

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

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



**23 DECEMBER 2011**

***Flying Operations***

***B-1 AIRCREW TRAINING***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

---

**ACCESSIBILITY:** Publications and forms are available on the e-Publishing website at [www.e-publishing.af.mil](http://www.e-publishing.af.mil) for downloading or ordering.

**RELEASABILITY:** There are no releasability restrictions on this publication.

---

OPR: ACC/A3TO

Certified by: AF/A3O-A  
(Col James W. Crowhurst)

Supersedes: AFI11-2B-1V1,  
16 December 2006

Pages: 89

---

This volume implements Air Force Policy Directive (AFPD) 11-2, *Aircraft Rules and Procedures*, AFPD 11-4 *Aviation Service*, and AFI 11-202 Volume 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). Major Commands (MAJCOM)/Direct Reporting Units (DRU)/Field Operating Agencies (FOA) are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to AF/A3O-AI, through ACC/A3TO, for approval prior to publication in accordance with (IAW) AFPD 11-2, *Aircraft Rules and Procedures*. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM to ACC/A3TO 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 33-360, *Publications and Forms Management*. See [paragraph 1.3](#) of this volume for guidance on submitting comments and suggesting improvements to this publication. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of 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*; AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Badges*; AFI 11-421, *Aviation Resource Management*; and E.O. 9397 (SSN) as amended by Executive Order 13478, Amendments to Executive Order 9397 Relating to Federal Agency Use of Social Security Numbers, November 18, 2008. System of records notice F011 AF XO A, Air Force Aviation Resource Management Systems (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*.

**SUMMARY OF CHANGES**

This publication is updated to reflect changes in guidance and procedures for B-1 aircrew training. This document has been substantially revised and must be completely reviewed. The major changes include revisions to the qualification training programs to include initial, re-qualification, and mission qualification training; modifications to the Ready Aircrew Program (RAP), including requirements to gain/maintain Combat Mission Ready and Basic Mission Capable status as well as updates to the RAP missions and sortie event descriptions; and updates to and additions of specialized training.

<b>CHAPTER 1—GENERAL GUIDANCE</b>	<b>6</b>
1.1. Abbreviations, Acronyms, and Terms. ....	6
1.2. Responsibilities. ....	6
1.3. Processing Changes. ....	8
1.4. Training. ....	8
1.5. Training Concepts and Policies. ....	10
1.6. Experienced (EXP) Aircrew Requirements. ....	11
Table 1.1. Requirements for Experienced Designation. ....	11
1.7. Ready Aircrew Program (RAP) Policy and Management. ....	12
1.8. Ready Aircrew Program (RAP) Mission Program Development. ....	12
1.9. Training Records and Reports. ....	13
1.10. Weapons Delivery Recording. ....	14
1.11. Aircrew Utilization Policy. ....	14
1.12. Sortie Allocation and Unit Manpower Guidance. ....	15
Table 1.2. Applicable AFI 11-2B-1 Volume 1, B-1 Aircrew Training, API Codes. ....	15
Table 1.3. B-1 Annual Sortie Requirements for Other Than API-1 & -2 Aircrew. ....	16
1.13. Waiver Authority. ....	16

<b>CHAPTER 2—QUALIFICATION TRAINING</b>	<b>18</b>
2.1. General. ....	18
2.2. Approval and Waiver for Local IQT. ....	18
2.3. Prerequisites. ....	18
2.4. Ground Training. ....	18
2.5. Flight Training. ....	19
2.6. Initial Qualification Course (IQC/TX-1). ....	19
2.7. Requalification Training Course (TX-2). ....	19
2.8. Squadron Commander-Directed Requalification Training (TX-3). ....	19
2.9. Senior Staff Qualification Course (SSQC). ....	20
<b>CHAPTER 3—MISSION QUALIFICATION TRAINING</b>	<b>21</b>
3.1. General. ....	21
3.2. Ground Training. ....	22
3.3. Initial Verification. ....	22
3.4. Simulator Training. ....	22
3.5. Flight Training. ....	23
3.6. Low Altitude Step Down Training (LASDT). ....	23
Table 3.1. LOWAT Categories ....	24
Table 3.2. LASDT Profiles. ....	26
3.7. Night/IMC TF Initial Certification Training. ....	26
3.8. Flight Surgeon. ....	27
<b>CHAPTER 4—CONTINUATION TRAINING</b>	<b>28</b>
4.1. General. ....	28
4.2. Ground Training. ....	30
4.3. Flight Training. ....	33
4.4. Multiple Qualification/Currency. ....	33
4.5. Currencies, Recurrencies, and Requalification. ....	34
Table 4.1. defines currency requirements for B-1 aircrews. ....	36
Table 4.1. ACC Aircrew Currencies. ....	36
4.6. Regression (see Figure 4. ....	36
4.7. End of Cycle Requirements. ....	37
4.8. Proration of End of Cycle Requirements. ....	38
Table 4.2. Proration Allowance. ....	39

4.9.	Regaining CMR/BMC Status. ....	40
4.10.	Example of the Lookback, Regression, Proration, and Requalification Process. ..	40
Figure 4.1.	RAP Regression Flow Chart. ....	42
<b>CHAPTER 5—WEAPONS DELIVERY/EMPLOYMENT QUALIFICATION/CERTIFICATION</b>		<b>43</b>
5.1.	General. ....	43
5.2.	Initial Qualification. ....	43
5.3.	CT Certification. ....	43
5.4.	Weapons Delivery Parameters. ....	44
5.5.	Actual Ordnance. ....	45
<b>CHAPTER 6—SPECIALIZED TRAINING</b>		<b>46</b>
6.1.	General. ....	46
6.2.	Visual Formation Certification. ....	46
6.3.	Night Vision Goggle (NVG) Certification. ....	47
6.4.	Targeting Pod (TGP) Training. ....	48
6.5.	Aircraft Commander (AC) Certification. ....	50
6.6.	Single-Ship Mission Lead (SML) Certification. ....	50
6.7.	Multi-Ship Mission Lead (MML) Certification. ....	51
6.8.	Flight Lead Upgrade (FLUG) Certification. ....	52
6.9.	Mission Commander (MC) Certification. ....	53
6.10.	Strike Coordination and Reconnaissance Coordinator (SCAR-C) Certification. ..	54
6.11.	JASSM Planner. ....	55
6.12.	Quickstrike Planner. ....	55
6.13.	Simulator Console Operator. ....	56
6.14.	Flight Instructor Course (FIC). ....	56
6.15.	FIC Instructor Certification. ....	57
6.16.	USAF Weapons Instructor Course (WIC). ....	57
6.17.	USAFWS Instructor Upgrade Course. ....	57
6.18.	Pre-Deployment Spin-Up Training. ....	57
<b>ATTACHMENT 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION</b>		<b>59</b>
<b>ATTACHMENT 2—GLOSSARY OF RAP MISSION/SORTIE AND EVENT DESCRIPTIONS</b>		<b>73</b>
<b>ATTACHMENT 3—VERIFICATION GUIDE</b>		<b>82</b>
<b>ATTACHMENT 4—GLOBAL POWER TRAINING</b>		<b>84</b>



## Chapter 1

### GENERAL GUIDANCE

#### 1.1. Abbreviations, Acronyms, and Terms. See [Attachment 1](#).

1.1.1. For the purposes of this instruction, the definition of “certification” and “qualification” is IAW AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*; therefore, a “certification” denotes a commander’s action, whereas qualification denotes a formal Standardization/Evaluation evaluation IAW AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*, and AFI 11-2B-1, Volume 2, *B-1B-Aircrew Evaluation Criteria*.

#### 1.2. Responsibilities.

1.2.1. HQ ACC/A3 is the responsible agency for this instruction IAW AFPD 11-2, *Aircraft Rules and Procedures*. ACC/A3 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. ACC will invite MAJCOM/A3s with major weapons systems for which ACC is lead command to send representatives and/or inputs.

