training. AF Forms 4023, 4024, and 4025 and additional information (waivers, memorandums, etc.) will be attached through the centered holes of the folder. Training guides will be placed inside the folder. Obtain folder through the AF publications distribution system IAW AFI 37-161, *Distribution Management*. Comply with the following when documenting aircrew training. **USAFE may use 3-part training folder.**

**NOTE:** Formal school instructors using ATS courseware are not required to complete the following sections of the AF Form 4022: ground training summary, written evaluations, and flying training summary if this information is tracked by other means and sent to the gaining unit with AF Form 4022.

A3.2.1. Trainee Information (cover): Provides trainee and course information.

Name and grade. Self-explanatory.

Aircrew position. Self-explanatory. (For aircrew members in an upgrade program, enter the aircrew position to which they are upgrading).

Unit of assignment. Self-explanatory.

Type of training. Enter formal course title or, for special mission qualification, enter type, e.g. SOAR, formation lead etc. For other types of training, enter a descriptive identifier.

Class number. Enter formal school class number; otherwise, leave blank.

Course number: Enter only the AFCAT 36-2223 formal course number, e.g., "KC135AC," etc. Otherwise, leave blank.

A3.2.2. Ground Training Summary (inside left). (This section provides a chronological record of ground training events). Record nonflying training events. Entries are required for CTD, SIM, OFT, PTT, CPT, WST, and GT. Entries are required on the AF Form 4022 for in-unit academic instruction conducted according to formal school courseware. Classroom academic training will be identified as AT.

Date. Self-explanatory.

Training period. Enter sequentially numbered training period designators, e.g. "CPT-1," "WST-2," "GT-3," etc., or specific course identifier.

Status. Enter incomplete (INC) and the reason, e.g. "INC-MX" (maintenance) or "INC-PRO" (trainee proficiency) when an additional training period, over those remaining, will be required to accomplish the lost training events originally scheduled for that training period; otherwise, leave blank.

Instructor or trainer (qualification). Enter the name of the instructor or trainer and aircrew qualification, e.g. aircraft commander (AC), instructor pilot (IP), instructor navigator (IN), etc.

Training time. Self-explanatory. Do not include time normally associated with prebriefing and debriefing.

A3.2.3. Training Period Designators. Codes to describe training periods. Formal training schools may use more descriptive designators if required.

A3.2.4. Written Evaluations. If applicable and desired, record data for the inflight evaluation required to complete the training program.

Date. Enter the date the written evaluation was satisfactorily completed.

Type. Enter the AFI 11-2KC-135, Volume 2 description or other appropriate identifier.

Grade. Enter according to AFI 11-2KC-135, Volume 2.

A3.2.5. Performance Evaluation Summary. Record data on required evaluations including reevaluations (if applicable).

Date recommended. Enter the date recommended for a performance evaluation (CPT, WST, or flight).

Type evaluation. Enter AFI 11-2KC-135, Volume 2 evaluation description or other appropriate identifier.

Instructor (qualification). Enter the name and aircrew qualification of the instructor recommending the student for an evaluation.

A3.2.5.1. Operations review. With the initials of the reviewer, indicate a records review has been accomplished following recommendation for an evaluation. **NOTE:** Flight commanders or supervisors will accomplish reviews during formal training courses. Squadron commanders or operations officers are required to accomplish reviews prior to flight evaluations.

Date evaluated. Enter the date the evaluation was completed.

Evaluator. Self-explanatory.

Grade. Enter according to AFI 11-2KC-135, Volume 2.

A3.2.6. Flying Training Summary. This section provides a chronological record of flying training sorties. Log all sorties scheduled even if canceled by external factors such as weather (WX) or maintenance (MX).

Date. Self-explanatory. On operational missions, enter inclusive dates, e.g., 28 Jul - 7 Aug 95.

Training period. Enter sequentially numbered training period designators, e.g., "S-1," "AD-1," "O-2," etc.

Status. Enter "INC" and reasons, "WX," "MX," or "PRO" when an additional training flight, over those remaining, will be required to accomplish lost training events originally scheduled for that period (INC-WX); otherwise, leave blank.

Instructor (qualification). Enter the name and aircrew qualification of the instructor.

Mission time. Enter the total flight-time of the training or operational mission in the top half of the block. If documentation of seat-time is required, enter the flight-time the trainee was actually in the seat in the lower half of the block.

Cumulative time. Use this block to enter the individual's total cumulative flight-time in the specific training course. Enter total cumulative flight-time in the top half of the block and, if required, the total cumulative seat-time in the lower half of the block.

A3.2.7. Performance and Knowledge Standards. (For use with AF Form 4024, see paragraph [a3.4.11](#).)

A3.2.8. Grading Codes. (For use with AF Form 4024, see paragraph [a3.4.8](#).)

**A3.3. Instructions for the AF Form 4023 .** This form provides a narrative description of training missions and is also used for documenting operations review of training progress. File AF Forms 4023 in

order with the most recent flight on top. **NOTE:** AF Form 4023 is optional if a training guide is used to record training.

A3.3.1. Training Period and Date (Item 1). Training period is either ground, simulator, or flight, i.e., AT-1, GT-1, SIM-3, S-4, etc. Also, annotate the date the training occurred.

A3.3.2. AT, GT, FLY, and ATD (Items 2, 4, and 6). Annotate time allocated for training and keep a running total (Items 3, 5 and 7) by adding previous totals to current training period time (**not applicable for formal schoolhouse**). Classroom academic training periods will be annotated as AT and tabulated under the ground training block.

A3.3.3. Total Training Time (Item 8). Keep a running total of all training time (add Items 3, 5, and 7).

A3.3.4. Remarks and Recommendations (Item 9). Describe the mission scenario. Local overprints are authorized. Comments will elaborate on trainee strengths and weaknesses, identify problem areas, record unusual circumstances, and indicate student progress. Recommendations will be specific and include tasks requiring further training and the type of training required. If more space is required for annotating remarks, draw vertical arrows through sortie information heading section (Items 1 through 8) of following block or form and continue remarks.

A3.3.4.1. Operations Review. In addition to reviewing all AF Form 4023 entries, the flight commander or squadron training representative will conduct a monthly review of active status AF Forms 4022. The squadron commander or operations officer (for ANG: designated representative) will review active status AF Forms 4022 at least once each quarter. Document reviews on an AF Form 4023. The reviewer will annotate "monthly review" or "quarterly review," as applicable, in the training period block. Operations review will be annotated, and if required, a separate entry in the training record including comments on the student's progress will be made.

A3.3.4.2. Monthly reviews are not required for formal school courses except in documented cases of unsatisfactory progress. ATS personnel will review the students records and ensure all required training is completed prior to entering flight training. If problems are encountered during the flying phase, the squadron will conduct reviews necessary to document unsatisfactory progress.

A3.3.5. Instructor Block (Item 10). Instructors will print and sign their name and annotate their rank and crew qualification.

A3.3.6. Students Block (Item 11). Students will print and sign their name.

A3.3.7. Reviewer Block (Item 12). For monthly and quarterly reviews, squadron commanders, operations officers, or flight commanders will print and sign their name and indicate their position. Flight commanders may use their initials in the review block after reviewing individual AF Form 4023 entries.

A3.3.8. AF Form 4023 will be completed and reviewed by the student prior to his or her next training period.

**A3.4. Instructions for the AF Form 4024 .** This form tracks, for each sortie, individual event and task accomplishment and grades. Units will overprint event and task listings, total number of repetitions required, and the required proficiency level (RPL) for each event and task. Use separate AF Forms 4024 for simulator and flight training. Maintain AF Forms 4024 on the right side of AF Form 4022.

**NOTE:** The AF Form 4024 is optional if a training guide is used to record training.

A3.4.1. Name. Self-explanatory.

A3.4.2. Crew Position. Self-explanatory.

A3.4.3. Course or Phase of Training. Enter the AFCAT 36-2223 formal course identifier, e.g., KC-135AC. For special mission qualification, enter the type and identify the method of training, e.g., WST training, flying training, etc.

A3.4.4. Sortie. Enter sortie number e.g., S-1, S-2, CPT-1, etc.

A3.4.5. Date.

A3.4.6. Training Event and Task Listing. Reflects the tasks and subtasks in the training program that require specific student performance or knowledge proficiency standards.

A3.4.7. Number Accomplished. Reflects the number of times an event was accomplished on that sortie.

A3.4.8. Grade. Enter a "B", "F," "P," "S," or "U" as appropriate.

"1"—Item must be accomplished once by the crewmember, but does not require proficiency.

"B"—Briefing item only.

"F"—Familiarization item; proficiency is not required. The operations group commander or equivalent operations function will determine whether "F" items are completed by briefing, demonstration, observation, or actual accomplishment.

"P"—Proficient; crewmember has achieved the required proficiency level.

"S"—Satisfactory; crewmember has not achieved the required proficiency level but progress is satisfactory.

"U"—Unsatisfactory; crewmember was previously proficient, but has regressed or progress is unsatisfactory.

**NOTE:** Once a crewmember has received "P" for an event, the only subsequent grade allowed is either "P" or "U." Any event graded "U" must have an associated remark on AF Form 4023.

A3.4.9. Total Number Required. Indicates the total repetitions of an event or task required by the course syllabus.

A3.4.10. Total Number Accomplished. Total of the number of repetitions actually accomplished.

A3.4.11. Required Proficiency Level (RPL). RPL for the specific event and task. Each event and task will have a performance standard designated for the required proficiency level the crewmember must achieve. In addition, each event and task may have (optional) a knowledge standard designated and used in the same manner as a performance standard. The standards for specific events are either listed in the applicable master task list (MTL) and evaluation standards document (ESD) for each weapon system or identified in this instruction. For those weapons systems that do not have any RPL listing, all events will have an RPL of "3" for performance and "C" for knowledge (if knowledge standards are used in addition to performance standards). **EXCEPTION:** One-time events required for familiarization and not listed in the MTL and ESD or specific weapon system instruction will not have performance and knowledge standard assigned. Performance and knowledge standards follow:

<b>Event and Task Performance Standard</b>		
<b>Code</b>	<b>Performance is:</b>	<b>Definition:</b>
1	Extremely Limited	Individual can do most activities only after being told or shown how.
2	Partially Proficient	Individual can do most of the behaviors, but not necessarily to the desired levels of speed, accuracy, and safety.
3	Proficient	Individual can do and show others how to do the behavior in an activity at the minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. For copilots, proficiency may involve actual aircraft control or copilot duties only. For instructors, proficiency includes the ability to demonstrate, instruct, and supervise ground and flight activity.
4	Highly Proficient	Individual can do behaviors in an activity at the highest level of speed, accuracy and safety.

<b>Event and Task Knowledge Standard</b>		
A	Facts and Nomenclature	Individual can identify basic facts and terms about the subject and when used with a performance code, can state nomenclature, simple facts, or procedures involved in an activity.
B	Principles and Procedures	Individual can explain relationship of basic facts and state general principles about the subject and when used with a performance code, can determine step-by-step procedures for sets of activities
C	Analysis, and Operating Principles	Individual can analyze facts and principles and draw conclusions about the subject and when used with a performance code, can describe why and when each activity must be done and tell others how to accomplish activities
D	Evaluation and Complete Theory	Individual can evaluate conditions and create new rules or concepts about the subject and when used with a performance code, can inspect, weigh, and design solutions related to the theory involved with activities.

### **A3.5. Instructions for the AF Form 4025:**

A3.5.1. For each formal training program, a summary and close-out report will be completed detailing the individual's strengths, weaknesses, overall performance, and other pertinent information. This report will be filed in the crewmembers FEF (**For USAFE, follow USAFE guidance in AFI 11-2KC-135, Vol 2**).

A3.5.2. Squadron commanders, operations officers and flight commanders will ensure the comments on this form do not reflect personal opinions or biases. All comments must be supported by information contained in the AF Forms 4023 and 4024 or training guides as applicable. At formal schools, the instructor will accomplish the AF Form 4025 and the squadron commander's signature is optional.

**A3.6. Aircrew Training Guides.** If available, use aircrew training guides (TG) for training programs.

A3.6.1. The ATS contractor will develop TGs. Units may produce TGs when the ATS contractor is unable to provide them. TGs will be developed in accordance with AFI 36-2201, *Developing, Managing, and Conducting Training*. Coordinate TG development through appropriate MAJCOM with an info copy sent to HQ AMC/DOT.

