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*SECRETARY OF THE AIR FORCE*

*AIR FORCE INSTRUCTION 11-2B-1,*
*VOLUME 1*

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*Flying Operations*

*B-1 AIRCREW TRAINING*

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This volume implements AFPD 11-2, *Aircraft Rules and Procedures*, AFPD 11-4 *Aviation Services*, and AFI 11-202 Vol 1, *Aircrew Training*. It establishes the minimum Air Force standards for training personnel performing duties in the B-1. This instruction does not apply to the Air Force Reserve Command (AFRC) or Air National Guard (ANG). MAJCOMs/DRUs/FOAs are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ USAF/XOOT, through HQ ACC/DOTO, for approval prior to publication IAW AFPD 11-2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM to HQ USAF/XOOT, HQ ACC/DOTO, and the user MAJCOM/ DRU/FOA office of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. **NOTE:** The terms Direct Reporting Unit (DRU) and Field Operating Agency (FOA) as used in this paragraph refer only to those DRUs/FOAs that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. See paragraph **1.3.** of this volume for guidance on submitting comments and suggesting improvements to this publication.

This instruction requires the collection or maintenance of information protected by the Privacy Act of 1974. The authority to collect and maintain the records prescribed in this instruction are Title 37 USC 301a, Incentive Pay: Public Law 92-204 (Appropriations Act for 1973), Section 715; Public Law 93-570 (Appropriations Act for 1974); Public Law 93-294 (Aviation Career Incentive Act of 1974); Air Force Instruction 11-401, *Aviation Management*; and E.O. 9397. System of records notice F011 AF XO A, Aviation Resource Management System (ARMS) applies. The reporting requirements in this instruction are exempt from licensing in accordance with paragraph 2.11.10 of AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123, *Management of Records,* and disposed of in accordance with the *Air Force Records Disposition Schedule (RDS)* located at **https://webrims.amc.af.mil**

This instruction contains references to the following field (subordinate level) publications and forms which, until converted to departmental level publications and forms, may be obtained from the respective MAJCOM publication office:

**Publications:** ACCI 11-103, ACCI 11-460, ACCI 11-464, and ACCI 14-250.

### *SUMMARY OF REVISIONS*

This rewrite removes all guidance applicable to the ANG. Events non-instructor Squadron Supervisors are allowed to supervise (including recurrencies) are reduced. Bomb run events are changed to weapon delivery events. Paragraph **1.2.4.4.** now requires units to send all flying training syllabi to MAJCOM DO for approval. Several debrief tools are added to paragraph **1.9.** Policy for retaining certifications for RTC graduates is clarified in paragraph **2.5.4.** Paragraph **2.6.3.** adds guidance on FIC flights conducted by operational units. Paragraph **3.1.3.** changes the notification for MQT time exceeded from the ACC/DO to ACC/DOT. Low altitude requirements for MQT are reduced in paragraph **3.5.4.** Paragraph **3.5.6.** & **3.5.7.** add CAS procedures and NVG aided AR rendezvous to required MQT items. An addition to paragraph **3.6.5.** allows SQ/CC to waive 2-ship requirement for LASDT sorties in certain situations. Paragraph **3.7.1.** clarifies night TF requirements for RTC students. Paragraph **3.9.2.** says a flight surgeon's first B-1 flight must be with an IWSO. Required topics are added to weapons and tactics academic training in paragraph **4.2.8.2.2.** Evasion & recovery training, formerly part of intelligence training, is now part of CST. References in **Table 4.2.** are updated and CRM training no longer affects CMR/BMC status. SERE and life support training are separated and changed. Several notes dealing with WST requirements are added to **Table 4.3.** Training requirements for test units are clarified in paragraphs **4.3.5.** & **4.4.1.** The High Altitude Formation currency is deleted, and several other currencies and notes are revised on **Table 4.5.** The Precision Approach currency is changed to an Instrument Approach currency. High Altitude Visual Formation and copilot air refueling Non-RAP event are added to **Table 4.4.** In paragraph **5.4.3.1.** and **Attachment 2** JDAM events are all re-designated GBU-31 events. Paragraph **5.4.3.2.** adds weapons qualification data for CBU-103/4/5. Entry requirements for PUP are changed in paragraphs **6.2.1.3.1.** and **6.2.1.3.2.** Paragraph **6.2.2.4.** adds the requirement for a copilot monitoring class in PUP. Paragraph **6.2.3.** requires PUPs to be proficient in monitoring copilot AR. The Visual Formation checkout program is completely revised in paragraph **6.8.** The program is split into several phases, and the requirement for a set number of sorties is deleted. Paragraph **6.10.** adds an FIC Instructor upgrade program. Several terms are added to **Attachment 1**, including Guided Weapon, Non-demanding NVG, and Long Duration Sortie. Several events are added to **Attachment 2**, including: CAS Training Sortie, CT II, Link-16, GMTI, MM/Radar Targeting, TST, NVG Aided Rendezvous, Anchor Refueling, Mountainous TF, and CAS Targeting Exercise. The requirement for EC is deleted from the requirements for a Low Altitude Training Sortie. Several JDAM events have been changed to guided events, and several other guided weapon events are added. The RAP Shortfall Report at **Attachment 4** is revised. **Attachment 5** has been renamed Long Duration Training and reorganized. The Command Relations in paragraph **A5.2.,** and Long Duration duty day waivers and post flight rest requirements are revised in paragraph **A5.4.**

# Chapter 1

## GENERAL GUIDANCE

**1.1. References and Supporting Information.** See **Attachment 1**.

**1.2. Responsibilities.**

1.2.1. HQ ACC/DO is designated as the responsible agency for this instruction IAW AFPD 11-2, *Aircraft Rules and Procedures*. The ACC/DO will:

1.2.1.1. Chair semi-annual Combat Air Force (CAF) Realistic Training Review Boards (RTRB) to review ground and flying training requirements/programs for CAF units. RTRB participants will include applicable ACC active and reserve component representatives. MAJCOM/DOs with major weapons systems for which ACC is lead command will be invited to send representatives and/or inputs.

1.2.1.2. Process all change requests.

1.2.2. All applicable Major Commands (MAJCOMs) will, as applicable:

1.2.2.1. Determine training requirements to meet expected unit taskings.

1.2.2.2. Forward all MAJCOM/FOA/DRU supplements to HQ ACC/DOTO, who in turn will forward to HQ USAF/XOOT for approval prior to publication; and forward one copy to HQ USAF/XOOT after publication. Provide all MAJCOM/DOs a copy of approved supplements to this instruction.

1.2.2.3. Review subordinate unit supplemental instructions and supplemental training programs annually.

1.2.3. Direct Reporting Units (DRUs) will:

1.2.3.1. Provide standard instructional texts to support operational weapons/tactics training. Forward two copies of each to MAJCOM and NAF/DO/OV, and five copies to each CAF wing/group.

1.2.3.2. Review, update, and distribute changes to instructional texts annually.

1.2.3.3. Review subordinate unit training programs annually.

1.2.4. Wings/Groups will:

1.2.4.1. Develop programs to ensure training objectives are met. Assist subordinate units in management of training programs, ensure programs meet unit needs, and provide necessary staff support.

1.2.4.2. Attach API-6/8 flyers to a flying squadron.

1.2.4.3. Designate the training level which each API-6 flyer will train to. Upon request provide MAJCOM/DOT with a list of Basic Mission Capable (BMC) and Combat Mission Ready (CMR) designated manning positions. Review programs and manning position designations annually.

1.2.4.4. If applicable, forward supplements of this instruction to MAJCOM DO for Approval. Units will develop a syllabus for all post-FTU flight training programs and forward these syllabi to MAJCOM DO for approval. Review supplements and syllabi annually.

1.2.4.5. Identify training shortfalls that adversely impact combat capability. Units are required to submit anticipated shortfall reports each quarter to MAJCOM/DOT (info copy to NAF/DO). Reports are due 31 Jan, 30 Apr, 31 Jul, and 31 Oct (end of the training cycle summary shortfall report). Prior to submitting the end of cycle report, units are reminded to prorate incomplete training, as detailed in **Chapter 4**, **Chapter 5**, and **Chapter 6** of this volume and the RAP tasking message (For training report format see **Attachment 4**, Training Shortfall Report). **NOTE:** An example of this report is available on the HQ ACC/DOTO homepage. Negative reports are required.

1.2.5. Squadron Supervision will:

1.2.5.1. Ensure adequate continuity and supervision of individual training needs, experience, and proficiencies of assigned/attached aircrew.

1.2.5.2. Review training and evaluation records of newly-assigned aircrew and those completing formal training to determine the training required for them to achieve BMC or CMR and to ensure provisions of this instruction have been met.

1.2.5.3. Ensure Ready Aircrew Program (RAP) missions are oriented toward developing basic combat skills, or practicing tactical employment simulating conditions anticipated in the unit mission. Provide guidance to ensure only effective RAP missions are logged as RAP sorties. See **Attachment 2** for RAP mission definitions.

1.2.5.4. Review qualifications and training requirements of Flight Surgeons (FS) and determine appropriate flight restrictions.

1.2.5.5. Determine the mission(s)/events individual Basic Mission Capable (BMC) aircrew will maintain qualification versus familiarization.

1.2.5.6. Determine utilization of BMC aircrew.

1.2.5.7. Determine how many and which BMC and CMR aircrew will carry special capabilities/qualifications.

1.2.5.8. Identify the levels of supervision required to accomplish the required training, unless specifically directed.

1.2.5.9. Determine breadth and depth of supervisory review of weapon delivery recordings.

1.2.5.10. Assist the wing/group in developing the unit training programs.

1.2.5.11. Monitor individual assigned/attached aircrew currencies and requirements.

1.2.5.12. Ensure aircrew only participate in sorties, events, and tasks for which they are adequately prepared, trained, and current.

1.2.6. Individual crewmembers will:

1.2.6.1. Hand carry all available training records to the gaining unit to assist in assessing qualifications and training requirements.

1.2.6.2. Be responsible for completion of training requirements and currencies within the guidelines of this instruction.

1.2.6.3. Ensure they participate only in ground and flying activities for which they are qualified and current.

**1.3. Processing Changes.**

1.3.1. Forward recommendations for change to this instruction using normal channels, to MAJCOM DOT on AF Form 847, **Recommendation for Change of Publication**.

1.3.2. MAJCOMs will forward approved recommendations to HQ ACC/DO through HQ ACC/DOTO.

1.3.3. HQ ACC/DO will:

1.3.3.1. Coordinate all changes to the basic instruction with all MAJCOM/DOs.

1.3.3.2. Process recommendation for change.

1.3.3.3. Forward recommended changes to AF/XOOT for AF/XO approval.

1.3.3.4. Address time sensitive changes by an immediate action message.

1.3.4. MAJCOM/DOs will determine training requirements for their subordinate units. These training requirements will be coordinated through ACC/DO and approved by AF/XO. This includes making changes, additions, or deletions to this instruction at anytime. These changes may be via MAJCOM supplement, RAP tasking message, or immediate change messages. HQ ACC/ DO will be an info addressee on all changes. ACC/DO will include MAJCOM supplemental guidance in the next publication of this instruction.

**1.4. Phases of Training.** Training programs are designed to progress aircrew from Initial Qualification Training (IQT) or Transition/Re-Qualification Training (TX), then to Mission Qualification Training (MQT), and finally to Continuation Training (CT).

1.4.1. IQT, TX and SSQC provide the training necessary to initially qualify aircrew in a basic position and flying duties without regard to the unit's mission. Upon completion of IQT, TX or SSQC, the crewmember attains Basic Aircraft Qualification (BAQ) status. BAQ is a prerequisite for MQT. Except for General Officers above the wing level, BAQ is not a long-term qualification status. Waiver authority for any crewmember, other than General Officers above the wing level and API 6/8 aircrew in designated Test Squadrons located at a base without B-1 aircraft, to remain BAQ for longer than 6 months is MAJCOM DO.

1.4.2. MQT provides the training necessary to initially qualify or re-qualify aircrew in a specific position and flying duties to perform the missions assigned to a specific unit. Aircrew maintain BAQ status until they complete MQT. Completion of MQT or a Formal Training Unit (FTU) instructor course is a pre-requisite for BMC and CMR.

1.4.3. CT. There are two aspects of CT. The first consists of aircrew training in the basic flying skills contained in **Table 4.4.** These skills (Non-RAP requirements) ensure safe operation of the aircraft. The second consists of specific mission-related training required to accomplish the unit's assigned missions.

1.4.4. Ready Aircrew Program (RAP) is the CT program designed to focus training on capabilities needed to accomplish a unit's core tasked missions. Following completion of IQT/TX and MQT, aircrew are trained in all the basic missions of a specific unit, unless excepted in **Chapter 3**. Aircrew are assigned to either a Combat Mission Ready (CMR) position or a Basic Mission Capable (BMC) position.

1.4.4.1. CMR. The minimum training required for aircrew to be qualified and proficient in all of the primary missions tasked to their assigned unit and weapons system.

1.4.4.2. All Designated Combat (CC-coded) Aircraft unit active duty API-1/2 positions, flying SQ/CC and SQ/DO positions are designated CMR positions. OG/CCs may designate other API-6 positions not assigned to the flying squadron as CMR. Exception; If a unit is over-manned, the SQ/CC may elect to train the front line of their Unit Manning Document (UMD) API-1/2s to CMR and designate the overage BMC. In this case, priority should be given to inexperienced aircrew with at least 50%, if available designated CMR. CMR aircrew will maintain proficiency and qualification in all core missions of the flying unit to which they are assigned or attached. CMR aircrew maintain currencies which affect CMR status, accomplish all core designated flight training (sorties and events), and all mission ground training. Failure to complete this training or maintain these currencies results in regression to Non-CMR (N-CMR) status, unless waived by appropriate authority. While N-CMR, aircrew may perform missions (including exercises and contingencies) in which they are current, qualified, and either familiar or proficient, similar to BMC aircrew.

1.4.4.3. BMC. The minimum training required for aircrew to be familiarized in all, and may be qualified and proficient in one or some, of the primary missions tasked to their assigned unit and weapons system.

1.4.4.4. All other active duty wing aircrew positions, not identified in paragraph **1.4.4.2.** are designated BMC positions. BMC designation is assigned to aircrew that have a primary job performing wing supervision or staff functions that directly support the flying operation, FTU instructors, WS instructors, operational test aircrew, and subject matter experts assigned to 29 TSS/ DET 4 and TRSS DET 14. However, these aircrew are required to provide additional sortie generation capability, either in lieu of or in addition to, the personnel assigned to the flying squadrons. BMC aircrew will maintain familiarization with all unit core missions. They may also maintain proficiency and qualification in one or some of the unit core missions. For those missions in which they maintain familiarization only, BMC aircrew must be able to attain proficiency and qualification in 30 days or less. BMC aircrew will accomplish all mission related ground training designated by their attached SQ/CC. BMC aircrew may deploy and participate in any mission for which they are proficient and qualified, without additional training, as determined by the SQ/CC. Failure to complete BMC required training results in regression to Non-BMC (N-BMC) status. While N-BMC, aircrew may not perform RAP training sorties without supervision until SQ/CC approved re-certification program is complete.

1.4.4.5. N-BMC/N-CMR. Aircrew that regress to N-BMC/N-CMR status will accomplish the requirements according to paragraph **4.10.**

1.4.4.6. Specialized Training. Specialized training is training in any special skill necessary to carry out the unit's assigned missions that is not required by every aircrew. Specialized training consists of upgrade training such as flight lead, mission commander, etc., as well as CT to maintain proficiency and qualification in unit tasked special capabilities and missions. Specialized training is normally accomplished after an aircrew is assigned BMC/CMR status; and is normally in addition to BMC/CMR requirements. Unless otherwise specified, aircrew in BMC or CMR positions may hold special capabilities/qualifications as long as any additional training requirements are accomplished.

## 1.5. Training Concepts and Policies.

1.5.1. Units will design training programs to achieve the highest degree of combat readiness consistent with flight safety and resource availability. Training must balance the need for realism against the expected threat, aircrew capabilities, and safety. This instruction provides training guidelines and policies for use with operational procedures specified in applicable flying/operations publications.

1.5.2. ACC Training Support Squadron (TRSS) will develop and validate training programs when/where tasked by the ACC/DO. Other MAJCOMs may submit requests for training program support to the ACC/DO. If validated these requests will be prioritized and tasked to ACC/TRSS. Designated Test Units (CB) may develop syllabi to upgrade Operation Test Aircrew in support of specific test plans. These syllabi will be approved by the OG/CC and submitted to ACC/TRSS.

1.5.3. Units will design training missions to achieve combat capability in squadron-tasked roles, maintain proficiency, and enhance mission accomplishment and safety. RAP training missions should emphasize either basic combat skills, or scenarios that reflect procedures and operations based on employment plans, location, current intelligence, and opposition capabilities. Use of procedures and actions applicable to combat scenarios are desired (e.g., appropriate use of code words, authentication procedures, combat tactics, safe recovery procedures, tactical deception, in-flight reports, threat reactions, Intel briefing/debriefing).

1.5.4. In Flight Supervision.

1.5.4.1. Unless specifically directed, the SQ/CC determines the level of supervision necessary to accomplish the required training. If the mission objectives include introduction to tasks or instruction to correct previous discrepancies, then an instructor may be required.

1.5.4.2. Instructor Pilots and Flight Lead (FL) qualified SQ supervisors may allow any pilot to lead limited portions of a mission if they are appropriately briefed. This provision will only be used to allow the aircrew to practice events in which the aircrew is already qualified or to help determine if the pilot is ready for Flight Lead Upgrade (FLUG). In either case, the IP or SQ supervisor is responsible for the flight.

1.5.4.3. Flight leads may give their wingman the tactical lead for specific tasks. As the tactical lead, the wingman makes tactical decisions for the flight, but the flight lead retains overall authority and responsibility.

1.5.5. Aircrew are not required to accomplish ground and/or ancillary training except as required by this instruction or AFI 36-2201, *Developing, Managing, and Conducting Training*.

1.5.6. Tactical training will include use of inert and live weapons, threat simulators, countermeasures, aircrew training devices, and dissimilar aircraft as much as possible.

**1.6. Ready Aircrew Program (RAP) Policy and Management.**

1.6.1. Each RAP qualification level is defined by a total number of RAP sorties, broken down into mission types, plus specific weapons qualifications and associated events as determined by the MAJCOM and unit commanders.

1.6.2. The total number of RAP sorties for a qualification level is the primary factor for maintaining an individual's qualification level. The breakout of sortie/mission types is provided as a guideline to be followed as closely as possible. Variances in sortie/mission types may be used as a basis for regression by the SQ/CC. Qualification in a mission is determined by the SQ/CC considering the MAJCOM guidance and the individual's capabilities.

1.6.3. An effective RAP training sortie requires accomplishing a tactical mission profile or a building block type sortie. Each profile or sortie requires successfully completing a significant portion of the events applicable to that sortie type, as determined by the SQ/CC and **A2.1.**

1.6.4. The SQ/CC's first priority should be to train all designated aircrew to CMR.

1.6.5. Progression from BMC to CMR requires:

1.6.5.1. A 1-month lookback at the higher sortie rate.

1.6.5.2. Qualification in all core missions and weapons events required at CMR.

1.6.5.3. Confirmation that the progressed aircrew can complete the prorated number of sortie/event requirements remaining at CMR by the end of the training cycle.

1.6.5.4. Completion of mission-related ground training, to include a current verification.

1.6.5.5. Squadron CC certification.

1.6.6. SQ/CCs will identify aircrew that will train for and maintain special capabilities or qualifications. Specialized training is normally accomplished in addition to baseline CMR/BMC sortie/event requirements; except for mission commander and flight lead training.

1.6.7. CMR and BMC aircrew will fly the required monthly sortie rate. If unable, refer to Regression, paragraph **4.7.**

1.6.8. End of Cycle training requirements are based on the aircrew's experience level on the last day of the current training cycle.

1.6.9. Units converting to another Mission Design Series (MDS) may fly aircrew in CMR positions at the BMC rate until one month prior to the operationally ready date if the Utilization Rate (UTE rate) will not support CMR sortie rates. CMR aircrew should be flown at a CMR rate for the month prior to Initial Operational Capability (IOC).

1.6.10. The aircrew training cycle is 12 months: 1 October through 30 September. Units will complete training requirements during the appropriate training cycle unless specifically excepted.

### 1.7. Ready Aircrew Program (RAP) Sortie Program Development.

1.7.1. RAP sortie and event requirements (see **Attachment 2**) apply to CMR and BMC aircrew as well as those carrying special capabilities or qualifications and are IAW the RAP tasking message. The sortie requirements in **Table 1.1.** establish the minimum number of sorties per training cycle for BMC and CMR levels of training. The RAP tasking message takes precedence over this instruction, and may contain an updated sortie requirement on missions/events not yet incorporated in **Attachment 2**.

1.7.2. Non-RAP requirements are in addition to RAP requirements. These sorties ensure basic aircrew skills are maintained.

1.7.3. Experience or Cost of Business sortie requirements must be considered when developing unit flying hour programs. These sorties are not directly related to combat employment training but are necessary in day-to-day unit operations. These include but are not limited to instructor sorties, ferry flights, orientation/incentive flights, deployments, and air shows. The MAJCOM allocates a block of sorties to the unit for these purposes.

1.7.4. Unit flying hour programs are allocated a number of attrition sorties that compensate for non-effective training sorties. Non-effective sorties are logged when a training sortie, RAP or Non-RAP, is planned but a major portion of valid training for that type of mission is not accomplished due to poor weather, air aborts, etc. In order to accurately allocate the number of attrition sorties, it is essential that non-effective sorties are logged appropriately.

**Table 1.1. B-1 RAP Sortie Requirements (Inexperienced/Experienced).**

| MAJCOM | Cycle | BMC | CMR |
|---|---|---|---|
| ACC | Annual | 24/16 | 48/40 |
| | 3-Month Lookback | 6/4 | 12/10 |
| | 1-Month Lookback | 2/2 | 4/3 |

## 1.8. Training Records and Reports.

1.8.1. Units will maintain aircrew records for individual training and evaluation IAW:

1.8.1.1. AFI 11-202, Volume 1, *Aircrew Training*.

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

1.8.1.3. *Air Force Records Disposition Schedule* located at **https://webrims.amc.af.mil**

1.8.1.4. ACCI 11-464, *Training Records and Performance Evaluation in Formal Flying Training Programs*.

1.8.1.5. AFI 11-401, *Aviation Management*.

1.8.1.6. Appropriate MAJCOM directives.

1.8.2. Track the following information for all aircrew (as applicable):

1.8.2.1. Ground training.

1.8.2.2. Requirements and accomplishment of individual sorties, RAP sorties, sortie types, and events cumulatively for the training cycle.

1.8.2.3. RAP sortie requirements and accomplishment using 1-month and 3-month running totals for lookback.

1.8.2.4. Currencies.

1.8.2.5. Weapons employment records in sufficient detail to document all employment attempts as well as to compute Circular Error Probable (CEP) and event hit percentage histories.

1.8.3. Units may fill in ARMS "NO DATE" events with either the date of the last FTU or United States Air Force Weapons School (USAFWS) equivalent event accomplished, or the unit mission certification date.

## 1.9. Weapons Delivery Recording.

1.9.1. Aircrew should use and assess all available training documentation such as Aircraft Video Tape Recorder (AVTR) tapes, Navigation Weapons Scoring (NWS) printout, or Weapon Impact Scoring

Set (WISS) scoring on all tactical missions. Aircrew should review their tapes with their flight member(s).

1.9.2. As a guide, the following items should be reviewed: weapons delivery parameters, accuracy, adherence to Training Rules (TR), flight discipline, and tactical employment.

**1.10. Aircrew Utilization Policy.**

1.10.1. Commanders will ensure wing/group tactical aircrew (API-1/2/6s) fill authorized positions IAW unit manning documents and that aircrew status is properly designated. The overall objective is that aircrew perform combat-related duties. Supervisors may assign aircrew to valid, short-term tasks (escort officer, Flying Evaluation Board /mishap board member, etc.), but must continually weigh the factors involved, such as level of aircrew tasking, flying proficiency, currency, and experience. For inexperienced aircrew in the first year of their initial operational assignment, supervisors will limit the non-flying duties to those related to combat activities.

1.10.2. Duties required by various publications that may be assigned to CAF API-1/2 aircrew are weapons and tactics officer, programmer, flying safety officer, Supervisor of Flying (SOF), mobility/contingency plans, training (except ARMS documentation), SQ Standardization/Evaluation Liaison Officer (SELO), squadron life support officer, electronic combat officer, and other duties directly related to flying operations. In some instances, such as squadron-assigned flying safety officers, API-1/2s may be attached to the wing/group. API-1/2s will not be attached to wing/group staffs or man wing/group staff positions unless total wing aircrew API-1/2 manning is 100 percent or better. CCs will ensure wing staff aircrew (API-6s) perform duties justified in MAJCOM manpower standards documents and authorized in UMDs.