1.2.1.2. Process all change requests.

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

1.2.2.1. Determine training requirements to fulfill primary (and secondary, if applicable) Designed Operational Capability (DOC) statement missions as well as meet unit taskings.

1.2.2.2. Submit MAJCOM supplements to AF/A3O-AI, through ACC/A3TO, for approval during topline coordination of the document. Copies of approved and published supplements will be provided by the issuing office to ACC/A3TO and applicable MAJCOM offices of primary responsibility (OPR).

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 and tactics training. Forward two copies of each to MAJCOM and Numbered Air Force (NAF)/A3, 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 meet training objectives. Assist subordinate units in management of training programs, ensure programs meet unit needs, and provide necessary staff support.

1.2.4.2. Attach Aircrew Position Indicator (API)-6/-8 flyers to a flying squadron.

1.2.4.3. Except when otherwise mandated, designate the training level that each API-6 crewmember will train. Upon request, Wings/Groups will provide MAJCOM/A3T (or equivalent) with a list of Basic Mission Capable (BMC) and Combat Mission Ready (CMR) manning positions. Wing/Groups will review programs and manning position designations annually.

1.2.4.4. Forward supplements of this volume and wing syllabi to ACC/A3T for coordination during the publication review/rewrite process or upon significant changes. Review supplements each training cycle.

1.2.5. Squadron Supervision will:

1.2.5.1. Squadron Training function is responsible for maintaining AF Form 4348, *USAF Aircrew Certifications*, or a unit certification document for all squadron personnel and personnel attached to the squadron for flying. Certification Document will be a summary of certifications awarded and will be signed by the OG/CC, SQ/CC, or SQ/DO. Letters of Certification may be maintained via Patriot Excalibur (PEX).

1.2.5.2. Ensure adequate continuity and supervision of individual training needs, experience, and proficiencies of assigned and attached crewmembers.

1.2.5.3. Review training and evaluation records of newly assigned crewmembers and those completing formal training to determine the training required for those crewmembers to achieve BMC or CMR and satisfy provisions of this instruction.

1.2.5.4. Ensure Ready Aircrew Program (RAP) missions are oriented toward maintaining basic flight abilities, developing combat skills, or practicing tactical employment simulating conditions anticipated in the unit mission. Provide guidance to ensure crewmembers only log effective RAP missions. See [Attachment 2](#) and current B-1 RAP Tasking Memorandum (RTM) for RAP mission definitions.

1.2.5.5. Review certifications and training requirements of Flight Surgeons (FS) and determine appropriate flight restrictions.

1.2.5.6. Determine the missions and events individual Basic Mission Capable (BMC) crewmembers will maintain qualification/certification versus familiarization.

1.2.5.7. Determine BMC crewmember utilization.

1.2.5.8. Determine how many and which BMC and CMR crewmembers will carry special certifications (e.g. Mission Lead) and qualifications (e.g. Instructor).

1.2.5.9. Direct supervision requirements to accomplish required training unless specifically directed elsewhere in this publication.

1.2.5.10. Determine program for supervisory review of weapon delivery recordings.

1.2.5.11. Assist the wing and group in developing the unit training programs.

1.2.5.12. Monitor individual assigned and attached aircrew currencies and requirements.

1.2.5.13. Ensure crewmembers only participate in sorties, events, and tasks for which they are adequately prepared, trained, qualified, and current.

1.2.5.14. Submit training reports to HQ ACC IAW [paragraph 1.8.4](#)

1.2.6. Individual crewmembers will:

1.2.6.1. Hand carry all available training records to the gaining unit to assist in assessing certifications and training requirements. Reference AFI 11-202 Volume 2, *Aircrew Standardization/Evaluation Program*, for guidance on crewmember responsibilities relating to transporting qualification records [i.e. Flight Evaluation Folders (FEF)].

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 adequately prepared, trained, qualified and current.

### 1.3. Processing Changes.

1.3.1. Process changes using the AF Form 847, *Recommendation for Change of Publication*, IAW AFI 33-360, *Publications and Forms Management*, and AFI 11-215, *USAF Flight Manuals Program (FMP)*, through local and MAJCOM training channels to ACC/A3TO who will then forward coordinated recommended changes to AF/A3O-AI for approval.

1.3.2. ACC/A3 will:

1.3.2.1. Coordinate all changes to the basic instruction with all MAJCOM A3s.

1.3.2.2. Process recommendation for change.

1.3.2.3. Forward recommendations for changes to this volume to AF/A3O-AI for AF/A3/5 approval.

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

1.3.3. MAJCOM A3s will determine training requirements for their subordinate units and coordinated these training requirements through ACC/A3 for AF/A3/5 approval. As necessary, AFDPO will issue publication changes via revision, Interim Change, or Administrative Change, IAW AFI 33-360, *Publications and Forms Management*.

**1.4. Training.** Aircrew training programs are designed to progress aircrew from Initial Qualification Training (IQC/TX-1), Re-Qualification Training (TX-2), or Training as directed by the squadron commander (TX-3) to Mission Qualification Training (MQT), and finally to Continuation Training (CT).

1.4.1. **IQT.** TX-1, TX-2, TX-3, or Senior Staff Qualification Course (SSQC) provide the training necessary to initially qualify aircrew in a basic position and flying duties without regard to the unit's mission. See [Chapter 2](#). Upon completion of TX-1, TX-2, TX-3 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/A3. **NOTE:** If a crewmember's MQT lasts longer than six months the crewmember may fly only MQT sorties without obtaining a waiver.

1.4.2. **MQT.** MQT provides crewmembers the advanced training necessary to certify a crewmember in flight duties that directly support a unit's mission. See [Chapter 3](#). Crewmembers maintain BAQ status until completion of MQT and subsequent CMR or BMC designation. The Formal Training Unit (FTU) Instructor course is equivalent to a unit MQT program.

1.4.3. **CT.** CT consists of aircrew training in the basic flying skills necessary to ensure safe operation of the aircraft and specific mission-related training required to accomplish the unit's assigned missions.

1.4.4. **Ready Aircrew Program (RAP).** RAP is the CT program designed to focus training on capabilities needed to accomplish a unit's core tasked missions. Specific RAP instructions are issued by each MAJCOM via a RTM (see [Chapter 4](#)). Upon completion of IQT and MQT, aircrew will be trained in all the basic missions of a specific unit, unless excepted in [Chapter 3](#). Crewmembers who have completed MQT will be assigned to either a Combat Mission Ready (CMR) position or a Basic Mission Capable (BMC) position.

1.4.4.1. **CMR.** A status that denotes a crewmember is receiving the minimum training required to be certified, current, and proficient in all of the primary DOC mission requirements of their assigned or attached unit.

1.4.4.1.1. All combat unit (CC-coded) active duty API-1 and API-2 positions, flying squadron commander (SQ/CC), and squadron director of operations (SQ/DO) positions are designated CMR positions. Flight examiners will maintain CMR status. **EXCEPTION:** FTU, HHQ, senior flight examiners, and HHQ-designated test/evaluation unit examiners will maintain BMC status. 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-1s and API-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.]

1.4.4.1.2. CMR aircrew will maintain proficiency and qualification in all core missions of the flying unit to which the crewmember is assigned or attached. CMR aircrew maintain currencies which affect CMR status, accomplish all core designated flight training (missions and events), and all mission ground training. Failure to complete this training or maintain these currencies could result in regression to Non-CMR (N-CMR) status, unless waived by appropriate authority. While N-CMR, a crewmember may perform missions (including exercises and contingencies) and events in which the crewmember is current at the discretion of the SQ/CC.

1.4.4.2. **BMC.** A status that denotes a crewmember is receiving the minimum training required to be familiar with all, and may be certified and proficient in some, of the primary DOC mission requirement of their assigned or attached unit.