A3.6.2. Initiating TGs. Training and resource management personnel in each unit will initiate a TG on crewmembers prior to their entering any phase of qualification training. These TGs will be inserted in AF Form 4022 and may be used in lieu of AF Forms 4023 or 4024.

A3.6.3. Use of TGs. Specific instructions for annotating training are included in each TG. TGs will be placed in an AF Form 4022 and maintained in accordance with paragraph **a3.1.5**.

A3.6.3.1. Active status TGs will be carried by the student during all training and operational missions and made available to the instructor for review and annotation. The student will review the TG and initial the training progress record prior to the next training period.

A3.6.3.2. Complete the training progress record portion of the TG in sufficient detail to specify areas of training accomplished, areas needing improvement, recommended specific study areas for the trainee, and recommended training for the next training period. When the trainee attains sufficient knowledge, experience, and prerequisites for upgrade, the instructor will recommend an evaluation and state: "Recommend evaluation for (crew position)" on the training progress record. Trainees will not be recommended for an evaluation if a TG required event is incomplete or requires corrective action. **EXCEPTION:** Copilot ATS progress reviews (evaluations) may be administered with open areas in the TG.

A3.6.3.3. On missions without an instructor or examiner, the senior qualified counterpart (e.g., AC for copilots, etc.) will accomplish required training for those areas not requiring an instructor. Annotate applicable training information in the TG.

A3.6.3.4. When an initial qualification flight evaluation is not successfully completed and additional training is required, the flight commander will annotate deficient areas on reproduced pages of the appropriate TG and training progress record. This mini-TG will be placed in the AF Form 4022 and used to document completion of additional training.

A3.6.3.5. At the conclusion of training, when all requirements of the TG are met, fill-out an AF Form 4025 in accordance with paragraph **a3.5**. Maintain TG and associated AF Form 4025 in a training folder according to paragraph **a3.1.5**.

A3.6.3.6. Do not maintain the training guide in the flight evaluation folder.

**A3.6.4. Review Procedures:**

A3.6.4.1. Instructors and students will review the TG after each training period and discuss training accomplished, problem areas, and immediate goals.

A3.6.4.2. The flight commander or squadron training representative will conduct a monthly review of TGs. This review will be indicated by entering initials and date in the review block of the TG.

A3.6.4.3. The commander or operations officer will review active TGs at least once each calendar quarter and prior to an evaluation. This review will be a separate entry on the TG and will include

comments on weak areas and upgrade potential. Indicate review by signing the instructor-trainer block of the training progress record, and enter "quarterly review" in the training period identifier block.

A3.6.4.4. Records of crewmembers, not receiving training (but in an active status), will be reviewed monthly and quarterly as indicated above. If applicable, the statement, "no training accomplished during this period," the reason why, and the projected date when training will resume will be entered on the student's training progress record.

A3.6.5. Disposition of TGs:

A3.6.5.1. Place completed TGs in AF Form 4022 and maintain according to paragraph [a3.1.5](#).

A3.6.5.2. Formal schools will maintain copies of the aircrew training records on incomplete trainees for 6 months.

**Attachment 4****IC 99-1 TO AFI 11-2KC-135 VOLUME 1, C/KC-135 AIRCREW TRAINING****1 JANUARY 1999****SUMMARY OF REVISIONS**

This change incorporates interim change (IC) 99-1. It changes the OPR to Maj Angelo T. Haygood and incorporates changes recommended by AMC, other major commands (MAJCOM), units, and the Command Curriculum Review Workshop approved by the Training Review Panel (TRP). USAFE Supplement is embedded in the basic AFI and in boldface. Waiver authority has changed from MAJCOM DOs to MAJCOM DOTs. This change provides guidance and training requirements for Pacer CRAG and MPRS equipped aircraft and three-person training. Pacer CRAG Initial Cadre (table 2.2) and Difference Qualification Training (table 2.2.1) Requirements tables have been added. MPRS Initial Cadre (table 2.3.) and Difference Qualification Training (table 2.3.1.) requirements tables have been added. Ground continuation training requirements in table 4.2 are reduced. Table 4.3, Ancillary ground training, was added for events not affecting mission-ready status. Notes to table 5.3 were changed to delete the 3-year requirement for boom operators to upgrade to instructor. See the last attachment of the publication, IC 99-1, for the complete IC. A (I) indicates revisions from the previous edition.

1.2.1. Unless specified in this instruction, MAJCOM DOTs, or equivalent level, are the waiver authority for specific aircrew training requirements in this instruction. For currency training, MAJCOM DOs are the waiver authority.

**1.4.2.2. Supplements.** MAJCOMs may supplement this instruction as outlined in AFI 11-202, Volume 1. MAJCOM supplements may be more but not less restrictive than this instruction. USAFE supplement is embedded in the basic AFI. MAJCOMs are permitted to set requirements lower than those in this instruction when the statement “or as specified in MAJCOM supplement” is indicated as applicable to that item or event. MAJCOM supplements must be approved by HQ AMC and HQ USAF/XOOT IAW AFPD 11-2 before publication. After publication, send two copies to HQ AMC/DOTK and one copy to HQ USAF/XOOT.

**1.4.3. Operations Groups.** The operations group will convene a training review panel (TRP) to be chaired by the OG/CC or his designated representative. The operations group will determine frequency, format and content of the meetings. The TRP should review staff and aircrew management actions necessary to complete the squadron’s flight and ground training programs. (USAFE units provide TRP minutes to 3 AF/DOT and HQ USAFE/DOTO. End of training cycle TRP minutes will include end-of-cycle training deficiencies and OG/CC waivers given for semiannual continuation training.)

1.4.3.1. The operations group will establish procedures with the servicing military personnel flight (MPF) for individual counseling and personnel system updates for the active duty service commitment (ADSC) incurred. Since Pacer CRAG and MPRS conversions do not change the Major Weapon System (MWS) designation, no ADSC is incurred for Pacer CRAG and MPRS initial cadre or differences training.

**Table 1.1. Unit Waivers to AFI 11-2KC-135, Volume 1.**

If waiver is requested by:	Send waiver request to:	Approval or disapproval will be sent to:	With information copies to:
Active Duty AMC Wing or Group	OG training office to HQ AMC/DOTK	OG training office	NAF Training Office (HQ AETC/DOFM if applicable to formal training)
97 AMW	Unit training office through 19 AF/DOM to HQ AETC/DOF	97 AMW	HQ AMC/DOTK
ACC Refueling Unit	OG training office to HQ ACC/DOTV	OG training office	HQ AMC/DOTK
PACAF Refueling Unit	OG training office to HQ PACAF/DOTT	OG training office	HQ AMC/DOTK
USAFE Refueling Wing	SQ/OG training office to 3 AF/DO to HQ USAFE/DOT training office	SQ/OG training office via 3 AF/DO	HQ AETC/DOF, HQ AMC/ DOTK, and 3 AF/DO
AFRC Unit	HQ AFRC/DOT	AFRC Unit	HQ AMC/DOTK
ANG Unit	ANG/XOOM	ANG Unit	HQ AMC/DOTK

**1.5. In-Unit Training Time Limitations.** Comply with the time limitations in table 1.2. Aircrew members entered in an in-unit training program leading to qualification or requalification should be dedicated to that program on a full-time basis. In-unit training should begin no later than 45 days (90 days AFRC/ANG) after reporting or being attached to a new duty station or unit.

**Table 1.2. In-Unit Training Time Limitations.**

Training	Time Limit
Initial Qualification	90 days
Difference Qualification	90 days
Requalification	90 days
Mission Qualification (ACC Boom Operator)	90 days (120 days)
Instructor Upgrade	60 days

**NOTE:** AFRC/ANG 180 days.

1.7.1.1. Unqualified up to 2 years. See AFI 11-202, Volume 1, paragraph 1.7.1.

1.7.1.2. Unqualified 2 to 5 years. See AFI 11-202, Volume 1, paragraph 1.7.2.

1.7.1.3. Unqualified over 5 years. See AFI 11-202, Volume 1, paragraph 1.7.3.

**Table 1.3. In-Unit Requalification Training (RQT) Requirements.**

<b>Code</b>	<b>Training Event</b>	<b>Pilot</b>	<b>CP</b>	<b>N</b>	<b>Boom</b>	<b>Notes</b>
A006	MPRS Difference Training	*1	*1		*1	10,11
A036	Pacer CRAG Difference Course	*1	*1	*1	*1	6
A028	Difference Course (KC-135R)	1	1	1	1	
A032	Difference Course (KC-135T)	1	1	1	1	
A034	Requalification Course	1	1	1	1	
A052	Receiver AR Indoctrination	1				
AA01	MAJCOM Qualification Evaluation	P	P	P	P	
C110	Fuel Management Advisory Computer (FMAC) training	1	1			8
C200	Air Force Mission Support System (AFMSS) training	1	1	1		8
G025	Aircraft Field Trip	1	1	1	1	
G130	Instrument Refresher Course (IRC)	1	1	1		
G150	BO TERPS				1	
G230	Crew Resource Management Refresher	1	1	1	1	
G259	Requalification Simulator	5	5		*2	4,5,6
LS08	Egress Training	1	1	1	1	
LS10	Hanging Harness Training	1	1	1	1	12
M001	Sortie (Does not include MAJCOM Qualification Eval)	5	5	5	5	1,11
N010	Tanker Rendezvous			P		
N015	Tanker Alternate Rendezvous	*P	*P	P		6
N016	Tanker Rendezvous Overrun Procedures	P	*P	P		6
N020	Tanker En Route Rendezvous	*P	*P	P		6
N030	Tanker Point Parallel Rendezvous	*P	*P	P		6
N050	Navigation Leg			2P		
N060	Mission Navigation Leg			P		
N090	Control Time and Position Exercise	*P	*P	P		6
N100	INS Airborne Alignment	*P	*P	2P		6
N120	ARDA			P		7
N131	En Route Rendezvous (Receiver)	*P	*P	P		3,6
N132	Point Parallel Rendezvous (Receiver)	P	*P	P		3,6
N150	Celestial Position			2P		7
N160	General Navigation	P	P	P		7
N160A	FMS Navigation	*P	*P	*P		6
N175	INS/DNS Radar Present Position Update			2P		7
PP01	Flight Physical	1	1	1	1	
PP11	Physiological Training	1	1	1	1	
P007	Approach to Initial Buffet and Recovery	1	1			9
P011	Takeoff, Night	P	P			

Code	Training Event	Pilot	CP	N	Boom	Notes
P012	Takeoff, Gyro Mode	P	P			
P015	Instrument Departure	4P	4P			
P018	Copilot Takeoff Duties	P	P			
P026	Takeoff and Climb Procedures	4P	4P			
P030	Max Mode T/O, 30 Flap	P	P			
P040	Simulated Engine Failure, Takeoff Continued	3P	3P			
P071	Holding	P	P			
P072	Penetration (Published)	P	P			
P073	En Route Descent	3P	3P			
P102	ILS (Gyro Mode)	2P	2P			
P103	PAR Approach	2P	2P			2
P110	Non-Precision Approach	6P	6P			
P112	TACAN, VOR or Localizer Approach	6P	6P			
P113	ASR Approach	2P	2P			2
P130	Circling Approach	1	1			
P160	Missed Approach	4P	4P			
P170	Approach and Go-Around, Simulated Engine-Out	3P	3P			
P171	Approach and Go-Around, Simulated Engine-Out, Rudder Power Off	P	1			
P180	Approach and Landing, Simulated Engine-Out	3P	3P			
P191	Landing, Full Stop, Reverse Thrust (if applicable)	2P	2P			8
P192	Night Landing	P	P			
P194	Landing, 30-Degree flaps	3P	3P			
P196	Landing, Full Stop	3P	3P			
P200	Touch-and-Go Landing	5P	5P			
P240	Landing Gear Alternate Extension	P	P	3P	3P	
P250	Main Flap Manual Operation	P	P	3P	3P	
P260	HAVE QUICK Radio Procedures	2P	2P			
P272	KY 58 Radio Operations	*P	*P	*P	*P	6
P340	Briefing and Control of Passengers				4P	
P345	Inflight Adjustment and Security of Load				4P	
P360	Mission Planning and Briefing	*P	*P	*P		6,10
P360A	AFMSS Mission Planning	*P	*P	*P		6
P361	Preflight	*P	*P	*P	*P	6,10
P364	Cruise	1				
P366	Checklist Procedures and Use	4P	4P	4P	4P	
P367	Crew Coordination	4P	4P	4P	4P	
P369	Aircraft Equipment Operation	4P	4P	4P	4P	11
Q001	Open-Book Qualification Examination	P	P	P	P	
Q002	Closed-Book Qualification Examination	P	P	P	P	