1.10.3. Aircrew will not perform long-term duties that detract from their primary duties of training for, or performing the unit flying mission.

**1.11. Sortie Allocation Guidance.**

1.11.1. Inexperienced API-1/2 aircrew should receive sortie allocation priority over experienced aircrew. Priorities for sortie allocation are as follows:

1.11.1.1. Formal training units: Formal syllabus training, Instructor Upgrade, Instructor CT, authorized staff personnel not performing Instructor or SEFE duties (to include API-5 aircrew physicians not on IP orders).

1.11.1.2. Combined formal training and operational units: Formal syllabus training, CMR/API-1/2, MQT API-1/2, CMR API-6, MQT API-6, BMC, API-5 aircrew physicians, others.

1.11.1.3. Operational units: CMR API-1/2, MQT API-1/2, CMR API-6, MQT API-6, BMC (to include API-5 aircrew physicians).

1.11.2. Wing API-6 authorizations are IAW unit manning documents. Active duty wings converting to new MDS are authorized one SQ equivalent of additional API-6s during the conversion period. However, total wing staff flying the new aircraft shall not exceed total authorized for final conversion equipage.

1.11.3. For FTU only wings, all API-6 aircrew will maintain instructor status (optional for WG/GP CC, Functional Check Flight aircrew, and one other). These wings will fly API-1/2/6 aircrew as required by Programmed Flying Training (PFT). For wings consisting of both FTU and operational

units, at least one of the following aircrew will maintain formal instructor status: WG/CC, WG/CV, OG/CC, OG/CD.

1.11.4. API-8 rated personnel flying authorizations and Test Unit aircrew will be IAW AFI 11-401 and MAJCOM guidance. They will fly the BMC sortie rate, however they are not required to complete BMC specific missions/events or meet monthly lookback requirements. Units should provide assigned API 6/8 flyers adequate resources to maintain minimum training requirements. However, API-6/8 flyer support will not come at the expense of the flying squadron's primary mission. API 6/8 flyers will accomplish non-RAP requirements with allotted BMC sorties. If attached units cannot meet attached flyer requirements, they must request relief IAW AFI 11-401, as supplemented. Units requiring flying hour adjustments for attached API-8 and applicable API-6 flyers must request program changes IAW ACCI 11-103.

1.11.5. There is no maximum sortie requirement for CMR aircrew. **Table 1.2.** defines the maximum Sortie Requirements for other aircrew. On occasion, unique operations may require aircrew to fly more than the maximum number of sorties authorized, however this may impact training of other aircrew.

**Table 1.2. B-1 Annual Sortie Requirements for Other Than API-1 & 2 Aircrew.**

| API LEVEL | CT STATUS | UNIT'S AIRCRAFT CODE | ORGANIZATION | MAX SORTIE ALLOWANCE (INEXPERIENCED/ EXPERINCED |
|---|---|---|---|---|
| 6 | CMR | CC | Any | As required by qualifications |
| 6 | BMC | CC | Wing | 40/36 |
| 6 | BMC | TF | Wing | As required by PFT or qualifications |
| 6 | BMC | CB | Wing | As determined by test program requirements |
| Any | BAQ | Any | Any | 20/16 |
| 8 | BMC | CC, TF, or CB | Above Wing | 40/36 |
| 5 | BMC | Any | ALL | If qualified and current in unit aircraft - 40/36. Otherwise, IAW AFI 11-202V1, *Aircrew Training*. |

## 1.12. Waiver Authority.

1.12.1. Unless specifically noted otherwise in the appropriate section, waiver authority for all requirements of the RAP tasking message and for all provisions in **Chapter 4**, **Chapter 5**, and **Chapter 6** of this instruction is the OG/CC. For all other provisions of this instruction, the waiver authority is MAJCOM/DOT, unless otherwise stated.

1.12.2. Units subordinate to a NAF will forward requests directly to MAJCOM/DOT and provide their NAF/DO/OV with an information copy. Waivers from other than MAJCOM/DOT will include

their appropriate MAJCOM/DOT as an information addressee. All waivers will include ACC/DOT as an information addressee.

1.12.3. Waivers to this instruction will be valid until the end of the training cycle.

## Chapter 2

## FORMAL TRAINING

**2.1. General.** This chapter outlines B-1 Initial Qualification Training (IQT). IQT includes Basic (B course) and transition/requalification/senior officer (TX) training and will be conducted during formal syllabus courses at a formal training unit (FTU) squadron unless otherwise noted. Formal course IQT will be conducted IAW the applicable syllabus.

**2.2. Approval/Waivers.**

2.2.1. Request waivers, by message, IAW appropriate syllabus. Waivers will only be considered for exceptional circumstances or extensive experience and background in the weapon system.

2.2.2. Requests for waivers will include the following:

2.2.2.1. Justification for the local training in lieu of formal course training.

2.2.2.2. Summary of individual's flying experience.

2.2.2.3. Date training will begin and expected completion date.

2.2.2.4. Requested exceptions to formal course syllabus, with rationale.

**2.3. Training Management.**

2.3.1. HQ ACC/DOTO in conjunction with ACC/DOTB and ACC/DPAR, determines FTU output requirements and publishes an annual schedule of classes. DOTB is responsible for initial quota assignments while DOTO manages direct quota allocations and day-to-day adjustments.

2.3.2. The FTU determines the annual schedule of classes, and provides qualification training IAW the appropriate course syllabus.

2.3.3. Units and individual crewmembers must ensure all entry prerequisites and requirements are met. Individuals arriving at the FTU for training without having all prerequisites met or waived (refer to paragraph **2.2.**) may be returned to their home station at their unit's expense.

2.3.4. The FTU notifies HQ AFPC/DPAOC and the gaining unit (info HQ ACC/DPTTC/DOTO) by letter or message when student orders need to be extended beyond the established graduation date. Include reason for training delay in the notification. Units will ensure student Temporary Duty (TDY) orders authorize variations in itinerary.

**2.4. Initial Qualification Course (IQC).** Basic (B) Course that qualifies aircrew in the B-1. Prerequisites and time limitations are listed in the Air Force Education and Training Course Announcements and the B-1 IQC syllabus.

**2.5. Requalification Training Course (RTC).**

2.5.1. RTC requalifies non-current B-1 aircrew. Prerequisites and time limitations are listed in the Air Force Education and Training Course Announcements and the B-1 RTC syllabus.

2.5.2. Individuals requiring requalification training may not be assigned to BMC/CMR until completion of MQT.

2.5.3. Units will assign requalified aircrew to an active flying position for a minimum of eighteen months.

2.5.4. RTC graduates may retain previous certifications (e.g. Night TF, NVG, LASDT, Mission Lead, etc.) provided documentation showing completion of the applicable training program is still in the individual's training folder and they have regained proficiency in related flight events during or after RTC.

**2.6. Flight Instructor Course (FIC).**

2.6.1. FIC prepares crewmembers for instructor qualification.

2.6.2. Prerequisites and time limitations are listed in the Air Force Education and Training Course Announcements and the FTU FIC syllabus.

2.6.2.1. Graduates of a fighter/bomber FTU flight instructor course are not required to attend FIC at the FTU. Others must attend FIC academics administered by 28 BS/FIC.

2.6.2.2. Individuals selected for FTU instructor duty must complete FIC academics at the FTU if not previously accomplished.

2.6.3. FIC flight training for all instructor candidates may be accomplished at the FTU or the operational unit. Only instructors who have completed FIC instructor upgrade as outlined in paragraph **6.10.** and been certified as an FIC Instructor on the squadron Letter of Certification may conduct FIC flight training**.** Instructor pilots so designated are authorized to perform FTU/FIC only maneuvers listed in AFI 11-2B-1V3 Attachment 5.

2.6.4. Units will ensure graduates complete their initial instructor evaluation within 60 days of completion of FIC. Exceeding the specified time period requires Operations Group (OG)/CC directed additional training.

**2.7. Senior Staff Qualification Course (SSQC).**

2.7.1. SSQC provides senior staff officers with academics, simulator and flight training that result in BAQ status after successful completion of the course at the FTU. The course requires completion of an instrument check (pilot only) and qualification level flight evaluation. If a graduate of SSQC requires a BMC or higher status, then the graduate's gaining flying unit will provide the training required for the higher status.

2.7.2. If senior officers are in training at the FTU and assigned to the same wing, they will be placed in formal training status, and unit duties will be turned over to the appropriate deputies or vice commanders until training is completed. Exceptions to this policy must be approved by the ACC/DO.

**2.8. Transition Training Course (TXC).**

2.8.1. TXC provides crewmembers previously qualified in an aircraft with an air-to-ground mission, with academics, simulator and flight training that result in BAQ status after successful completion of the course at the FTU.

2.8.2. Prerequisites and time limitations are listed in the Air Force Education and Training Course Announcements and the B-1 TXC syllabus.

**2.9. USAF Weapons Instructor Course (WIC).** A formal flight training program designed to qualify B-1 aircrew as weapons officers. Prerequisites are listed in the Air Force Education and Training Course Announcements and the WIC syllabus. Upon WIC completion, IPs are qualified in all B-1 formations (low and high altitude), to LASDT Cat III minimums, to use NVGs, as Mission Commanders, and as Flight Leads. IWSOs are qualified as Mission Commanders and Mission Leads.

**2.10. USAFWS Instructor Upgrade Course.** Qualifies B-1 USAFWS instructors to perform instructor duties both in flight and platform. Upon completion, USAFWS instructors are qualified in each phase of training and may be assigned as primary mission instructors for flying as well as the primary instructor for specific platform courses.

## Chapter 3

## MISSION QUALIFICATION TRAINING

**3.1. General.** MQT is a unit developed training program that upgrades newly assigned aircrew to BMC or CMR to accomplish the unit mission. Guidance in this chapter provides assistance to the unit in developing their MQT program. Units are allowed to tailor this program for all aircrew, based on experience, currency, documented performance, and formal training. All training events accomplished to the required proficiency level at the FTU are creditable (if applicable) for MQT. Accomplish waived FTU proficiency items prior to declaring the individual BMC or CMR. Training events accomplished during in-unit RQT may be credited toward MQT requirements provided proficiency was obtained in the event.

3.1.1. Qualifications and flight evaluations may be accepted from other MAJCOMs, if they meet the gaining MAJCOM and unit standards.

3.1.2. Local MQT programs should consist only of ground and flight training applicable to unit taskings. Upon completion of this training, aircrew will be certified BMC or CMR by the SQ/CC.

3.1.3. MQT will be completed within 90 calendar days after the completion of squadron in processing. If this time is exceeded, notify ACC/DOT. Training starts no later than 7 workdays after the crewmember is on base and has been cleared for flying duties. If the crewmember elects to take leave prior to being entered into MQT, the timing will begin after the termination of the crewmember's leave. Training is complete upon SQ/CC certification to BMC or CMR.

3.1.4. Aircrew in MQT will not fly on Flag or Global Power missions.

3.1.5. Prior to CMR/BMC certification, aircrew must complete Night/Instrument Meteorological Conditions (IMC) Terrain Following (TF) qualification, Night Vision Goggle (NVG) qualification, and initial weapons qualification (QUAL). Aircrew will be reported as CMR/BMC once certified as CMR/BMC by the SQ/CC and do not need to meet the one month lookback requirement.

**3.2. Ground Training.** Units are responsible for ensuring blocks of instruction covering areas pertinent to the mission are accomplished as determined by the SQ/CC. Training accomplished during IQT may be credited towards this requirement. If applicable, ground training should include but is not limited to:

3.2.1. Unit Tasking.

3.2.2. Air Weapons Training.

3.2.3. Unit tactics and employment.

3.2.4. Chemical Defense Training.

3.2.5. Aircraft servicing.

3.2.6. Local Area Survival (See AFI 16-1301).

3.2.7. Low Altitude Awareness Training (LAAT).

**3.3. Initial Verification.** Initial verification will be completed within 90 days after completing MQT. Failure to comply will result in regression to Non-CMR/Non-BMC until verification is complete. Suggested briefing guide is at **Attachment 3**. Each crewmember will demonstrate to a formal board a satisfactory knowledge of the squadron's assigned mission. Board composition will be established by the SQ/

CC. Desired composition is SQ/CC or Operations (OPS) Officer (chairman), weapons officer, electronic combat, intelligence, and plans representatives.

**3.4. Simulator Training.**

3.4.1. MQT aircrew should fly the missions outlined below as typical RAP profiles. Each training device mission will include selected critical action emergency procedures and instrument procedures.

3.4.2. For units without a Weapons Systems Trainer (WST), OG/CC will approve locally developed programs (academic or flight training) to accomplish the objectives of the WST training.

3.4.2.1. WST MQT-1: Local Area Orientation/Instruments. Normal ground operations, standard departure(s), navigation, divert procedures, Emergency Procedures, emergency airfield procedures and approaches, and published penetration and approach to primary alternates and home base.

3.4.2.2. WST MQT-2: Weapons Employment Procedures. Heavyweight takeoff, weapons deliveries, jettison procedures, Electronic Combat (EC) equipment operation, threat recognition and defensive reactions, emergency divert procedures, hung weapon procedures.

**3.5. Flying Training.** Units must prepare a training program designed to mission qualify the individual and prevent loss of proficiency gained at the FTU. The appropriate mission segments from those listed below will be integrated to upgrade to BMC or CMR. Unit-developed MQT programs should use profiles typical of squadron missions. Sortie Objectives are to expose individuals to the various aspects of the unit mission and train them to required proficiency so they can accomplish the mission. The following elements are recommended profiles that may be adjusted based on unit tasking.

3.5.1. LAO/Instrument (IP Required). The Local Area Orientation(LAO)/Instrument element is mandatory for pilots unless the pilot is flying in the same local area as in IQT. Objectives: Local area orientation and local instrument procedures. Specific Tasks: Local area familiarization, emergency airfield(s) overflight/approach(es), and local instrument procedures. This should be accomplished on the pilot's first sortie in the local area and may be combined with any of the other profiles.

3.5.2. Formation. Objective: Practice/review formation procedures. Specific Tasks: Formation departure, enroute formation, lost wingman procedures, position change procedures, and penetrations and recoveries at primary and/or divert fields.

3.5.3. Threat Area Penetration. Objective: Execute tactical mission employment and defensive maneuvers with emphasis on formation integrity. Specific Tasks: Perform FENCE/EMCON checks, threat detection and mutual threat situation coordination, airborne intercept training, and threat reactions with emphasis on AFTTP 3-1 Volume 20, *Tactical Employment--B-1*, maneuvers in formation.

3.5.4. Low Altitude Employment. Objective: Plan and execute effective low altitude flight. Specific Tasks: Plan low altitude ingress and egress. Ingress routing will be planned to maximize threat avoidance/terrain masking while considering mission timing. Egress will be accomplished to minimize threat exposure.

3.5.5. High Altitude Weapons Employment. Objective: Plan and execute effective high altitude weapons deliveries. Specific Tasks: Plan high altitude target area ingress, delivery, and egress considering target type and current weaponeering data using all available sources (JMEM/ CWDS/Intel briefings). Ingress routing will be planned to maximize threat avoidance while considering timing, desired attack

axis, reattack options. Target area egress will be accomplished to minimize threat exposure. Accomplish weapons release within the planned criteria and evaluate effectiveness based on impact score relative to desired results (Probability of Damage).

3.5.6. Night Employment. Objective: Plan and execute night weapons deliveries. Specific Tasks: Perform Night/ IMC TF training and weapons delivery using the Weapons Employment criteria referenced in paragraph **3.5.4.** and **3.5.5.** See paragraph **3.7.** for Night/IMC TF initial qualification training requirements if applicable. Use NVGs to aid the rendezvous with a tanker, or alternatively, another B-1.

3.5.7. CAS employment. Objective: Plan and execute CAS weapon employment (actual or simulated). Specific tasks: Plan for ingress, orbit and communication with a FAC. Receive target data in the form of a 9-line briefing from an actual or simulated FAC, accomplish coordinate conversion and in flight weaponeering, accomplish a radar "talk-on" and deliver weapons with minimal delay. Maintain awareness of threats. Discuss effective communication/terminology, in flight division of tasks among crewmembers, and techniques to prevent fratricide.

### 3.6. Low Altitude Step Down Training (LASDT).

3.6.1. To conduct low altitude operations safely, aircrew need to be knowledgeable of aircraft handling and performance characteristics, visual formation, defensive responses, and navigation. The low altitude environment requires a well-supervised LASDT program, including initial certification and currency requirements. LASDT qualifies aircrew to conduct Low Altitude Training (LOWAT) at or below 1,000 feet AGL. As a minimum, all aircrew will accomplish Low Altitude Awareness Training (LAAT) academics. Training and certification is required for pilots in a low altitude block prior to performing unsupervised operations in that low altitude block. WSO LASDT flight training is at the discretion of the SQ/CC.

3.6.2. To provide a sequential approach, the step-down training program is built on a multi-phase training process IAW **Table 3.1.** There is no time limit to progress beyond LOWAT Category I and progress will be based upon individual pilot proficiency and training availability. Progression through the step-down training program is based on instructor/squadron supervisor assessment of aircrew performance, training rules (TR) compliance, and judgment. An IP or squadron supervisor who has completed LASDT will supervise all LASDT missions.

**Table 3.1. LOWAT Categories**

| Category | Minimum Altitude | Prioritized LASDT Flight Profiles To Certify |
|---|---|---|
| I | 1,000 feet AGL | 1, 4 |
| II | 500 feet AGL | 1, 4, 2, 5 |
| III | 300 feet AGL | 1, 4, 2, 5, 3, 6 |

3.6.3. Demonstrated proficiency down to 1,000 feet AGL is required for LOWAT Category I certification and is normally accomplished during IQT and/or MQT. Units may accept a transfer pilot's LOWAT certification from other units. Category I certification is a minimum requirement for CMR status. Category III training may not be conducted during MQT.

3.6.4. Entry into LASDT requires SQ/CC approval. The SQ/CC determines the LOWAT category a pilot is certified to based on the lowest altitude that all tasks can be comfortably performed and proficiency demonstrated. The goal is proficiency down to the minimum altitude compatible with squadron mission. Upon successful completion of LASDT training, the SQ/CC will certify the pilot to the minimum approved altitude of the LOWAT category. Squadrons may accept documented LASDT certification for pilots coming from other units/commands. With SQ/CC approval, low altitude training conducted at a formal course may be used to fulfill applicable requirements of this paragraph.

3.6.5. LASDT will be scheduled and briefed as a primary portion of the mission. Compatible RAP CT events may be accomplished in conjunction with LASDT as long as the objectives of the LASDT sortie are met. LASDT will not be flown as an alternate mission. IPs/FLs must be aware of the added stress and task loading associated with low altitude operations and provide breaks in training above the training altitude. Training profiles will be developed to avoid over-tasking the upgrading pilot, and upgrade sortie continuity should be emphasized. With SQ/CC approval LASDT sortie profiles which require formation proficiency (profiles 4-6) may be completed on a single-ship sortie if formation training not available due to aircraft availability or wingman cancellation. If this provision is used, the IP will discuss formation considerations in detail with the trainee during the debrief.

3.6.6. Ground Training. The following outline is applicable to all LASDT. Coverage should support the mission and concept of operations of the squadron, incorporating appropriate portions of AFTTP 3-1 and AFTTP 3-3 Volume 20, *Combat Aircraft Fundamentals--B-1*. All academic training will be completed prior to flight training/briefing.

3.6.6.1. Aircraft Handling Characteristics (AHC): Discuss aircraft performance as it applies to the low altitude environment, to include: control response (SEF, Hinge Moment Limiter (HML), low/high speed, over-G potential, speed brake use, use of rudder, stores effects); afterburner (fuel considerations, selection techniques), acceleration/deceleration, level turns, vertical maneuvering, climb/dive, recoveries, effects of gross weight, power settings, density altitude, G-loading, and bank angles; terrain avoidance (ridge crossings), terrain clearance versus turning room, and dangers inherent in over-banking during turns.

3.6.6.2. Environmental factors: Discuss out-of-cockpit visibility and Field of View (FOV) restrictions, sun angle, terrain features, terrain and G-excess illusions/perceptions, turbulence and WX considerations, bird strike.

3.6.6.3. Task management: Discuss low altitude tasks and task management/prioritization concept; the importance of frequent crosscheck of aircraft attitude relative to horizon; and the video "How Low Can You Go?".

3.6.6.4. Low Altitude Formation (LAF): Discuss formations, hazards at low altitudes, task prioritization, tactical turns, visual lookout/mutual support and formation deconfliction during threat reactions.

3.6.6.5. Defensive reactions: Discuss visual lookout and mutual support, threat weapons systems envelopes, and defensive maneuvering against air-to-air and surface-to-air threats.

3.6.6.6. Additional factors affecting low altitude awareness: airmanship and pilot responsibilities, individual proficiency, route familiarity and complacency, route obstacles, planning and chum responsibilities.

3.6.6.7. Special subjects: Discuss training rules, aircraft emergencies, and WX abort procedures.

3.6.7. LASDT Flight Profiles:

3.6.7.1. LASDT Profile-1: Demonstrate single ship visual proficiency in low altitude awareness and maneuvering at 1,000 ft. AGL. Profile events: Preflight briefing to include a review of wings level/over bank/under-G/TTI & TTR charts, dive recovery charts, AFI 11-214, *Air Operations Rules and Procedures* training rules (TR), and anticipated environmental conditions/hazards. Flight events include, but are not limited to: TTI/TTR demonstration (accomplish demonstration with a floor of 1,000 feet AGL), low altitude visual navigation leg; terrain masking; ridge crossings; altitude awareness and control; attack/offensive maneuvering; defensive maneuvering; low altitude weapons delivery considerations; and visual crosscheck/lookout.

3.6.7.2. LASDT Profile-2: Demonstrate single ship visual proficiency in low altitude awareness and maneuvering at 500 ft. AGL. Profile events: Preflight briefing to include a review of wings level/over bank/under-G/TTI & TTR charts, dive recovery charts, AFI 11-214 TRs, and anticipated environmental conditions/hazard. Flight events to include, but not limited to: low altitude visual navigation leg; terrain masking; ridge crossings; altitude awareness and control; attack/offensive maneuvering; defensive maneuvering; low altitude weapons delivery considerations; and visual crosscheck/lookout.

3.6.7.3. LASDT Profile-3: Demonstrate single ship visual proficiency in low altitude awareness and maneuvering at 300 ft. AGL. Profile events: Preflight briefing to include a review of wings level/over bank/under-G/TTI & TTR charts, dive recovery charts, AFI 11-214 TRs, and anticipated environmental conditions/hazards. Flight events to include, but not limited to: low altitude visual navigation leg; terrain masking; ridge crossings; altitude awareness and control; attack/offensive maneuvering; defensive maneuvering; low altitude weapons delivery considerations; and visual crosscheck/lookout.

3.6.7.4. LASDT Profile-4: Demonstrate two ship formation proficiency in low altitude awareness and maneuvering to 1,000 feet AGL.* Profile events: Preflight briefing to include a review of wings level/over bank/under-G/TTI & TTR charts, dive recovery charts, AFI 11-214 TRs, and anticipated environmental conditions/hazards. Flight events to include, but not limited to: low altitude visual navigation leg; terrain masking; ridge crossings; altitude awareness and control; attack/offensive maneuvering; defensive maneuvering; low altitude weapons delivery considerations; and visual crosscheck/lookout.

3.6.7.5. LASDT Profile-5: Demonstrate two ship formation proficiency in low altitude awareness and maneuvering to 500 feet AGL.* Profile events: Preflight briefing to include a review of wings level/over bank/under-G/TTI & TTR charts, dive recovery charts, AFI 11-214 TRs, and anticipated environmental conditions/hazards. Flight events to include, but not limited to: low altitude visual navigation leg; terrain masking; ridge crossings; altitude awareness and control; attack/offensive maneuvering; defensive maneuvering; low altitude weapons delivery considerations; and visual crosscheck/lookout.

3.6.7.6. LASDT Profile-6: Demonstrate two ship formation proficiency in low altitude awareness and maneuvering to 300 feet AGL.** Profile events: Preflight briefing to include a review of wings level/over bank/under-G/TTI & TTR charts, dive recovery charts, AFI 11-214 TRs, and anticipated environmental conditions/hazards. Flight events to include, but not limited to: low altitude visual navigation leg; terrain masking; ridge crossings; altitude awareness and control;

attack/offensive maneuvering; defensive maneuvering; low altitude weapons delivery considerations; and visual crosscheck/lookout.

*Not required if already formation qualified to 500 feet via the Visual Formation checkout program in paragraph **6.8.**

**Authorized for Stream formation only.

**3.7. Night/IMC TF Initial Qualification Training.**

3.7.1. The qualification requirements listed below are mandatory unless previously accomplished at the FTU. All training accomplished to proficiency at the FTU applies towards these requirements. Requalifying aircrew previously qualified to minimum SCP in night/IMC TF may retain this certification once they regain proficiency in Night/IMC TF.