1.4.4.2.1. All active duty wing aircrew positions that are not designated CMR positions per [paragraph 1.4.4.1.1](#) 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 flight operation, FTU instructors, WIC instructors, operational test aircrew, and subject matter experts assigned to 29 Training Systems

Squadron (TSS)/ Detachment (DET) 4 and ACC Training Support Squadron (TRSS) DET 14. However, these aircrews are required to provide additional sortie generation capability, either in lieu of or in addition to, the personnel assigned to the flying squadrons.

1.4.4.2.2. BMC crewmembers must be able to attain proficiency and, if required, certification/qualification in 30 days or less for those missions/events they maintain familiarization only.

1.4.4.2.3. BMC crewmembers will accomplish all mission related ground training designated by their attached SQ/CC.

1.4.4.2.4. BMC crewmembers may deploy and participate in any mission for which they are proficient and qualified, without additional training, as determined by the SQ/CC.

1.4.4.2.5. As described in the B-1 RTM, failure to complete required BMC training results in regression to Non-BMC (N-BMC) status. While N-BMC, SQ/CC will determine missions the aircrew may perform and the supervision required.

1.4.4.3. **Specialized Training.** Specialized training is training in any special skill necessary to carry out the unit's assigned missions that are not required by every crewmember. 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.

1.4.4.3.1. Specialized training is normally accomplished after an crewmember is assigned CMR/BMC status; and is normally in addition to CMR/BMC requirements. Unless otherwise specified, aircrew in BMC or CMR positions may hold special capabilities/qualifications as long as any additional training requirements are accomplished.

1.4.4.3.2. SQ/CCs will determine and assign aircrew that will train for and maintain special mission certifications.

## 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 and operations publications.

1.5.2. ACC Training Support Squadron (TRSS) will develop and validate formal operation training syllabi for ACC/A3 approval. Designated Test Units (CB-coded) may develop syllabi to upgrade Operation Test Aircrew in support of specific test plans. Mission qualification training and continuation training programs will be developed and approved by the OG/CC.

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). Tactical training will include use of inert and live ordnance, threat simulators, countermeasures, and dissimilar aircraft as much as practical.

#### 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 (IP), Instructor WSOs (IWSO), Flight Leads (FL), and Multi-ship Mission Leads (MML) certified SQ supervisors may allow any crewmember to lead limited portions of a mission if they are appropriately briefed. This provision will only be used to allow the crewmember to practice events in which the crewmember is already certified or to help determine if the pilot is ready for Flight Lead Upgrade (FLUG) or MML Upgrade. In either case, the IP, IWSO, or SQ supervisor is responsible for the flight.

1.5.4.3. Flight/Mission 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/mission lead retains overall authority and responsibility.

**1.6. Experienced (EXP) Aircrew Requirements.** Crewmembers are designated as experienced based on the minimum hour requirements in **Table 1.1** Both total and B-1 hours must be met before designating an individual as experienced. Undergraduate Pilot Training (UPT), Undergraduate Navigator Training (UNT), and Undergraduate Combat System Officer Training (UCT) student time is not included in total hours. All instructors are considered experienced.

1.6.1. SQ/CCs may elect to retain an individual meeting the minimum requirements as inexperienced if designation as experienced is not warranted. SQ/CCs may return an individual to inexperienced status at any time.

1.6.2. When crewmembers are designated as experienced, the remaining requirements of the training cycle will be prorated.

1.6.3. Hours logged in the Weapon System Trainer (WST) accomplishing RTM-approved missions will be counted as “hours” when determining experience level. RAP WST Mission hours will not exceed 20% of the total B-1 hours required to meet the experienced threshold (ex: 100 RAP WST Mission hours out of 500 B-1 hours may be used to meet the experience threshold). See the current RTM for guidance on approved RAP SIM Missions and logging procedures.

**Table 1.1. Requirements for Experienced Designation.**

<b>AIRCREW POSITION</b>	<b>TOTAL HOURS/B-1 HOURS</b>
Pilot	1,500/300, 1,250/500, 1,000/750 or previously bomber experienced as an aircraft commander and 150 B-1 hrs
WSO	1,300/200, 1,000/300 or 750/500

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

1.7.1. The aircrew training cycle is a 12 month cycle aligned with the Fiscal Year (FY). Each RAP CT status (i.e. CMR/BMC) is defined by a total number of RAP missions, broken down into mission types, plus specific weapons qualifications and associated events as determined by the MAJCOM and unit commanders.

1.7.2. The total number of RAP missions for CMR/BMC is the primary factor for maintaining an individual's CT status. The breakout of mission types is provided as a guideline to be followed as closely as possible. Variances in mission types may be used as a basis for regression as directed by the SQ/CC. Certification in a mission is determined by the SQ/CC considering the MAJCOM guidance and the individual's capabilities.

1.7.3. An effective RAP training sortie requires accomplishing a tactical mission profile or a building block type mission. Each mission requires successfully completing a majority of the events applicable to that mission type, as determined by the SQ/CC and [Attachment 2](#).

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

1.7.5. Progression from BMC to CMR requires:

1.7.5.1. A 1-month lookback at the CMR mission rate.

1.7.5.2. Certification/qualification in all core missions and weapons events required at CMR.

1.7.5.3. Confirmation that the progressed crewmember can complete the prorated number of RAP mission and event requirements remaining at CMR by the end of the training cycle.

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

1.7.5.5. SQ/CC certification.

1.7.6. CMR and BMC aircrew will fly the required monthly sortie rate. If unable, refer to Regression, [paragraph 4.7](#)

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

**1.8. Ready Aircrew Program (RAP) Mission Program Development.**

1.8.1. RTM CMR/BMC mission and event requirements (see [Attachment 2](#)) apply to CMR and BMC aircrew as well as those carrying special capabilities or certifications. The mission requirements listed in the RTM establish the minimum number of missions per training cycle

for BMC and CMR levels of training. The RTM takes precedence over this instruction and may contain an updated mission and event requirements not yet incorporated in [Attachment 2](#).

1.8.2. Experience or Cost of Business sortie requirements should be considered when developing unit flying hour programs (FHP). 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, when able, will allocate flying hours to the unit for these purposes.

1.8.3. Unit FHPs can be allocated a number of attrition sorties that compensate for non-effective training sorties. Non-effective sorties are logged when a training sortie, is planned and flown, but a majority 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.

## **1.9. Training Records and Reports.**

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

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

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

1.9.1.3. AFMAN 33-363, *Management of Records* (and disposed of in accordance with the *Air Force Records Disposition Schedule* located at <https://www.my.af.mil/afrims/afrims/afrims/rims.cfm>).

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

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

1.9.1.6. Appropriate MAJCOM directives.

1.9.2. Units will track the following information for all crewmembers (as applicable):

1.9.2.1. Required ground training.

1.9.2.2. Requirements and accomplishment of individual missions, RAP missions, mission types, and events cumulatively for the training cycle.

1.9.2.3. RAP mission requirements and accomplishment using 1-month and 3-month running totals for lookback.

1.9.2.4. Currencies.

1.9.2.5. 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.

1.9.3. Units may use the crewmember's individual training summary (ITS) with either the date of the last FTU or United States Air Force Weapons School (USAFWS) equivalent event accomplished to update training requirements in ARMS . The ITS will be used only to

update dates for training event frequency. Proration of RAP training requirements will be IAW with **paragraph 4.9**

**1.9.4. Periodic and End-of-Cycle Training Reports.** Guidance and templates can be found at ACC/A3TO's Sharepoint at <https://acc.eim.acc.af.mil/org/A3/A3T/A3TO/default.aspx>.

**1.9.4.1. Periodic Training Reports.** Squadrons will submit a training report to HQ ACC/A3TO every 4<sup>th</sup> month during the training cycle (always on the 15<sup>th</sup> day of Feb, Jun, and Oct). Squadrons may submit an out of cycle report at anytime if higher HQ assistance is required to prepare for DOC or deployment tasking.