Code	Training Event	Pilot	CP	N	Boom	Notes
Q012	Supervision of Copilot Takeoffs, Landings and Rcvr AR	2P				
Q014	Difference Certification (MPRS)	*1	*1		*1	10,11
R010	Receiver AR	2P				3
R020	Receiver AR (Night)	2P				3
R050	Receiver AR, Tanker Autopilot Off	2P				3
R060	Tanker AR	3P	3P	3P	3P	
R070	Tanker AR Breakaway and Emergency Separation	2P	2P	*2P	3P	*7
R080	Tanker AR Autopilot Off	2P	2P		1F	
R120	Contacts				15P	
R125	Day Contacts				10P	
R130	Night Contacts				5P	
R135	Preparation for Contact Procedures	*1P	*1P		4P	10,11
R140	Tanker Manual Contact				6P	
R180	Radio Silent Visual Signals				2P	
R230	Emergency Boom Hoist		*F		1F	6

**NOTES:** (Any proficiency event with a minimum number may be proficiency advanced with squadron commander approval.)

1. A minimum of five sorties must be planned prior to MAJCOM qualification evaluation. The squadron commander or designated representative may waive the fifth sortie based on proficiency attained in all required training events.
2. If ASR or PAR approaches are not readily available, as determined by the operations officer, then P103 and P113 may be accomplished in the OFT. The method of accomplishment will be annotated on the training report in the individual's training folder. ANG/AFRC, ACC, and USAFE units without on-station OFT may complete training without this event.
3. Required for receiver pilots only.
4. Not required for units without a simulator.
5. N/A ANG/AFRC.
6. \*Required for requalification in units equipped with Pacer CRAG modified aircraft.
7. N/A for Pacer CRAG equipped units.
8. Required only if equipment on aircraft.
9. Accomplished in ATD only. **USAFE will conduct ground prebrief and accomplish this event during next continuation training simulator visit.**
10. \*Required for requalification in units equipped with MPRS modified aircraft. Not required for navigators.
11. Pilots and boom operators require a one-time only certification flight under supervision of a like-specialty MPRS instructor. MPRS certification is required prior to unsupervised equipment and AR Pod refueling operations in-flight. Not required for navigators.

12. Or as directed in the MAJCOM supplement to AFI 11-301, Aircrew Life Support Program.

**Table 1.4. Flight Instructor Requalification.**

<b>Is crew member qualified as a non-instructor in the KC-135?</b>	<b>Instructor Designation</b>	<b>Required Training</b>	<b>Instructor Evaluation</b>
Qualified	Removed for less than 18 months	Directed by the squadron commander	Recurring
Qualified	Removed for 18 months or more, but less than 36 months	Directed by the squadron commander and approved by the wing or group commander	Recurring
Qualified	Removed for 36 months or more	According to table 1.5.	Initial
Unqualified less than 2 years (Basic requal <u>not</u> required)	Removed for less than 36 months	Directed by the squadron commander and approved by the wing or group commander	Recurring
Unqualified 2 years or more (Basic requal required)	Removed for less than 36 months	According to table 1.5. (may simultaneously requal with basic requal)	Recurring
Unqualified 2 years or more (Basic requal required)	Removed 36 months or more but less than 5 years	According to table 1.5. (may simultaneously requal with basic requal)	Recurring
Unqualified 2 years or more (Basic requal required)	Removed 5 years or more	According to table 1.5. (may not simultaneously requal with basic requal)	Initial

**NOTES:**

1. Category is established at the start of requalification and does not change until instructor requalification is complete.
2. Those individuals requiring basic requalification will complete the requirements in table 1.3.
3. Basic and instructor requalification may be conducted simultaneously. Consult MAJCOM supplement to AFI 11-2KC-135, Volume 2 for guidance on simultaneous instructor requalification and basic requalification evaluations.
4. Wing and group DOT should provide a recommendation concerning training events to be accomplished to regain instructor status.

**Table 1.5. Instructor Requalification Training Requirements.**

<b>Code</b>	<b>Training Event</b>	<b>Pilot</b>	<b>Nav</b>	<b>Boom</b>	<b>Notes</b>
A010	Academics	1	1	1	
A044	Instructor Pre-Attendance Workbook	1	1	1	1
AA01	Instructor Flight Evaluation	1	1	1	
M001	Sortie (Includes MAJCOM Qualification)	3	3	3	
N060	Mission Navigation Leg		P		5
N140	Celestial Observation			P	5
P007	Approach to Initial Buffet and Recovery	P	F	F	2
P012	Takeoff-Gyro Mode	P			
P015	Instrument Departure	P			
P020	Takeoff	P			
P040	Simulated Engine Failure, Takeoff Continued	P			
P071	Holding	P			
P072	Penetration (Published)	P			
P073	En Route Descent	P			
P101	ILS Approach	P			
P102	ILS (Gyro Mode)	P			
P103	PAR Approach	P			3
P110	Non-Precision Approach	P			
P111	VOR/TACAN Procedures	P			
P130	Circling	P			
P140	Visual Traffic Pattern	P			
P160	Missed Approach	P			
P170	Approach and Go-Around, Simulated Engine Out	P			
P171	Approach and Go-Around, Simulated Engine Out, Rudder Power Off	P			
P180	Approach and Landing, Simulated Engine Out	P			
P190	Landing	P			
P194	Landing, 30-Degree Flaps	P			
P195	Landing, Simulated Engine Out, 4-Engine T/O	P			
P200	Touch-and-Go Landing	P			
P215	Landing Attitude Demonstration	P			
P240	Landing Gear Alternate Extension		P	P	
P250	Main Flap Manual Operation		P	P	
P340	Briefing and Control of Passengers			P	
P345	Troubleshooting AR Equipment Malfunctions			P	
P355	Inflight Adjustment and Security of Load			F	
P360	Mission Planning and Briefing	P	P	P	
P366	Checklist Procedures and Use	P	P	P	
P369	Aircraft Equipment Operation	P	P	P	

Code	Training Event	Pilot	Nav	Boom	Notes
P380	Spoiler and Lateral Control Demonstration	P			
P382	Trim Demonstration	P			
P383	Simulated Jammed Stabilizer Demonstration	P			
Q001	Open-Book Qualification Examination	1	1	1	
Q002	Closed-Book Qualification Examination	1	1	1	
R050	Receiver AR, Tanker Autopilot Off	P			
R060	Tanker AR	P		P	
R070	Tanker AR Breakaway and Emergency Sep	P		P	
R080	Tanker AR Autopilot OFF	P			
R120	Contacts			P	
R135	Preparation for Contact Procedures			P	
R140	Tanker Manual Contact			P	
R180	Radio Silent Visual Signals			P	

**NOTES:**

1. A044, CFIC Preattendance Workbook, is required if individual has been unqualified or removed from instructor status over 36 months. The squadron should request an instructor workbook from the ATS contractor if requalification is done in-unit. The workbook must be completed prior to the flight evaluation and returned to the contractor for grading.
2. Accomplished in ATD only. USAFE will conduct ground prebrief and accomplish this event during next continuation training simulator visit.
3. May be accomplished in the sim.
4. If crew member was not previously qualified in Pacer CRAG and/or certified in MPRS and is requalifying in a unit equipped with Pacer CRAG and/or MPRS aircraft, difference training IAW with the appropriate table must be accomplished.
5. N/A for Pacer CRAG equipped aircraft.

**1.9. AF Form 4022, Aircrew Training Folder, Management.** See Attachment 3.

2.1.1. In-unit difference training when the course is not available at the CCTS. (Note: Pacer CRAG and MPRS difference training will be accomplished in-unit. Pacer CRAG initial cadre training will be accomplished at McConnell AFB KS.)

2.5.2. The unit training manager or flight commander, after examining the training and evaluation records of the individual, will determine which training events are applicable. For Pacer CRAG training, all events in table 2.1 apply. For MPRS training, all events in table 2.4. apply.

2.5.2.1. Pacer CRAG Prerequisites. Accomplish C110, Fuel Management Advisory Computer (FMAC), and C200 AFMSS training prior to beginning Pacer CRAG training. Knowledge of these systems is necessary to be able to accomplish 3 and 4 person operations in Pacer CRAG equipped aircraft.

2.5.2.2. MPRS Prerequisites. Accomplish A006A, Multi-point Refueling System Difference CBT prior to one-time only certification sortie. Knowledge of MPRS systems and equipment is imperative to be able to accomplish AR Pod refueling operations in MPRS equipped aircraft.

**Table 2.1. Pacer CRAG Initial Cadre Qualification Training (ICQT) Requirements.**

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
A036	Pacer CRAG Difference Course	1	1	1	1	
A036A	Pacer CRAG Orientation (CBT)	1	1	1	1	
A036B	Flight Management System for Pilots and Navigators (CBT), part 1	1	1	1		6
A036C	Flight Management System for Pilots and Navigators (CBT), part 2	1	1	1		6
A036D	Color Radar for Pilots and Navigators (CBT)	1	1	1		6
A036E	Advanced Pacer CRAG Operations for Pilots and Navigators (CBT)	1	1	1		6
A036F	Practice Exercises for the MFD (PTT)	1	1	1		6
A036G	Practice Exercises for the FMS (PTT), Part 1	1	1	1		6
A036H	Practice Exercises for the FMS (PTT), Part 2	1	1	1		6
A036I	Practice Exercises for the Color Radar (PTT)	1	1	1		6
A036J	Practice Exercises for Pacer CRAG Operations (PTT)	1	1	1		6
A036K	Altitude Alerting System (IBT)	1	1	1	1	
A036L	Pacer CRAG Nav Techniques	1	1	1		
A036M	Pacer CRAG Table Top Trainer	1	1	1		4,6
A101	Multi-Function Display for Pilots (CBT)	1	1			6
A102	Basic Pacer CRAG Operations for Pilots (CBT)	1	1			6
A103	TCAS System (CBT)	1	1	1	1	8
A105	Pacer CRAG FMAC for Pilots (CBT)	1	1			
A106	Practice Exercise for FMAC (PTT)	1	1			
A201	Multi-Function Display for Navigators (CBT)			1		6
A202	Basic Pacer CRAG Operations for Navigators (CBT)			1		6
A301	Multi-Function Display for Booms (CBT)				1	6
AA01	Qualification Check	1	1	1		
F010	Formation Departure and Join-Up	P				

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
F020	Formation	P				
G025	Aircraft Field Trip	1	1	1	1	4
G080	Communication Procedures	F	F	P	P	7
G258A/B/ C/D/E	ATD Difference Training Profiles	5P	5P		1P	3,8
M001	Sortie	4P	4P	3P	2P	3
N010	Tanker Rendezvous	P	P	P		
N030	Tanker Point Parallel Rendezvous	P	P	P		
N040	Tanker RZ and A/R	P	P	P		2
N090	Control Time Exercise (Enroute Rz Substitute)	P	P	P		2
N100	INS Airborne Alignment	F	F	F		2
N130	Receiver Rendezvous	P	P	P		
N132	Receiver Point Parallel Rendezvous	P	P	P		
N136	Receiver Rendezvous Overrun Procedures	F	F	F		
N160A	FMS Navigation	P	P	P		
P012	Takeoff, Gyro Mode	P	P			2
P018	Copilot Takeoff Climb Duties	P	P			2
P020	Takeoff	P	P			
P026	Takeoff and Climb Procedures	P	P			2
P070	Instrument Approach	P	P			2,5
P071	Holding	P	P			2
P072	Published Penetration	P	P			2
P073	En Route Descent	P	P			2
P100	Precision Approach	P	P			2,5
P101	ILS Approach	P	P			2
P102	ILS Approach Gyro	P	P			2
P110	Non-Precision Approach	P	P			2,5
P111	VOR/TACAN/FMS Procedures	P	P			2
P112	TAC/VOR/LOC/FMS Approach	P	P			2
P160	Missed Approach	P	P			2,5
P190	Landing	P	P			
P191	Landing, Full Stop, Reverse Thrust	P	1			1
P240	Landing Gear Alternate Extension	F	F		F	
P260	HAVE QUICK Radio Procedures	P	P			
P272	KY 58 Radio Operation	P	P	P	P	
P360A	AFMSS Mission Planning	P	P	P		
P361	Preflight	P	P	P	P	
P366	Checklist Procedures and Use	P	P	P	P	
P367	Crew Coordination	P	P	P	P	
P368	Post Flight	P	P	P	P	

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
P369	Aircraft Equipment Operations	P	P	P	P	
Q002	Closed Book Qualification Examination	1	1	1		
Q014	Difference Certification				1	
R010	Receiver AR	P	F		A/R	1
R040	Receiver AR Breakaway and Emergency Separation	P	P	P	A/R	1
R050	Receiver AR, Tanker Autopilot Off	P	F			1
R060	Tanker AR	P	P			
R230	Emergency Boom Hoist	P	P		F	

**NOTES:**

1. As applicable.
2. Event creditable in the ATD.
3. May proficiency advance on instructor recommendation and squadron commander approval.
4. Optional but recommended.
5. Only one event per ATD may be logged.
6. Complete up to 60 days prior to Initial Cadre class start date.
7. GPS keys included.
8. 3 Person CRM sim for booms.