3.7.2. Academics. Academics must include TF system and procedures review, Vertical Situation Display (VSD) interpretation, crew coordination, TF limitations, checklist procedures and use, and safety considerations. Failure to complete this training during the MQT time period requires training as directed by the unit SQ/CC. Training need not be restarted in all cases since the amount of retraining is based on individual experience and previous exposure to Night/IMC TF operations.

3.7.3. Simulators. Complete one WST/Cockpit Procedures Trainer (CPT) mission emphasizing crew coordination, systems malfunctions, and TF procedures (including demonstration of flyup recovery proficiency). Complete this WST/CPT before starting flight training. This WST may not be combined with any other MQT night simulator. For units without a WST, an in-depth discussion of system malfunctions will be included in academics.

3.7.4. Flying Training for Pilots. A minimum of two instructor supervised night/IMC TF flights, both of which should be mountainous, are required for initial flight qualification. Each flight must include 15 minutes of night/IMC TF to be creditable. After initial flight qualification aircraft commanders and copilots must fly a minimum of four mountainous Night/IMC TF events at 1,000 feet SCP prior to being cleared for minimum SCP altitudes during night/IMC. After completing this requirement, an instructor or squadron supervisor pilot must fly mountainous Night/IMC TF with the crewmember to verify required proficiency prior to the individual being cleared to fly AFI 11-2B-1V3, *B-1 Operations Procedures*, minimum SCPs.

3.7.4.1. Flying Training for WSOs. A minimum of two instructor supervised night/IMC TF flights, both of which should be in a mountainous route/MOA, are required for initial flight qualification. At least one flight must be in the Offensive Systems Officer (OSO) seat. Each flight must include 15 minutes of night/IMC TF to be creditable.

3.7.4.2. Night Terrain Following (NTF) SCPs are tied to the least qualified pilot. If any crewmember has not completed the final proficiency demonstration flight with an instructor, the crew is restricted to 1,000 feet SCP. Exception: Crews may fly minimum SCP altitudes if the WSO/OSO has completed initial flight qualification or is under supervision of an IWSO/IOSO, and the aircraft commander/pilot is under the supervision of an IP qualified at minimum route altitudes.

3.7.5. PUPs do not require Night/IMC TF qualification if previously qualified as a copilot.

**3.8. Transferring Between Units.** BMC or CMR individuals transferring between units will complete MQT as determined by the gaining unit SQ/CC. This training should be based on experience, proficiency,

currency, and previous formal training of the transferring individual. If the gaining unit's assigned weapons are different, accomplish Weapons/Tactics academics as required. BMC or CMR individuals transferring between units must complete the Unit Mission Briefing.

**3.9. Flight Surgeon.** IAW AFI 11-202V1, give assigned and attached flight surgeons every opportunity to fly in the unit's primary mission aircraft.

3.9.1. Ground Training. Flight surgeons who are assigned to tactical units and who have not previously flown the unit-assigned aircraft will accomplish the following training IAW AFI 11-202V1 before the initial flight briefing: Aircraft general review; hanging harness training, egress training, protective equipment training; CRM training, a bold face/critical action test, and an instrument/emergency procedures (EP) simulator with an instructor (1 hour minimum).

3.9.2. Flight Training. The first flight in the unit-assigned aircraft will be with an instructor WSO and may be flown in conjunction with other training sorties. The briefing and sortie will emphasize crew coordination, communications and equipment, instrument interpretation, and the aircraft's performance envelope.

## Chapter 4

## CONTINUATION TRAINING

**4.1. General.** This chapter outlines ground and flying training requirements for CMR, BMC, and BAQ aircrew. Aircrew must be qualified IAW AFI 11-202V1 and AFI 11-202V2 and MAJCOM supplements. Additionally, they must complete: IQT, RTC, TXC, or SSQC to fly in BAQ status; and MQT or FTU/WS Instructor Upgrade to fly in BMC or CMR status.

**4.2. Ground Training.** Unit commanders will ensure aircrew accomplish academic training requirements. Commanders may direct additional training as necessary to ensure all aircrew attain and maintain a state of proficiency permitting immediate and successful completion of the assigned mission. An individual who instructs a class receives credit for that academic training requirement. Ground training accomplished at the FTU or USAFWS may be credited toward CT requirements for the training cycle in which it was accomplished. The following programs comprise ground training only. Ground training will be IAW **Table 4.2.**. Event identifiers are listed in parenthesizes following training event IAW ACCI 11-460, *Operations Systems Management*. **Chapter 6** contains specialized programs with both flying and ground training requirements.

4.2.1. The unit operations group commander (OG/CC) is responsible for establishing and maintaining the academic training program. The OG/CC may delegate to the unit OPRs and the Operations Support Squadron (OSS) the responsibility for complying with applicable requirements.

4.2.2. Physiological Training. IAW AFI 11-403, *Aerospace Physiological Training Program*, and MAJCOM supplements.

4.2.3. Instrument Refresher Course (IRC). Guidance for development of unit IRC programs, including recommended topics and subject outlines, course length, and methods of instruction is contained in AFMAN 11-210, *Instrument Refresher Course Program*. IRC is accomplished according to AFI 11-202V2 and applicable MAJCOM supplements. The purpose of the IRC is to ensure aircrew possess sufficient knowledge of all applicable directives, procedures, and techniques to assure safe and professional instrument flying.

4.2.4. Life Support. Includes the training directed on **Table 4.2.**, and the applicable guidance in AFI 11-301, Vol 1, *Aircrew Life Support (ALS) Program*, and MAJCOMS supplements.

4.2.5. Survival, Evasion, Resistance, and Escape (SERE) and Code of Conduct Continuation Training (CoCCT), will be conducted IAW AFI 16-1301, *SERE Program*, and MAJCOM supplements. SERE CoCCT will be a coordinated SERE Specialist, Intelligence, and Life Support effort.

4.2.6. Aircrew Training Device:

4.2.6.1. **Table 4.3.** depicts the minimum training requirements. MAJCOMs will determine the minimum number/type of Aircrew Training Device (ATD) missions that require supervision. Units should determine additional CT training device supervision requirements based on expected employment tasking, and mission training objectives.

4.2.6.2. Units with WSTs will ensure scenarios are based on expected employment tasking and training device capabilities. Emphasis should be placed on training not readily attainable during daily flying activities. All simulators should include malfunctions and emergencies likely to be encountered in the planned scenarios.

4.2.6.3. Simulator Certification (SIMCERT). Det 4, 29 TSS will certify the WST to command standards before crediting transfer of task learning from the aircrew training device to the aircrew. Flight evaluation completion may be accomplished per AFI 11-2B-1V2, *B-1 Aircrew Evaluation Criteria*, for events certified Code 1 through SIMCERT. Certified Code 1 RAP and NON-RAP events accomplished in the WST may be credited towards training cycle requirements but may not be used to update currency. Refer to **Table 4.1.** for RAP/NON-RAP events creditable in the WST. Attempt to run each mission as an integrated crew using full motion, to the maximum extent possible. Log no more than 50% of total RAP/NON-RAP events required for the training cycle in the WST (e.g. 80 weapon deliveries required, log no more than 40 total in the WST). The numbers in **Table 4.1.** are the total number of events that can be logged per WST mission.

**Table 4.1. RAP/NON RAP Events Creditable in WST.**

| WST RAP/NON-RAP EVENT | PILOT | WSO | NOTES |
|---|---|---|---|
| HIGH ALTITUDE WEAPON DELIVERY | 3 | 2 | |
| LOW ALTITUDE WEAPON DELIVERY | 4 | 3 | |
| EC (A/S) | N/A | 1 | |
| EC (A/A) | N/A | 1 | |
| TF | 2 | 2 | 1 |
| TF NIGHT/IMC | 2 | N/A | 1 |
| TF MNTNS | 2 | 2 | 1 |
| LOW ALT NAV | 4 | 4 | |
| TARGET REASSIGNMENT EXERCISE | 1 | 1 | |
| ILS APPROACH | 1 | N/A | |
| LOCALIZER APPROACH | 1 | N/A | |
| TACAN APPROACH | 1 | N/A | |
| ***NOTES:*** | | | |
| 1. Must be integrated to take credit. | | | |

4.2.7. Situational Emergency Procedures Training (SEPT).

4.2.7.1. This training is not an evaluation, but a review of abnormal/emergency procedures and aircraft systems operations/limitations during realistic scenarios. The crew should present a situation and discuss actions necessary to cope with the malfunction and carry it to a logical conclusion. Critical action procedures (if applicable) and squadron special interest items should be emphasized.

4.2.7.2. Incorporate the following elements into squadron SEPT training programs:

4.2.7.2.1. Discuss at least one EP during the SEPT session.

4.2.7.2.2. Accomplish two SEPT sessions each training cycle with an instructor.

4.2.7.3. This training will be accomplished each calendar month. Failure to accomplish by the end of the month will result in grounding until training is complete.

4.2.7.4. SEPT may be accomplished in the WST, if available. If a WST is not utilized, SEPT should be accomplished as small, flight-sized groups to allow all aircrew to participate and share equal time responding to emergency situations.

4.2.7.5. Completion of a WST Emergency Procedure (EP) profile satisfies the monthly SEPT requirement.

4.2.7.6. Formal course student SEPT satisfies the monthly SEPT requirement for the instructor who administers this training.

4.2.8. Weapons/Tactics Academic Training. Units will establish a weapons/tactics academic training program to satisfy MQT and CT requirements. Training is required in each training cycle. Audiovisual programs may be used in place of academic instruction.

4.2.8.1. USAFWS graduates are the preferred academic instructors.

4.2.8.2. Instruction should include (as applicable), but is not limited to:

4.2.8.2.1. Conventional weapons: Description, operation, parameters, fuzing, limitations, preflight, normal and emergency procedures/techniques.

4.2.8.2.2. Tactical Employment: Training emphasizing specific areas of employment including Interdiction, CAS, TST, and On Scene Commander procedures for CSAR operations.

4.2.8.2.3. Combat Aircraft Fundamentals: Specialized training emphasizing effective employment to include mission planning, weaponeering, delivery methods, frag deconfliction, hung stores procedures, formation, and defensive maneuvers.

4.2.9. Verification Training. Designed to incorporate all wartime related aircrew training events and provide the experience necessary to plan for the unit's wartime mission. Unit weapons officer will establish a training program to support initial and CT requirements. **Attachment 3** contains the suggested areas to be included in the academic training courseware.

4.2.9.1. Theater Training is one unit of instruction within verification training. Complete appropriate theater training before operating in deployed overseas locations. Should contingencies preclude theater training before deployment, orientation training packages will be deployed with the crews.

4.2.9.2. Continuation Verification. Continuation verification, updates aircrew on their squadron's wartime mission. Each crewmember will participate in a unit initial/continuation verification every 18 months as a briefer, board member, or seminar participant. Aircrew that participate in a unit deployment to a DOC tasked theater of operations may receive credit for continuation verification.

4.2.9.3. BMC aircrew may accomplish an initial verification and/or participate in CT verifications to facilitate future upgrade to CMR status, at the discretion of the SQ/CC.

4.2.10. Intelligence. (IAW AFI 14-105, *Unit Intelligence Mission and Responsibilities* and MAJCOM supplements) The intelligence training program will be developed in coordination with the unit's weapons and tactics training program. The focus and extent of academic training will be determined

by the OG/CC and will be aligned with projected wartime tasking, threats, and unit equipage. Supervisory personnel above squadron level maintaining mission qualification do not require this item.

4.2.10.1. Training items will include, but are not limited to, primary adversary weapons systems that affect execution of the unit mission, evasion and recovery (E&R), collection and reporting, visual recognition, and current intelligence. The training plan will ensure that each training item is taught at least twice per training cycle, once during the first half of the training cycle and once during the second half. Training methods can include, but are not limited to, threat-of-the day briefings, weapons and tactics academics, theater orientation briefings, weapons system videos, etc. NOTE: Units may track each of the following events separately.

4.2.10.2. Collection and Reporting (C&R) training enables aircrew to initiate aircrew originated reports; Inflight Report (INFLTREP), and Communication Instructions Reporting Vital Intelligence Sighting (CIRVIS). Training will familiarize them with the information requirements of the intelligence-generated Mission Report (MISREP) and Intelligence Report (INTREP).

4.2.10.3. Current Intelligence will cover significant military/political developments (including threat updates) in the squadron's mission areas of interest.

4.2.10.4. Isolated Personnel Reports (ISOPREP). Every person subject to flight/participation in an employment mission must have a current, accurate, ISOPREP card, DD Form 1833, **Isolated Personnel Reports**, on file. During readiness, ISOPREPs will be reviewed IAW **Table 4.2.** During operations, personnel will review ISOPREPs prior to their first mission of the day and as often as necessary thereafter to maintain knowledge of its content.

4.2.11. US/Russia Prevention of Dangerous Military Activities. Initial, refresher, and pre-deployment training for the Prevention of Dangerous Military Activities will be conducted to ensure that all mission-ready aircrew are familiar with the agreement and the implementing provisions contained in CJCSI 2311.01. Training requires a review of the "Procedures for the Prevention of Dangerous Military Activities Between the US and Russia" section of the Flight Information Handbook.

4.2.12. Crew Resource Management (CRM). Each crewmember is required to participate in one training session every 24 months IAW AFI 11-290, *Cockpit/Crew Resource Management Training Program*. Additionally, instructor/evaluator aircrew must accomplish the CRM Instructor/Evaluator Training Course (one time requirement) prior to instructor certification. Waiver authority for this requirement is the OG/CC.

4.2.13. Communications Training. Units will establish a communications training program to satisfy CT requirements.

4.2.14. Electronic Combat Training. The purpose of Electronic Combat Training is to ensure all WSOs possess the knowledge and skills necessary to employ their aircraft's EC equipment against known threat systems. Aircrew training devices will be employed to the maximum extent possible. Specific objectives include:

4.2.14.1. EC related threat system information to include signal analysis, capabilities, limitations, strengths, weaknesses and vulnerabilities.

4.2.14.2. Aircraft EC systems hardware and software capabilities and limitations.

4.2.14.3. Signal ambiguity resolution.

4.2.14.4. Electronic Attack (EA) techniques and application.

4.2.14.5. EC related issues to include training and operational guidance.

4.2.15. Aircraft Servicing. Ensure aircrew have the knowledge to service, safe weapons, and reconfigure the aircraft for launch after landing.

4.2.16. NVG Academics. This training may be conducted in conjunction with annual CT Weapons/Tactics academic training. Refresher training as a minimum will consist of common NVG hazards, MDS specific hazards, limitations and performing preflight adjustment procedures and focusing on an eye chart or the use of a Hoffman 20/20 tester. The use of a mock-up terrain display is encouraged for this training.

**Table 4.2. Ground Training Requirements.**

| MOBILITY TRAINING | | | | |
|---|---|---|---|---|
| **SUBJECT** | **FREQUENCY** | **REFERENCE DIRECTIVE** | **GROUNDING** | **AFFECT CMR/ BMC** |
| Chemical Warf are Defense Training Ground Crew Ensemble (N/A CB, TF, and ADF coded units) | Initial/Recurring every 15 months | AFPD 32-40, AFI 10-2501 | No | No |
| Handgun Training | Initial/Recurring every 30 months | AFI 31-207, AFI 36-2226 | No | Yes |
| Intelligence Training | Per training cycle | AFI 11-2B-1V1 **4.2.11.** and AFI 14-105 and supplements. | No | Yes |
| Anti-hijacking Training | 24 months | AFI 13-207 | No | No |
| ISOPREP Review | 6 months | AFI 14-105 | No | Yes |
| Self Aid/Buddy Care Training | Initial/Recurring every 24 months | AFI 36-2238 | No | No |
| Law of Armed Conflict (LOAC) | 12 months | AFPD 51- 4, AFI 51-401 | No | No |
| Air Force Anti-terrorism/Force Protection | 12 months | AFI 10-245 | No | No |
| Continuation Verification | 18 months | AFI 11-2B-1V1 **4.2.9.** | No | Yes/No |
| Weapons/Tactics Academics | Per training cycle | AFI 11-2B-1V1 **4.2.8.** | No | Yes |
| Electronic Combat (WSO) | Per training cycle | AFI 11-2B-1V1 **4.2.14.** | No | Yes |

| MOBILITY TRAINING | | | | |
|---|---|---|---|---|
| **SUBJECT** | **FREQUENCY** | **REFERENCE DIRECTIVE** | **GROUNDING** | **AFFECT CMR/ BMC** |
| Communications Training | 12 months | AFI 11-244V1 | No | No |
| Situational Emergency Procedures Training | Monthly | AFI 11-2B-1V1 **4.2.7.** | Yes | No |
| NVG Academics | 12 months | AFI 11-202 V1, AFI 11-2B-1V1 **4.2.16.** | No | No |
| Aircraft Servicing | Per training cycle | AFI 11-2B-1V1 **4.2.15.** | No | Yes/No |
| Simulator (WST) Training Sorties | IAW **Table 4.3.** | AFI 11-2B-1V1 **4.2.6.** | No | Yes/No |
| Marshaling Exam | Initial/PCS | AFI 11-218 | No | No |
| Supervisor Safety Training | Initial | AFI 91-301 | No | No |
| CRM | 24 months | AFI 11-290 and supplements | Yes | No |
| Flying Safety Training | 3 months | AFI 91-202, ACC Sup 1 | No | No |
| Physiological Training (Altitude Chamber) | Every 3 or 5 years as applicable | AFI 11-403 | Yes | No |
| Instrument Refresher | Periodic | AFMAN 11-210 and AFI 11-202 V2 and supplements. | No | No |
| Life Support Training<br><br>a. Egress<br>b. Egress w/ACDE<br><br><br>c. Life Support Equipment<br>d. Aircrew Chemical Defense Training<br>e. Life Support Familiarization Training | <br><br>12 Months<br>Once per assignment, not to exceed 36 months<br>12 months<br><br>12 months<br><br>Once per assignment | AFI 11-301V1 and supplements. | <br><br>Yes<br>No<br><br>No<br><br>No<br><br>Yes | <br><br>No<br>Yes<br><br>Yes<br><br>Yes<br><br>No |

| MOBILITY TRAINING | | | | |
|---|---|---|---|---|
| **SUBJECT** | **FREQUENCY** | **REFERENCE DIRECTIVE** | **GROUNDING** | **AFFECT CMR/ BMC** |
| SERE/CoCCT Training | | AFI 16-1301 | | |
| a. Emergency Parachute Training | 12 Months | | Yes | Yes |
| b. Local Area Survival | Once per assignment | | Yes | No |
| c. Combat Survival | Once per assignment, not to exceed 36 months | | No | Yes |
| d. Water Survival | Once per assignment, not to exceed 36 months | | No | Yes |
| e. Conduct After Capture | Once per assignment, not to exceed 36 months | | No | Yes |

| AIR FORCE AWARENESS PROGRAM TRAINING | | | | |
|---|---|---|---|---|
| **SUBJECT** | **FREQUENCY** | **REFERENCE DIRECTIVE** | **GROUNDING** | **AFFECT CMR/ BMC** |
| Code of Conduct | 24 months | AFI 36-2209 | No | No |
| Protection of the President | Once per assignment | AFI 71-101V2 | No | No |
| US/Russia Prevention of Dangerous Military Activities | Initial/ Recurring (12 months) and Pre-deployment | CJCSI 2311.01 | No | No |
| Military Equal Opportunity Newcomers' Orientation | Once per assignment | AFI 36-2707 Table 2.2. | No | No |
| Substance Abuse Education | Once per assignment | AFI 44-121 | No | No |
| Fire Extinguisher | Initial/PCS | AFOSHSTD 91-56 | No | No |
| ***NOTE:*** These programs may be conducted informally through newspaper articles, pamphlets, bulletins, and CC calls. | | | | |

***NOTE:*** Waiver authority for the ground training specified is IAW the reference directive. This list is intended as a single source reference. Where discrepancies exist, the reference directive takes precedence.

**Table 4.3. ACC WST Training Cycle Requirements.**

| MISSION | POSITION | CMR | BMC | NOTES |
|---|---|---|---|---|
| EP/INSTRUMENT PROCEDURES | AC/P | 2 | 2 | 1,6 |
| INTEGRATED | ALL | 4 | 2 | 1,2,3,4,5 |

***NOTES:***

1. For units without a WST, the minimum requirement is 2 integrated simulators. Each simulator period will be scheduled one per half of the training cycle and will include EP/Instrument procedures.

2. Instructors may take credit for instructing a trainer.

3. N/A for FTU instructors.

4. N/A for Designated Test Units.

5. Integrated WST scenarios should include situations that require crews to overcome unrecognized spatial disorientation.

6. EP/instrument WSTs should include at least one scenario requiring the crew to fly using only the standby flight instruments.

**4.3. Flying Training.** All aircrew will accomplish the requirements as shown on **Table 4.4.** as applicable. Failure to accomplish these annual requirements will not affect BAQ, BMC, or CMR status but may require additional training as determined by the SQ/CC. If any sortie or event requirement from **Table 4.4.** is subsequently added in the RAP tasking message, it becomes a requirement for BMC and CMR status. In addition, the following are required:

4.3.1. Basic Aircraft Qualification (BAQ) Requirements:

4.3.1.1. Qualification Evaluation IAW AFI 11-202V2 and AFI 11-2B-1V2.

4.3.1.2. BAQ aircrew will fly under the supervision of an instructor of like specialty. This requirement is waived for individuals in MQT that are qualified and current in all events that will be performed.

4.3.1.3. Aircrew that remain in BAQ status for more than 6 months will be grounded (except General Officers above wing level, API 6/8 aircrew in designated Test Squadrons if located at a base without B-1 aircraft, or waived aircrew).

4.3.2. Basic Mission Capable (BMC) Requirements:

4.3.2.1. Qualification Evaluation IAW AFI 11-202V2 and AFI 11-2B-1V2.

4.3.2.2. Currencies (as applicable) IAW paragraph **4.6.**

4.3.2.3. RAP sorties, mission type(s), and events IAW the procedures set forth in this volume and the MAJCOM RAP tasking message.

4.3.2.4. Ground training requirements related to applicable RAP sorties/events and IAW **Table 4.2.**

4.3.2.5. Unit-developed training programs for spin-up prior to participation in exercises and deployments.

4.3.2.6. Sortie rate (lookback) IAW **Table 1.1.** and paragraph **4.7.** (N/A API-8)

4.3.2.7. Performance satisfactory to the SQ/CC.

4.3.2.8. Complete MQT.

4.3.3. Combat Mission Ready (CMR) Requirements:

4.3.3.1. Performance satisfactory to the SQ/CC.

4.3.3.2. Evaluations IAW AFI 11-202V2 and AFI 11-2B-1V2.

4.3.3.3. Sortie rate (lookback) IAW **Table 1.1.** and paragraph **4.7.**

4.3.3.4. RAP sorties, mission types, and events, including weapons qualifications IAW the procedures set forth in this instruction and the MAJCOM RAP tasking message.

4.3.3.5. Currencies (as applicable) IAW paragraph **4.6.**

4.3.3.6. Complete MQT.

4.3.3.7. Ground Training IAW **Table 4.2.**

4.3.4. Special Capabilities/Qualification requirements:

4.3.4.1. Specialized training IAW **Chapter 6** and guiding syllabi.

4.3.4.2. Sortie requirements IAW the RAP tasking message.

4.3.4.3. Failure to accomplish the requirements specified in this document or the RAP tasking message requires loss of designation/qualification.

4.3.4.4. Re-certification/Re-qualification is IAW **4.8.4.**

4.3.5. Designated Test Unit Requirements. Aircrew assigned/attached to Test units will maintain flying currency requirements at the Non-RAP BMC status as shown on **Table 4.4.**, **Table 4.5.** and any requirements added to these tables in the MAJCOM RAP tasking message. The squadron commander of the Test unit will certify the crewmember's capability to perform the specific test function when using another unit's aircraft.

**Table 4.4. ACC Basic Skills (NON-RAP) Annual Flying Requirements.**

| EVENT | POSITION | CMR(I/E) | BMC | BAQ |
|---|---|---|---|---|
| NON-PRECISION | AC/P | 16/10 | 8 | 6 |
| PRECISION | AC/P | 16/10 | 8 | 6 |
| TAKEOFF | AC/P | 20/18 | 16 | 12 |
| LANDING | AC/P | 20/18 | 16 | 12 |
| NIGHT LANDING | AC/P | 8/6 | 6 | 4 |
| AIR REFUELING (AR) | AC | 18/12 | 4 | |
| AIR REFUELING (AR) | P | 4 | 4 | |

| EVENT | POSITION | CMR(I/E) | BMC | BAQ |
|---|---|---|---|---|
| NIGHT AR | AC | 8/6 | Currency | |
| HIGH ALTITUDE VISUAL FORMATION | AC/P | 6/4 | 4 | |

**4.4. Special Categories.**

4.4.1. FTU Instructors, Det 1 USAFWS Instructors, TRSS/DET 14 Subject Matter Experts (SMEs), and 29 TSS/DET4 SMEs must maintain a limited combat capability. FTU/WS/SME sorties are not a separate RAP category, however, they can log a RAP sortie when RAP sortie requirements are met in paragraph **A2.1.** FTU/WS/SME instructors/cadre will fly at the BMC experienced rate. To maintain BMC, FTU, WS instructors, and SMEs must meet the BMC event totals and currency requirements in **Table 4.4.** and **Table 4.5.** and meet the BMC lookback requirements but they do not need to meet the RAP sortie type, event or weapon requirements specified in the RAP tasking message. An FTU/WS instructor or SME that is non-current or unqualified will be considered Non-BMC (N-BMC) IAW paragraph **4.6.2.1.** and will be reported as such until the currency/qualification is regained. Regression is not applicable for this category.