1.9.4.1.1. Reports will consist of:

1.9.4.1.1.1. A commander's memorandum summarizing previous report results/issues, current training plan summary, and significant shortfalls/limiting factors (LIMFACS) affecting training.

1.9.4.1.1.2. A completed squadron training health slide (attachment to commander's memo) summarizing critical training issues.

**1.9.4.2. End-of-Cycle Reports.** Squadrons will submit an end-of-cycle training report each 12-month training cycle. Report all deviations from the training requirements in this instruction and the B-1 RTM, after proration, to ACC/A3T at the end of the training cycle. Include in the report all training requirements waived by the OG/CC. Squadrons planned to deploy during the reporting period will submit an end-of-cycle report prior to deployment.

**1.9.4.3. Shortfall and LIMFAC Reporting.** Units should report significant shortfalls/LIMFACS that affect most or all of the squadron for prolonged periods of time. Include possible solutions or specific assistance required if able. HQ ACC will attempt to rectify or minimize noted shortfalls/LIMFACS while the training cycle is under way.

1.9.4.3.1. Shortfalls. Shortfalls occur when required mission training tasks are not accomplished due to shortages of equipment, munitions, ARMS software, etc. Example: unable to accomplish actual weapons release due to a shortage of weapons.

1.9.4.3.2. LIMFACS. LIMFACS are factors, constraints, restrictions, etc. that degrade training effectiveness. Example: squadron's ability to accomplish actual weapons release is limited due to the lack of ranges that allow aircraft to drop munitions. This may include support hardware and software.

## **1.10. Weapons Delivery Recording.**

1.10.1. Aircrew should use and assess all available training aids including Removable Memory Module (RMM) data, Common Mission Debrief Program (CMDP) data, targeting pod (TGP) video, and Weapon Impact Scoring Set (WISS) data on all tactical missions. Aircrew should review their delivery data with crewmembers in their flight.

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

## **1.11. Aircrew Utilization Policy.**

1.11.1. Commanders will ensure wing/group tactical crewmembers (API-1/-2/-6s) fill authorized positions IAW unit manning documents (UMD) and that aircrew status is properly designated. The overall objective is that crewmembers perform combat-related duties. Supervisors may assign crewmembers 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 crewmember tasking, flying proficiency, currency, and experience. For inexperienced crewmembers in the first year of their initial operational assignment, supervisors will limit the non-flying duties to those related to combat activities.

1.11.2. Duties required by various publications that may be assigned to CAF API-1/-2 crewmembers are weapons and tactics officer, scheduler, flight safety officer (FSO), supervisor of flying (SOF), mobility/ contingency plans, training (except ARMS documentation), SQ standardization/evaluation liaison officer (SELO), aircrew flight equipment officer (AFEO), electronic combat officer, and other duties directly related to flying operations. In some instances, such as squadron-assigned FSOs, API-1/-2s may be attached to the wing or group. API-1/-2s will not be attached to wing or group staffs or man wing or group staff positions unless total wing aircrew API-1/-2 manning is 100 percent or better. CCs will ensure wing staff crewmembers (API-6) perform duties justified in MAJCOM manpower standards documents and authorized in UMDs.

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

## 1.12. Sortie Allocation and Unit Manpower Guidance.

1.12.1. In general, inexperienced API-1/-2 aircrew should receive mission allocation priority over experienced aircrew. Priorities for mission allocation are as follows:

1.12.1.1. **FTU and USAFWS.** Formal syllabus training, CMR/API-1/-2, instructor upgrade, instructor CT, authorized staff personnel not performing instructor or flight examiner (FE) duties (to include API-5 flight surgeons).

1.12.1.2. **Operational Units.** CMR API-1/-2, MQT API-1/-2, CMR API-6, MQT API-6, BMC

**Table 1.2. Applicable AFI 11-2B-1 Volume 1, B-1 Aircrew Training, API Codes.**

<b>API Codes</b>	<b>Explanation</b>
<b>1t</b>	Pilot positions used primarily for cockpit duty.
<b>2</b>	Navigator/combat systems officer used primarily for cockpit duty.
<b>5</b>	Flight surgeon positions.
<b>6</b>	Staff or supervisory positions at wing level and below that have responsibilities and duties that require the incumbents to actively fly.
<b>8</b>	Staff or supervisory positions above wing level that have responsibilities and duties that require the incumbents to actively fly.
NOTE: See AFI 11-401 for a complete list of API Codes (to include API-5 flight surgeons).	

1.12.1.3. **Test and Test Evaluation Squadron (TES).** Requirements directed by MAJCOM, training required to prepare for assigned projects and tasking, BMC training requirements that cannot be accomplished on primary missions, API-5 flight surgeons.

1.12.2. For wings consisting of both FTU (TF-coded) and operational (CC-coded) units, at least one of the following crewmembers will maintain FTU instructor status: wing commander (WG/CC), vice wing commander (WG/CV), OG/CC, deputy operations group commander OG/CD.

1.12.3. API-8 rated personnel flying authorizations, ACC Inspector General (IG) inspectors in API-6 billets, and Test Unit aircrew will be IAW AFI 11-401 and MAJCOM guidance.

1.12.3.1. API-8 and ACC/IG crewmembers should fly the BMC mission rate, however they are not required to complete BMC specific missions/events or meet monthly lookback requirements.

1.12.3.2. Test Unit crewmembers will fly the BMC mission rate as a minimum and should meet monthly BMC lookback.

1.12.3.3. Units should provide assigned API-6/-8 crewmembers adequate resources to maintain minimum training requirements. However, API-6/-8 crewmember support will not come at the expense of the flying squadron's primary mission.

1.12.3.4. If attached units cannot meet attached crewmember requirements, the unit must request relief IAW AFI 11-401, as supplemented. Units requiring flying hour adjustments for attached API-8 and applicable API-6 crewmembers must request program changes IAW AFI 11-102 ACC Supplement, *Flying Hour Program Management*

1.12.4. There is no maximum sortie requirement for CMR aircrew. **Table 1.2** defines the maximum sortie requirements for other aircrew per training cycle. 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 1.3. B-1 Annual Sortie Requirements for Other Than API-1 & -2 Aircrew.**

API Level	CT Status	Unit's Aircraft Code	Organization	Maximum Cycle Sortie Allowance (Inexperienced/Experienced)
6	CMR	CC	Any	N/A
6	BMC	CC	Wing	36/30
6	BMC	TF	Wing	As required by PFT or DOC
6	BMC	CB	Wing	Determined by test program requirements
8	BMC	CC, TF, or CB	Above Wing	32/22
5	BAQ	Any	Any	If qualified and current in unit aircraft - 40/36. Otherwise, IAW AFI 11-202 Volume 1, <i>Aircrew Training</i> .

### 1.13. Waiver Authority.

1.13.1. With MAJCOM/A3 approval, waiver authority for all requirements of the RAP tasking memo is the OG/CC. Additional guidance may be provided in the memo. Unless specifically noted otherwise in the appropriate section, and also with MAJCOM/A3 approval,

the OG/CC may adjust individual requirements in **Chapter 4**, **Chapter 5**, and **Chapter 6**, on a case-by-case basis, to accommodate variations in aircrew member experience and performance. For all other provisions of this volume, and IAW AFI 11-202 Vol 1, the waiver authority is MAJCOM/A3. Waiver authority for supplemental guidance will be as specified in the supplement and approved through higher level coordination authority.

1.13.2. Units subordinate to a NAF will forward requests directly to MAJCOM/A3T and provide their NAF/A3/OV with an information copy. Waivers from other than MAJCOM/A3 will include their appropriate MAJCOM/A3T as an information addressee. In all cases, once the waiver process is complete, include ACC/A3T as an information addressee.