2.5.8. Pacer CRAG Prerequisites. Accomplish C110, Fuel Management Advisory Computer (FMAC), and C200 AFMSS training prior to beginning Pacer CRAG training. Knowledge of these systems is necessary to be able to accomplish 3 person operations in Pacer CRAG.

2.5.8.1. Once crew members start the simulator/flight phase of Pacer CRAG training, they will not fly non-modified aircraft until training/qualification/certification is complete. Dual qualification is in accordance with AFI 11-2KC-135, Volume 2.

2.5.8.2. Pacer CRAG Student Team Certification. Instructor pilots will occupy a seat with access to flight controls at all times prior to student's Pacer CRAG qualification evaluation unless Pacer CRAG student team certification has been approved. After directly supervising student performance on at least one flying sortie, the instructor may recommend, and the squadron operations officer or designated representative may approve, Pacer CRAG student team certification. After this certification, the instructor pilot may supervise all future training and evaluation activities from either the jump seat or the pilot/copilot seats. Document student team certification on the AF Form 4025, Summary/Closeout Training Accomplishment Report in the student's training folder.

2.5.9. MPRS Prerequisites. Accomplish A006A, Multi-point Refueling System Difference computer based training (CBT) prior to one-time only certification sortie. Knowledge of MPRS systems and equipment is imperative to be able to accomplish AR Pod refueling operations in MPRS equipped aircraft.

2.5.9.1. MPRS one-time certification sortie. Supervision of a like-specialty MPRS instructor is required to observe equipment and AR Pod refueling operations prior to unsupervised use in-flight. The instructor

pilot may supervise training activities from either the jump seat or the pilot/copilot seats. The instructor boom operator will observe training activities from the instructor position in the boom operator's compartment. Document certification on the AF Form 4025, Aircrew Summary/Close-Out Report in the student's training folder. Annotate "MPRS Difference Certification" in the individuals FEF on the AF Form 1381.

Renumber Table 2.1. Difference Qualification Training (DQT) Requirements to Table 2.2.

**Table 2.2.1. Pacer CRAG Difference Qualification Training (DQT) Requirements.**

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
A036	Pacer CRAG Difference Course	1	1	1	1	6
A036A	Pacer CRAG Orientation (CBT)	1	1	1	1	6
A036B	Flight Management System for Pilots and Navigators, Part 1 (CBT)	1	1	1		6
A036C	Flight Management System for Pilots and Navigators, Part 2 (CBT)	1	1	1		6
A036D	Color Radar for Pilots and Navigators (CBT)	1	1	1		6
A036E	Advanced Operations for Pilots and Navigators (CBT)	1	1	1		6
A036F	Practice Exercises for the MFD (PTT)	1	1	1		6
A036G	Practice Exercises for the Flight Management System, Part 1 (PTT)	1	1	1		6
A036H	Practice Exercises for the Flight Management System, Part 2 (PTT)	1	1	1		6
A036I	Practice Exercises for the Color Radar (PTT)	1	1	1		6
A036J	Practice Exercises for Pacer CRAG Operations (PTT)	1	1	1		6
A036K	Altitude Alerting System (IBT)	1	1	1	1	6
A036M	Pacer CRAG Table Top Trainer	1	1	1		4
A101	Multi-Function Display for Pilots (CBT)	1	1			6
A102	Basic Pacer CRAG Operations for Pilots (CBT)	1	1			6
A103	TCAS System (CBT)	1	1	1	1	
A105	Pacer CRAG FMAC for Pilots (CBT)	1	1			
A106	Practice Exercise for FMAC (PTT)	1	1			
A201	Multi-Function Display for Navigators (CBT)			1		6

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
A202	Basic Pacer CRAG Operations for Navigators (CBT)			1		6
A301	Multi-Function Display for Booms (CBT)				1	6
AA01	Pacer CRAG Difference Qualification Checkride	1	1	1		
G025	Aircraft Field Trip	1	1	1	1	4
G080	Communication Procedures	F	F	P	P	7
G258A/B/ C/D/E	ATD Difference Training Profiles	5P	5P		1P	3,4,8
M001	Sortie	2P	2P	2P	2P	3
N010	Tanker Rendezvous	P	P	P		
N030	Tanker Point Parallel Rendezvous	P	P	P		
N040	Tanker RZ and A/R	P	P	P		2
N090	Control Time Exercise (En route Rz Substitute)	P	P	P		2
N100	INS Airborne Alignment	P	P	P		2
N130	Receiver Rendezvous	P	P	P		1
N132	Receiver Point Parallel Rendezvous	P	P	P		1
N136	Receiver Rendezvous Overrun Procedures	F	F	F		1
N160A	FMS Navigation	P	P	P		
P012	Takeoff, Gyro Mode	P	P			2
P018	Copilot Takeoff Climb Duties	P	P			2
P020	Takeoff	P	P			
P026	Takeoff and Climb Procedures	P	P			2
P070	Instrument Approach	P	P			2,5
P071	Holding	P	P			2
P072	Published Penetration	P	P			2
P073	En Route Descent	P	P			2
P100	Precision Approach	P	P			2,5
P101	ILS Approach	P	P			2
P102	ILS Approach Gyro	P	P			2
P110	Non-Precision Approach	P	P			2,5
P111	VOR/TACAN/FMS Procedures	P	P			2
P112	TAC/VOR/LOC/FMS Approach	P	P			2
P160	Missed Approach	P	P			2,5
P190	Landing	P	P			
P191	Landing, Full Stop, Reverse Thrust	P	1			1
P240	Landing Gear Alternate Extension	F	F		F	
P260	HAVE QUICK Radio Procedures	P	P			
P272	KY 58 Radio Operation	P	P	P	P	

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
P360A	AFMSS Mission Planning	P	P	P		
P361	Preflight	P	P	P	P	
P366	Checklist Procedures and Use	P	P	P	P	
P367	Crew Coordination	P	P	P	P	
P368	Post Flight	P	P	P	P	
P369	Aircraft Equipment Operations	P	P	P	P	
Q002	Closed Book Qualification Examination	1	1	1		
Q014	Difference Certification				1	
R010	Receiver AR	P	F		A/R	1
R040	Receiver AR Breakaway and Emergency Separation	P	P	P	A/R	1
R050	Receiver AR, Tanker Autopilot Off	P	F			1
R060	Tanker AR	P	P			
R230	Emergency Boom Hoist	P	P		F	

**NOTES:**

1. As applicable.
2. Event creditable in the ATD.
3. May proficiency advance on instructor recommendation and squadron commander approval.
4. Optional but recommended.
5. Only one event per ATD may be logged.
6. Complete up to 60 days prior to beginning simulator/flying training.
7. GPS key included.
8. 3 Person CRM sim for booms.

**Table 2.2.2. MPRS Difference Qualification Training (DQT) Requirements.**

Code	Training Event	Pilot	CP	Boom	Note
<b>A006</b>	<i>MPRS Difference Course</i>	1	1	1	
A006A	MPRS Difference (CBT)	1	1	1	
G025	Aircraft Field Trip	1	1	1	
M001	Sortie (Does not include MAJCOM Qualification Evaluation)	1P	1P	1P	1
P360	Mission Planning and Briefing	1P	1P	1P	
P361	Preflight	1P	1P	1P	
P366	Checklist Procedures and Use	1P	1P	1P	
P367	Crew Coordination	1P	1P	1P	
P369	Aircraft Equipment Operation	1P	1P	1P	
Q002	Closed-Book Qualification Examination	P	P	P	

Code	Training Event	Pilot	CP	Boom	Note
Q014	Difference Certification	1	1	1	1
R073	AR Pod Bkwy and Emer Separation	1P	1P	1P	
R135	Preparation for Contact Procedures	1P	1P	1P	
R155	Probe and Droque Contact			2P	
R160	Radio Silent Breakaway	1P	1P	1P	
R180	Radio Silent Visual Signals			1P	
R195	Tanker Wing Pod AR	1P	1P	1P	

**NOTE:**

1. Pilots and boom operators require a one-time only certification flight under supervision of a like-specialty MPRS instructor. MPRS certification is required prior to unsupervised equipment and AR Pod refueling operations in-flight. Not required for navigators.

2.6.2. HQ AFRC and ANGRC may designate individuals as SIOP dual qualified. SIOP dual qualified pilots will be designated by name by HQ AFRC and ANGRC. SIOP dual qualification allows pilots to sit SIOP alert in Pacer CRAG and non-Pacer CRAG aircraft and fly either as necessary to maintain currency.

Renumber Table 2.2. Senior Officer Qualification and Requalification Requirements to Table 2.4.

**Table 3.1. Mission Qualification Ground Training Requirements.** If conventional taskings prevent completion of mission qualification training prior to deployment, contact parent MAJCOM for waiver approval. Waivers will be approved on a case-by-case basis. Previously certified and qualified mission-ready crew members transferring between units only need any unit specific training in these events and any applicable events in which they have lost currency.