4.4.2. Flight Surgeon. May fly selected tactical missions to enhance understanding of tactical missions with which they are directly associated. Initial checkouts will be IAW paragraph **3.9.** FS flying rates and requirements will be IAW AFI 11-202V1.

4.4.3. MAJCOM and NAF API-8 Aircrew.

4.4.3.1. Mission Directed Training (MDT) for Higher Headquarters (HHQ) personnel (other than that conducted in support of a formal inspection) requires coordination with the supporting unit. MAJCOM Directors (Division Chiefs for Flight Safety and IG) and NAF/DO/OV are reviewing authorities for assigned personnel. They will:

4.4.3.1.1. Coordinate with the supporting agency to ensure appropriate ARMS data is maintained and provided IAW AFI 11-401.

4.4.3.1.2. Review assigned aircrew accomplishments and currencies prior to authorizing aircrew to participate in MDT.

4.4.3.1.3. Provide each crewmember with written documentation specifying the sortie types and events the crewmember is authorized to fly.

4.4.3.2. HHQ flying personnel maintaining BMC status are exempt from academic ground training, Chemical Warfare (CW) training, and special training programs within authorized mission areas.

4.4.3.3. HHQ Aircrew will:

4.4.3.3.1. Review accomplishments and currencies for accuracy.

4.4.3.3.2. Submit qualification/authorization documentation to the supporting SQ/CC or operations officer prior to flying with that squadron.

4.4.3.3.3. Evaluate the demands of each mission scenario and ensure that their ability/proficiency will not be exceeded.

4.4.3.4. HHQ instructor aircrew may perform instructor duties with the concurrence of the OG/CC, if qualified and current for the applicable missions/events.

4.4.3.5. HHQ staff aircrew may participate in tactical training events. Each crewmember will present documentation summarizing currencies, egress training, flight qualifications, etc., to the unit where flying is performed.

4.4.4. Aircrew assigned/attached to Test units, TRSS/ DET 14, or 29 TSS/DET 4 are exempt from academic ground training, Chemical Warfare (CW) training, and special training programs within authorized mission areas.

**4.5. Multiple Qualification/Currency.**

4.5.1. MAJCOM DO may authorize qualification in more than one mission design series (MDS) aircraft for aircrew only when such action is directed by command mission requirements and is economically justifiable. This authority cannot be delegated below MAJCOM level. Unless required for unit mission accomplishment, commanders must not permit aircrew qualified in primary mission aircraft to maintain qualification in support aircraft

4.5.1.1. Submit multiple qualification requests through command channels to MAJCOM DOT All requests must contain full justification. Approval for multiple qualification requests must be provided to the appropriate host base flight management office. Flight accomplishments are not authorized until aircraft assignment is updated into ARMS.

4.5.1.2. Individually authorized multiple qualifications are valid as long as the individual is assigned to the specific position, and aircraft requested, or rescinded by MAJCOM DO.

4.5.2. Multiple qualification is not appropriate for senior wing supervisors of units with different types of aircraft. Wing Commanders will qualify in only one of their wing's aircraft. Either the WG/CV or OG/CC should qualify in another of the wing's aircraft (not the same one selected by the WG/CC). (For ACC: See ACCI 11-450, *Orientation Flight Program*, for policy on Senior Supervisor Familiarization Flights)

4.5.3. Multiple Requirements: Aircrew will satisfy at least 50 percent of sortie requirements in their primary aircraft. If CMR, they will meet all RAP sortie/event requirements of the primary aircraft. In addition, aircrew will fly an equitable distribution of emergency patterns, instrument sorties, penetrations, non-precision approaches, and precision approaches in each MDS to fill their non-RAP requirements.

4.5.4. Multiple Currencies: Aircrew will fly at least once each 45 days in each aircraft. They will comply with all other currency requirements for each aircraft.

4.5.5. Aircrew must complete conversion training IAW an approved syllabus.

**4.6. Currencies/Recurrencies/Requalifications.**

4.6.1. **Table 4.5.** defines currency requirements for all B-1 aircrews.

4.6.2. Recurrency is required whenever a crewmember exceeds a currency requirement in this instruction. To regain currency a crewmember must demonstrate proficiency with an instructor of like specialty except as noted on **Table 4.5.**

4.6.2.1. Overdue training requirements must be satisfied before the crewmember is considered qualified to perform tasks applicable to the type of training in which delinquent. Training annotated as affecting CMR or BMC status will require regression to N-CMR or N-BMC until appropriate training as specified by SQ/CC is accomplished. Training identified as not affecting CMR status does not require regression from CMR although it may result in grounding until training is completed (e.g., life support training). The duration of grounding and status of sortie lookback will determine the effect on CMR status. Regaining currency is based on time elapsed from the date the individual became non-current:

4.6.2.1.1. Up to 180 days: Training as directed by the squadron commander and crewmember must demonstrate proficiency in all delinquent events with an instructor of like specialty.

4.6.2.1.2. 180 - 365 days: Training as directed by the squadron commander. Individuals need to requalify only in events required by their training level. Flight check by an evaluator is required only for non-current items that would be evaluated during an initial qualification check.

4.6.2.1.3. 1 year - 5 years: Individuals non-current over 1 year will complete an FTU requalification academic course, in-unit or FTU flight training, and a flight evaluation in accordance with paragraph **2.5.**

4.6.2.1.4. Over 5 years: Individuals non-current over 5 years will complete the Transition Training Course or Initial Qualification Course.

4.6.3. Loss of Instructor Status. Instructors will be decertified if:

4.6.3.1. They fail an evaluation. To regain instructor status, the instructor must successfully complete training IAW AFI 11-202V2 and AFI 11-2B-1V2.

4.6.3.2. They become non-current in an event/sortie which causes removal from BMC/CMR status and the SQ/CC deems that loss of currency is of sufficient importance to require decertification. If the SQ/CC does not elect this option or if the instructor becomes non-current in events/sorties which do not require removal from BMC/CMR status, instructor status may be retained, but the instructor will not instruct in that event/sortie until the required currency is regained.

**Table 4.5. ACC Aircrew Currencies (BMC/CMR).**

| EVENT | POSITION | INEXP | EXP | AFFECTS BMC/CMR | NOTES |
|---|---|---|---|---|---|
| LANDING | AC/P | 45 | 45 | NO/YES | |
| NIGHT LANDING | AC/P | 90 | 90 | NO/YES | |
| WEAPON DELIVERY | ALL | 45 | 60 | YES/YES | 1, 2 |
| THREAT ACTIVITY | W | 45 | 60 | YES/YES | 1 |
| TAKEOFF | AC/P | 45 | 60 | NO/YES | |
| INSTRUMENT APPROACH | AC/P | 45 | 45 | NO/NO | 1, 3 |
| TF | ALL | 45 | 60 | NO/YES | 1, 4 |
| TF NIGHT/IMC | AC/P | 90 | 90 | NO/YES | |

| EVENT | POSITION | INEXP | EXP | AFFECTS BMC/CMR | NOTES |
|---|---|---|---|---|---|
| VISUAL CONTOUR | AC/P | 45 | 60 | NO/NO | 1, 5 |
| AR | AC | 60 | 90 | NO/YES | |
| NIGHT AR | AC | 90 | 120 | NO/NO | |
| ELECTRONIC RENDEZVOUS | W | 90 | 90 | NO/NO | 1, 6 |
| LOW ALTITUDE VISUAL FORMATION | AC/P | 60 | 90 | NO/NO | |
| AIRCRAFT HANDLING CHARACTERISTICS | AC/P | 180 | 180 | NO/NO | 7 |
| NVG EXERCISE | AC/P | 120 | 120 | NO/NO | 8 |

***NOTES:***

1. If non-current 60 days or less, crewmembers may fly the event unsupervised and update their currency. If non-current for more than 60 days, event must be flown with an instructor of like specialty.

2. If non-current, currency may be regained by flying 3 simulated weapon deliveries in the aircraft.

3. If non-current, currency may be regained by flying in day/VMC from the FAF to the Decision Height/ Missed Approach Point.

4. If non-current, currency may be regained by flying TF at or above 1000' SCP in day VMC. Requires one current and qualified pilot and WSO.

5. If non-current, IPs and experienced ACs may regain currency by flying visual contour at or above 1000' AGL in day VMC.

6. If non-current, aircraft must maintain at least 1000' altitude separation until the rendezvous is completed (i.e. established at 1 NM trail).

7. If non-current, pilots are restricted to CAT I LOWAT minimums. If non-current, currency may be regained without instructor supervision by flying all required events at 1000' AGL or higher.

8. If non-current less than 180 days, currency may be regained by flying one Non-Demanding NVG (see **Attachment 1**). If non-current for more than 180 days, event must be flown with an instructor of like specialty IAW **4.6.2.1.**

**4.7. Regression.**

4.7.1. BMC/CMR Regression for Failure to Meet Lookback. Only RAP training and contingency operations sorties may be used for lookback. If a crewmember does not meet lookback requirements throughout the training cycle, SQ/CC can either: regress the crewmember to Non-CMR/Non-BMC level, as applicable; remove the crewmember from a CMR manning position; or initiate action to remove the crewmember from active flying status.

4.7.2. Failure to meet 1-month RAP/Contingency Operations sortie lookback requires a review of the crewmember's 3-month sortie history. If the 3-month lookback has been met, aircrew may, at SQ/CC

discretion, remain BMC/CMR. Failure to meet the 3-month lookback will result in regression to N-BMC/N-CMR, or the crewmember may be placed in probation status for 1 month at the squadron commander's discretion. If probation is chosen, the only way to remove a crewmember from probation and preserve the current status is to reestablish a 1-month lookback at the end of the probation period (see **Figure 4.1.**).

4.7.2.1. CMR aircrew regressed to N-CMR for lookback, must complete a SQ/CC approved recertification program to return to CMR status. BMC aircrew regressed to N-BMC must complete a SQ /CC directed re-certification program. Upon completion of the recertification program, CMR/BMC aircrew must also meet the subsequent 1-month lookback requirement prior to reclaiming BMC/CMR status. The sorties and events accomplished during the recertification program may be credited towards their total/type sortie and event requirements for the training cycle as well as for their monthly sortie requirement.

4.7.2.2. Lookback computations begin following completion of MQT. Aircrew must maintain 1-month lookback until 3-month lookback is established.

4.7.3. Regression for Weapons Qualification. Failure to maintain RAP tasked weapons qualification at the end of the training cycle will require:

4.7.3.1. For events tasked as QUAL at BMC/CMR: Regression to N-BMC/N-CMR. To regain BMC/CMR, the crewmember must re-achieve initial qualification in the deficient weapons event (see paragraph **5.2.**), unless waived by OG/CC. Events accomplished for this requalification may count toward the cumulative CT event qualification required at the end of the next training cycle.

4.7.3.2. For events tasked as Familiarization (FAM) at BMC/CMR: Regression to N-BMC/N-CMR. To regain BMC/CMR, aircrew must accomplish at least three weapons deliveries, the first must be under the supervision of a squadron supervisor or instructor, unless waived by OG/CC. Events accomplished for this requalification may count toward the cumulative CT event qualification required at the end of the next training cycle.

4.7.4. Aircrew that fail an aircraft qualification, mission, or instrument evaluation will be handled IAW AFI 11-202V2 and AFI 11-2B-1V2. Aircrew will regress to N-CMR or N-BMC as applicable. These aircrew will remain N-BMC/N-CMR until successfully completing required corrective action, a re-evaluation, and are re-certified by the SQ/CC.

4.7.5. Aircrew that accomplish in-unit upgrade training may not be reported as CMR until completion of upgrade training and an AFI 11-202V2 evaluation.

**4.8. End of Cycle Requirements.** Aircrew that fail to complete sortie and/or event requirements of this instruction at the end of the training period may require additional training depending on the type and magnitude of the deficiency. The SQ/CC will determine if additional training is required. Refer to paragraph **4.9.** to determine if any of these requirements can be prorated. In all cases, report training shortfalls IAW paragraph **1.2.4.5.**

4.8.1. Aircrew that fail to meet the total RAP sortie requirement may continue at CMR/BMC as determined by lookback. The SQ/CC will determine if additional training is required.

4.8.2. Aircrew that fail to meet non-RAP sortie requirements may continue at CMR/BMC as determined by lookback. The SQ/CC will determine if additional training is required.

4.8.3. Failure to meet RAP Sortie type requirements will result in:

4.8.3.1. Regression to non-CMR/BMC if the SQ/CC determines that the sortie type is significant. To regain CMR/BMC, aircrew will complete the appropriate number of sortie types as determined by the SQ/CC. These sorties may be counted against the total requirements for the new training cycle.

4.8.3.2. Continuation at CMR/BMC if total RAP sorties and lookback are maintained and the sortie type deficiencies are deemed insignificant by the squadron by the SQ/CC.

4.8.4. Failure to accomplish sorties required for Special Capabilities/Qualifications will result in loss of that qualification. The SQ/CC will determine re-qualification requirements.

**4.9. Proration of End of Cycle Requirements.** The SQ/CC may prorate all training requirements as necessary when DNIFs, emergency leaves, non-training TDY/exercises, and/or combat/contingency deployments preclude training for a portion of the training period. Ordinary leave will not be considered as non-availability. Extended bad weather, which precludes the unit from flying for more than 15 consecutive days, may be considered as non-availability. The following guidelines apply:

4.9.1. Proration will only be used to adjust for genuine circumstances of training non-availability, not to mask training or planning deficiencies.

4.9.2. Proration is based on cumulative days of non-availability for flying during the training cycle. Use **Table 4.6.** to determine the number of months to be prorated based on cumulative calendar days of non-availability.

4.9.3. If IQT or MQT is reaccomplished, a crewmember's training cycle will start over at a prorated share following completion of IQT/MQT training.

4.9.4. Example: Capt Clarke was granted 17 days of emergency leave in January and attended SOS in residence from March through April for 56 consecutive calendar days. His SQ/CC authorized a total of two months proration from his training cycle (73 days total. 17 days for emergency leave plus 56 days for SOS).

4.9.5. Prorated numbers resulting in fractions of less than 0.5 will be rounded to the next lower whole number, but no requirement may be prorated below one.

4.9.6. Newly assigned/converted aircrew and aircrew achieving BMC/CMR after the 15th of the month are considered to be in CT on the first day of the following month for proration/lookback purposes. A prorated share of RAP sorties must be completed in CT.

4.9.7. A crewmember's last month on station prior to departing Permanent Change of Station (PCS) may be prorated provided 1 month's proration is not exceeded. Individuals departing PCS may be considered CMR for reporting purposes during a period of 60 days from date of last flight, or until loss of CMR currency, port call date, or sign in at new duty station.

4.9.8. CMR aircrew who attend FTU/USAFWS in TDY-and-return status and/or who participate in actual B-1 flying contingency operations may be reported throughout the TDY as CMR. Upon return, those aircrew will accomplish a prorated share of sortie/event requirements (see **Table 4.6.**).

4.9.9. Contingency Operations. Contingency operations can have a positive or negative impact on a unit's CT program, as emphasis is on supporting the actual contingency. A potential lack of training opportunities while deployed can place a burden on the unit, forcing it to accomplish the majority of

its CT program in a reduced period of time at home station. The following proration procedures are intended to provide flexibility in accomplishing the unit's CT program.

4.9.9.1. Normally, all sorties flown during contingency operations will be logged as contingency operations sorties. These sorties do not count toward RAP requirements, but may be used for look-back purposes. RAP events logged during contingency operations sorties do not count toward RAP requirements, but may be used to update currencies. Upon returning from contingency operations, units will prorate RAP sorties and events for the period of time each individual was deployed. In addition, proration is authorized for the deployment preparations and deployment recovery time where home station flying is reduced by the MAJCOM.

4.9.9.2. As the training quality of missions flown at contingency locations may vary considerably, OG/CCs are authorized to allow sorties that provided valid training to be logged as RAP sorties. Events accomplished on these sorties count toward RAP event requirements, and these sorties/events may not be prorated upon return to home station.

4.9.9.3. Upon return from contingency operations, proration is computed by calculating the sorties to be prorated for the entire deployment, and then subtracting the number of valid RAP sorties as authorized by the OG/CC. The result is the allowable sortie proration. Negative numbers equate to zero. Events will be prorated at SQ/CC discretion based on the events accomplished during valid RAP sorties.

**Table 4.6. Proration Allowance.**

| CUMULATIVE DAYS OF NONFLYING | MONTHS OF PRORATION ALLOWED |
|---|---|
| 0 - 15 | 0 |
| 16 - 45 | 1 |
| 46 - 75 | 2 |
| 76 - 105 | 3 |
| 106 - 135 | 4 |
| 136 - 165 | 5 |
| 166 - 195 | 6 |
| 196 - 225 | 7 |
| 226 - 255 | 8 |
| 256 - 285 | 9 |
| 286 - 315 | 10 |
| 316 -345 | 11 |
| over 345 | 12 |

## 4.10. Regaining BMC/CMR Status.

4.10.1. If BMC/CMR status is lost due to failure to meet the end of cycle weapons qualifications and/or event requirements, requalification is IAW paragraph **4.7.3.**

4.10.2. If BMC/CMR status is lost due to failure to meet lookback IAW paragraph **4.7.**, the following applies (timing starts from the date the crewmember came off BMC/CMR status):

4.10.2.1. Up to 90 days: The crewmember must accomplish SQ/CC directed recertification. In addition, all RAP event currencies must be regained.

4.10.2.2. 91-180 days: Same as above, plus qualification and tactical written examinations.

4.10.2.3. 181 days and beyond: Reaccomplish MQT. Tailor this program based on experience, currency, and experience level.

4.10.3. If BMC/CMR is lost due to failure to meet the end of cycle sortie requirements, requalification is IAW paragraph **4.8.1.**

**4.11. Example of the Lookback, Regression, Proration, and Requalification Process.**

4.11.1. Capt Clarke is an experienced CMR crewmember in ACC with a 1 and 3 month lookback requirement of 3 and 10 RAP sorties respectively. On Feb 3, he flew a RAP sortie prior to departing for a non-flying TDY for two months. He reported back for flight duty on 6 Apr. What is his status throughout his TDY and on his return?

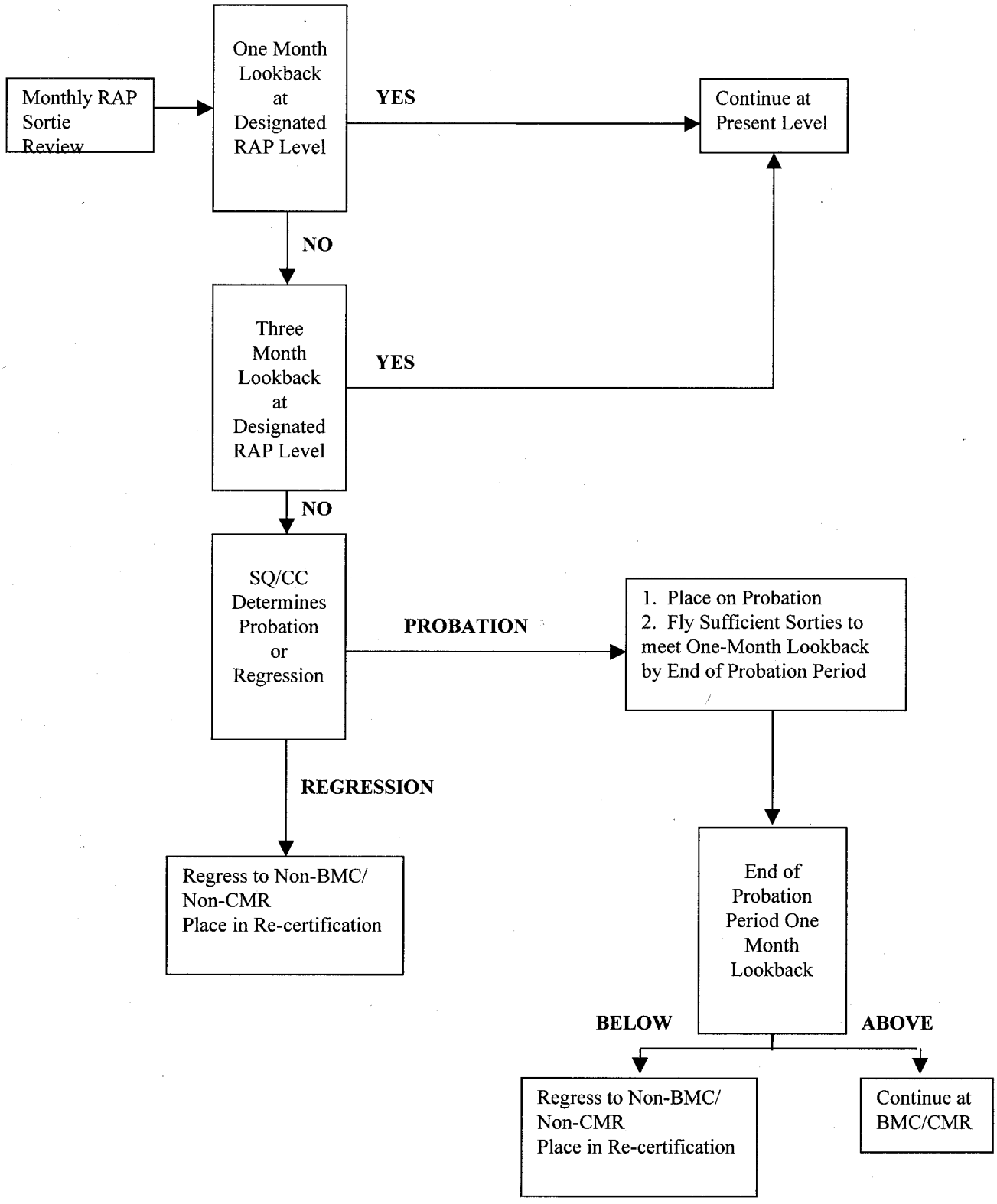
4.11.2. The SQ/CC wanted to list Capt Clarke as a countable CMR crewmember for reporting purposes throughout the TDY. Therefore, on 1 Mar, his Flt/CC performed the mandatory 1 month lookback (Feb) on Capt Clarke. He only flew 1 RAP sortie, failing the 1month lookback. The Flt/CC then performed a 3 month lookback (Dec, Jan, Feb). This showed that he flew only 9 sorties for this period. Had he flown one more sortie, his SQ/CC could continue Capt Clarke at CMR. However, with 9 sorties, Capt Clarke did not meet the 3 month lookback for CMR aircrew. The SQ/CC could regress Capt Clarke to N-CMR, but instead elected to put him on probation, still carrying him as CMR.

4.11.3. On 1 Apr, Capt Clarke's 1 month lookback was 0 sorties. The SQ/CC must now regress Capt Clarke to N-CMR. In Apr, the SQ/CC will have to place him in a squadron commander directed re-certification program. Upon completing this program, Capt Clarke will need to re-establish his 1-month lookback by 1 May (if he completes the Sq/CC directed program prior to 15 Apr).

***NOTE:*** If he had returned on 22 Mar, and had last landed the jet 48 days ago, he would need to fly 3 RAP sorties to recapture his 1-month lookback and get off probation. Although Capt Clarke would still be CMR in Mar, the SQ/CC would fly him with an IP on his first sortie in order to regain his landing currency.

4.11.4. At the end of the training cycle on 30 Sep, the SQ/CC prorated two months off of Capt Clarke's total requirements. In spite of this proration, Capt Clarke was deficient in four RAP sorties (36 out of 40). The SQ/CC could regress Capt Clark to N-CMR status, if deemed significant.

**Figure 4.1. Regression Flow Chart.**



## Chapter 5

## WEAPONS DELIVERY/EMPLOYMENT QUALIFICATION

**5.1. General.** This chapter outlines requirements for attaining initial qualification (IQ) and maintaining continuation training (CT) qualification for BMC/CMR OSOs and WSOs in the employment of air-to-surface weapons. Refer to "Glossary of Events" at **Attachment 2** for further guidance on weapons events. Aircrew achieve weapons qualification by completing a minimum number of releases and achieving a minimum percentage of reliable hits during the training period.