1.13.3. Waivers to this volume will be valid until the approving official cancels the waiver in writing, the waiver expires, or this publication (or RTM) is revised to include the waived requirements

1.13.4. Waivers to this volume extending beyond the end of the annual training cycle must be resubmitted at the start of each subsequent training cycle unless specifically stated in the waiver approval.

## Chapter 2

### QUALIFICATION TRAINING

**2.1. General.** This chapter outlines Initial Qualification Training (IQT) and Requalification Training for all B-1 aircrew.

2.1.1. **Formal Training.** Formal Training includes the initial qualification course (IQC/TX-1), requalification training courses (TX-2 and TX-3), and Senior Staff Qualification Course that a formal training unit (FTU) will normally conduct IAW formal syllabus unless otherwise noted.

2.1.2. **Local Training.** In exceptional circumstances, when FTU training is not available within a reasonable time period, local training may be performed at the unit IAW the provisions of this chapter. Local Qualification Training will be conducted using appropriate formal USAF Transition or Requalification Training Course syllabus tracks, flow programs, and requirements (securing waivers for deviations are described below). When local IQT is authorized, the gaining MAJCOM assumes responsibility for the burden of providing this training.

**2.2. Approval and Waiver for Local IQT.** Units will request waivers, by message, IAW appropriate syllabus. Waivers will only be considered for exceptional circumstances or extensive experience and background in the weapon system. Local TX-3 courses do not require a waiver.

2.2.1. Gaining MAJCOM/A3 is approval authority to conduct local IQT for TX-1 and TX-2. Info HQ ACC/A3T.

2.2.1.1. Gaining MAJCOM/CC is the approval authority for local IQT for colonel selectees and above to be conducted at the unit to which the officer is assigned. Info HQ ACC/A3T.

2.2.2. Gaining MAJCOM/A3 is waiver authority to change the requirements of the formal course syllabus for local IQT. Coordinate changes through HQ ACC/A3T.

2.2.3. Requests to conduct local IQT will include the following:

2.2.3.1. Justification for local training in lieu of FTU training.

2.2.3.2. Summary of the individual's flight experience.

2.2.3.3. Expected training start and completion dates.

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

**2.3. Prerequisites.** Course prerequisites will be IAW the appropriate formal course syllabus and USAF Education and Training Course Announcements (ETCA) at <https://etca.randolph.af.mil>. Individuals without having all prerequisites met or waived may be denied entry into training.

**2.4. Ground Training.** Ground training for local IQT may be tailored to the individual's background and experience or peculiar local conditions. Current and available reference materials, such as AFTTP 3-1.B-1, *Tactic Employment-- B-1*, AFTTP 3-3.B-1, *Combat Aircraft Fundamentals-- B-1*, instructor guides, and audiovisual programs will be used as supporting materials to the maximum extent possible.

## 2.5. Flight Training.

2.5.1. Local IQT Training will be completed within the time specified by the approved syllabus. Failure to complete training within the specified time limit requires notification through channels to MAJCOM A3 (info HQ ACC/A3T and the gaining unit) with crewmember's name, rank, reason for delay, planned actions, and estimated completion date.

2.5.2. Formal course syllabus mission objectives and tasks are minimum requirements. However, additional training events, based on student proficiency and background, may be incorporated into the program based on the approved local IQT waiver. Additional training due to student non-progression is available within the constraints of the formal course syllabus and may be added at the discretion of the SQ/CC.

**2.6. Initial Qualification Course (IQC/TX-1).** Qualifies aircrew in the B-1. Prerequisites and time limitations are listed in ETCA <https://etca.randolph.af.mil> and the B-1 IQC (TX-1) syllabus at the ACC TRSS, Detachment 14 CoP at: <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=AC-OP-01-89>.

## 2.7. Requalification Training Course (TX-2).

2.7.1. TX-2 requalifies non-current B-1 aircrew. Prerequisites and time limitations are listed in ETCA <https://etca.randolph.af.mil> and the B-1 Requalification (TX-2) Course syllabus at the ACC TRSS, Detachment 14 CoP at: <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=AC-OP-01-89>.

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

2.7.3. Units will assign re-qualified aircrew to an active flying position for a minimum of eighteen months.

2.7.4. Graduates may retain previous certifications (Night Terrain Following, Night Vision Goggle, Low Altitude Step Down Training, 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 the course.

2.7.5. Pilots meeting entry requirements for Aircraft Commander (AC) upgrade (**paragraph 6.5**) and/or Single-Ship Mission Lead (SML) upgrade (**paragraph 6.6**) entering requalification may complete the upgrade training during requalification with FTU SQ/CC approval.

## 2.8. Squadron Commander-Directed Requalification Training (TX-3).

2.8.1. For aircrew unqualified up to 39 months at the end of a non-flying assignment or 48 months at the end of any active flying assignment, a Squadron Commander has the option of entering the individual in a SQ/CC-Directed Requalification Course (TX-3) in lieu of the FTU requalification course (TX-2).

2.8.2. Entrance into TX-3 and the training syllabus will be at the discretion of the SQ/CC based upon factors such as aircrew experience and time away from the B-1 or active flying. All training will culminate in a Form 8 flight evaluation.

2.8.3. Prerequisites are listed in ETCA <https://etca.randolph.af.mil> and the B-1 Requalification (TX-3) Course syllabus at the ACC TRSS, Detachment 14 CoP at: <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=AC-OP-01-89>.

2.8.4. Graduates may retain previous certifications (Night Terrain Following, Night Vision Goggle, Low Altitude Step Down Training, 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 the course.

2.8.5. Pilots meeting entry requirements for Aircraft Commander (AC) upgrade (**paragraph 6.5**) and/or Single-Ship Mission Lead (SML) upgrade (**paragraph 6.6**) entering requalification may complete the upgrade training during requalification with FTU SQ/CC approval. **NOTE:** A crewmember is unqualified upon expiration of his or her qualification evaluation, loss of currency exceeding 6 months (see **4.5.1.3.2**), or completion of a qualification evaluation in a different MDS (Exception: authorized multiple qualifications in aircraft). Use landing currency for pilots and weapon delivery currency for WSOs to determine when the crewmember became non-current due to PCS.

## 2.9. Senior Staff Qualification Course (SSQC).

2.9.1. SSQC provides senior staff officers and military test pilot school (TPS) graduates 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 for senior staff officers. 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.

2.9.1.1. At a minimum, graduates must complete all IQC/TX-1 flight training events prior to upgrading to BMC or higher status. Number of sorties required will be tailored to each individual's training needs. Air Refueling, Terrain Following/Low Level Procedures, and Weapons Delivery Procedures will require special emphasis as part of the upgrade training since only limited training is provided in these areas during SSQC. All CMR/BMC training may be conducted by the graduate's gaining flying unit.

2.9.1.2. Academic and flight training accomplished during SSQC applies toward upgrade to CMR/BMC.

2.9.1.3. Gaining units may require additional MQT training items to complete upgrade to CMR/BMC.

2.9.2. 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/A3.

2.9.3. Prerequisites and time limitations are listed in ETCA <https://etca.randolph.af.mil> and the B-1 SSQC syllabus at the ACC TRSS, Detachment 14 CoP at: <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=AC-OP-01-89>.

## Chapter 3

### MISSION QUALIFICATION TRAINING

**3.1. General.** Mission Qualification Training (MQT) is a unit developed training program that upgrades newly assigned crewmembers to CMR or BMC to accomplish the unit mission. Guidance in this chapter will be used to develop a unit's MQT program. Units may tailor this program for all crewmembers, 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 CMR or BMC. Units may credit training events accomplished during in-unit requalification toward MQT requirements provided proficiency was obtained in the event.

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

3.1.2. Crewmembers will complete MQT within 90 calendar days after the completion of squadron in-processing. Units will notify ACC/A3T with a memorandum for record if training exceeds the 90-day time period or there is a delay beginning MQT (e.g., due to security clearance) that exceeds 30 days. Entry into MQT and training will start no later than 7 workdays after the crewmember has arrived on base and has been cleared for flying duties. If the crewmember elects to take leave prior to entering MQT, the timing will begin after the termination of the crewmember's leave. Training is complete upon SQ/CC certification to CMR or BMC.