Code	Training Event	Pilot	Copilot	Nav	Boom	Note
A037	SIOP Performance Training	P	P			1,2
G002	Aircraft Marshaling Training and Examination	1	1	1	1	1,5,8,12
G003	Flightline Drivers Training and Examination	1	1	1	1	1,5,7
G010	Chemical Biological Warfare Training	1	1	1	1	1,8,11
G031	Initial Command and Control Procedures	P	P	P	P	1,2
G033	Unit Alert Procedures	P	P	P	P	1,2,5
G034	MITO Training	P	P	P	1	2,8
G035	PLZT Goggle Training	1	1	1	1	1,2,4
G036	Flash Blindness and Thermal Protection	P	P	P	P	1,2
G040	SIOP Study	P	P	P	P	2
G041	Unit Mission Briefing	1	1	1	1	5,11
G060	Tactics	1	1	1	1	5,11
G070	Aircrew Intelligence Training	1	1	1	1	11
G080	Communications Procedures	1	1	1	1	1,12
G090	Anti-hijacking	1	1	1	1	1
G100	Laws of Armed Conflict	1	1	1	1	1
G110	Force Protection Requirements	1	1	1	1	1

Code	Training Event	Pilot	Copilot	Nav	Boom	Note
G120	ISOPREP Review	1	1	1	1	11
G130	IRC	1	1	1		12
G150	TERPS				1	12
G182	Hazardous Cargo Training	1			1	3,10
G183	Floor Loading				1	10
G184	Palletized Cargo Loading				1	3,10
G190	Aircraft Servicing	1	1	1	1	1,2
G210	Alert Start Procedures	P	P	F	F	2
G230	CRM	1	1	1	1	12,14
G240	CRM/MOST Simulator	1	1	1	1	8,10,11,14
G257	KC-135E Simulator	1	1			8,9
G280	Small Arms Training	1	1	1	1	3,11
LS04	Aircrew Chemical Defense Training (ACDT)	1	1	1	1	8,11
LS05	Egress Training with ACDE	1	1	1	1	8,11,13
LS08	Egress Training	1	1	1	1	1,8,12
LS10	Hanging Harness Training	1	1	1	1	1,8
LS12	Hanging Harness Training with ACDE	1	1	1	1	8,11,13
PP01	Flight Physical	1	1	1	1	12
PP11	Physiological Training	1	1	1	1	12
Q010	SIOP Certification	1	1	1	1	2,5,6
Q016	Conventional Certification	1	1	1	1	5,6,11
S-V80-A	Initial Combat Survival Training	1	1	1	1	
S-V90-A	Initial Water Survival Training	1	1	1	1	

## NOTES:

1. AC upgrades are not required to accomplish if previously accomplished as a copilot.
2. Required for units with SIOP DOCs. Units with a primary or secondary SIOP DOC must have 100 percent of their line crews SIOP certified. With the exception of G035, all items must be completed prior to Q010, SIOP Certification.
3. Individuals may be declared MR without completing events G182, G184, and G280. G182/G184 must be completed not later than 180 days following certification or prior to cargo or passenger mission, whichever comes first. G280 must be completed not later than 180 days following certification or prior to flying a mission requiring arming, whichever comes first.
4. G035 must be completed within 60 days of helmet modification; crew member may be declared MR prior to completing G035.
5. Previously certified and qualified mission-ready crew members in a cross-flow program (between flying units) only need any unit specific training in these events, and any applicable events in which they have lost currency.
6. Q010 and Q016 may be accomplished prior to aircraft qualification/requalification, however, an individual cannot be signed off as certified or mission ready until all training is complete. Individuals who are

at their unit and awaiting the start of the formal school may begin MQ ground training and establish reference dates.

7. Required only for those crew members who need to drive on the flightline as determined by the squadron commander.
8. Or as directed in the associated MAJCOM supplement.
9. E-model qualified pilots and copilots only.
10. Credit may be awarded if the event was accomplished at the formal school.
11. Not required for formal schoolhouse instructors.
12. Formal schoolhouse crew members will complete these items prior to certification in their unit mission.
13. One-time-only event in each MDS.
14. USAFE: Contractor CRM training fulfills this requirement.

**Table 3.2. Mission Qualification Flight Training Requirements.** *Previously certified and qualified mission-ready crew members transferring between units only need any unit specific training in these events, and any applicable events in which they have lost currency.*

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
F020	Formation Flight	P	P			10
P260	HAVE QUICK Radio Procedures	P	P			4,11
P270	SECURE RADIO Operation	P	P	P		4,11
P280	ACDTQT	1	1	1	1	4,11
P290	Alert Start	P	P			9,11
Q011	Formation Lead Certification Program	1				12
Q021	BRAVO Qualification (Probe)				P	2,7
Q022	CHARLIE (Day) Qualification (Fighter)				P	2,7,8
Q023	CHARLIE (Night) Qualification (Fighter)				P	2,7,8
Q028	GOLF Qualification (KC-10, C-17, C-5)	P			P	1,3,7,8
Q031	JULIET Qualification (B-2 Night)				P	6,7,8
R160	Radio Silent Breakaway				P	
R165	Radio Silent AR				P	

NOTES:

1. Pilots may be declared mission-ready when qualified in category receivers required by unit mission.

2. When day and night AR qualification is required, day qualification must be accomplished prior to commencing night training and qualification.
  3. All receiver category qualification will be conducted under direct supervision of a like-specialty instructor.
  4. AC upgrades are not required if deemed proficient at schoolhouse.
  5. Deleted
  6. Must be supervised by a Q031 qualified instructor.
  7. With program manager recommendation and squadron commander approval, boom operators may be declared qualified in a specific air refueling category.
  8. Boom Operators may be declared mission-ready and can deploy forward when qualified in category receivers required by unit mission or when items Q22, Q23, and Q28 have been accomplished. Completion of the remaining events may be accomplished in theater with an instructor. Unit SIOP mission required events will be accomplished within 60 days of return to home station; all other events will be accomplished at the earliest opportunity.
  9. Required for units with SIOP DOCs.
  10. Required for Pacer CRAG mission ready status.
  11. Not required for formal schoolhouse.
  12. Pilots may be considered mission qualified without Q011. Pilots must complete Q011 at earliest possible opportunity.
- 3.4.1. Theater Indoctrination (TI). All USAFE aircrews will complete TI ground training prior to flight training. TI flight training may be combined with initial MQT sorties, but must be the first sortie flown in theater. Supervision will be an IP or IN.
- 3.4.1.1. Ground Training. The wing/group will develop the TI ground training program. The unit may develop procedures specific to their mission and location, however the following blocks of instruction will be covered as a minimum:
- 3.4.1.1.1. Instrument training: a thorough review of theater-unique instrument requirements and procedures to include but not limited to: nav aids, European air traffic control, Flight Information Publications/ Foreign Clearance Guide study, non-DoD approach procedures (Jeppesen), required instrumentation for specific approaches, local publications and regulations, flight planning, European weather phenomena (emphasis on local conditions), spatial disorientation, and theater buffer zone procedures.
- 3.4.1.1.2. Video presentations: Jeppesen approach charts.
- 3.4.1.1.3. Basic airmanship review: visual illusions, command special interest items, and USAFE local area exercise procedures.
- 3.4.1.2. Flight Training. The wing/group developed TI program will consist of a minimum of one sortie emphasizing European flying environment, ATC procedures, basic airmanship, and local orientation. Individual TI events may be accomplished during MQT, however, all TI events will be complete prior to MR or theater certification. Aircrews will demonstrate proficiency in the following minimum events:
- 3.4.1.2.1. Route abort (when applicable).

3.4.1.2.2. All instrument procedures including each type of instrument approach (precision and non-precision) procedure the aircraft is capable of flying.

3.4.1.2.2.1. At least one approach will be flown at a non-USAFE base.

3.4.1.2.2.2. At least one approach will be flown at the unit's primary divert base or location.

3.4.1.2.3. Operational mission or unit specific mission training requirements.

4.1.4.1. If the crew member is NMR for failure to maintain currency per paragraph 4.6.1.1., place the crew member in supervised status for that event (individual flies with an instructor of like specialty) until required training is accomplished. Loss of currency prohibits an individual from flying outside of the CONUS or accomplishing unsupervised inflight duties in the noncurrent event(s). For example, if the individual is noncurrent for an event such as tanker air refueling or tanker rendezvous, the individual may fly unsupervised on CONUS sorties which are not scheduled for and do not accomplish tanker air refueling. MAJCOMs outside of the CONUS may allow individuals to fly local, routine, and non-contingency overseas sorties in their respective theater (OG is the approval authority). **EXCEPTION:** An individual noncurrent in takeoffs (P020), full stop landings (P190), approaches (P070), and night landings (P192) will not fly unsupervised on any sortie. The crew member cannot deploy until currency is regained.

4.1.4.2.2. Place the crew member in supervised status (individual flies with an instructor of like specialty) until required training is accomplished. The operations group commander may allow individuals to fly unsupervised on CONUS sorties if loss of MR status was for failure to complete ground/flying continuation training. MAJCOMs outside of the CONUS may allow individuals to fly local, routine, and non-contingency overseas sorties in their respective theater (OG is approval authority).

4.1.4.3. Copilots, navigators, and boom operators who are undergoing mission qualification training and are current and qualified, may fly without an instructor of like specialty on CONUS only sorties. Aircraft commanders will not fly unsupervised until they have been approved by the Review and Certification (R&C) Board per AFI 11-2KC-135, Volume 2, *Aircrew Evaluation Criteria*. Upon completion of the R&C board, aircraft commanders, provided they are current and qualified, may fly unsupervised. For example, if a boom operator is current and qualified on refueling C-141s, the OG/CC can allow him/her to fly on a CONUS only mission that is scheduled to refuel a C-141. Exercise caution as the scheduled receiver could cancel and a new receiver might be scheduled for which the boom operator is not qualified to refuel. MAJCOMs outside of the CONUS may allow individuals to fly local, routine, and non-contingency overseas sorties in their respective theater (OG is approval authority).

4.2.2. Training Levels (TL). Before each semiannual period, the squadron commander will assign each crew member a TL. TL assignment is based on experience and aircraft proficiency. Crew members may be assigned ground training levels that are more restrictive, but never less restrictive than the requirements in paragraph 4.2.2.2. Use the date of the initial qualification inflight evaluation for determining an individual's time in the weapon system. TL definitions follow:

4.2.2.2. Ground Training Levels (GTL):

4.2.2.2.1. GTL "1"—highly experienced crew members with 10 or more years operational flying (operational flying does not include UFT time).

4.2.2.2.2. GTL “2”– experienced crew members with at least 5 years but less than 10 years operational flying.

4.2.2.2.3. GTL “3”– inexperienced crew members with less than 5 years operational flying.

4.2.2.2.4. GTL “4”– NMR senior officers, staff officers, and those not required to maintain MR status. For GTL 4, use table 4.4.

4.2.2.3. Change of FTL or GTL. Once the semiannual period begins, personnel should not be moved to a level requiring fewer events. Personnel may be moved to FTL “E” or GTL “4” when appropriate. Basic aircraft qualified crew members may be placed in a different FTL any time after attaining MR status.

4.4.1.2. Flight Surgeons comply with requirements of table 4.5.

**Table 4.1. Ground Continuation Training Requirements. (Definitions also apply to flying tables.)**

1. Course descriptions can be found in Attachment 2								
2. Use the following definitions for the regular frequency of ground training:								
2.3. <b>B—Biennial.</b> Accomplished every 2 calendar years. Initial accomplishment establishes a currency reference year.								
2.4. <b>A—Annual.</b> Accomplished once each calendar year. Initial accomplishment establishes a currency reference year.								
2.5. <b>SA—Semiannual.</b> Accomplished each 6 month training period.								
2.6. <b>T—Triennial.</b> Accomplished every 3 calendar years. Initial accomplishment establishes a currency reference year.								
2.7. <b>Q—Quarterly.</b> Accomplished twice each training period, once in the first 3 months and once in the second 3 months.								
2.8. <b>M—Monthly.</b> Accomplished each calendar month.								
2.9. <b>A/R—As Required.</b>								
2.10. <b>C—Cycle.</b> In conjunction with qualification evaluation (i.e., every 17 months).								
<b>Pilot/Copilot</b>		<b>Pilot Training Level</b>			<b>Copilot Training Level</b>			<b>Notes</b>
<b>Code</b>	<b>Training Event</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>3</b>	
G010	Chem-Biological Warfare Defense Training	T	B	B	B	B	B	5,11
G030	SIOP Command & Control Procedures	Q	Q	Q	Q	Q	Q	1,8,11
G034	MITO Procedures	A	A	A	A	A	A	12
G040	SIOP Study	Q	Q	Q	Q	Q	Q	1,8,11
G041	Unit Mission Briefing	AR	AR	AR	AR	AR	AR	
G060	Tactics	T	A	A	A	A	A	11
G070	Aircrew Intelligence Training	A	A	A	A	A	A	11
G080	Communications Procedures	A	A	A	A	A	A	
G130	Instrument Refresher Course	C	C	C	C	C	C	
G182	Hazardous Cargo Training	T	B	A				
G210	Alert Start Procedures	A	A	A	A	A	A	1
G222	Hydraulics	A	A	A	A	A	A	6
G223	Flight Controls	A	A	A	A	A	A	6
G224	Fuel Systems	A	A	A	A	A	A	6
G225	Electric Systems	A	A	A	A	A	A	6
G226	Environmental Systems	A	A	A	A	A	A	6
G227	Engines, Propulsion, APU	A	A	A	A	A	A	6,7
G230	CRM/MOST Refresher	A	A	A	A	A	A	7,15
G240	CRM/MOST Simulator	A	A	A	A	A	A	5,6,11,15
G252	Electrics Simulator	A	A	A	A	A	A	5,6,7,13
G253	Hydraulics Simulator	A	A	A	A	A	A	5,6,7,13
G254	Engines Simulator	A	A	A	A	A	A	5,6,7,13
G255	Fuels Simulator	A	A	A	A	A	A	5,6,7,13