**5.2. Initial Qualification.** OSO/WSO must accomplish initial qualification in any weapons event requiring qualification at BMC/CMR. Weapon delivery events requiring QUAL/FAM are specified in the RAP tasking message. Qualification achieved during IQT or MQT satisfies the requirements for initial qualification, but not for CT qualification. Initial and CT qualification will carry over for WSO upgrade (previously an OSO) if previously qualified in the weapon type. If going through a requalification/transition course, weapons delivery qualification does not carry over from previous tour.

5.2.1. If not otherwise specified, initial qualification in non-guided weapons events is satisfied when the OSO/WSO achieves a minimum of three hits out of six consecutive record deliveries per event.

5.2.2. Initial qualification for guided weapons requires a qualified IWSO/IOSO monitor OSO mission planning and in flight weapon delivery procedures (actual or simulated). Initial qualification is awarded if the planning and delivery requirements specified in the RAP tasking message are accomplished and the hit criteria are achieved.

**5.3. CT Qualification.**

5.3.1. Qualification criteria establishes the minimum standards for OSOs/WSOs to maintain qualification in the appropriate weapons delivery events, and does not determine evaluation criteria established by other instructions, regulations, or agencies. Weapon delivery events requiring QUAL/FAM are specified in the RAP tasking message.

5.3.2. Unless otherwise specified, CT qualification criteria is eight record hits and an overall record hit rate of 50 percent per event for non-guided weapons. CT qualification criteria for guided weapons are achieved by completing 50 percent of all guided weapon events within the hit criteria.

5.3.3. CT weapons deliveries will be deliveries simulating realistic employment of Unit Committed Munitions List (UCML) munitions - considering such factors as fuzing, safe escape/separation, frag deconfliction, egress, etc. CT air-to-surface weapons event requirements should be accomplished on scoreable tactical ranges as much as possible. To maintain a combat perspective in a peacetime environment, weapons deliveries should simulate realistic employment of live munitions.

5.3.4. Failure to qualify in one event does not invalidate qualification in others. SQ/CCs may declare a WSO/OSO unqualified in an event(s) and invalidate all previous record deliveries for that event at any time during a training cycle without affecting other weapons event qualifications. The WSO/OSO will revert to N-BMC/N-CMR and will remain in that status until achieving initial qualification in the deficient event(s).

5.3.5. At the end of the training cycle, WSO/OSO's weapons delivery scores will be reviewed to assess their qualification. If qualified, the crewmember's qualification is valid through the following training period.

5.3.6. To take credit for a record delivery WSO/OSO must be occupying the OSO position in the aircraft.

**5.4. Weapons Delivery Parameters.** The following event descriptions form the basic framework for aircrew weapons delivery training and all deliveries will conform to the criteria established for each specific event.

5.4.1. System Delivery (SD). A delivery of a weapon using the Offensive Avionics System (OAS) with inputs to the INS from the radar and/or GPS. This type of delivery applies to non-guided weapons.

5.4.1.1. Low Altitude System Delivery (LASD). Minimum run-in is safe separation/escape/fuze arm for ordnance being delivered/simulated, aircrew minimum low altitude qualification, or range/target area restrictions, whichever is higher. Maximum altitude is 5000 feet AGL. Hit criteria: Low Altitude High Drag (LAHD) - 250 feet (76m), Low Altitude Low Drag (LALD) - 325 feet (99m) (Use LALD hit criteria to evaluate CBU hits delivered below 5000 feet AGL).

5.4.1.2. Medium Altitude System Delivery (MASD). Minimum altitude is above 5000 feet AGL. For the purposes of accomplishing this event, maximum altitude is up to but not including 17,000 feet MSL. Hit Criteria: 475 feet (145m).

5.4.1.3. High Altitude System Delivery (HASD). For the purposes of accomplishing this event, minimum altitude is 17,000 feet MSL. Hit criteria: From 17,000 feet up to but not including 25,000 feet MSL - 475 feet (145m) (575 feet for BDU-33). At or above 25,000 feet MSL - 575 feet (175m) (675 feet for BDU-33).

5.4.2. Degraded Delivery (DD). A delivery of a weapon by the best means available without updates from the radar and/or GPS. This type of delivery applies to non-guided weapons. Hit criteria: 1250 feet (381m).

5.4.3. Guided Delivery (GD). A delivery of a weapon autonomously guided by an onboard GPS and/or INS. Delivery of ordnance, actual or training, is not required.

5.4.3.1. JDAM (Joint Direct Attack Munition). Actual or simulated release of one or more GBU-31 (any version) or GBU-38. Individuals must plan and execute delivery against a single target or a target set to ensure weapon(s) will achieve mission objectives and weapon parameters. Hit Criteria: For actual delivery - 49 feet (15m) for GPS aided and 98 feet (30m) for INS only. For simulated delivery - effective release of one or more JDAMs within LAR/LP parameters.

5.4.3.2. WCMD (Wind Corrected Munitions Dispenser). Actual or simulated release of one or more CBU-103, 104 or 105. Individuals must plan and execute delivery against a single target or a target set to ensure weapon(s) will achieve mission objectives and weapon parameters. Hit Criteria: For actual delivery - 100 feet (30m). For simulated delivery – effective release of one or more WCMDs within LAR/LP parameters.

5.4.4. Standoff Delivery (SD). A delivery of a weapon autonomously guided by an onboard GPS and/or INS. Delivery of ordnance, actual or training, is not required.

5.4.4.1. JSOW (Joint Stand-Off Weapon). Actual or simulated release of one or more AGM-154. Individuals must plan and execute delivery against a single target or a target set to ensure weapon(s) will achieve mission objectives and weapon parameters. Hit Criteria: Effective release of one or more weapon within correct parameters.

5.4.4.2. JASSM (Joint Air-to-Surface Standoff Missile). Actual or simulated release of one or more AGM-158. Individuals must plan and execute delivery against a single target or a target set to ensure weapon(s) will achieve mission objectives and weapon parameters. Hit Criteria: Effective release of one or more weapon within correct parameters.

**5.5. Live Ordnance.** Live ordnance training is essential to aircrew combat capability. Every attempt should be made to give each crewmember the opportunity to deliver as many types of weapons inventoried on the UCML as possible. To provide this opportunity, live ordnance requirements are listed in the semiannual RAP tasking message and AFI 36-2217, *Munitions Requirements for Aircrew Training.*

## Chapter 6

## SPECIALIZED TRAINING

**6.1. Ground Training Requirements.** Ground training events accomplished in one training program, and subsequently required for another training program, need not be re-accomplished unless required by the squadron commander. Annotate in the individual training record when event is initially accomplished.

**6.2. Pilot Upgrade Program (PUP).** This program establishes minimum guidelines for upgrade to Aircraft Commander (AC).

6.2.1. Program Entry. Requirements are:

6.2.1.1. Nominated by the unit commander.

6.2.1.2. Current and qualified pilot.

6.2.1.3. One of the following flying hour requirements:

6.2.1.3.1. 350 post FTU B-1 hours, and 80 RAP/contingency sorties.

6.2.1.3.2. 750 total hours, 200 post FTU B-1 hours, and 40 RAP/contingency sorties.

6.2.2. Ground Training. Upgrading pilot must satisfactorily complete the following unit developed blocks of instruction with an IP prior to certification as an AC:

6.2.2.1. Crew leadership responsibilities.

6.2.2.2. Associated directives review.

6.2.2.3. Situational Emergency Procedures Training (SEPT) review.

6.2.2.4. Monitoring copilot activity, including air refueling, low altitude, and pattern operations.

6.2.3. Flying Training. Upgrading pilot must plan, brief, fly, and debrief a minimum of one day and one night sortie with an IP and demonstrate proficiency in air refueling procedures, which will include auto-pilot on and off refueling, and monitoring copilot air refueling. SQ/CCs may at their discretion require additional flight events performed to proficiency. File grade sheets and training accomplishment reports (TARs) in the individual's training folder.

6.2.4. Certification. Following satisfactory completion of the above requirements, the SQ/CC will review the individual's training folder and determine if the pilot is ready for a formal evaluation. If ready, the individual will complete an evaluation IAW AFI 11-202V2 and AFI 11-2B-1V2.

**6.3. Flight Lead Upgrade Program (FLUG).** This program establishes the minimum guidelines for those aircraft commanders identified by the SQ/CC to upgrade to Flight Lead (FL). FL training should place appropriate emphasis on formation tactical employment.

6.3.1. Entry Requirements. The minimum flying experience required prior to entering FL upgrade training is six months as a B-1 aircraft commander.

6.3.2. Ground training. Academic training will be locally developed and will include but is not limited to:

6.3.2.1. FL responsibilities - FL/wingman relationship, FL/ML relationship, unit training objectives.

6.3.2.2. Mission preparation - mission objectives, Desired Learning Objectives (DLOs), wingman requirements and responsibilities, currencies, capabilities, delegation of mission planning duties, tactics, attack plan, and briefing preparation.

6.3.2.3. Conduct of flight briefings and debriefings - objectives, DLOs, lessons learned, use of briefing guides and audiovisual aids, flight member involvement, briefing techniques, and debriefing/questioning techniques.

6.3.2.4. Conduct of missions - control of flight, flight discipline, emergency procedures, training rules, and responsibilities to SQ/CC.

6.3.3. Flying training. Training will be conducted in accordance with a program approved by the SQ/CC. Missions may be flown in any order. The program outlined below provides a basic starting point and may be modified by squadron commanders based on unit needs and/or upgrade's previous experience, qualifications, and documented performance. SQ/CCs will determine which sorties are required based on a review of previous experience and may certify a flight lead with appropriate restrictions based on training not accomplished (i.e. no AR, etc.). Two formation departures, a day and night formation aerial refueling, and a formation recovery will be accomplished as a flight lead during the program. All FLUG training will be under the supervision of an IP or Flight Lead qualified squadron supervisor. File ACC Form 166, **Student Activity Record**; ACC Form 208, **Unaccomplished Task Log**; ACC Form 206, **Individual Mission Grade Sheet**, in the individual's training folder.

6.3.3.1. FLUG-1, Surface Attack Tactics (SAT). Mission Objectives: Practice leading and controlling a 2-ship tactics mission to a tactical range/working area in a medium threat scenario. Specific Mission Tasks: Briefing, formation departure, tactical ingress (low altitude), medium threat target area tactics (emphasizing flight management), tactical egress, weapons employment procedures/techniques, AR procedures, and mission reconstruction and debriefing.

6.3.3.2. FLUG-2, Night Surface Attack (NSA). Mission Objectives: Practice leading and controlling a 2-ship night weapons delivery mission. Specific Mission Tasks: Briefing, formation departure, night range operations, weapons delivery patterns, night AR, and mission reconstruction and debriefing.

6.3.3.3. FLUG-3, Commander's Certification, 2-ship FL. Mission Objectives: Certification (by SQ/CC or designated representative) of flight lead abilities in a tactical mission scenario based on squadron tasking. Specific Mission Tasks: Briefing, mission accomplishment, flight management and control, and mission reconstruction and debriefing.

6.3.4. Following successful completion of FLUG-3, the SQ/CC will personally interview the upgrading pilot and review flight lead responsibilities, scope of duties, authority, and philosophy. The SQ/CC will certify new flight lead's status, including any restrictions, in appropriate written format (letter, grade sheets, ARMS, etc.).

**6.4. Simulator Instructor (SI).** The following WST mission profiles should be used to train and qualify selected simulator instructor candidates to operate the Instructor Operator Station (IOS). SQ/CCs will determine the number of SIs required to perform unit mission. The required supervision for this upgrade program is an IOS-qualified/current WST instructor. File ACC Form 166, ACC Form 208, ACC Form 206 in the individual's training folder.

6.4.1. Academic Training. Prior to the first IOS mission, the Upgrading Simulator Instructor (USI) should complete the following suggested unit developed blocks of instruction:

6.4.1.1. Principles of Instruction - learning objectives, instructor responsibilities, instructor relationship, training facilities, and publications.

6.4.1.2. Techniques of flight instruction - training objectives and environment; maneuver demonstration, performance, and review; recognition and analysis of common errors.

6.4.1.3. Conduct of flight briefing - training objectives, order of presentation, use of briefing guides and audiovisual aids, debriefing techniques.

6.4.1.4. Conduct of phase briefings - techniques for briefing, use of visual aids, review of applicable briefings.

6.4.1.5. Evaluations - grading systems and preparation/use of grade sheets.

6.4.2. Mission Profiles (Based on simulator capabilities).

6.4.2.1. SI-1, IOS Operations: Mission initialization, keyboard operation, emergency shutdown, hard copy, performance, and procedures monitoring.

6.4.2.2. SI-2, Practical Exercise: The USI will conduct a regularly scheduled simulator mission from the IOS under supervision of an IOS-qualified instructor.

6.4.3. Following successful completion of SI-2, the SQ/CC will certify the crewmember's SI status in appropriate written format (letter, ARMS, grade sheet, etc.).

**6.5. Mission Commander (MCC) Upgrade.** This program establishes the minimum guidelines for upgrade to MCC. Individuals will be selected for MCC upgrade by the SQ/CC. USAFWS graduates are qualified as Mission Commanders.

6.5.1. The MCC is responsible for planning, coordinating, briefing, executing, and debriefing joint/composite force employment packages. Mission commanders, once certified, are authorized to lead joint/composite force missions.

6.5.2. Ground training. Upgrading MCC's must satisfactorily complete the following unit-developed blocks of instruction prior to certification as a MCC:

6.5.2.1. Mission Brief/Debrief techniques and procedures.

6.5.2.2. CAF Aircraft Capabilities Familiarization

6.5.2.3. CSAR Familiarization

6.5.2.4. Joint Theater Air Control Systems.

6.5.2.5. Air Tasking Order creation/breakout.

6.5.2.6. Mission Planning Procedures.

6.5.2.7. AFTTP 3-1 Volume 1, 2, and 20 review.

6.5.2.8. Integrated Air Defense Systems.

6.5.2.9. Joint/Composite Force Integration.

6.5.3. Flying training. As a minimum, the MCC candidate will plan, brief, fly, and debrief a minimum of one mission under the supervision of a unit weapons officer. File grade sheets and TARs in the individual's training folder.

6.5.4. Certification. Following satisfactory completion of the above requirements, the SQ/CC will certify the MCC status, including any restrictions, in appropriate written format (letter, grade sheets, ARMS, etc.).

**6.6. Night Vision Goggle Training (NVG).**

6.6.1. Program Entry. The squadron commander will determine when NVG qualification training may begin. Individuals are cleared for NVG training once their medical records have been reviewed by the flight surgeon IAW AFI 11-202V3, and AFI 48-123, *Medical Examinations and Standards*. All training accomplished to proficiency at the FTU applies towards the requirements listed below.

6.6.2. Academics (IP/AC/P). Academics will provide initial instruction in NVG flight operations per this regulation, AFTTP 3-3, Volume 20 and unit developed NVG lesson plan. This training will include: NVG theory of operation, specific NVG operating procedures, NVG preflight procedures, night physiology of the eyeball, malfunctions and emergencies, effects of incompatible lights, weapon detonation effects, software programs for determining illumination, and a review of applicable directives.

6.6.3. Accomplish a simulator/aircraft period to familiarize pilots with cockpit modification procedures, NVG crosscheck and egress/boldface considerations.

6.6.4. Flying Training (IP/AC/P). Accomplish all ground training before entering the flight phase. Training will consist of a minimum of two sorties and at least two NVG low altitude navigation events with an NVG qualified instructor. Flight profiles will include at least one sortie with mountainous low altitude navigation and one formation sortie as a wingman. File grade sheets and TARs in the individual's training folder. Training will include:

6.6.4.1. High altitude formation consisting of: NVG aided station keeping, engine near-Infrared (IR) signature demonstration, IR strobe light demonstration, and NVG-aided rendezvous with a wingman.

6.6.4.2. Low altitude terrain following consisting of: NVG aided auto TF letdown, fly up procedures (accomplished to proficiency) with NVGs, weather effects (when present), terrain albedo considerations, and shadow effects.

6.6.5. All pilots must complete the unit NVG training program and be certified by the squadron commander prior to NVG flights without an instructor.

**6.7. Pre-Deployment Spin-Up Training.** This training will be conducted prior to deploying in support of contingency operations (if time permits) or exercises. Det 1, USAFWS is exempt from completing this training when deploying to Nellis AFB. The objective of this training is to ensure the aircrew's ability to conduct all missions in support of expected tasking. Tasked units are responsible for contacting appropriate gaining command/operations to determine expected mission tasking. This assures the responding forces are prepared for the appropriate tasking and allows the responding OG/CC to tailor this training for the theater, threat, and tactics for the assigned task. The SQ/CC is then responsible to implement this spin-up, prosecute the required missions, and determine the specific requirements necessary to reach the

desired level of proficiency. Emphasis will be placed on training needed for missions not accomplished in daily operations. This training will be conducted IAW all applicable regulations.

6.7.1. Ground Training. Units will brief Rules of Engagement (ROE)/Training Rules, command and control, engagement authority and procedures, Special Instructions (SPINs), airspace restrictions, unique communications requirements, Emissions Control (EMCON) procedures, and theater Order of Battle. Accomplish a review of the Foreign Clearance Guide for the unique procedures and requirements of the destination country. Brief the Customs, Courtesies and Cultural differences if applicable. Additionally, this exercise will include a discussion of the airfield description and operating peculiarities. This review of the location's unique operational environmental features should include but is not limited to in flight procedures, seasonal weather, other unique weather phenomena, wind shear potential and characteristics (i.e., sea breeze front, low altitude jet stream potential, etc.), airfield restrictions, taxi routes, and operating data if available.

6.7.2. Flying Training. Spin-up training will be tailored to ensure all deploying aircrew are proficient, current, and qualified in all expected mission taskings.

**6.8. Visual Formation Qualification.**

6.8.1. General. The Visual Formation training program is designed to qualify aircrew in B-1 formations other than Trail or Stream. Wingman qualification in Trail and Stream is obtained upon completion of the requisite IQC or RTC. Those qualified in visual formation positions at the FTU require no additional formal training in those positions at the unit. Visual formation qualification consists of training in the Route/Observation, Fluid, and Wedge positions. The visual formation checkout program consists of three separate phases: High altitude visual formation, low altitude visual formation, and night visual formation. Qualification for each of these areas will be tracked separately on the squadron Letter of Certification. Training for the high altitude and low altitude phases may be accomplished at the same time. All aircrew require visual formation academic training before flying any visual formation positions. WSO's do not require flight training. Document all training activity in the individual's training folder.

6.8.2. A visual formation qualified instructor pilot will conduct all training. At no time will maneuvers not signed off in the individuals training folder as proficient be performed. Training phase is complete following squadron commander's review of training records and written certification. In addition to the proficiency demonstration required for all pilots, instructor pilots will be certified in writing by the SQ/CC prior to accomplishing visual formation flight instruction. Flight Lead certified pilots will brief, fly, and demonstrate proficiency as flight lead during formation checkout.

6.8.3. Ground Training. Academic training for each phase will include but is not limited to:

6.8.3.1. Review of applicable B-1 formation guidance and restrictions.

6.8.3.2. Study the applicable portions of the formation chapter in AFTTP 3-3 Volume 20 with emphasis placed on:

6.8.3.2.1. Formation definitions, procedures and references.

6.8.3.2.2. Maneuvering techniques.

6.8.3.2.3. Defensive Maneuvering.

6.8.3.2.4. Lessons Learned.

6.8.3.2.5. Formation hazards and formation mishaps.

6.8.4. Flying Training. Complete all flight training for each phase within 90 days of academic training for that phase. If the 90 day limit is exceeded, academic training for the phase will be re-accomplished. Document this in the individuals training folder. (Note: 90 degree turns mentioned below are not required to be delay or "tactical" turns.)

6.8.4.1. High Altitude Visual Formation Phase. Pilots must be qualified in High Altitude Visual formation to fly tanker observation unsupervised. To be certified, pilots must be graded proficient in:

6.8.4.1.1. Formation departure and rejoin to Fluid.

6.8.4.1.2. Practice overshoot, lost wingman, and breakout procedures.

6.8.4.1.3. Turning rejoin to Fluid as wing.

6.8.4.1.4. Straight-ahead rejoin to Fluid as wing.

6.8.4.1.5. Route Maneuvering, to include battle damage check.

6.8.4.1.6. Fluid Maneuvering.

6.8.4.1.7. Wedge Maneuvering, including hook turns, 90 degree turns into the wingman, and shackle.

6.8.4.1.8. Defensive Maneuvering (Notch/Break and Pump).

6.8.4.1.9. Lead change.

6.8.4.1.10. Rejoin to Tanker Observation position from Echelon.

6.8.4.1.11. Maintaining Tanker Observation position on both wings while the tanker executes turns into and away from the aircraft.

6.8.4.2. Low Altitude Visual Formation Phase. All formation maneuvers must be practiced at least once high altitude before they are attempted low altitude. Initial letdown and maneuvering will be to 1000' AGL. Training as low as 500' AGL may be performed at the instructor's discretion. To be certified, pilots must be graded proficient in the following at low altitude:

6.8.4.2.1. Dive to low altitude.

6.8.4.2.2. Turning rejoin to Wedge as wing.

6.8.4.2.3. Wedge Maneuvering, including hook turns, 90 degree turns into the wingman, and shackle.

6.8.4.2.4. Wedge maneuvering in mountainous terrain.

6.8.4.2.5. Defensive Maneuvering (Notch/Break and Pump).

6.8.4.2.6. Split as wing.

6.8.4.2.7. Pop to Level.

6.8.4.3. Night Visual Formation Phase. Night visual formation will not be flown until allowed by AFI 11-2B-1V3. Pilots must be checked out in high altitude visual formation before beginning the night visual formation phase. To be certified, pilots must be graded proficient in the following:

6.8.4.3.1. Rejoin to night Wedge from Trail.

6.8.4.3.2. Practice lost wingman and breakout procedures.

6.8.4.3.3. Wedge maneuvering, including hook turns, 90 degree turns into the wingman, and shackle.

6.8.4.3.4. Defensive Maneuvering (Notch/Break and Pump).

6.8.4.3.5. Lead change.

**6.9. Mission Lead Upgrade Program (MLUG).** This program establishes the minimum guidelines for those WSOs identified by the SQ/CC to upgrade to Mission Lead (ML). ML training should place appropriate emphasis on formation tactical employment.

6.9.1. Program Entry. The following minimum flying experience is required prior to entering ML upgrade training:

6.9.1.1. 500 B-1 hours, or

6.9.1.2. 100 RAP/contingency sorties, or

6.9.1.3. 750 hours in fighter/bomber/attack aircraft and 50 RAP/contingency sorties.

6.9.2. Ground Training. Academic training will be locally developed and will include but is not limited to:

6.9.2.1. ML responsibilities: ML/FL relationship, unit training objectives.

6.9.2.2. Mission preparation: mission objectives, Desired Learning Objectives (DLOs), wingman requirements and responsibilities, currencies, capabilities, delegation of mission planning duties, tactics, attack plan, and briefing preparation.

6.9.2.3. Conduct of mission briefings and debriefings: objectives, DLOs, lessons learned, use of briefing guides and audiovisual aids, flight member involvement, briefing techniques, and debriefing/questioning techniques.

6.9.3. Flying Training. Training will be conducted in accordance with a program approved by the SQ/CC. Missions may be flown in any order. The program outlined below provides a basic starting point and may be modified by squadron commanders based on unit needs and/or upgrade's previous experience, qualifications, and documented performance. SQ/CCs will determine which sorties are required based on a review of previous experience. All MLUG training will be under the supervision of a ML or FL qualified instructor or squadron supervisor. File ACC Form 166, ACC Form 208, ACC Form 206, in the individual's training folder.

6.9.3.1. MLUG-1, Surface Attack Tactics (SAT). Mission Objectives: 2-ship tactics mission to a tactical range/working area in a medium threat scenario. Specific Mission Tasks: Briefing, tactical ingress (low altitude), medium threat target area tactics, tactical egress, weapons employment procedures/techniques, air refueling, and mission reconstruction and debriefing.

6.9.3.2. MLUG-2, Night Surface Attack (NSA). Mission Objectives: 2-ship night weapons delivery mission. Specific Mission Tasks: Briefing, night range operations, weapons delivery patterns, air refueling, and mission reconstruction and debriefing.

6.9.3.3. MLUG-3, Commander's Certification, 2-ship ML. Mission Objectives: Certification (by SQ/CC or designated representative) of mission lead abilities in a tactical mission scenario based on squadron tasking. Specific Mission Tasks: Briefing, mission accomplishment, and mission reconstruction and debriefing.

6.9.4. Following successful completion of MLUG-3, the SQ/CC or designated representative will personally interview the upgrading WSO and review ML responsibilities, scope of duties, authority, and philosophy. The SQ/CC will certify new mission lead's status, including any restrictions, in appropriate written format (letter, grade sheets, ARMS, etc.).

**6.10. FIC Instructor Upgrade.** This program establishes minimum guidelines for those instructors nominated by the SQ/CC to be FIC Instructors.