3.1.3. CMR/BMC Certification. A crewmember will be reported as CMR/BMC once certified as CMR/BMC by the SQ/CC, Crewmembers reported as CMR/BMC after the 15th of the month are considered to be in continuation training on the first day of the following month for RAP proration and RAP lookback purposes. Prior to CMR/BMC certification, a crewmember must complete:

3.1.3.1. Night/Instrument Meteorological Conditions (IMC) Terrain Following (TF) certification (see [paragraph 3.7](#)).

3.1.3.2. LASDT Category IB (see [paragraph 3.6](#)).

3.1.3.3. Night Vision Goggle (NVG) certification (see [paragraph 6.3](#)).

3.1.3.4. Initial weapons certification (see [paragraph 5.2](#)).

3.1.3.5. Targeting pod mission certification (see [paragraph 6.4](#)). Targeting pod mission certification may be deferred by SQ/CC if resources are unavailable; however, crewmembers will be at a minimum targeting pod safety of flight certified (see [paragraph 6.4](#)).

3.1.4. Transferring Between Units. Units may accept certifications, qualifications, and flight evaluations from other MAJCOMs and units, if they meet the gaining MAJCOM's and unit's standards. The gaining SQ/CC will determine the MQT training requirements for CMR or BMC crewmembers transferring between units based on experience, proficiency, currency,

and previous formal training. At a minimum, crewmembers transferring between units will receive the unit's mission briefing.

### 3.2. Ground Training.

3.2.1. Units will provide blocks of instruction covering areas pertinent to the unit's mission as determined by the SQ/CC. Units may credit training accomplished during IQT towards this requirement. Ground training will include, but is not limited to:

3.2.1.1. Unit tasking.

3.2.1.2. Threat and tactics study IAW unit DOC statements.

3.2.1.3. Unit missions, tactics and employment IAW applicable Joint Publications and AFTTPs.

3.2.1.4. Chemical Defense Training.

3.2.1.5. Local Area Survival (See AFI 16-1301, *SERE Training*).

3.2.1.6. Simulator Console Operator Training (See [paragraph 6.13](#))

3.2.2. Combat Planning Exercises (CPEX). Crewmembers will complete two CPEXs. Crewmembers will demonstrate to an instructor satisfactory mission planning set skills using one of the B-1 current RAP mission sets.

3.2.2.1. Standoff Weapons (SOW). Objective: Crewmembers will complete one AGM-158 Joint Air-to-Surface Standoff Missile (JASSM) combat planning exercise. This practical exercise focuses on developing mission-planning cell (MPC) planning skills to solve a tactical problem. At the conclusion of the exercise, the crewmember will be prepared to take part in JASSM attack-planning activities. Objectives: Apply B-1 JASSM planning to mission plan a standoff weapon strike.

3.2.2.2. Multi-Desired Mean Point of Impact (DMPI) JDAM. Objective: Upon completion of CPEX the crewmember will be able to accomplish preplanned JDAM considerations for a 2-ship strike to include rotation time, fuse options, target priorities, and DMPI organization.

**3.3. Initial Verification.** Crewmembers will complete initial verification within 90 days after completing MQT. Failure to comply will result in regression to Non-CMR/Non-BMC until verification is complete. [Attachment 3](#) contains the suggested verification briefing guide. Each crewmember will demonstrate to a formal board a satisfactory knowledge of the unit's assigned mission and the tactical considerations for employing this mission in a realistic combat threat environment. The SQ/CC will establish the board composition.

**3.4. Simulator Training.** Crewmembers will complete three simulator missions. MQT crewmembers should fly the missions outlined below as typical RAP profiles. Each simulator mission will include selected critical action emergency procedures and instrument procedures. Mission types are defined in [Attachment 2](#).

3.4.1. WST MQT-Standoff Weapons and Dynamic Targeting (DT). Objective: Mission designed to strike pre-fragged and dynamic targets with guided weapons, unguided weapons, and JASSM in opposed target areas, using single-ship and/or formation tactics.

3.4.2. WST MQT-Integrated Tactics. Objective: Mission designed to increase effectiveness through the integration of multiple assets and capabilities. Integrated tactics require coordination with other C2, OCA, SEAD, and/or strike assets to effectively utilize, deconflict, and manage package assets. Long-haul DMO is required for mission completion.

3.4.3. WST MQT-Close Air Support. Objective: Mission designed to strike targets in close proximity to ground forces, in a semi-permissive threat environment, using single-ship and/or formation tactics. Emphasis is on detailed coordination with ground parties while under positive control of a simulated or actual Joint Terminal Attack Controller (JTAC) to find, fix, track, target, engage, and assess static and mobile targets. Long-haul DMO is desired for mission completion.

**3.5. Flight Training.** Units will use missions listed below as a baseline to build the local MQT program to certify a crewmember to CMR or BMC. Unit-developed MQT programs should use profiles typical of squadron missions found in [Attachment 2](#). The mission objectives are to expose crewmembers to the various aspects of the unit mission and train them to required proficiency so they can accomplish the mission unsupervised. Units will use the following elements, listed in no particular order, as a guide and adjust them based on unit DOC tasking.

3.5.1. LAO/Instrument. The Local Area Orientation (LAO)/Instrument element is mandatory for pilots and will be accomplished in conjunction with the pilot's first MQT sortie in the local area unless the pilot is flying in the same local area as in IQT or RQT. Objectives: Familiarization with local area requirements and local instrument procedures. Specific Tasks: Local area familiarization, emergency airfield(s) overflight/approach(es) if available, and local instrument procedures.

3.5.2. MQT Sortie Profiles.

3.5.2.1. MQT-Low Altitude Training (LOWAT) Ingress Surface Attack. Objective: Plan and execute LOWAT ingress to multi-DMPI guided weapons employment in an opposed threat environment. Specific Mission Tasks: Intel scenario, mission planning, opposed ingress, threat detection, threat reaction, TGP, and weapons employment IAW Unit Committed Munitions List (UCML).

3.5.2.2. MQT-Close Air Support. Objective: Plan and execute CAS mission with simulated or actual guided weapons. Specific Mission Tasks: Plan with intel/ground liaison officer (GLO) for orbit management, communications with, and targeting hierarchy and engagement with an actual or simulated JTAC.

3.5.2.3. MQT-Surface Attack. Objective: Plan and execute low or medium altitude ingress to guided or unguided weapons employment in an opposed threat environment. Specific Mission Tasks: Intel scenario, mission planning, opposed ingress, threat detection, threat reaction, TGP and weapons employment IAW unit UCML. MQT WSO will occupy the DSO position.

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

3.6.1. To conduct low altitude operations safely, crewmembers need to be knowledgeable of aircraft handling and performance characteristics, visual formation, defensive maneuvering, and basic navigation. Operations in the low altitude environment require a well-supervised LASDT program, including initial certification and currency requirements. LASDT

completion certifies crewmembers to conduct Low Altitude Training (LOWAT) at or below 1,000 feet AGL. LOWAT category certification is required prior to performing unsupervised operations at altitudes commensurate with that category. All crewmembers will accomplish Low Altitude Awareness Training (LAAT) academics. Pilots require flight training prior to being certified. WSO LASDT flight training requirements are at the discretion of the SQ/CC.