G256	Pneumatics/Aerodynamics Simulator	A	A	A	A	A	A	5,6,7,13
G270	Tactics Simulator	A	A	A	A	A	A	5,11,13, 14
G280	Small Arms Training (SAT)	B	B	B	B	B	B	10,11
G802	SOAR Ground Training	A	A	A	A	A	A	4
LS02	Combat Survival Training	T	T	T	T	T	T	5,11
LS03	Water Survival Training	T	T	T	T	T	T	5
LS04	Aircrew Chemical Defense Training	B	B	B	B	B	B	5,11
LS08	Egress Training	T	T	B	T	T	B	5,9
LS10	Hanging Harness Training	A/R	A/R	A/R	A/R	A/R	A/R	3,5
PP01	Flight Physical	A	A	A	A	A	A	9
PP11	Physiological Training	T	T	T	T	T	T	9
Q010	SIOP Certification	A	A	A	A	A	A	1,2,11
Q016	Conventional Certification	AR	AR	AR	AR	AR	AR	
RR01	Flight Records Review	A	A	A	A	A	A	3

## NOTES:

1. Required for units with SIOP DOCs.
2. Includes SIOP Certification and Preparation for SIOP Certification.
3. Included as ground training for documentation or AFORMS tracking only.
4. Required for SOAR certified aircrews only.
5. Or as directed in the associated MAJCOM supplement.
6. Credit during initial, upgrade, and requalification training to establish reference dates.
7. Creditable during CCTS and CFIC training.
8. If not completed in the previous quarter, the present quarter's training must include the previous quarter's training.
9. Mandatory grounding item on expiration date. Individual will not fly until required training is complete. For PP11, USAFE personnel are required to accomplish every 4 years. (If 3 years is exceeded, person must accomplish within 90 days of PCS to CONUS). See further instructions in AFI 11-403.
10. Expires 2 years from the date of accomplishment.
11. Not required for formal schoolhouse instructors.
12. Required for units whose SIOP DOCs require this capability.
13. AFRC pilots and copilots are required two of the five refresher simulators per year. Log G990/991.
14. Not required for units without simulators.
15. USAFE: Contractor CRM training fulfills this requirement.



Navigator/Boom Operator		Nav Training Level			Boom Training Level		
Q016	Conventional Certification	AR	AR	AR	AR	AR	AR

**NOTES:**

1. Required for units with SIOP DOCs.
2. Includes SIOP Certification and Preparation for SIOP Certification.
3. Dual-log with G170.
4. To credit G227, navigators and boom operators must complete the APU portion.
5. Included as ground training for documentation or AFORMS tracking only.
6. Required for SOAR certified aircrews only.
7. Creditable during CCTS and CFIC training.
8. If not completed in the previous quarter, the present quarter's training must include the previous quarter's training.
9. Or as directed in the associated MAJCOM supplement.
10. Mandatory grounding item on expiration date. Individual will not fly until required training is complete. For PP11, USAFE personnel are required to accomplish every 4 years. (If 3 years is exceeded, person must accomplish within 90 days of PCS to CONUS.) See further instructions in AFI 11-403.
11. Expires 2 years from the date of accomplishment.
12. Not required for formal schoolhouse instructors.
13. Credit during initial, upgrade, and requalification training to establish reference dates.
14. Required for units whose SIOP DOCs require this capability.
15. OG/CCs may waive G240 for Navigators and Boom Operators when either the unit is not co-located with a simulator or when the simulator is not equipped with the applicable crew position.
16. \*Pacer CRAG qualified boom operators flying on 3 person crews.
17. USAFE: Contractor CRM training fulfills this requirement.
18. Not required for units without simulators.

**Table 4.3. Ancillary Ground Training Requirements. (Does not affect MR status.)**

Pilot/Copilot/Navigator/Boom Operator		Training Level			Notes
Code	Training Event	1	2	3	
RR01	Flight Records Review	A	A	A	
G090	Anti-hijack	B	B	B	
G100	Laws of Armed Conflict	A	A	A	
G110	Protection From Terrorism	T	B	A	NA for formal schoolhouse instructors
G120	ISOPREP Review	180	180	180	NA for formal schoolhouse instructors
G190	Aircraft Servicing	T	T	T	

**Table 4.4. Ground Training Level 4 Continuation Training Requirements (NMR Senior Officer, BMC, and Staff Officer).**

Code	Event	Frequency
G130	Instrument Refresher Course (IRC)	C
G230	CRM Refresher	A
G240	CRM/MOST Simulator	A
LS08	Egress Training	B
PP01	Flight Physical	A
PP11	Physiological Training	T
RR01	Flight Records Review	A

**NOTE:** LS08, PP01, PP11 are mandatory grounding items for non-accomplishment (**PP11, USAFE every 4 years**). For PP11, rated officers with greater than 25 years time in service, only require physiological training every 5 years. G240 is as directed in MAJCOM supplement. **USAFE: Contractor CRM training fulfills requirement for G230/G240.**

**Table 4.5. Flight Surgeon Ground Continuation Training Events.**

Event	Code	Frequency
Chemical-Biological Defense Training <sup>2</sup>	G010	B
Anti-hijack <sup>2</sup>	G090	B
Laws of Armed Conflict <sup>2</sup>	G100	A
Force Protection Requirements <sup>2</sup>	G110	A
ISOPREP Review <sup>2</sup>	G120	180
CRM (One-time requirement in primary assigned aircraft) <sup>3</sup>	G230	Initial
High-Threat Combat Survival <sup>2</sup>	LS02	T
Water Survival <sup>2</sup>	LS03	T
Aircrew Chemical Defense Training <sup>2</sup>	LS04	B
Aircraft Ground Egress Training <sup>1</sup>	LS08	B
Flight Physical <sup>1</sup>	PP01	A
Physiological Training <sup>1</sup>	PP11	T
Written Exam	Q001	C
Flight Records Review	RR01	A

**NOTES:**

1. Mandatory grounding item.
2. Flight Surgeons without a mobility requirement do not need to accomplish this training.
3. USAFE: Contractor CRM training fulfills this requirement.

Table 4.6. Flying Continuation Training Semiannual Requirements (KC-135E/R/T).

Code	Training Event	Pilot						Copilot					Notes
		A	B	C	D	E	CUR	A	B	C	D	CUR	
F010	Formation Departure and Join-up	1	2	2	2			1	1	1	1		1,2,3
F020	Formation	1	2	3	4			1	1	2	2		1,2,3
F030	Large Formation Departure and Join-up	A	A	A	A			A	A	A	A		1,2, 3
F040	Large Formation	A	A	A	A			A	A	A	A		1,2, 3
F060	AR Formation	1	2	2	2			2	2	2	2		1,2,3
HM005	Dual Qual Sortie	1	1	1	1		<b>60</b>	1	1	1	1	<b>60</b>	12
M010	Proficiency Sortie	2	2	2	2			2	2	2	2		
M020	Unit Specific Training Sortie	6	6	6	7			6	6	6	7		1,3,7, 12
M030	Overseas Sortie	2A	2A	2A	2A			2A	2A	2A	2A		1,2,3, 13
N010	Tanker Rendezvous	4	5	6	7		<b>*60</b>	2, *4	2, *5	3, *6	3, *7		11,12
N0 20	Tanker En Route Rendezvous	1	1, *2	1, *2	1, *2			1, *2	1, *2	1, *2	1, *2		11
N0 30	Tanker Point Parallel Rndz	2	2	2	2			1, *2	1, *2	1, *2	1, *2		11
N040	Tanker Anchor Rndz and AR	1	1	1	1			1	1	1	1		1,3
N100	Airborne Alignment	*A	*1	*1	*1			*A	*1	*1	*1		11
N110	Communication Procedures	1	1	2	2			1	1	2	2		7,8
P010	Takeoff-Initial	2	4	6	7	2	<b>Q</b>	2	4	6	7	<b>Q</b>	
P020	Takeoff	12	18	24	30	6	<b>M</b>	12	18	24	30	<b>M</b>	10,12
P030	Max Mode Takeoff, 30 Flap	1	1	1	1								
P040	Sim Eng Failure Takeoff Continued	2	2	2	2								
P053	Spiral Up Departure	A	A	A	A								3,13
P055	Tactical GPS Approach	*A	*A	*A	*A								11,13
P061	VFR Overhead	A	A	A	A								3,13
P064	Random Steep Arrival	A	A	A	A								3,13
P065	Curvilinear Approach	A	A	A	A								3,13
P070	Instrument Approach	15	20	26	32	6	<b>M</b>	15	20	26	32	<b>M</b>	12
P100	Precision Approach	6	6	8	10	2		6	6	8	10		
P110	Non-Precision Approach	6	6	8	10			6	6	8	10		
P130	Circling	2	2	2	2			2	2	2	2		10
P140	Visual Traffic Pattern	2	2	2	2			2	2	2	2		
P160	Missed Approach	2	3	3	3			2	3	3	3		
P170	Appr & GA (Sim Eng Out)	2	3	3	3								
P180	Appr & Landing (Sim Eng Out)	2	2	2	2								
P190	Landing	12	18	24	30	6	<b>M</b>	12	18	24	30	<b>M</b>	12
P191	Landing, FS, Reverse Thrust	2	2	2	2		<b>Q</b>						6

		Pilot						Copilot					
P192	Landing, Night	2	2	2	2		<i>SA</i>	2	2	2	2	<i>SA</i>	
P200	Touch and Go Landing						<i>M</i>						9,12
P2 40	Landing Gear Alternate Extension	A	1	1	1			A	1	1	1		7
P2 50	Main Flap Manual Operation	A	1	1	1			A	1	1	1		7
P260	HAVE QUICK Radio Procedures	2	2	2	2			2	2	2	2		
P2 70	SECURE RADIO Operation	2,*1	2	2	2			2	2	2	2		3,11
P2 71	Authentication Procedures	*1	*1	*1	*1			*1	*1	*1	*1		11
P280	ACDTQT	A	A	A	A			A	A	A	A		1
P290	Alert Start	A	A	A	A	A		A	A	A	A		1,2,8
P3 10	Instructor and Evaluator Duties	2	2										
R010	Receiver AR	4	5	6	7		<i>Q</i>						5
R020	Receiver AR (Night)	1	2	3	3								5
R035	Receiver AR (Heavy Onload)						<i>A</i>						5
R040	Receiver AR Bkwy and Emergency Separation	1	1	1	1			1	1	1	1		5
R050	Receiver AR Tanker Autopilot Off	2	2	2	2								5
R060	Tanker AR	8	9	12	15		<i>Q</i>						10
R070	Tanker AR Bkwy Procedures	2	2	2	2			2	2	2	2		
R080	Tanker AR Autopilot Off	2	3	3	3								
R100	Tanker AR Heavy Receiver	2	2	2	2								
S036	SOAR Rendezvous	A	A	A	A			A	A	A	A		4
S200	NVG Operation	A	A	A	A			A	A	A	A		4

**NOTES:**

1. Pilots assigned to MAJCOM Headquarters, NAF, TACC, formal schoolhouse, and AMWC are not required to accomplish.
2. NAF evaluators may receive credit when observing, instructing, or evaluating these events.
3. Not required for formal schoolhouse instructors.
4. Required for SOAR certified pilots only.
5. Required for receiver qualified pilots only.
6. E-model requirement only.
7. MAJCOMs may substitute "A" for "1" as directed in MAJCOM supplement.
8. Only required for units with SIOP DOCs.
9. Currency requirement for ACs only; no currency requirement for IPs.

10. Or as directed by MAJCOM supplement. (P020, ANG may substitute number of times event is accomplished; R060 currency is Q, MAJCOMs may lower number of times required.)

11. \*Pacer CRAG qualified crew members only.

12. For dual qualified pilots, one event every 60 days will be accomplished in Pacer CRAG and non-Pacer CRAG equipped aircraft.