6.10.1. Requirements. Candidates must have a minimum of one year as an instructor in the B-1.

6.10.2. Ground Training will be locally developed and should include but is not limited to:

6.10.2.1. Methods of instruction, including role-play.

6.10.2.2. Review of procedures and techniques for FIC/FTU only maneuvers.

6.10.3. Flight training is only required for pilots. As a minimum, candidates must complete all FIC/FTU Only maneuvers listed in Attachment 5 of AFI 11-2B-1V3 to proficiency.

**6.11. Forms Adopted.** AF Form 847, **Recommendation for Change of Publication;** DD Form 1833, **Isolated Personnel Reports**; ACC Form 166, **Student Activity Record**; ACC Form 208, **Unaccomplished Task Log**; ACC Form 206, **Individual Mission Grade Sheet**

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## Attachment 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

***References***

AFI 10-204, *Readiness Exercises and After-Action Reporting Program*

AFI 10-245, *Air Force Antiterrorism (AT) Standards*

AFI 10-704, *Military Deception Program*

AFI 10-2501, *Full Spectrum Threat Response (FSTR) Planning and Operations*

AFPD 11-2, *Aircraft Rules and Procedures*

AFI 11-2B-1 Volume 2, *B-1--Aircrew Evaluation Criteria*

AFI 11-2B-1 Volume 3, *B-1--Operations Procedures*

AFI 11-202 Volume 1, *Aircrew Training*

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

AFI 11-202 Volume 3, *General Flight Rules*

AFI 11-207, *Flight Delivery of Fighter Aircraft*

AFMAN 11-210, *Instrument Refresher Course Program*

AFI 11-214, *Air Operations Rules and Procedures*

AFI 11-218, *Aircraft Operation and Movement on the Ground*

AFI 11-221, *Air Refueling Management (KC-10 and KC-135)*

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

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

AFI 11-301 Volume 1, *Aircrew Life Support (ALS) Program*

AFPD 11-4, *Aviation Service*

AFI 11-401, *Aviation Management*

AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Badges*

AFI 11-403, *Aerospace Physiological Training Program*

AFI 11-404, *Centrifuge Training for High-G Aircrew*

AFI 13-212 Volume 1, *Range Planning and Operations*

AFI 13-212 Volume 2, *Range Construction and Maintenance*

AFI 13-212 Volume 3, *Safe-Range Program Methodology*

AFI 14-105, *Unit Intelligence Mission and Responsibilities*

AFI 16-402, *Aerospace Vehicle Programming, Assignment, Distribution, Accounting and Termination*

AFI 16-1301, *SERE Program*

AFI 31-207, *Arming and Use of Force by Air Force Personnel*

AFPD 32-40, *Disaster Preparedness*

AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*

AFI 33-360 Volume 1, *Air Force Content Management Program--Publications*

AFI 36-2201 Volume 1, *Training Development, Delivery and Evaluation*

AFI 36-2217, *Munitions Requirements for Aircrew Training*

AFI 36-2226, *Combat Arms Program*

AFI 36-2238, *Self-Aid and Buddy Care Training*

AFI 36-2706, *Military Equal Opportunity and Treatment Program*

AFMAN 37-123, *Management of Records*

AFI 44-121, *Alcohol and Drug Abuse Prevention and Treatment (ADAPT) Program*

AFI 48-123, *Medical Examination And Standards*

AFPD 51-4, *Compliance with the Law of Armed Conflict*

AFI 51-401, *Training and Reporting to Ensure Compliance with the Law of Armed Conflict*

AFI 71-101 Volume 1, *Criminal Investigations*

AFI 71-101 Volume 2, *Protective Service Matters*

AFI 91-202, *The US Air Force Mishap Prevention Program*

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Prevention and Health (AFOSH)Program*

AFTTP 3-1 Volume 1, *General Planning and Employment Considerations*

AFTTP 3-1 Volume 2, *Threat Reference Guide and Countertactics*

AFTTP 3-1 Volume 20, *Tactical Employment-- B-1*

AFTTP 3-3 Volume 20, *Combat Aircraft Fundamentals-- B-1*

ACCI 11-103, *Management Reports and Guidance for Flying Hour Program*

ACCI 11-450, *Orientation Flight Program*

ACCI 11-460, *Operations Systems Management*

ACCI 11-464, *Training Records and Performance Evaluation in Formal Flying Training Programs*

ACCI 14-250, *Command Collection Management*

Air Force Education and Training Course Announcements, *USAF Formal Schools*

DODD 5500.7-R, *Joint Ethics Regulation*

***Abbreviations and Acronyms***

**A/A—**Air-to-Air

**A/S—**Air-to-Surface

**AAA—**Anti-Aircraft Artillery

**AC—**Aircraft Commander

**ACC—**Air Combat Command

**ACCI—**Air Combat Command Instruction

**ACDE—**Aircrew Chemical Defense Ensemble

**ADO—**Assistant Director of Operations

**AETC—**Air Education and Training Command

**AF—**Air Force

**AFMSS—**Air Force Mission Support System

**ARMS—**Aviation Resource Management System

**AFRC—**Air Force Reserve Command

**AFSATCOM—**Air Force Satellite Communications System

**AGL—**Above Ground Level

**AGM—**Air-to-Ground Missile

**AI—**Air Intercept/Air Interdiction

**AILA—**Airborne Instrument Landing Approach

**AIR—**Air Inflatable Retarder

**ANG—**Air National Guard

**AOC—**Air Operations Center

**AOR—**Area Of Responsibility

**API—**Aircrew Position Identifier (AFI 11-401)

**AR—**Air Refueling

**ATD—**Aircrew Training Device

**AVTR—**Aircraft Video Tape Recorder

**AWACS—**Airborne Warning & Control System

**B—**Basic (Initial)

**BAQ—**Basic Aircraft Qualification

**BBM—**Basic Bomber Maneuvers

**BDU—**Bomb Dummy Unit

**BLOS—**Beyond Line Of Site

**BMC—**Basic Mission Capable

**BS—**Bomb Squadron

**C—**Copilot

**C3—**Command, Control, and Communications

**C&R—**Collection and Reporting

**CAF—**Combat Air Forces

**CAS—**Close Air Support

**CASTS—**Close Air Support Training Sortie

**CAT—**Category

**CB-coded—**Designated Test Aircraft

**CBI—**Computer Based Instruction

**CBU—**Cluster Bomb Unit

**CC—**Commander

**CC-coded—**Designated Combat Aircraft

**CENTCOM—**Central Command

**CEP—**Circular Error Probable

**CHUM—**Chart Update Manual

**CIRVIS—**Communication Instructions Reporting Vital Intelligence Sighting

**CM—**Countermeasures

**CMR—**Combat Mission Ready

**CoCCT—**Code of Conduct Continuation Training

**COMACC—**Commander, Air Combat Command

**CPO—**Consolidated Planning Order

**CPT—**Cockpit Procedures Trainer

**CRC—**Control & Reporting Center

**CRL—**Conventional Rotary Launcher

**CRM—**Crew Resource Management

**CSAR—**Combat Search and Rescue

**CSS—**Combat Skills Sortie

**CST—**Combat Survival Training

**CT—**Continuation Training

**CT-II—**Combat Track II

**CV—**Vice Commander

**CW—**Chemical Warfare

**CWD—**Chemical Warfare Defense

**CWDS—**Combat Weapons Delivery Software/System

**CWT—**Composite Wing Training

**D—**Demonstration

**DACT—**Dissimilar Air Combat Tactics

**DD—**Degraded Delivery

**DLO—**Desired Learning Objectives

**DMPI—**Desired Mean Point of Impact

**DNIF—**Duties Not Involving Flying

**DO—**Director of Operations

**DOB—**Defensive Order of Battle

**DOC—**Designed Operational Capability

**DRU—**Direct Reporting Unit

**DSO—**Defensive Systems Officer

**E—**Experienced Crewmember

**E&R—**Escape and Recovery

**EA—**Electronic Attack

**EC—**Electronic Combat

**EEI—**Essential Elements of Information

**EMCON—**Emissions Control

**EP—**Electronic Protection/Emergency Procedure

**EPA—**Evasion Plan of Action

**EUCOM—**European Command

**EW—**Electronic Warfare

**EXORD—**Execute Order

**F—**Familiarization

**FAC—**Forward Air Controller

**FAC (A)—**Forward Air Controller (Airborne)

**FAM—**Familiarization

**FIC—**Flight Instructor Course

**FL—**Flight Lead

**FLUG—**Flight Lead Upgrade

**FOV—**Field of View

**FPA—**Flight Path Angle

**FS—**Flight Surgeon/Aircrew Physician

**FSWD—**Full Scale Weapons Delivery

**FTC—**Faculty Training Course

**FTU—**Formal Training Unit

**G—**Gravitational Load Factor

**GBU—**Guided Bomb Unit

**GCI—**Ground Control Intercept

**GD—**Guided Delivery

**GFAC—**Ground Forward Air Controller

**GMTI—**Ground Moving Target Indicator

**GPS—**Global Positioning System

**GWTS—**Guided Weapon Training Sortie

**HASD—**High Altitude Systems Delivery

**HATS—**High Altitude Training Sortie

**HF—**High Frequency/Height Finder

**HHD—**Higher Headquarters Directed

**HHQ—**Higher Headquarters

**I—**Inexperienced Crewmember

**IAW—**In Accordance With

**IDL—**Integrated Data Link

**IFF—**Identification, Friend or Foe

**IFR—**Instrument Flight Rules

**ILS—**Instrument Landing System

**IMC—**Instrument Meteorological Conditions

**INFLTREP—**Inflight Report

**INS—**Inertial Navigation System

**INTREP—**Intelligence Report

**IOC—**Initial Operational Capability

**IOS—**Instructor Operator Station

**IOSO—**Instructor Offensive Systems Officer

**IP—**Instructor Pilot

**IQC—**Initial Qualification Course

**IQT—**Initial Qualification Training

**IR—**Infrared

**IRC—**Instrument Refresher Course

**ISD—**Instructional Systems Development

**ISOPREP—**Isolated Personnel Report

**IWSO—**Instructor Weapon Systems Officer

**JAAT—**Joint Air Attack Training

**JASSM—**Joint Air-to-Surface Standoff Missile

**JCTS—**Joint/Composite Training Sortie

**JDAM—**Joint Direct Attack Munition

**JMEM—**Joint Munitions Effectiveness Manual

**JSOW—**Joint Stand-Off Weapon

**JSTARS—**Joint Surveillance Target Attack Radar System

**LAAT—**Low Altitude Awareness Training

**LAF—**Low Altitude Formation

**LAHD—**Low Altitude High Drag

**LALD—**Low Altitude Low Drag

**LAO—**Local Area Orientation

**LAR—**Launch Acceptability Region

**LASD—**Low Altitude Systems Delivery

**LATS—**Low Altitude Training Sortie

**LE—**Low Altitude Event

**LIMFAC—**Limiting Factors

**LOAC—**Law Of Armed Conflict

**LOW ALT—**Low Altitude

**LOWAT—**Low Altitude Training

**LP—**Launch Point

**MAJCOM—**Major Command (i.e. ACC)

**MASD—**Medium Altitude Systems Delivery

**MCC—**Mission Commander

**MCM—**Multi-Command Manual

**MDS—**Mission Design Series

**MDT—**Mission Directed Training

**MISREP—**Mission Report

**ML—**Mission Lead

**MLUG—**Mission Lead Upgrade

**MM—**Monopulse Measurement

**MOA—**Military Operating Area

**MQT—**Mission Qualification Training

**MR—**Mission Ready

**MSA—**Minimum Safe Altitude

**MSL—**Mean Sea Level

**MT—**Mission Trainer

**MUTES—**Multiple Threat Emitter System

**MW—**Mission WSO

**N/A—**Not Applicable

**NAF—**Numbered Air Force

**NAV—**Navigation

**NCST—**Non-Combat Survival Training

**NLT—**Not Later Than

**NSA—**Night Surface Attack

**NTF—**Night Terrain Following

**NVG—**Night Vision Goggles

**NWS—**Navigation Weapons Scoring

**OAS—**Offensive Avionics System

**OG—**Operations Group

**OPR—**Office of Primary Responsibility

**OPCON—**Operational Control

**OSO—**Offensive Systems Officer

**OSS—**Operations Support Squadron

**P—**Pilot/Proficient

**PACAF—**Pacific Air Forces

**PACOM—**Pacific Command

**PCS—**Permanent Change of Station

**PFT—**Programmed Flying Training

**PUP—**Pilot Upgrade Program/Pull Up Point

**QUAL—**Qualification

**RBS—**Radar Bomb Score

**RDS—**Records Disposition Schedule

**ROE—**Rules of Engagement

**RTC—**Requalification Training Course

**SA—**Surface Attack/Situational Awareness

**SAE—**Situation Awareness Enhancement

**SAFE—**Secure Area for Evasion

**SAM—**Surface-to-Air Missile

**SAT—**Surface Attack Tactics

**SCL—**Standard Conventional Load

**SCP—**Set Clearance Plane

**SEF—**Stability Enhancement Function

**SEFE—**Stan/Eval Flight Examiner

**SELO—**Stan/Eval Liaison Officer

**SEPT—**Situational Emergency Procedure Training

**SERE—**Survival Evasion Resistance and Escape

**SI—**Simulator Instructor

**SIMCERT—**Simulator Certification

**SOUTHCOM—**Southern Command

**SPINs—**Special Instructions

**SQ/CC—**Squadron Commander

**SSQC—**Senior Staff Qualification Course

**TACAN—**Tactical Air Navigation

**TACON—**Tactical Control

**TACS—**Tactical Air Control System

**TACP—**Tactical Air Control Party

**TAR—**Training Accomplishment Report

**TDY—**Temporary Duty

**TF—**Terrain Following

**TF-coded—**Designated Training Aircraft

**TFR—**Terrain Following Radar

**TGT—**Target

**TO—**Takeoff(s)/Technical Order

**TOT—**Time Over Target

**TRs—**Training Rules

**TST—**Time Sensitive Targeting

**TTI—**Time to Impact

**TX—**Transition

**TXC—**Transition Training Course

**UAV—**Unmanned Aerial Vehicle

**UCMJ—**Uniform Code of Military Justice

**UCML—**Unit Committed Munitions List

**UMD—**Unit Manning Document

**USAF—**United States Air Force

**USAFE—**United States Air Forces in Europe

**USAFWS—**United States Air Force Weapons School

**USI—**Upgrading Simulator Instructor

**USJFCOM—**United States Joint Forces Command

**VFR—**Visual Flight Rules

**VID—**Visual Identification

**VMC—**Visual Meteorological Conditions

**VTR—**Video Tape Recorder

**WCMD—**Wind Corrected Munitions Dispenser

**WE—**Weapons Delivery

**WG—**Wing

**WIC—**Weapons Instructor Course

**WISS—**Weapon Impact Scoring Set

**WS—**Weapons School

**WSO—**Weapon Systems Officer

**WST—**Weapon System Trainer

**WX—**Weather

***Terms***

**Academic Training—**This training includes classroom, Computer Based Instruction (CBI), and Aircrew Training Devices (ATD) related to aircraft systems and operation, flight characteristics and techniques, performance, normal and emergency procedures, and safety of flight items. Academic courses prepare aircrew for flight training and are normally completed before flight training.

**Aircrew Training Device (ATD)—**The ATD is intended to enhance, not replace actual flight training. ATDs do this by allowing aircrew to practice tactics, malfunctions, and emergency procedures which cannot be practiced in flight.

**Attrition Sortie—**A sortie planned and launched as a RAP training sortie, Non-RAP sortie, or Experience sortie, that due to some circumstance (weather, IFE, maintenance, etc.), fails to accomplish the planned mission. It is imperative that unit's log these sorties properly. Improper accounting of these sorties results in improper sortie allocation, stresses to the unit schedule, and negatively impacts the quality of unit training programs.

**Basic Aircraft Qualification (BAQ)—**A status of a crewmember who has satisfactorily completed training prescribed to maintain the skills necessary to fly the unit aircraft. The crewmember must perform at the minimum frequency necessary to meet the most recent sortie and flight standards set for the weapons system. BAQ will only be carried by aircrew until completion of MQT. BAQ is not a permanent qualification except for General Officers above the wing level, API 6/8 aircrew in designated Test Squadrons located at a base without B-1 aircraft, and any other aircrew specifically authorized by MAJCOM DO. Flight duties will be limited to those identified in paragraph **4.3.**

**Basic Bomber Maneuvers (BBM)—**Training designed to apply aircraft handling skills to gain proficiency in recognizing and solving range, closure, aspect, angle off, and turn geometry problems in relation to another aircraft to deny the adversary a position from which weapons may be launched or defeat weapons employed by an adversary.

**Basic Mission Capable (BMC)—**The status of a crewmember who has satisfactorily completed training (MQT) prescribed to be fully qualified to perform the basic unit operational missions but does not maintain CMR status. Aircrew accomplishes training required to remain familiarized in all, and may be qualified and proficient in some, of the primary missions of their weapon system and unit. BMC aircrew may also maintain special capabilities. (Refer to paragraph **4.3.**)

**Basic Surface Attack (Day) [BSA-(Day)]—**Training designed to achieve proficiency in day medium/low altitude tactical navigation and air-to-surface weapons delivery events.

**Basic Surface Attack (Night) [BSA-(NT)]—**Training designed to achieve proficiency in night medium/low altitude tactical navigation and air-to-surface weapons delivery events.

**Camera Attack—**A videotaped weapons delivery pass during which weapons are not released but all camera attack switchology and conditions are satisfied.

**Certification—**The process of certifying aircrew for special weapons capabilities, procedures, and rules.

**Circular Error—**Miss distance of a given weapon impact expressed in radial distance from center of target.

**Close Air Support (CAS)—**Mission/sortie flown in support of ground forces (actual or simulated) under the control of a Forward Air Controller (FAC), either air or ground. Mission elements include: Intel scenario and tactical mission planning; execution against actual or simulated threats, simulated or actual weapons employment against designated targets while under positive control of an air or ground FAC who is interfacing (actual or simulated) with the Theater Air Control System/Army Air-to-Ground System (TACS/AAGS) C2 network; and in-flight report.

**Cockpit Procedures Trainer (CPT)—**A device used to train normal, emergency, and instrument procedures. Aircraft instruments and other displays are activated to respond to flight control and switch inputs; however, exact dynamic simulation of all functions is not required. This trainer provides safety-of-flight training.

**Combat Mission Ready (CMR)—**A status of a crewmember who has satisfactorily completed training (MQT) prescribed to be fully qualified to perform the basic unit operational missions, and maintains qualification and proficiency in these missions. (Refer to paragraph **4.3.**)

**Composite Force Training (CFT)—**Scenarios employing multiple flights of the same or different types of aircraft, each under the direction of its own flight leader, performing the same or different roles.

**Continuation Training (CT)—**Training to maintain proficiency and improve aircrew capabilities to perform unit missions. This training does not include sorties flown as formal syllabus missions, tests, or evaluations. Applicable to BMC and CMR aircrew.

**Currency—**The minimum frequency required to perform an event or sortie safely.

**Delivery Parameters—**Data reflecting current delivery considerations for general purpose weapons as well as tactical survivability. Appropriate aircraft/weapons Tech Orders must be consulted for live weapons safe escape criteria.

**Desired Learning Objective (DLO)—**Objective intended for use as learning progress benchmarks. DLO's should be understandable, attainable, and quantifiable. Accomplishment of desired learning objectives will indicate mission success on training missions via completion of specific mission tasks.

**EC Range Event—**In flight operations conducted on an EC range with fixed or mobile surface to air emitters operating and detection/threat reactions emphasized.

**Electronic Protection (EP) Intercept—**An intercept performed against a target using active and/or passive EA against attacker's radar, causing the attacker to employ EP techniques or tactics. Does not include co-channel interference.

**Experience Sortie—**A sortie not directly related to combat employment training but necessary for accomplishment of unit training programs, such as ferry flights, deployments, orientation flights, etc. These sorties are not required for RAP training purposes.

**Experienced Crewmember (E)—**Designate crewmembers as experienced based on the minimum hour requirements in **Table A1.1.** Both total and B-1 hours must be met before designating an individual as experienced. UPT/UNT student time is not included in total hours. Unit commanders may elect to retain an individual meeting the minimum requirements as inexperienced if designation as experienced is not warranted. When crewmembers are designated as experienced, the remaining requirements of the training cycle will be prorated. Unit commanders may return an individual to inexperienced status at any time. All

coilots are considered inexperienced. All instructors are considered experienced.

**Table A1.1. ACC Requirements for Experienced Designation.**

| AIRCREW POSITION | TOTAL HOURS/B-1 HOURS |
|---|---|
| AC | 1500/300, 1250/500, 1000/750 or previously Bomber Experienced as an AC and 150 B-1 hrs |
| WSO | 1300/200, 1000/300 or 750/500 |

**Familiarization (FAM)—**Training necessary for an individual to maintain a working knowledge of procedures and tasks associated with a particular type of weapons delivery. FAM criteria are established in **A2.3.2.2.1.**

**Flight Lead (FL)—**As designated on flight orders, the aircraft commander responsible for overall conduct of mission from preflight preparation/briefing to post flight debriefing, regardless of actual position within the formation. If another crewmember is designated as the Mission Lead, that crewmember is responsible for preflight preparation/briefing and debriefing but the FL retains responsibility for the overall conduct of the mission. The FL will brief formation management specifics during the mission brief.

**Guided Weapon—**A weapon capable of correcting its own trajectory after release (e.g. GBU-31, CBU-103, AGM-158).

**High Altitude—**Above 25,000 feet MSL. (For weapons delivery events above 17,000' MSL)

**Initial Qualification Training (IQT)—**Training to qualify aircrew in basic aircraft flying duties without specific regard to the unit's operational mission.

**Instructor—**An individual who has been trained to instruct and is designated and certified in writing by the unit SQ/CC.

**Instructor Supervision—**Defined as having a qualified instructor, of like specialty, supervising a maneuver or training event. Instructors must be qualified and current in all events which they instruct/supervise.

**Joint Force Training (JFT)—**Scenarios employing integrated aerospace and land/naval forces. Examples include JAAT, CAS with FAC, airdrop escort, etc.

**Low Altitude—**Below 5,000 feet Above Ground Level (AGL).

**Long Duration Sortie—**Any sortie planned to exceed the maximum flight duty period specified in Chapter 9 of AFI 11-202V3 (i.e. 16 hours for the B-1).

**Medium Altitude—**From 5,000 feet AGL to 25,000 feet MSL. (For weapons delivery events from 5,000 feet AGL to 17,000' MSL)

**Medium Altitude Tactics—**Day or night formation above 5000 feet AGL; ingress to a target area, employing actual or simulated weapons, and egress with mutual support.

**Mission Commander (MCC)—**Individual who has completed an established training program to prepare/qualify for planning, coordinating, briefing, executing, and debriefing joint/composite force employment packages (See paragraph **6.5.**)

**Mission Lead (ML)—**The crewmember responsible for overall developing a plan for accomplishing the

mission from preflight preparation/briefing to post flight debriefing, regardless of actual position within the formation. The FL retains responsibility for the overall conduct of the mission.

**Mission Qualification Training (MQT)—**Training required to achieve a basic level of competence in unit's primary tasked missions. This training is a prerequisite for CMR or BMC status.

**Mission Trainer (MT)—**A trainer that provides the trainees with a simulated warfare environment that is specifically mission oriented to the type of weapon system involved. The trainer can provide specific weapon system operator modes or a mission mode that requires tactical decision-making. (Does not have to include pilot flight dynamics training.)

**Monopulse Measurement (MM)—**The process of using the B-1 radar to accurately determine target coordinates and elevation. Known as "radar targeting" after Block E modification.

**Night—**The time between the end of civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.

**Non-demanding NVG—**This event used to regain NVG currency without IP supervision for pilots non-current less than 180 days. Crewmember must fly at medium or high altitude for a minimum of 15 minutes using NVGs with compatible cockpit lighting. If in formation, only Trail position may be flown during this event. After flying this event, crewmember may fly other NVG events (e.g low altitude) on the same sortie.

**Proficiency—**Demonstrated ability to successfully accomplish tasked event safely and effectively. For purposes of this regulation, proficiency also requires currency in the event, if applicable.

**Programming Time—**The portion of the mission, common to all ACC bomber aircraft, allocated to avionics system initialization and alignment, system drift rate computation, and taking position and altitude updates.

**Qualification (QUAL)—**Crewmember who has demonstrated capability to put appropriate weapons on target according to criteria established for that event in **Chapter 5**.

**Requalification Training (RQT)—**Training necessary to requalify aircrew in the aircraft.

**Situational Emergency Procedures Training (SEPT)—**A discussion and review of abnormal / emergency procedures and aircraft systems operations/limitations based on realistic scenarios.

**Specialized Training—**Training in specialized tactics, weapons systems, or flight responsibilities such as flight lead, MCC, etc.