3.6.2. The LASDT program is a sequential, multi-phase training process that will be accomplished 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. LOWAT Category II should be accomplished at the pilot's earliest opportunity. A pilot shall be LOWAT Category IIA certified prior to becoming an aircraft commander. 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**

LOWAT Category	LASDT Demonstrated Proficiency	Prioritized LASDT Flight Profiles To Certify	Notes
IA	Single ship 1,000 feet AGL	1	
IB	Formation 1,000 feet AGL	1, 4	1
IIA	Single ship 500 feet AGL	1, 2	
IIB	Formation 500 feet AGL	1, 2, 4, 5	2
IIIA	Single ship 300 feet AGL	1, 2, 3	
IIIB	Formation 300 feet AGL	1, 2, 3, 4, 5, 6	
Notes:			
1. A pilot LOWAT Category IA certified may conduct flight in LOWAT Category IB if the pilot in command (PIC) is certified LOWAT Category IB. Actual LOWAT Category IB certification requires IP supervision IAW <b>paragraph 3.6.2</b> .			
2. A pilot LOWAT Category IIA certified may conduct flight in LOWAT Category IIB if both PICs in formation are certified LOWAT Category IIB. Actual LOWAT Category IIB certification requires IP supervision IAW <b>paragraph 3.6.2</b> .			

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. 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 B-1 formal training 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. Crewmembers may accomplish compatible RAP CT events in conjunction with LASDT as long as the events meet LASDT sortie objectives. Crewmembers will not fly LASDT 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.

3.6.6. Ground Training. Ground training will be built to support the mission and concept of operations of the individual squadron, incorporating appropriate portions of AFTTP 3-1.B-1, *Tactic Employment-- B-1*, and AFTTP 3-3.B-1, *Combat Aircraft Fundamentals--B-1*. Crewmembers will complete all academic training prior to flight training/briefing.

3.6.6.1. Low Altitude Aircraft Handling Characteristics (AHC). Discuss aircraft performance as it applies to the low altitude environment, to include:

3.6.6.1.1. Control response (SEF, Hinge Moment Limiter (HML), low/ high speed, over-G potential, speed brake use, use of rudder, stores effects).

3.6.6.1.2. Acceleration/deceleration to include afterburner use (fuel considerations, selection techniques).

3.6.6.1.3. Level turns, vertical maneuvering, climb/dive, recoveries, effects of gross weight, power settings, density altitude, G-loading, and bank angles.

3.6.6.1.4. 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, air turbulence, weather considerations, and 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. 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 maneuvering. 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 to include airmanship and pilot responsibilities, individual proficiency, route familiarity and complacency, route obstacles, planning and chum responsibilities.

3.6.6.7. Special subjects to include training rules, aircraft emergencies, and weather abort procedures.

3.6.7. LASDT Flight Profiles. Each LASDT Flight Profile is intended to demonstrate visual proficiency in low altitude awareness and maneuvering at designated altitude. Prior to each LASDT Flight Profile the preflight briefing will 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 will include, but are not limited to, low altitude visual navigation leg, altitude awareness and control, offensive maneuvering, defensive maneuvering, low altitude weapons delivery considerations, and visual crosscheck/lookout. If terrain is available terrain masking and ridge crossings should also be flown.

**Table 3.2. LASDT Profiles.**

LASDT Profile	Proficiency In	Notes
1	Single Ship, 1,000 feet AGL	1
2	Single Ship, 500 feet AGL	
3	Single Ship, 300 feet AGL	
4	Two Ship Formation, 1,000 feet AGL	2
5	Two Ship Formation, 500 feet AGL	2, 4
6	Two Ship Formation, 300 feet AGL	3
Notes:		
1. Profile will include a TTI/TTR demonstration. Accomplish the demonstration with a floor of 1,000 feet AGL,		
2. Not required if already formation certified to 500 feet via the Visual Formation checkout program in <a href="#">paragraph 6.2</a> .		
3. Authorized for Stream formation only.		
4. A pilot(s) LOWAT Category IB certified may fly LASDT Profile 5 and subsequently be certified LOWAT Category IIB by an IP in the opposing aircraft of a formation given both pilots are at least LOWAT IB Certified.		

### 3.7. Night/IMC TF Initial Certification Training.

3.7.1. The certification requirements listed below are mandatory unless previously accomplished at the FTU. Units may apply all training accomplished to proficiency at the FTU towards these requirements. Requalifying crewmembers previously certified to minimum set clearance plane (SCP) in night/IMC TF may retain this certification once they regain proficiency in Night/IMC TF.

3.7.2. Academics. Academics will include TF system and procedures review, Vertical Situation Display (VSD) interpretation, crew coordination, TF limitations, checklist procedures/use, and safety considerations. Failure to complete this training during the MQT time period requires training as directed by the 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. Simulator Training. 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. Flight Training

3.7.4.1. Pilot Flight Training. A minimum of two instructor supervised night/IMC TF flights, both of which should be mountainous, are required for initial flight certification. Each flight must include 10 minutes of night/IMC TF to be creditable. After initial flight certification pilots must complete a minimum of four 10-minute mountainous Night/IMC TF navigational legs, of which no more than two navigational legs may be completed in the WST, 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-1 Volume 3, *B-1 Operations Procedures*, minimum SCPs.

3.7.4.2. WSO Flight Training. WSOs require a minimum of two IWSO supervised night/IMC TF flights, both of which should be over mountainous terrain, for initial flight certification. At least one flight must be in the Offensive Systems Officer (OSO) seat. Each flight must include 10 minutes of night/IMC TF and a flyup to be creditable.

3.7.4.3. Night Terrain Following (NTF) SCPs are tied to the least certified 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 certification or is under supervision of an IWSO, and the aircraft commander/pilot is under the supervision of an IP certified at minimum route altitudes.

**3.8. Flight Surgeon.** IAW AFI 11-202 Volume 1 units will provide assigned and attached flight surgeons every opportunity to fly in the unit's aircraft.

3.8.1. Ground Training. Flight surgeons will ensure completion of AFI 11-202 Volume 2 qualification requirements as verified by the squadron Stan/Eval function and recorded in ARMs. 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 11-202 Volume 1 before the initial flight briefing:

3.8.1.1. Aircraft general review.

3.8.1.2. Hanging harness training, egress training, protective equipment training.

3.8.1.3. CRM training, a bold face/critical action test, and an instrument/emergency procedures (EP) simulator with an IWSO (1 hour minimum).

3.8.2. Flight Training. A flight surgeon's 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 and the current B-1 RAP Tasking Memorandum (RTM) outlines ground and flying training requirements for CMR, BMC, and BAQ aircrew. Crewmembers must complete: IQC/TX-1, TX-2, TX-3 or SSQC to fly in BAQ status; and MQT or FTU/WS Instructor Upgrade to fly in CMR or BMC status.

#### 4.1.1. CMR and BMC Requirements.

4.1.1.1. Crewmember must be qualified IAW AFI 11-202 Volume 2, AFI 11-2B-1 Volume 2, *B-1--Aircrew Evaluation Criteria*, and MAJCOM supplements.

4.1.1.2. Be certified as CMR/BMC (as applicable) by the SQ/CC.

4.1.1.3. Sortie/WST rate (lookback) IAW the B-1 RTM and [paragraph 4.6](#)

4.1.1.4. Fly the CMR/BMC-required RAP missions and events, weapons qualifications, and accomplish ground training IAW the B-1 RTM. EXCEPTION: BMC lookback IAW [paragraph 4.6.1](#) is N/A for API-8 aircrew and ACC/IGS (see [paragraph 1.12.3.1](#)).

4.1.1.5. Maintain currencies IAW [paragraph 4.5](#) CMR/BMC requirements (as applicable).

4.1.1.6. LOWAT Category I certification (see [paragraph 3.6](#)).

4.1.1.7. Formal Verification (see [paragraph 3.3](#)) or IAW unit tasking.

4.1.1.8. In addition, BMC crewmembers must complete unit-developed training programs for spin-up prior to participation in exercises and deployments.

#### 4.1.2. BAQ Requirements.

4.1.2.1. Crewmember must be qualified IAW AFI 11-202 Volume 2, , AFI 11-2B-1 Volume 2, and MAJCOM supplements.

4.1.2.2. Maintain currencies IAW [paragraph 4.5](#) BAQ requirements.

4.1.2.3. 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.