13. N/A for units permanently based overseas.

**Table 4.7. Flying Continuation Training Semiannual Requirements (KC-135E/R/T).**

Navigator		Training Level						CUR	Notes
Code	Training Event	A	B	C	D	E			
F010	Formation Departure & Join-up	1	2	2	2			1,2,3	
F020	Formation	1	2	3	4			1,2,3	
F030	Large Formation Dept and Join-up	A	A	A	A			1,2,3	
F040	Large Formation	A	A	A	A			1,2,3	
F060	AR Formation	1	1	2	2			1,2,3	
M005	Dual Qualification Sortie	1	1	1	1		60	9	
M020	Unit Specific Training Sortie	3	5	6	6			3,6,9	
M030	Overseas Sortie	2A	2A	2A	2A			1,2,3,10	
N010	Tanker Rendezvous	4	5	6	7	1	60		
N020	Tanker En Route Rendezvous	1	2	2	2				
N030	Tanker Point Parallel Rendezvous	1	2	2	2				
N040	Tanker Anchor Rendezvous and AR	1	1	1	1			3	
N050	Navigation Leg	1	2	3	4			8	
N060	Mission Navigation Leg	A	1	2	3			8	
N065	Tactical Navigation Leg	A	1	1	1			8	
N080	Grid Entry and Exit Exercise	1	1	2	2			8	
N090	Control Time and Position Exercise	A	1	1	1				
N100	INS Airborne Alignment	A	1	2	3			8	
N110	Communications Procedures	1	2	3	3			6,7	
N120	ARDA	1	1	2	2			8	
N130	Receiver Rendezvous	1	2	2	2			4	
N136	Rcvr Rendezvous Overrun Procedures	A	1	2	2			4	
N150	Celestial Position	2	3	4	5			8	
P240	Landing Gear Alternate Extension	A	1	1	1			6	
P250	Main Flap Manual Operation	A	1	1	1			6	
P270	SECURE RADIO Operation	1	1	2	2			3	
P271	Authentication Procedures	1	1	1	1				
P280	ACDTQT	A	A	A	A			1,3	
P310	Instructor and Evaluator Duties	2	2						
R040	Receiver AR Breakaway and Emergency Separation	1	1	2	2			4	
R070	Tanker AR Breakaway and Emergency Separation	A	1	2	2			8	
S003	Parallel Converging Rendezvous	A	A	A	A			5	
S004	En Route Overtaking Rendezvous	A	A	A	A			5	
S036	SOAR Rendezvous	A	A	A	A			5	

Navigator		Training Level						
S101	Inflight Comm Training	A	A	A	A			5

**NOTES:**

1. Navigators assigned to MAJCOM Headquarters, NAF, TACC, formal schoolhouse, and AMWC are not required to accomplish.
2. NAF evaluator instructors may receive credit when observing, instructing, or evaluating these events.
3. Formal schoolhouse instructors are not required to accomplish.
4. Required for receiver qualified navigators only.
5. Required for SOAR certified navigators only.
6. MAJCOMs may substitute "A" for "1" as directed in MAJCOM supplement.
7. Only required for units with SIOP DOCs.
8. N/A for Pacer CRAG qualified navigators.
9. For dual qualified navigators, one event every 60 days will be accomplished in Pacer CRAG and non-Pacer CRAG equipped aircraft.
10. N/A for units permanently based overseas.

**Table 4.8. Flying Continuation Training Semiannual Requirements (KC-135E/R/T).**

Boom Operator		Training Level						
Code	Training Event	A	B	C	D	E	CUR	Notes
M005	Dual Qualification Sortie	1	1	1	1		<b>60</b>	9
<b>M010</b>	Proficiency Sortie	3	3	3	3			2,6
<b>M030</b>	Overseas Sortie	A	A	2A	2A			2,10,11
<b>N140</b>	Celestial Observation	1	2	2	3			5
<b>P240</b>	Landing Gear Alternate Extension	A	1	1	1			4
<b>P250</b>	Main Flap Manual Operation	A	1	1	1			4
<b>P270</b>	SECURE RADIO Operations	1,*1	1,*1	1,*2	*2			8
<b>P280</b>	ACDTQT	A	A	A	A			2,10
<b>P300</b>	Cargo Loading	1	1	1	1			1,2,4,10
<b>P310</b>	Instructor and Evaluator Duties	2	2					
<b>R070</b>	Tanker AR Breakaway and Emergency Separation	1	1	2	3	1		
<b>R100</b>	Tanker AR, Heavy Receiver	1	2	2	3			
<b>R120</b>	Contacts	15	18	24	30	5	<b>45</b>	1
<b>R130</b>	Night Contacts	5	6	8	10		<b>180</b>	1,7
<b>R140</b>	Tanker Manual Contact	2	3	4	5			
<b>R150</b>	Fighter Contact	2	2	2	3	1	<b>180</b>	1,6
<b>R160</b>	Radio Silent Breakaway	1	1	1	1			2,6
<b>S036</b>	SOAR Rendezvous	A	A	A	A			3
<b>S101</b>	Inflight Comm Training	A	A	A	A			3
<b>S200</b>	NVG Operation	A	A	A	A			3

**NOTES:**

1. BOs assigned to MAJCOM headquarters, TACC, NAF, AMWC, TALCE, formal schoolhouse, and AMOG will use these tables with the following exceptions:

(1) P300 currency requirement is expanded to 1/365 days for MAJCOM; (2) R120 currency requirement is expanded to 1/60 days;

(3) R150 currency is 1/365 days with no frequency requirements; and (4) M030 is not required.

2. Not required for formal schoolhouse instructors.

3. Required for SOAR certified BOs only.

4. MAJCOMs may substitute "A" for "1" as directed in MAJCOM supplement.

5. N/A for Pacer CRAG.

6. Or as directed by MAJCOM supplement. (R150; MAJCOMs may require "1" for TL A.)

7. Alaska ANG night requirements waived during summer months.

8. \*Required for Pacer CRAG qualified boom operators.

9. For dual qualified boom operators, one event every 60 days will be accomplished in Pacer CRAG and non-Pacer CRAG equipped aircraft.

10. Boom operators assigned to MAJCOM Headquarters, NAF, TACC, and AMWC are not required to accomplish.

11. N/A for units permanently based overseas.

**Table 4.9. Flight Events Creditable In ATD.**

<b>Code</b>	<b>Training Event</b>	<b>Number Creditable</b>
N040	Tanker RZ and A/R	ALL
N090	Control Time Exercise (En Route RZ Substitute)	ALL
N100	INS Airborne Alignment	ALL
N165	Fixing	ALL
P006	Airwork	ALL
P015	Instrument Departure	ALL
P018	Copilot Takeoff Climb Duties	ALL
P026	Takeoff and Climb Procedures	ALL
P027	EWO Departure	ALL
P051	Tactical VFR Departure	ALL
P070	Instrument Approach	1 Per Sim
P071	Holding	ALL
P072	Penetration (Published)	ALL
P073	En Route Descent	ALL
P100	Precision Approach	1 Per Sim
P101	ILS Approach	ALL
P102	ILS (Gyro Mode)	ALL
P103	PAR Approach	ALL
P110	Non-Precision Approach	1 Per Sim

Code	Training Event	Number Creditable
P111	VOR/TACAN Procedures	ALL
P112	TACAN, VOR, and Localizer Approach	ALL
P113	ASR Approach	ALL
P160	Missed Approach (Manual)	1 Per Sim
P171	Approach and Go-Around Simulated Engine-Out, Rudder Power Off	ALL
P280	ACDTQT	ALL
P310	Instructor and Evaluator Duties	ALL
P311	Flight with an Instructor	ALL
P365	Autopilot Off Cruise	ALL

Renumber Table 4.6. to Table 4.10.

5.2.1.4. Complete applicable ground and flying requirements of this instruction.

**NOTE:** AFCAT 36-2223 details prerequisites and special requirements for the formal school AC upgrade course. Units should send names of candidates to fill allocated AC upgrade quotas to HQ AMC/DOTF, or MAJCOM equivalent, no later than 45 days prior to the class start date. The CCTS syllabus lists training events for upgrade training at the formal school.

#### **Notes to Table 5.1. In-Unit AC Upgrade Requirements.**

**NOTES:** (Any proficiency event with a minimum number may be proficiency advanced with squadron commander approval.)

1. For in-unit AC upgrade, accomplish F010 FTO training once as lead and once in any following position. For in-unit pilot requalification, F010 will not be accomplished as lead.
2. For in-unit AC upgrade, if ASR and PAR approaches are not readily available as determined by the operations officer, this training event may be accomplished in OFT. Method of accomplishment will be annotated in the individual's training record. ANG units without on-station OFT may complete training without this event.
3. For in-unit AC upgrade, accomplish reverse refueling training as an instructor-led ground training seminar.
4. Accomplished in ATD only. **USAFE will conduct ground prebrief and accomplish this event during next continuation training simulator visit.**
5. Required for receiver AR qualification only.
6. Must be accomplished if training will establish a new credit reference year, otherwise credit if accomplished as a copilot during the current year.

**Notes to Table 5.3. Instructor Upgrade Flying Time Prerequisites.****NOTES:**

1. Requires minimum of 6 months experience as an AC.
  2. Total flying time is career military flying time logged in the crew position the individual will upgrade in. Time includes "student," "other," and level C+ simulator time, but does **not** include time logged in other simulators.
  3. All "level C+" (as certified by HQ AMC/DOT) simulator time in weapon system may be included as -135 time and total time for upgrade.
  4. The operations group commander may waive the minimum flying hour requirements for instructor upgrade.
- 5.4.2.2. Units should send the names of candidates to fill allocated CFIC quotas to HQ AMC/DOTF, or MAJCOM equivalent, no later than 30 days prior to class start date.
- 5.4.2.3.1. Pilots—Minimum of 3 right seat flights with one full profile sortie (to include AR). Table 5.4 lists required events to prepare IP candidates for CFIC profiles. Pilots from Pacer CRAG units will also perform the items with (PC) indicated.

**Table 5.4. Pilot Pre-CFIC Training.**

Code	Event	Number	Code	Event	Number
N010	Tanker Rendezvous (PC)	2	P193	Landing, 50-Degree Flaps	2P
N020	Tanker En Route Rendezvous (PC)	1	P194	Landing, 30-Degree Flaps	2
N030	Tanker Pt Parallel Rendezvous (PC)	1	P215	Landing Attitude Demonstration	2
N100	INS Airborne Alignment (PC)	1	P240	Landing Gear Alternate Extension	1
P012	Takeoff-Gyro Mode	1	P250	Main Flap Manual Operation	1
P040	Simulated Eng Failure, Take-off Cont	2	P360	Mission Planning and Briefing	1
P100	Precision Approach	2P	P361	Preflight (Right Seat)	1
P110	Non-Precision Approach	2P	P382	Trim Demonstration	1
P171	App & Go, Sim Eng Out, Rud Pwr Off	2	P383	Simulated Jammed Stabilizer Demonstration	2
P180	Landing, Simulated Engine Out	2	P380	Spoiler and Lateral Control Demonstration	1

5.4.2.6.5. AFMAN 11-217, Volume 1, *Instrument Flight Procedures*.....Pilot

5.6.5.2.4. Certification by the squadron commander.

**NOTE:** Formation lead certification activity should **not** be accomplished concurrently with initial qualification training. Formation training accomplished during CCTS or in-unit upgrade is creditable for AC

upgrades and requalification only. Formation lead certification is a mission qualification training requirement.

6.7.2.3. HQ AMC/DOTV, HQ ACC/DOTV, HQ AETC/DOFM, HQ AFRC/DOA, ANG/XOOM, HQ PACAF/DOTT, and HQ USAFE/DOTO:

### Attachment 1

#### *Abbreviations and Acronyms*

<b>AAS</b>	Altitude Alerting System
<b>A/R POD</b>	Air Refueling POD
<b>BIT</b>	Built-In Test
<b>BITE</b>	Built-In Test Equipment
<b>CDU</b>	Control Display Unit
<b>DRCU</b>	Digital Refueling Control Unit
<b>EHSI</b>	Electronic Horizontal Situation Indicator
<b>FCV</b>	Fuel Control Valve
<b>FDE</b>	Fault Detection and Exclusion
<b>FMAC</b>	Fuel Management Advisory Computer
<b>FMS</b>	Flight Management System
<b>GCAS</b>	Ground Collision Avoidance System
<b>GPWS</b>	Ground Proximity Warning System
<b>ISO VLV</b>	Isolation Control Valve
<b>MFD</b>	Multi-Function Display
<b>MPRS</b>	Multi-point Refueling System
<b>NOT STW</b>	Not Stowed
<b>PCBT</b>	Portable Computer Based Training
<b>PCP</b>	Pod Control Panel
<b>PCMCIA</b>	Personal Computer Memory Card Interface Association
<b>POD EGD</b>	Pod Engaged
<b>RAIM</b>	Receiver Autonomous Integrity Monitoring
<b>RAT</b>	Ram Air Turbine
<b>RNP</b>	Required Navigation Performance
<b>SELCAL</b>	Selective Calling System
<b>SPR</b>	Single-point Refueling Manifold
<b>TCAS</b>	Traffic Alert Collision Avoidance System

#### *Terms*

**Part Task Trainer (PTT)**—A device used to practice a specific task such as cargo door operation, cargo loading training, or receiver AR. PTT also refers to the computer-based system trainer used in Pacer CRAG, FMAC, and other system modifications.