**Squadron Supervisor—**Squadron Commander, Director of Operations, or Assistant Director of Operations.

**Surface Attack Tactics (SAT)—**Training that includes tactical mission planning and weapons delivery IAW unit tasking, simulating UCML munitions, and SCLs against a tactical target.

**Tactical Deception—**Any activity designed to mislead the enemy operational commander by manipulating, distorting, or falsifying evidence, thereby inducing the enemy to act in a manner favorable to our interests or desires.

**Tactics and Training Range (TTR)—**Sites capable of RBS, EC range training and special training.

**Verification—**A formal board proceeding emphasizing operations convened to verify individual crewmembers knowledge of tactical employment during unit wartime mission/tasking. Verification is

conducted in both initial and follow-on phases. See paragraphs **3.3.**, **4.2.9.** and **Attachment 3**.

**Weapons System Officer (WSO)—**An individual qualified in both the DSO and OSO aircrew positions.

**Weapons Systems Trainer (WST)—**A device that provides an artificial training or tactics environment in which operators learn, develop, improve, and integrate mission skills associated with their aircrew position in a specific defense system

## Attachment 2

## GLOSSARY OF MISSION/SORTIE AND EVENT DESCRIPTIONS

### A2.1. Mission/Sortie Definitions.

A2.1.1. RAP Missions. The following is a listing of training missions required to fulfill tasked requirements. Only one RAP mission may be logged per sortie. Requirements to log effective RAP sorties and mission types are contained within each mission description.

A2.1.1.1. **Combat Skills Sortie (CSS).** Building block sortie, which contains events and tactics required by BMC/CMR aircrew. Aircrew should concentrate on basic combat skills. Basic combat skills are, but are not limited to, AR, EMCON procedures, command and control events, tactics, weapons delivery, EC threat activity, low altitude flight, and formation. To receive credit as an effective sortie, at least 50 percent of the basic skills must be accomplished. The SQ/DO may add to the list of basic combat skills listed.

A2.1.1.2. **Low Altitude Training Sortie (LATS).** A training sortie designed to emphasize low altitude tactics and weapons employment. As part of mission planning the aircrew should focus on a briefed intelligence scenario. The scenario at a minimum should include; location of forces (hostile, and friendly), threats along route of flight, and target information. The mission should concentrate on those activities necessary to improve the low altitude combat capability of the aircrew. To have an effective sortie the mission will include but is not limited to:

A2.1.1.2.1. Low Altitude threat reactions that counter briefed intelligence threats.

A2.1.1.2.2. Low Altitude Navigation.

A2.1.1.2.3. Low Altitude Weapon Release (weapon/shape release, tone, or camera score - in this priority).

A2.1.1.3. **High Altitude Training Sortie (HATS).** A sortie designed to emphasize high altitude tactics and weapons employment. As part of mission planning the aircrew should focus on a briefed intelligence scenario. The scenario at a minimum should include; location of forces (hostile, and friendly), threats along route of flight, and target information. The mission should concentrate on those activities necessary to improve the high altitude combat capability of the aircrew. To have an effective sortie the mission will include but is not limited to:

A2.1.1.3.1. High altitude EC (A/S or A/A, from an actual threat emitter or a threat simulator such as MUTES) that counters briefed intelligence threats.

A2.1.1.3.2. High altitude weapon delivery (weapon/shape release, tone, or camera score - in this priority).

A2.1.1.4. **Guided Weapon Training Sortie (GWTS).** A sortie designed to emphasize guided weapons employment. Mission planning should be based on a briefed intelligence scenario. The scenario at a minimum should include: location of forces (hostile and friendly), threats along the route, and target information. The mission should concentrate on those activities necessary to improve guided weapon employment. An effective mission will include but is not limited to:

A2.1.1.4.1. EC (A/S or A/A, from an actual threat emitter or a threat simulator such as MUTES) that counters briefed threats.

A2.1.1.4.2. Actual or simulated release of a guided weapon.

A2.1.1.5. **Joint/Composite Training Sortie (JCTS).** Sortie emphasizing dissimilar, multi-ship, surface attack tactics to develop proficiency in the following areas: Dissimilar aircraft planning, Offensive Counter Air (OCA) considerations, multi-axis attacks, aircraft and weapons deconfliction, and Multi-ship egress. Major exercises provide the best opportunity for this type of training, however, any dissimilar multi-ship mission that allows adequate planning, airspace, and debriefing fulfills this requirement.

A2.1.1.6. **CAS Training Sortie (CASTS).** Sortie flown in support of ground forces (actual or simulated) under the control of a FAC (either air or ground, actual or simulated), providing air control for the weapon employment. Mission elements include: Intel scenario and tactical mission planning, execution against actual or simulated threats, simulated or actual weapons employment against designated targets while under positive control of a FAC.

A2.1.1.7. **Commander Option Sortie (CC Opt).** Any one of the RAP sorties (CSS, LATS, HATS, GTS, JCTS, CASTS) the commander designates.

A2.1.2. Non-RAP Sorties.

A2.1.2.1. **Mission Commander Sortie (MCCS).** Joint/Composite Force mission where crewmember is the MCC and is responsible for 2 or more types of aircraft and 4 or more aircraft, or more than 2 B-1 aircraft versus a minimum of 2 preplanned adversary aircraft.

A2.1.2.2. **Night Sortie.** To receive credit at least 50% of scheduled activity must be accomplished at night. All night sorties will be flown with NVGs for those units/individuals that are equipped and qualified. NVG aided missions should include covert/lights out training.

A2.1.2.3. **GPS Out Sortie.** Sortie flown without the aid of GPS for navigation or OAS update. The mission should emphasize INS management, navigation, and effective weapons employment. Sortie must include at least one weapon delivery.

**A2.2. Event Descriptions.** Unless otherwise specified in these event descriptions, units will determine the necessary parameters for fulfilling and/or logging tasked events. Event is defined in one of the following manners:

A2.2.1. A specific type of weapon delivery (defined by aircraft flight path, weapons delivered, delivery method, or target struck) performed during a sortie.

A2.2.2. Expending weapons against a target according to predetermined flight path parameters and delivery methods. A single delivery constitutes an event which requires satisfaction of additional criteria.

A2.2.3. Accomplishment of a specific training element, function, or task (e.g. AR, TF, etc.).

**A2.3. Weapons Delivery.**

A2.3.1. A delivery is defined as a pass at a target on which weapons is expended or a pass meeting the criteria defining a specific weapon delivery. Weapons Delivery Currency applies to and requires actual expenditure of ordnance. All deliveries will be recorded, but not necessarily as a "record" delivery. There are two types of deliveries:

A2.3.1.1. **Basic Delivery:** A delivery using a conventional box pattern. It may be used as a record event only for initial qualification. There is no restriction on the number of dry passes made before or during basic deliveries in a record event for initial qualification; however, only the first two deliveries per event may be made for record.

A2.3.1.2. **Tactical Delivery:** A delivery using patterns and techniques that minimize final flight path predictability, yet allows sufficient time for accurate weapons delivery. When a tactical delivery is flown for record, dry passes in the event are not permitted before or during the event.

A2.3.2. Delivery Categories. A delivery constitutes a weapons delivery event based on two categories: by record keeping (Record or Non-Record), and by RAP tasking (FAM and QUAL):

A2.3.2.1. Record Keeping.

A2.3.2.1.1. **Non-Record:** Basic or Tactical weapons delivery accomplishments not credited toward weapons qualification provided the crewmember declares non-record prior to beginning event.

A2.3.2.1.2. **Record:** Basic or Tactical weapons delivery scored for individual weapons qualification. Scoring shall be accomplished by ground, or camera scoring, as appropriate. A maximum of two record deliveries may be accomplished during a sortie from a single run-in heading using the same release aim point. Additional record deliveries may be accomplished from headings differing by at least 45 degrees or on different targets/ranges, or by using different release aim points. These additional record deliveries may not be preceded by non-record deliveries in the event on the same sortie. The first four deliveries will be considered record unless otherwise declared prior to the roll-in to final. Scores will be documented by CEP and clock position. All delivery attempts should be record attempts unless declared "non-record" prior to release. Additional guidelines are:

Basic -- Must be scored on a ground scored range.

Tactical -- A minimum of 50% must be accomplished on a ground scored range.

A2.3.2.2. RAP Tasking.

A2.3.2.2.1. **FAM:** Weapons events tasked at FAM may be basic or tactical record deliveries. Each single hot pass counts as one delivery. Unless otherwise specified in the RAP tasking message on formal syllabi, Familiarization (FAM) criteria requires a minimum of 3 weapon deliveries per weapon event.

A2.3.2.2.2. **QUAL:** Weapons tasked at QUAL must be tactical, record deliveries. QUAL tasking demonstrates the crewmember's capability to put appropriate weapons on target. Unless otherwise specified in the RAP tasking message or formal course syllabi, QUAL criteria is established in **Chapter 5**.

A2.3.3. Definitions. Miscellaneous Weapons Delivery definitions to be considered for event descriptions.

A2.3.3.1. **Dry Pass** -- Weapons delivery pass during which no weapons are expended. Such dry passes prior to completion of record deliveries in an event are charged to crewmember as gross errors unless pass was dry because of safety interests, system malfunctions, basic delivery requirements, or directed for flight integrity purposes.

A2.3.3.2. **Foul** -- A penalty directed to a specific aircraft and aircrew for actions inconsistent with established procedures or safety considerations. A foul will result in a gross error for that delivery. Verbal warnings will not be substituted for fouls. A second foul or any dangerous pass will result in mandatory expulsion from any further deliveries during that mission and a gross error score for the event. A foul will be charged IAW 55-series regulations.

A2.3.3.3. **Gross Error** -- A penalty score or miss assigned to a WSO/OSO's record when a weapons delivery attempt results in: munitions impact outside the range scoring capability; a chargeable dry pass; a foul; or an unintentional release.

A2.3.3.4. **Hit** -- Reliability criteria established in **Chapter 5**.

A2.3.3.5. **Multiple Release** -- More than one weapon released against the same target on a single pass.

A2.3.3.5.1. **Intentional** -- The crewmember must advise the range officer prior to delivery and designate which impact to be scored.

A2.3.3.5.2. **Inadvertent** -- Weapon released without command by the aircrew. Impact will not be scored.

A2.3.3.5.3. **System Malfunction** -- An undeclared multiple release caused by a verified system malfunction. Score is void after system malfunction verification; otherwise, unintentional rules apply.

A2.3.3.5.4. **Unintentional** -- Weapon released due to crewmember's error. Will be scored as gross error regardless of impact point.

A2.3.3.6. **No Spot** -- A weapons release during which no impact was observed. No score or error will be assigned.

A2.3.3.7. **Void Delivery** -- Weapons delivery not successfully completed due to: a documented and verified weapons system malfunction; a pass aborted for safety; no spot; or circumstances beyond the control of the aircrew.

## A2.4. Tactical Events.

A2.4.1. The following list of tactical events is to be used for fulfilling tasked requirements. In the absence of guidance, units will determine the content of tasked events and how often they may be logged. IWSOs may log events while instructing or evaluating in either the OSO or DSO seat.

A2.4.2. **Landings (LND).** Credit only to the pilot flying. Pilots must be current in Landing to accomplish a Night Landing unsupervised.

A2.4.3. **Takeoff (TO).** Credit only to the pilot flying. Instructor pilots may take credit following a touch-and-go landing. FTU/WS instructors may take credit for a TO while performing copilot duties.

A2.4.4. Approaches (AP). Credit only to the pilot flying.

A2.4.4.1. **Precision Approach (Prec App).** A precision instrument approach that is flown from the final approach fix to a landing, touch-and-go, or missed approach. Credit only to the pilot flying.

A2.4.4.2. **Non Precision Approach (Non-Prec App).** A non-precision instrument approach that is flown from the final approach fix to a landing, touch-and-go, or missed approach. Credit only to the pilot flying.

A2.4.4.3. **Instrument Approach (Inst App).** An instrument approach that is flown from the final approach fix to a landing, touch-and-go, or missed approach. A precision, non-precision, or AILA approach may be flown. Credit only to the pilot flying.

A2.4.5. **Aircraft Handling Characteristics (AHC).** Training for proficiency in utilization and exploitation of the aircraft flight envelope, consistent with operational and safety constraints, including, but not limited to high/maximum AOA maneuvering, energy management, maximum performance turns, maximum/optimum acceleration and deceleration techniques, and confidence maneuvers. To receive credit, pilots will accomplish the requirements established in paragraphs **A2.4.5.1.** through **A2.4.5.2.3.** WSOs should participate in the activities found in paragraphs **A2.4.5.1.** through **A2.4.5.1.10.**

A2.4.5.1. Flight briefing: (Discussion material can be found in T.O. 1B-1B-1, T.O. 1B-1B-1-1, AFTTP 3-1 Volume 20, AFTTP 3-3 Volume 20, or in the P-CHR-020 Instructor Guide which can be obtained by contacting Det 14 TRSS at Dyess AFB)

A2.4.5.1.1. B-1 aircraft handling characteristics.

A2.4.5.1.2. B-1 energy maneuvering diagrams.

A2.4.5.1.3. Roll augmentation limiting and hinge moment limiting considerations.

A2.4.5.1.4. SEF (stick feel/latch up)

A2.4.5.1.5. "G" considerations.

A2.4.5.1.6. Speed brake effects.

A2.4.5.1.7. Use of rudder.

A2.4.5.1.8. FPA vs. AOA.

A2.4.5.1.9. Crosscheck to include visual clues, cockpit and outside references, "G", AOA, altitude, and radar.

A2.4.5.1.10. Low altitude considerations to include time to impact, time to recover, overbank/under G, and bunts.

A2.4.5.2. Flight events.

A2.4.5.2.1. High altitude aircraft handling to include energy sustaining turns, Cv turns, and AFTTP 3-1/3-3 Volume 20 maneuvers. As a minimum, crews will accomplish a notch, pump, and a break turn.

A2.4.5.2.2. High to low altitude transition to include a dive and transition to terrain following.

A2.4.5.2.3. Low altitude aircraft handling to include energy sustaining turns, Cv turns, and AFTTP 3-1/3-3 Volume 20 maneuvers. As a minimum, crews will accomplish a notch, pump, and a break turn. TF maneuvers do not fulfill the requirements of this paragraph.

A2.4.6. Air Refueling Events (AR). These training events address rendezvous and refueling as independent events. To receive credit for one, the other does not have to be accomplished.

A2.4.6.1. **Air Refueling (AR).** To receive credit at least 10 minutes of toggles engaged time must be accomplished. Toggles engaged time does not apply to Higher Headquarters Directed (HHD) or multiple receiver missions. Credit only to the pilot flying.

A2.4.6.2. **Anchor Refueling (Anchor AR).** Air refueling conducted in an anchor pattern. Should include a self directed or GCI directed join up with the tanker, and refueling in an orbit where the tanker uses 15 to 30 degrees of bank for turns.

A2.4.6.3. **Night Air Refueling (Night AR).** May be logged when the requirements of **A2.4.6.1.** are met between the hours of official sunset and sunrise. Aircrew must be current in AR to accomplish Night AR unsupervised.

A2.4.7. Command and Control Events (CE).

A2.4.7.1. **Have Quick (HQ).** Requires proper radio configuration for Have Quick operation and successful utilization during tactical mission accomplishment. Only one event may be logged per sortie.

A2.4.7.2. **Secure Voice.** Requires proper radio configuration for secure operation and successful utilization during tactical mission accomplishment. Only one event may be logged per sortie.

A2.4.7.3. **ARC-210 Secure Voice Satellite Communications (SVSK).** Requires proper equipment configuration and communication during tactical mission. Only one event may be logged per sortie. May be dual logged with Secure Voice.

A2.4.7.4. **Combat Track II (CT II).** Requires proper configuration of the Combat Track II / BLOS communications system and successful utilization of the system in flight. Only one event may be logged per sortie.

A2.4.7.5. **Link-16 (Link-16).** Requires proper configuration of the Link-16 system and successful utilization of the system in flight. Only one event may be logged per sortie.

A2.4.8. Low Altitude Events (LE).

A2.4.8.1. **Low Altitude Navigation (Low Alt Nav).** May be accomplished in a low level route, Military Operating Area (MOA) or restricted area (below 5,000 feet AGL). Crewmembers may take credit for two events if the low level route or MOA permits more than 30 minutes of low altitude navigation and includes two or more target areas. No more than two events may be logged in a single route/MOA.

A2.4.8.2. **Visual Contour (VC).** To receive credit, at least 15 minutes of visual contour flight must be flown. Credit only to the pilot flying.

A2.4.8.3. **Terrain Following (TF).** To receive credit, at least 15 minutes of actual TF, to include a flyup, must be flown. Any intentionally generated flyups are restricted IAW AFI 11-2B-1V3. Log a TF event for each 15 minutes of TF flown.

A2.4.8.4. **Terrain Following Night/IMC (Night TF).** To receive credit, at least 15 minutes of actual TF at night or in IMC, to include a flyup, must be flown. Any intentionally generated flyups are restricted IAW AFI 11-2B-1V3. Log a Night TF event for each 15 minutes of Night/IMC TF flown. Aircrew must be current in TF to accomplish TF Night/IMC unsupervised

A2.4.8.5. **Terrain Following Mountainous (TF Mntns).** To receive credit, TF over terrain that varies more than 1000 feet in elevation within 10 NM.

A2.4.9. Electronic Combat Events (EC). Includes both EC (A/A) and EC (A/S) runs. Will be dual logged with each appropriate activity accomplished. WSO must occupy the DSO position to receive credit.

A2.4.9.1. **EC (A/A).** The WSO detects an airborne threat via electronic means, applies EC procedures and techniques, requests the appropriate maneuvers, and/or employs expendables (simulated or actual). Only one event may be awarded per scheduled DACT period, however, multiple credit may be awarded if two separate DACT periods are scheduled and accomplished. WSO must occupy the DSO position to receive credit.

A2.4.9.2. **EC (A/S).** The WSO detects a surface threat via electronic means, applies EC procedures and techniques, requests the appropriate maneuvers, and/or employs expendables (simulated or actual). This item includes all A/S EA runs, and may be logged with each appropriate activity. Consists of inbound and outbound portions for EA runs. Full credit for EA runs may be logged without a score if a signal environment is present. When accomplishing EA activity in formation, each aircrew may log appropriate credit. Credit may be awarded when non-ESS scored ground threat activity is accomplished. WSO must occupy the DSO position to receive credit.

A2.4.9.3. **Dissimilar Air Combat Tactics (DACT).** Training in the application of Basic Bomber Maneuvers (BBM) to achieve a tactical Air-to-Air (A/A) objective. Training will be conducted with fighter aircraft IAW AFI 11-214, and should provide aircrew proficiency in the following areas: defensive maneuvering, threat detection, threat avoidance, EA/EP, and situational awareness. This training is accomplished as a crew event. Only one event may be awarded per crew position per scheduled DACT period, however, crewmembers may receive multiple credit if two separate DACT periods are scheduled and accomplished. Defensive tactics and maneuvers are required for credit. WSOs may dual log EC (A/A) if applicable.

A2.4.9.4. **Chaff Event (Chaff).** In flight dispensing of chaff in response to an actual or simulated threat. Event requires actual release of chaff and logging is limited to one event per engagement with a maximum of two events per sortie. WSO must occupy the DSO position to receive credit.

A2.4.9.5. **Flare Event (Flare).** In flight release of self-protection flares in response to an actual or simulated threat. Event requires actual release of flares and logging is limited to one event per engagement with a maximum of two events per sortie. WSO must occupy the DSO position to receive credit.

A2.4.9.6. **Formation EA (Form EA).** An EA run accomplished in formation. Dual log with other appropriate activity.

A2.4.10. Weapons Delivery Events (WE). Unless noted otherwise weapon delivery events may be dual logged (e.g. A Guided Multiple Bay Weapon Delivery may be logged with a Guided Multiple Target Weapon Delivery, a JDAM High Altitude Weapon Delivery, and a Weapon Delivery).

A2.4.10.1. **Weapon Delivery (WD).** Actual or simulated release of one or more weapons. Accomplish activity at an altitude commensurate with the briefed threat scenario and mission requirements; when aircraft equipment limitations, weather conditions, and aircrew proficiency allow. Only one weapon delivery may be logged for each pass across a target or target complex.

A2.4.10.2. **Actual Weapon Release (Act Wpn).** May be accomplished at any altitude using live weapons, inert shapes, or other training weapons. WSO must occupy the OSO position to receive credit.

A2.4.10.3. **CRL Heavy-weight Actual Weapon Release (CRL Hvy-wt).** Actual release of a heavy-weight weapon (e.g. GBU-31, BDU-56, etc.) from a CRL. WSO must occupy the OSO position to receive credit.

A2.4.10.4. **High Altitude Actual Weapon Release (High Act Wpn).** An actual weapon release accomplished for the purposes of logging this event at an altitude of 17,000' MSL and above. WSO must occupy the OSO position to receive credit.

A2.4.10.5. **Formation Weapon Delivery (Form Wpn).** Actual or simulated weapon delivery creditable to all aircraft in the formation. Accomplish IAW AFI 11-2B-1V3 and AFTTP 3-1 Volume 20. Aircrew will make every effort to score each aircraft in the formation by any means available. Only one event may be logged per sortie.

A2.4.10.6. **Actual Full Scale Weapons Delivery (FSWD).** To the maximum extent possible within the current weapons safety guidelines, a delivery of a minimum of one full bay of weapons released on a single target. Based on the operational constraints, two bays, half full, may be substituted at the unit's discretion. Where the net explosive weight safety parameters are a constraint, units must release a minimum of sixteen weapons (7 weapons for 10 carry CBM) in order to accomplish this activity.

A2.4.10.7. **Guided Full Bay Weapon Delivery (Guided Full Bay).** An actual or simulated release of eight or more guided weapons from a single weapons bay. WSO must occupy the OSO position to receive credit.

A2.4.10.8. **Guided Multiple Bay Weapon Delivery (Guided Multi Bay).** An actual or simulated guided weapon release using a minimum of two weapons bays and a minimum of five weapons per bay. WSO must occupy the OSO position to receive credit.

A2.4.10.9. **Guided Multiple Target Weapon Delivery (Guided Multi Tgt).** An actual or simulated guided weapon delivery against a minimum of 8 Desired Mean Point of Impact (DMPI)s on a single weapon release. WSO must occupy the OSO position to receive credit.

A2.4.10.10. **Guided Weapon Reassignment (Guided Wpn Reasgn).** In flight retargeting of at least one guided weapon. WSO must occupy the OSO position to receive credit.

A2.4.10.11. **Simultaneous Guided/Unguided Weapon Delivery (Mixed Wpn).** Actual or simulated delivery of at least one guided weapon and at least one unguided weapon on the same target complex. WSO must occupy the OSO position to receive credit.

A2.4.10.12. **JDAM High Altitude Weapon Delivery (Hi JDAM).** Actual or simulated release of a GBU-31 (any version) or GBU-38. WSO must occupy the OSO position to receive credit.

A2.4.10.13. **WCMD High Altitude Weapon Delivery (Hi WCMD).** Actual or simulated release of a CBU-103, 104 or 105. WSO must occupy the OSO position to receive credit.

A2.4.10.14. **Actual JDAM Release (JDAM Act Rel).** An actual release of a GBU-31 (any version) or GBU-38. WSO must occupy the OSO position to receive credit.

A2.4.10.15. **Actual WCMD Release (WCMD Act Rel).** An actual release of a CBU-103, 104 or 105. WSO must occupy the OSO position to receive credit.

A2.4.10.16. **Unguided GMTI Weapon Delivery (Unguided GMTI).** Actual or simulated delivery of an unguided weapon against a moving target using the GMTI mode of the radar. WSO must occupy the OSO position to receive credit.

A2.4.10.17. **Guided GMTI Weapon Delivery (Guided GMTI).** Actual or simulated delivery of a guided weapon against a moving target using the GMTI mode of the radar. WSO must occupy the OSO position to receive credit.

A2.4.10.18. **Unguided MM/Radar Targeting (Unguided Radar).** Actual or simulated weapon delivery using coordinates obtained or verified using monopulse measurement in a Block D aircraft or radar targeting in a Block E aircraft. WSO must occupy the OSO position to receive credit.

A2.4.10.19. **Guided MM/Radar Targeting (Guided Radar).** Actual or simulated weapon delivery using coordinates obtained or verified using monopulse measurement in a Block D aircraft or radar targeting in a Block E aircraft. WSO must occupy the OSO position to receive credit.

A2.4.11. Tactics Events (VT).

A2.4.11.1. **Target Reassignment Exercise (Retgt Ex).** Mission planned as a CAS sortie with target re-assignment provided by an air or ground controlling agency (simulated or actual). Mission elements include: Intel scenario and tactical mission planning, execution against threats (simulated or actual), and weapons employment (simulated or actual) against designated targets while under positive control of an air or ground controlling agency (simulated or actual).

A2.4.11.2. **Time Sensitive Targeting (TST).** An event performing a tactical weapons delivery (actual or simulated) against an unplanned, highly lucrative target or target of opportunity requiring immediate response. The attacking aircraft should receive target data/description and clearance from an appropriate command and control (C2) asset. Use of CRCs, AWACS, JSTARS, AOC, UAV, TACP, FAC or a simulation thereof is required. Scenarios should include standard fire support control measures utilizing standard J-FIRE terminology for clearance of fires. Data/description can be via datalink or normal radio communications. Only the attacking aircraft will receive credit for the event. Although the target is unplanned, the event and procedures must be thoroughly briefed. CAS may be used to fill the TST requirement.

A2.4.11.3. **CAS Targeting exercise with GFAC/FAC(A) (CAS Tgt Ex).** Accomplish CAS targeting procedures for at least one weapon employment (actual or simulated). The exercise should include a standard 9-line briefing. Only one event may be logged per sortie. Aircrew must receive target data from an actual GFAC/FAC(A) to receive credit. This event may be dual logged with retargeting exercise and/or CAS Training Sortie.

A2.4.11.4. **High Altitude Visual Formation (Hi Form).** Accomplish this activity IAW AFTTP 3-3 Volume 20 and AFI 11-2B-1V3. A minimum of 20 minutes in Wedge formation, and at least one notch and one pump maneuver is required. Creditable to both pilots of both aircraft in the formation..

A2.4.11.5. **Low Altitude Visual Formation (Low Form).** Accomplish this activity IAW AFTTP 3-3 Volume 20 and AFI 11-2B-1V3. A minimum of 20 minutes formation is required. Must fly Wedge position below 5,000 feet AGL to receive credit.

A2.4.11.6. **Electronic Rendezvous (Elec RZ).** Aircraft must close to within 1/2 NM of another aircraft purely by means of on board radar to be credited. During formation tactics, limit credit to aircraft actually accomplishing the rendezvous. May not be logged during a formation departure.

A2.4.11.7. **Night Vision Goggle Exercise (NVG).** To receive credit, night TF or a high altitude formation weapon delivery will be flown using NVGs. Each pilot logging activity must use the NVGs for a minimum of 15 minutes. NVG compatible cockpit lighting must be used.

A2.4.11.8. **Night Vision Goggle Aided Rendezvous (NVG Rz).** Night, mid-mission rendezvous with another aircraft (e.g. a tanker, another B-1, etc.) using NVGs for increased situation awareness. For restrictions on NVG use see AFI 11-2B-1V3.

## Attachment 3

## VERIFICATION GUIDE

The following outlines are provided as guidelines for the development of certification or verification briefings.

1. OVERVIEW:
   a. Introduction (participants and briefing classification).
   b. Mission overview.
   c. Status of friendly forces (ground, air and support).
2. AREA OF OPERATIONS:
   a. Geography (topography, population centers, lines of communications, choke points and natural obstacles, major visual and radar significant identification points).
   b. Climatology (effects on unit operations, ground troop movements, and in-flight operations).
   c. Operating base (location, facilities, procedural constraints, strengths and limitations).
3. STATUS OF ENEMY FORCES:
   a. Ground forces and accompanying air defense threats (SAMs, AAA), EC, and Spectrum Interference Resolution reporting (capabilities, strengths and weaknesses).
   b. Airborne forces (numbers, locations, capabilities and tactics).
4. MISSION EMPLOYMENT BRIEFING:
   a. Ground operations.
   b. Departure (weather contingencies, options).
   c. Route of flight (threat analysis, alternatives, fuel requirements, decision points).
   d. Target ingress (Initial point-to-target specifics, tactics).
   e. Weapons employment [target data, DMPIs, attack parameters, load, fuzing, suitability, delivery modes/backups].
   f. Egress plan (route, mutual support agreements).
   g. Reattack plan/options.
   h. Downed aircrew/wounded bird plan.
   i. Recovery [safe corridor procedures, IFF procedures, alternate and emergency airfields].
5. ESCAPE AND EVASION:
   a. ISOPREP Review.
   b. Evasion Plan of Action (EPA).
   c. Personnel recovery procedures (CSAR SPINs).
6. ESSENTIAL ELEMENTS OF INFORMATION/REPORTS:

a. Essential Elements of Information (EEIs).

b. Required reports and reporting procedures.

**Attachment 4**

**TRAINING SHORTFALL REPORT**

MEMORANDUM FOR ACC/DOT

FROM: XX BS/CC

SUBJECT: XX BS Training Shortfalls – 1st Quarter FY-01

1. TRAINING SHORTFALLS. By squadrons, report the training events/sorties not accomplished or locally waived. Only report shortfalls commanders feel will have a major impact on unit training. BMC crewmembers' data is not required or desired. Report only those events/sorties that are 15% short of what would be expected that quarter **and** affect 15% or more of the CMR crew force. Expected RAP remaining for the 1st, 2nd, 3rd and 4th quarters are 75%, 50%, 25%, and 0% respectively. Also note any specific reasons for the shortfall and the corrective action taken. If the commander thinks the squadron will meet annual RAP requirements, then note this in paragraph. 3.

Report example:

**Problem**: The 9th Bomb Squadron is a 12 PAA squadron with 30 API-1/6 CMR WSOs assigned and attached. The current B-1 RAP message requires CMR WSOs to get 58 Chaff Exercises per year. Determine whether WSO Chaff Exercise shortfalls should be reported on the 1st quarter shortfall report.

**Solution**:

*Step 1*: Determine the chaff requirements for that quarter:

(58 × Y) = chaff events required for that quarter

Y= .25 for 1st quarter

.50 for 2nd quarter

.75 for 3rd quarter

1.00 for 4th quarter (EOY report)

(58×.25) = 14.5 chaff events required for 1st quarter

*Step 2:* Determine minimum goal for each event:

(events required) × (.85) = events or less required to be reportable

(14.5) × (.85) = **12.3**

WSOs who have accomplished 12 or less Chaff Exercises did not meet the goal.

*Step 3*: Figure the percentage of CMR crewmembers, by specialty (AC, Copilot, or WSO), who did not meet the goal. In this example 15 of the 30 WSOs logged 12 or less chaff exercises; therefore **50%** of CMR WSOs are affected.

*Step 4*: Figure the percentage of RAP events remaining for that event. In this example the squadron WSOs have accomplished a total of 402 Chaff Exercises this year. Make that a percentage of the total with the following formula:

# of Chaff Exercises logged this year ÷ # CMR WSOs = Average events per crewmember

402 ÷ 30 = 13.4

% RAP Remaining = 100% - (events accomplished ÷events required)

= 100% - (13.4 ÷58)

= **77%**

Note: If a majority of the squadron was prorated for one or more quarters the total events required may be lowered to reflect this (e.g. The squadron was deployed for one quarter earlier in the year so multiply the number of events required by .75).

The following entry should be on the shortfall report:

| EVENT | CREW POSITION | %CMR AFFECTED | % Remaining |
|---|---|---|---|
| Chaff | WSO | 50% | 77% |

Reason for Shortfall: The squadron was in reconstitution for first 2 months of the quarter.

Corrective Action: The squadron plans to fly more sorties to chaff-capable ranges in the 2nd quarter.

2. SQUADRON PRORATION DATA. Use paragraph 2 to denote the squadrons' overall percentage of proration due to contingency operations (OEF, OIF, etc.) for CMR aircrew members. Do not include proration due to DNIF's, emergency leaves, and non-contingency TDYs. Compile the proration data for each aircrew member and divide by the total number of CMR personnel by specialty to come up with a squadron average of quarterly/annual proration. Example: 10 CMR pilots out of 30 were deployed for OEF for 1 month and were prorated appropriately. These 10 pilots were prorated for 33% of the quarter and the other 20 pilots for 0% of the quarter for a squadron average quarterly proration of 11% for pilots.

Report Example:

(10× 33) ÷30 total pilots =11%.

| % AC PRORATED | % COPILOT PRORATED | % WSO PRORATED |
|---|---|---|
| 11% | XX% | XX% |

3. COMMANDERS COMMENTS. This is an open forum for specific concerns related to squadron's immediate training concerns. Also note if commander predicts the squadron will be able to accomplish annual RAP requirements. Commander should also voice comments here to improve the training reporting system.

1st Ind, OG/CC

TO: HQ ACC/DOT

CC: NAF DO

## Attachment 5

## LONG DURATION TRAINING

**A5.1. General.** Long Duration sorties are defined in **Attachment 1**. Long Duration missions are not intended to be a crew training requirement only, but rather a requirement for the entire unit, allowing each part of the warfighting team an opportunity to gain valuable experience. The benefit of these missions is to provide units with practice in joint operations, foreign country coordination, nonstandard mission planning and range activities, international flight planning, physiological aspects of long duration flights, aircraft phase flow and weapons load training.

**A5.2. Command Relations.** The execution order for HHD missions will specify command relations. Units coordinating their own long duration training must make their own arrangements. Contact ACC/DOX for assistance if required. For most training missions OPCON will remain with CDRUSJFCOM. The combatant commander has TACON for exercises purposes whenever forces not assigned to that combatant commander undertake exercises in the combatant commander's AOR. TACON begins when the forces enter the AOR, and is terminated at the completion of the exercise after departing the AOR. TACON provides direct authority over exercising forces for purposes relating to that exercise only; it does not authorize operational employment of those forces. Specified elements of ADCON (force protection and concurrent UCMJ authority) are also granted to the combatant commander for deployment/diverts into the AOR. The preceding command relation guidance also applies to Global Power missions.

**A5.3. Public Affairs.** Many long duration missions will attract media attention, and this is encouraged. All public affairs questions should be routed to the Office of Public Affairs, HQ ACC/PA, DSN 574-5007.

**A5.4. Crew Rest and Flight Duty Limitations.**

A5.4.1. Crew Rest: Aircrew and DNIF cover aircrew will be identified no later than 72 hours prior to launch. The aircrew will be relieved of non-mission related duties 48 hours prior to launch. Units will consider using preflight crews to minimize crew duty day. Post-flight crew rest should be proportionate to the length of the flight duty period. Longer flight duty periods will require longer crew rest periods. For all long duration sorties post-flight rest requirement is a minimum of 24 hours, plus one half hour for every time zone crossed in flight.

A5.4.2. Maximum Flight Duty Period: Maximum flight duty period for all sorties is defined in AFI 11-202V3, Table 9.1. and ACC Sup 1. For HHD missions including Global Power missions, the approved EXORD constitutes approval to exceed these duty day limitations as required to accomplish the mission unless a maximum duty day is specified in the EXORD. For non-HHD missions units must request a duty day waiver from ACC/DO if required.

A5.4.3. Units are encouraged to use any reasonable means to shorten an extended crew duty day, such as using preflight crews, minimizing show times, etc. Additionally, during the planning of long duration missions, planners should review TOTs and the way in which these will impact aircraft launch and recovery times. Every attempt should be made to minimize conflict with crew circadian rhythms. Where possible, avoid scheduling critical phases of flight during normal sleep periods (such as 2300 through 0600 hours home-base time).

**A5.5. Human Factors/Physiological Issues.**

A5.5.1. Unit planners will contact unit flight surgeons upon initiation of planning. Factors to be considered include pre- and post-flight crew rest, use of medication, required human factors briefings and scheduling of in flight activities. The unit flight surgeon will act as liaison with Air Force Research Laboratory and request on scene assistance as needed. The mission fatigue timeline and other related aircrew fatigue management documents may function as source documents for guidance.

A5.5.2. Unit flight surgeons will ensure medications (Go Pills) are used IAW current AF/XO and ACC/DO/SG message guidance and HQ ACC/SG guidelines.

A5.5.3. Unit flight surgeons will also ensure aircrews receive briefings on human performance and physiological issues related to long duration missions.

A5.5.4. The OSS wing life support officer will develop a long duration flight equipment package (i.e. noise reduction headsets, piddle packs, mattress, sleeping bag, etc.). Use of quick-don masks is authorized to satisfy AFI 11-202V3, oxygen requirements for long duration flights. Use of long duration flight equipment, to include quick-don oxygen masks, is restricted to periods of high altitude cruise flight. Ejection seat requirements for high altitude cruise removal of parachute/torso harness in AFI 11-202V3, must be complied with.

A5.5.5. It is highly recommended that units contact Air Force Research Laboratory, Biodynamics and Protection Division (DSN 240-8140) for missions exceeding 24 hours. The Biodynamics and Protection Division can provide a mission fatigue management timeline. The timeline will provide information on sleep/wake cycles and light (night/ day) levels expected for route of flight. Requirements for the timeline are latitudes and longitudes of route of flight, T/O and land times, AR times, and low altitude times faxed to them (DSN 240-2761) at least 24 hours in advance (do not send sensitive data).

**A5.6. Theater Instructions.** The following entry/exit procedures will be used by all bomber aircraft operating in the specified AOR. They should help minimize in flight communications. These procedures do not replace any required exercise-specific reporting instructions.

A5.6.1. EUCOM AOR: The following procedure will be used when employing to or transiting the EUCOM AOR. Crossing 10W longitude eastbound, aircrew will establish a phone patch via HF radio (or other suitable means) to the USAFE Command Center (UCC), (DSN 480-8200/8202/8203/8258) call sign: CONTROL at Ramstein Air Base, Germany. Pass time of crossing, aircraft status, and ETA to target. The UCC will provide a weather update and confirm range availability if within the EUCOM AOR. This does not replace the need to communicate directly with the specific range for final confirmation. Keep the UCC advised of any deviations to the original planned operation (use of an alternate range, weather divert, etc.). Contact the UCC passing longitude 10W westbound to CONUS with brief mission report of how the operation went (successful or unsuccessful). If unsuccessful, pass reason. If exiting eastbound/ entering westbound, make exit/entry report at 30E longitude to the UCC. Units will call the UCC on mission planning day to confirm the impending mission and coordinate details.

A5.6.2. PACOM AOR: The following procedure will be used when employing to or transiting the PACOM AOR. Westbound missions, upon crossing 130W longitude (including Alaska missions), and eastbound missions, upon crossing 60E longitude, aircrew will establish a phone patch via HF radio (or other suitable means) to the PACAF AMOC (DSN 448-8888) via phone patch or through the ACC Command Center (DSN 574-1555) with an advisory on mission status, intentions, and other pertinent information. The Command Center will pass along information as required that may apply to the mission (weather, range status, etc.). The same procedure will apply when the missions leave the AOR.

Units will call PACAF AMOC, DSN 448-8888 on mission planning day to confirm the impending mission and coordinate details.

A5.6.3. CENTCOM: The following procedure will be used when employing in or transiting the CENTCOM AOR. Two weeks prior to the mission, the unit POC will contact the CENTCOM POC (CCJ3-P (Non JCS Exercise) DSN 968-6340 or CCJ3-E (JCS Exercise) DSN 968-6298) to detail command and control authority and specific communication requirements (call sign of controlling agency, SATCOM frequencies, DSN #, and number of reports required). Contact the JTF SWA (DSN 318 435-7785) via HF radio (or other suitable means) upon entry and exit of the CENTCOM AOR and continuously monitor directed frequencies throughout the mission. Ensure you report aircraft status, location, and any other pertinent information. The controlling agency will pass along information as required that may apply to the mission (weather, range status, etc.). Contact CENTCOM/CCJ3, DSN 968-6340/6298 (FAX: 968-5829) on mission planning day to confirm the impending mission and coordinate details.

A5.6.4. OTHER AORs: There is no preferred procedure for entering and exiting other AORs. It is highly dependent on the individual country being entered and the exercise. Expect instructions from the specific unified command HQ on the specific entry/exit procedures.

**A5.7. Global Power Program.** Global Power is the unclassified nickname for HQ ACC-tasked bomber out-of CONUS long-range conventional strike deployment-employment capabilities needed to respond to the spectrum of Air Expeditionary Force engagement scenarios. Global Power by itself is unclassified, although the exercises it is connected with may be classified.

A5.7.1. Office of Primary Responsibility is HQ ACC/DOX, 205 Dodd Blvd., Suite 101, Langley Air Force Base, Virginia, 23665-2789; DSN 574-7411. E-mail address is **mailto:acc.dox@langley.af.smil.mil**.

A5.7.2. The following requirements are the minimum training events needed to receive credit for a Global Power mission. The requirements are based on likely power projection scenarios to support Air Expeditionary Force taskings that must respond across the spectrum of engagement options.

A5.7.2.1. Each unit must launch a sortie that is planned to transit international airspace, enter another combatant commander's AOR, accomplish an ADIZ penetration, then strike targets on an overseas range, depending on the deployment-employment scenario. Mission planning should include multiple targets in a medium to high threat environment and varied mission tasks.

A5.7.2.2. Each sortie must be a minimum of 13 hours to ensure the crew's experience the physiological effect of long duration flight. The length of the Global Power mission will depend upon the actual overseas range and the employment/deployment scenario.

A5.7.2.3. All Global Power missions are required to carry weapons with a planned release on an overseas range. While weather and airborne maintenance problems may prevent weapons release, units will receive GP credit if they launched with the intent of releasing weapons on a range. When mission scenario dictates, plan to release a mixed weapons load.

A5.7.2.4. In flight planning re-planning and target reassignment. Flexibility is a key ingredient to Global Power mission profiles. Each unit must be prepared to conduct airborne re-planning and target reassignment to the maximum extent possible.

A5.7.2.5. Global Command, Control and Communication Systems. HQ ACC will exercise "real world" command relations to the maximum extent possible (refer to **A5.3.** for basic guidelines). Ensure all communication systems available (Voice SATCOM, Combat Track II and other secure communication systems) are exercised on all Global Power training sorties.

A5.7.3. Mission Options. The following options reflect the most likely use of bombers across the spectrum of engagement:

A5.7.3.1. Round-robin missions: bombers launch from home station, conduct an employment mission to an overseas range, then land at home station. This option is the most demanding on aircrew and air refueling assets.

A5.7.3.2. Deployment-employment missions: bombers launch from the CONUS, release weapons on an overseas range, then land at a bomber FOL.

A5.7.3.3. Higher headquarters directed deployments: All JCS directed missions, combatant commander request for forces (participation in the EUCOM, PACOM, SOUTHCOM, or CENTCOM AOR), and JCS exercise deployment sorties en route to overseas location, regardless of mission profile, will be considered Global Power missions.

A5.7.4. Funding. HQ ACC/DOX manages the Global Power fund cite (PE11897) and has the authorization to fund TDY, per diem, and billeting costs of operation and maintenance personnel supporting the mission. DOX will approve funding for GP missions on a case-by-case basis. The GP fund cite is not authorized for air shows or airlift requests.

A5.7.5. Scheduling. HQ ACC/DOX will schedule, coordinate, and manage all Global Power missions. It will interface with overseas MAJCOMs, numbered air forces, and individual bomber units. Presently, Global Power taskings are contained in the ACC CPO. Due to the dynamic nature of many exercises, dates may change, but this annual schedule will provide the framework units need to plan and will be changed only IAW the process identified in the ACC CPO. If a unit has an alternative plan they would like to execute in a particular quarter, they should inform DOX with adequate lead-time so that proper coordination may proceed. Global Power missions that require short-notice airlift/in flight refueling must be avoided. DOX will schedule each bomber squadron for a minimum of two Global Power missions per AEF cycle in the CPO. It is recommended that one of the two Global Power missions be scheduled to occur within three months of AEF vulnerability. Participation in higher headquarters overseas exercises also qualifies for Global Power credit.

A5.7.6. Individual Bomber Unit Responsibilities.

A5.7.6.1. Units will develop local guidance and procedures for all aspects of Global Power missions.

A5.7.6.2. Appoint an OSS primary and alternate POC to interface with HQ ACC on all long duration/Global Power matters. Ensure DOX has a current name, message address, DSN number, and E-mail address (if applicable) for the OSS POC. All unit contact with DOX will be coordinated through the OSS POC. Units will also designate a primary and alternate project officer for each Global Power/long duration mission to ensure proper coordination and information flow between all concerned. Both primary and alternate project officers must maintain total working knowledge of all aspects of their assigned mission.

A5.7.6.3. Maintain HQ ACC/DOX as “info” addressee on all message traffic associated with Global Power. Similarly info the concerned overseas MAJCOM and parent NAF.

A5.7.6.4. Normally, units will work range requests, fighter intercepts, ECM, and so on, through the exercise office of the particular overseas MAJCOM. Range guide information is available from other MAJCOM exercise offices or HQ ACC/DOX to assist in planning for overseas range use.

A5.7.6.5. Units will consult the ACC CPO to determine the type of exercise the Global Power mission will support (i.e. JCS, MAJCOM, etc.) in order to ensure the correct Air Refueling Support Priority (IAW AFI 11-221, *Air Refueling Management (KC-10 and KC-135),* Attachment 1) can be assigned. Contact DOX if there is any question on the priority level to be assigned.

A5.7.6.5.1. "Horseblanket" requests are critical to ensure air refueling will happen where and when needed. Short-notice tanker requests should be avoided to the maximum extent possible. Unit will ensure they submit tanker requests with the proper priority level IAW AFI 11-221, Attachment 1. "Horseblanket" conferences are normally due the last week of the first month of the quarter for the following quarter. The following is a guideline for "Horseblanket" air refueling requests:

A5.7.6.5.1.1. Jan thru Mar Global Power missions: request air refueling support the third week in October.

A5.7.6.5.1.2. Apr thru Jun Global Power missions: request air refueling support the third week in January.

A5.7.6.5.1.3. Jul thru Sep Global Power missions: request air refueling support the third week in April.

A5.7.6.5.1.4. Oct thru Dec Global Power missions: request air refueling support the third week in July.

A5.7.6.5.2. Because Global Power missions are tanker-intensive, units should consider any and all options to reduce the in flight refueling requirements.

A5.7.6.6. Units will consult/comply with the DOD Foreign Clearance Guide and COMACC OMNIBUS Plan - 96 for applicable guidance.

A5.7.6.7. Unit Intel Office will submit a threat advisory support request message IAW ACCI 14-250 NLT 10 working days prior to launch date. Unit Intel personnel will become familiar with procedures listed in the most recent edition of this instruction as well any published guidance detailing advisory support procedures.

A5.7.6.8. Units may explore options to use if the mission cannot be accomplished as planned. However, alternate missions should be kept as simple as possible due to the complexity of the primary mission. Training events will be limited to the minimum required to accomplish the specific mission taskings and operational training.

A5.7.6.9. Provide a detailed summary of planned employment activity to DOX NLT 3 weeks before the sortie date. This information may be provided via fax or e-mail to make the three-week suspense. However, ensure both HQ ACC and the parent NAF get the same information. Unit POCs will also contact HQ ACC/DOX 48 hours prior to mission launch to update the three-week report. This may be done via telecom, fax, or e-mail. This summary will include:

A5.7.6.9.1. Date of launch (local date)

A5.7.6.9.2. Takeoff time (Zulu and local times)

A5.7.6.9.3. Landing time (Zulu and local times, and date)

A5.7.6.9.4. Landing location, if not home station

A5.7.6.9.5. Duration

A5.7.6.9.6. Number of aircraft in formation

A5.7.6.9.7. Number of airborne/ground spares

A5.7.6.9.8. Weapons carried: Type and number

A5.7.6.9.9. All activity planned; include bombing altitude and weapon tactics, fighter or ECM activity, etc.

A5.7.6.9.10. Range name/location

A5.7.6.9.11. Target number and TOT (Zulu and local times, and date)

A5.7.6.9.12. Threat Advisory Support Activity, actual and simulated

A5.7.6.9.13. Emergency/divert fields

A5.7.6.9.14. Air refueling information: Number of times; pounds onloaded per aircraft per refueling; tanker unit and type; A/R tracks; each ARIP.

A5.7.6.9.15. Route description (general verbal description of the route to facilitate development of a briefing slide).

A5.7.6.9.16. Return mission information if deploying (Same format as above).

A5.7.6.10. In flight reports must be made to the unit command post. These reports, as a minimum, will include a takeoff report, end air refueling report, a strike report, and a landing report. Also, a report will be made anytime unplanned circumstances significantly affect the outcome of the mission, such as in flight emergency, divert, release system malfunction, weather, navigation problems, and so on. Crew judgment is the key when deciding what needs to be reported. The unit command post will relay all in flight reports to the HQ ACC Command Post, who will then up-channel reports to the ACC/DO. For USAFE AOR ask your command center to forward any pertinent information to the USAFE Command Center (UCC), (DSN 480-8200/8202/8203/8258).

A5.7.6.11. Within 3 days after the mission, a call must be made to DOX with a verbal report on the mission. This is not an official after-action report but a generalized “how it went” briefing. All information on the pre-mission (3-week) report should be updated with the actual mission results to include threat advisory support results. EXCEPTION: if anything occurs during the mission that needs to be briefed to the ACC Staff (diversion, emergency, diplomatic incident, etc.), call ACC Command Center, DSN 574-1555, immediately. If in doubt, call.