**Table Top Trainer**—Training device using actual aircraft hardware to train Pacer CRAG FMS and flight display system operation.

**Attachment 2****Training Event Descriptions**

**A006**—MPRS Difference Training

**A006A**—MPRS Difference (CBT)

**A036**--Pacer CRAG Difference Training

**A017—Publication/Directive Knowledge/Use.** For AC upgrades, a minimum of AFI 11-202, Volume 3, AFI 11-401, AFI 11-2KC-135 (Volumes 2, *C/KC-135 Aircrew Evaluation Criteria*, and 3, *C/KC-135 Operations Procedures*), and AFMAN 11-217. For IBO upgrade, a minimum of AFI 11-2KC-135, Volume 1, *C/KC-135 Aircrew Training*, Volume 3, and applicable MDS Tech Orders, with an emphasis on amplified checklist and systems knowledge.

**AA01—Qualification Check**

**F020—Formation.** Follow procedures from AFTTP 3-1, Volume 22, *Tactical Employment, KC-135/KC-10*, and AFI 11-2KC-135, Volume 3, Chapter 18. At least 30 minutes of formation should be planned and accomplished. Crew commanders must brief that portion of the mission their crew will lead. Accomplish using EMCON 2 procedures (**not applicable for formal schoolhouse**). Accomplish P260 and P270 during each formation flight. Essential radio communications required for safety of flight or failure to accomplish a P260 or P270 does not preclude crediting the event. For continuation training, credit may be taken for all formation positions. Copilots must demonstrate proficiency in copilot duties to receive credit. Log only one F020 per sortie. For Pacer CRAG mission-ready training, the intent is to gain proficiency preflighting and operating TCAS for station keeping. For Pacer CRAG crews, this item is creditable from lead or wing position.

**G190—Aircraft Servicing:**

**Purpose.** To ensure all crewmembers are familiar with the procedures necessary to service their aircraft at a post-SIOP recovery base when qualified maintenance support is not available. Completion of this course does NOT qualify crews to perform maintenance tasks, but does allow them to assist qualified maintenance personnel in ground refueling operations.

**Description.** Classroom instruction or CBT covering servicing requirements of the aircraft, safety, approved fuels, lubricants and fluids, frequency of servicing, and aircraft servicing locations and requirements. Course includes field trip for hands-on demonstration by qualified maintenance personnel or a unit instructor boom operator who has completed the Maintenance Qualification Training Program (MQTP) for servicing. **For USAFE CBT fulfills requirement.**

**OPR:**

MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Training aids and media: CBT or classroom instruction.

Instructor: Qualified maintenance personnel/unit instructor boom operator who has completed MQTP.

### **G230—Crew Resource Management (CRM) Refresher:**

**Purpose.** Mission-specific continuation CRM training conducted according to AFI 11-290.

**Description.** Reinforces initial CRM training through an academic review of the common core subjects (according to AFI 11-290) with specific emphasis on an annual refresher topic.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: ATS contractor

**Additional Information:** G230 must be accomplished before G240, CRM Simulator (N/A for ACC). Completion of any CRM prework is required prior to attending CRM refresher training. Prework will be distributed to organizations in sufficient time and supply to allow completion. USAFE: Contractor CRM training fulfills this requirement.

### **G231—Initial Crew Resource Management (CRM):**

**Purpose.** Aircraft and crew-specific CRM training conducted according to AFI 11-290, *Cockpit/Crew Resource Management Program*.

**Description.** Introduces common core subjects (according to AFI 11-290). If initial CRM is not accomplished at the formal school, it must be accomplished within 1 year of reporting to home station. Dual log with G230 for AFORMS tracking purposes.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: ATS contractor

**Additional Information.** Completion of any CRM prework, if applicable, is required prior to attending CRM training. Prework will be distributed to organizations in sufficient time and supply to allow completion. Dual log accomplishment of G231 with G230 for AFORMS tracking purposes. **USAFE: Contractor CRM training fulfills this requirement.**

### **G240—Crew Resource Management (CRM) Mission Oriented Simulator Trainer (MOST) Simulator:**

**Purpose.** To provide hands-on application of classroom-presented CRM refresher concepts through CRM simulator training addressing human factors issues in a realistic mission scenario.

**Description.** CRM Mission Oriented Simulator Training conducted according to AFI 11-290.

**OPR:**

MAJCOM: HQ AMC/DOT

Unit: ATS contractor

**Additional Information.** Should be accomplished in conjunction with G230, CRM Refresher. Optimal scheduling of CRM simulator is not later than 5 days following completion of G230. **USAFE: Contractor CRM training fulfills this requirement.**

**G257— KC-135E Simulator.** Dual log with G990/G991.

**G258A-E--Pacer CRAG Differences Training OFT Profiles.** Five profiles beginning with basic and normal procedures and progressing through more challenging scenarios, culminating in a CRM period in OFT 5. Boom operators attend the second (B) and fifth (E) OFT periods.

**G990—AFRC/ANG Refresher Sim A.** First of two required sims for AFRC/ANG pilots. Log when complete in lieu of G252, G253, G254, G255, or G256.

**G991—AFRC/ANG Refresher Sim B.** Second of two required sims for AFRC/ANG pilots. Log when second sim is complete in lieu of G252, G253, G254, G255, or G256.

#### **H140--Anthrax (Initial Series)**

#### **H141--Anthrax (Recurrent)**

#### **LS01—Local Area Survival.**

**Purpose.** One time event conducted prior to the first flight at home station to familiarize aircrew members with local equipment and rescue procedures.

**Description.** Unit specific equipment (i.e., different variants of the same airframe; EC-135/KC-135) and local rescue procedures may be peculiar to home station or local training area. See AFI 11-301 and MAJCOM supplement (**For USAFE, reference USAFE 11-301.**)

#### **OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**Additional Information.** Each unit is responsible for tailoring training to meet unit needs.

#### **LS02—High Threat Combat Survival Training (CST):**

**Purpose.** To provide aircrews with the information necessary to survive in any peacetime or wartime environment.

**Description.** Aircrew members demonstrate their ability to operate LSE, employ survival/evasion techniques, and rescue procedures under simulated combat conditions. Course satisfies self-aid and buddy care requirements of AFI 36-2238, *Self-Aid and Buddy Care Training*. See AFI 11-301 for course description and MAJCOM supplement (**For USAFE, reference USAFE 11-301.**)

#### **OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**Additional Information.** Each unit is responsible for tailoring training to meet unit needs, IAW AFI 36-2209, *Survival and Code of Conduct Training*. CST “hands on” requirement may be met by classroom or field training at unit commander discretion based on unit mission. Course length will not exceed one training day. Units may schedule aircrew members to complete both CST and WST events in a single training day. For PACAF, reference PACAF 11-301.

### **LS03—Water Survival Training (WST):**

**Purpose.** To provide aircrews the opportunity to demonstrate their ability to use weapon system specific flotation devices and LSE components available during an overwater emergency.

**Description.** Crew members will demonstrate the ability to employ water survival techniques and rescue procedures. Survivor needs using water-related equipment, accessories, and procedures will be stressed. An emphasis will be placed on the appropriate use of passenger support equipment and the proper care of passengers during a survival situation. See AFI 11-301 and MAJCOM supplement (**For USAFE, reference USAFE 11-301.**)

#### **OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**Additional Information.** Each unit is responsible for tailoring training to meet unit needs. WST “hands on” requirement may be met by classroom or pool training at unit commander discretion based on unit mission. Course length will not exceed six hours. Units may schedule aircrew members to complete both WST and CST in a single training day.

### **LS04—Aircrew Chemical Defense Training (ACDT):**

**Purpose.** Provide training to all crew members stationed in or subject to deployment or operations through a chemical threat area (CTA).

**Description.** Academic and equipment training in which the aircrew member demonstrates and performs donning, doffing, buddy dressing procedures using either the first generation ACDE or Aircrew Eye/Respiratory Protection (AERP) equipment and Contamination Control procedures. Donning, doffing of equipment, and decontamination during exercises fulfills training requirement. Units may combine this training with G010 (Chemical-Biological Warfare Training), provided both aircrew and ground ensembles are fully covered (AFPD 11-3, AFI 11-301). See AFI 11-301 for course description and MAJCOM supplement (**For USAFE, reference USAFE 11-301.**)

#### **OPR:**

MAJCOM: HQ AMC/DOT

Unit: Aircrew Life Support

**M005---Dual Qual Sortie.** Use this event to track sorties in the secondary aircraft. The secondary aircraft is the aircraft less frequently flown.

**A2.7. Navigation (“N”) Events:**

**N110—Communication Procedures.** Crewmembers will copy at least one emergency action message using both HF or UHF radios (only the first six elements of a UHF message are necessary). Contact a global command and control station using HF radio. Crewmembers will also accomplish launch and authentication check. A log will be maintained of all communications.

**N160A—Flight Management System (FMS) Navigation.** Comply with FMS navigation procedures in AFI-112KC-135, Volume 3. Includes directing the aircraft, monitoring navigation systems for accuracy, maintaining track, establishing reliable ETAs, and meeting control times.

**A2.8. Crew and Individual Proficiency (“P”) Events:**

**P007—Approach to Initial Buffet and Recovery.** ATD Only. **Not required for USAFE; conduct ground prebrief and accomplish this event during next continuation training simulator.**

**P055—Tactical GPS Approach.** Approach directed by pilot using the aircraft GPS as the primary means. For Pacer CRAG qualified crew members only.

**P111—VOR/TACAN/FMS Procedures.** Includes fix-to-fix navigation, course interception, and general radio aid navigation. This event does not include an instrument approach.

**P360A—AFMSS Mission Planning.**

**A2.9. Examinations, Qualifications, and Certifications (“Q”) Events:****A2.10. Air Refueling (“R”) Training Events:**

**R140—Tanker Manual Contact.** Prior to attempting, students must demonstrate knowledge of tanker manual operational equipment and procedures.

**R225—Reverse AR.** Practice of this procedure by KC-135s in the tanker role is restricted to CCTS/CFIC only. KC-135R/Ts may practice procedure under direct IP supervision on aircraft equipped with the Boeing ARR system.

**A2.11. Special Operations (“S”) Training Events:****A2.12. Air Force Specified (“XX”) Training Events:**

**PP11—Physiological Training** (AFI 11-403 *Aerospace Physiological Training*). Currency expires 3 years after the last day of the month in which accomplished (example: if training was accomplished 19 Oct 1995, training is due not later than 31 Oct 1998). **USAFE personnel are required to accomplish**

**every 4 years. If 3 years is exceeded, person must accomplish within 90 days of PCS to CONUS.**

Rated officers with greater than 25 years time in service only require physiological training every 5 years. See further instructions in AFI 11-403.

**A2.13. Additional Event Identifiers.** These identifiers will be used if units choose to track the associated events and items in AFORMS:

**A3.2. Instructions for AF Form 4022.** This folder is constructed of hard stock paper. The inside covers have tables for documenting training. AF Forms 4023, 4024, and 4025 and additional information (waivers, memorandums, etc.) will be attached through the centered holes of the folder. Training guides will be placed inside the folder. Obtain folder through the AF publications distribution system IAW AFI 37-161, *Distribution Management*. Comply with the following when documenting aircrew training. **USAFE may use 3-part training folder.**