4.1.2.4. BAQ crewmembers that remain in BAQ status for more than 6 months will be grounded (except General Officers, API-6/-8 aircrew in designated Test Squadrons if located at a base without B-1 aircraft, or waived aircrew), unless currently enrolled in a program to achieve CMR/BMC. Waiver authority for this paragraph is MAJCOM/A3 (forward through MAJCOM/A3T).

#### 4.1.3. Requirements for Special Certifications/Qualifications.

4.1.3.1. Specialized training IAW [Chapter 6](#) and guiding syllabi.

4.1.3.2. Sortie requirements IAW the RAP Tasking Memo.

4.1.3.3. Sortie and mission requirements IAW the B-1 RTM and this AFI as applicable.

4.1.3.4. See **paragraph 4.5.3** for circumstances requiring re-certification/re-qualification.

#### 4.1.4. FTU/USAFWS/Test Instructor Aircrew Requirements.

4.1.4.1. API-1/-2/-6 instructors assigned or attached to Primary Training Aircraft Inventory (PTAI) (*formerly TF*) or Primary Development/Test Aircraft Inventory (PDAI) (*formerly CB or Test*) coded units will fly at the BMC sortie rate for lookback and are only required to accomplish the BMC Basic Skills WST requirements as noted in the B-1 RTM. In addition to RAP missions listed in the RTM, formal training syllabus-directed missions and approved test plan missions apply to lookback. SQ/CCs may desire to track mission, enabler and event data for assigned aircrew based on vulnerability to convert to CMR status.

4.1.4.2. As long as AFI 11-202 Volume 2, and AFI 11-2B-1 Volume 2 periodic instructor evaluation requirements are met, instructors failing to accomplish Basic Skills requirements will not lose instructor qualification, but will require additional training as determined by the SQ/CC prior to performing instructor duties in the delinquent event.

4.1.4.3. Flight Training. Unit or SQ/CC will direct additional sorties if programmed syllabus or test missions do not provide sufficient aircrew proficiency training.

4.1.4.4. Weapons Events. Crewmembers weapons delivery certified will maintain appropriate weapons delivery currencies. Instructors must be initially qualified in the weapons events they plan to instruct.

#### 4.1.5. MAJCOM/NAF API -8 Aircrew and ACC/IGS Flight Inspectors Requirements.

4.1.5.1. Mission Directed Training (MDT) for HHQ personnel (other than that conducted in support of a formal inspection) requires coordination with the supporting unit. MAJCOM/A3T and NAF/A3 are reviewing authorities for assigned personnel. MAJCOM/A3T and NAF/A3 will:

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

4.1.5.1.2. Review assigned crewmember accomplishments and currencies prior to authorizing crewmember to participate in MDT.

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

4.1.5.2. HHQ personnel maintaining BMC flight status are exempt from non-grounding academic ground training, night air refueling, chemical warfare (CW) training, and special training programs within authorized mission areas. Specific currencies will be provided to the host squadron and HHQ supervisors will determine crewmember certifications to participate in squadron scenarios for MDT.

4.1.5.3. HHQ aircrew will:

4.1.5.3.1. Review accomplishments and currencies for accuracy.

4.1.5.3.2. Submit qualification/certification and authorization documentation to the supporting SQ/CC, SQ/DO or authorized representative prior to flights with that squadron.

4.1.5.3.3. Evaluate the demands of each mission, and in coordination with squadron supervision, determine that their ability and proficiency will not be exceeded.

4.1.5.4. Instructor-qualified crewmembers may perform instructor duties with the concurrence of the OG/CC.

4.1.6. **Flight Surgeon Requirements.** Flight surgeons may fly selected tactical missions to enhance understanding of tactical missions with which they are directly associated. Initial checkouts will be IAW [paragraph 3.8](#) Flight surgeon flying rates and requirements will be IAW AFI 11-202 Volume 1.

**4.2. Ground Training.** Unit commanders will ensure aircrews accomplish academic and ground 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. See Ground Training Requirements located in paragraph 6a. of the B-1B RAP Tasking Memorandum.

4.2.1. Aircrew Training Device.

4.2.1.1. The B-1 RTM 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.

4.2.1.2. Units with WSTs will ensure scenarios are based on expected employment tasking and training device capabilities. Emphasize training not easily attainable during daily flying activities, to include operations in contested electromagnetic spectrum (EMS) environments, system malfunctions, and emergency procedures.

4.2.1.3. 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 events accomplished in the WST may be credited towards training cycle requirements and may be used to update currency, where applicable. Refer to **Table 4.4.** for currency events that can be updated in the WST. Each RAP mission shall run as an integrated crew, using full motion to the maximum extent possible.

4.2.2. **Situational Emergency Procedures Training (SEPT).**

4.2.2.1. 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.

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

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

4.2.2.2.2. Accomplish three SEPT sessions each training cycle with an instructor.

4.2.2.3. Crewmembers will accomplish one SEPT every month. SEPT currency will expire at the end of the month if accomplished before the 20th or at the end of the following month if accomplished on or after the 21st (expiration is a grounding item until SEPT accomplished).

4.2.2.4. Crewmembers may accomplish SEPT in the WST, if available. If SEPT is not accomplished in the WST, it should be accomplished as small, flight-sized groups to allow all crewmembers to participate and share equal time responding to emergency situations.

4.2.2.5. Completion of a WST Emergency Procedure (EP) profile satisfies the monthly SEPT requirement. For IP/EP/IWSO/EWSO administering the WST EP Sim will satisfy their SEPT requirement.

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

4.2.3. **Weapons/Tactics Academic Training.** Units will establish a weapons and tactics academic training program to satisfy MQT and CT requirements. Squadron Commanders will provide guidance to unit weapons shops on an annual CT weapons and tactics academics program that will ensure all aircrew are informed of new and current weapons, systems, mission-specific TTPs, and enemy TTPs, to include operations in contested electromagnetic spectrum (EMS) environments.

4.2.3.1. USAFWS graduates are the preferred academic instructors.

4.2.3.2. Training is required once each training cycle.

4.2.4. **Verification Training.** Verification is 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.

4.2.4.1. 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 aircrews.

4.2.4.2. Continuation Verification. Continuation verification, updates aircrew on their squadron's wartime mission. Each crewmember will participate in unit initial/continuation verification every 12 months as a briefer, board member, or seminar participant. Aircrew that participates in a unit deployment to a DOC tasked theater of operations may receive credit for continuation verification.

4.2.4.3. 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.

4.2.5. **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 equipment. Supervisory personnel above squadron level maintaining mission qualification do not require this item.

4.2.5.1. 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 unit training plan will ensure that each training item is taught at least twice per training cycle, once during the first six months of the training cycle and once during the second six months. Training methods may include, but are not limited to, threat-of-the day briefings, weapons and tactics academics, theater orientation briefings, weapons system videos, etc.

4.2.5.2. 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).

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

4.2.5.4. 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 paragraph 6a. of the B-1B RAP Tasking Message. 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.

4.2.6. **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.

4.2.7. **Communications Training.** Units will establish a communications training program IAW AFI 33-201 Volume 1, *Communications Security (COMSEC)*, to satisfy CT requirements.

4.2.8. **Electronic Combat (EC) 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. Each WSO is required to participate in one training session every 12 months. Specific objectives include:

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

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

4.2.8.3. Signal ambiguity resolution.

4.2.8.4. Electronic Attack (EA) techniques and application.

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

4.2.9. **Aircraft Servicing.** Training ensures crewmembers have the knowledge to service, safe weapons, and reconfigure the aircraft for launch after landing. Each crewmember is required to participate in one training session every 12 months. The Aircraft Servicing video can be found at the ACC TRSS, Detachment 14 CoP: <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=AC-OP-01-89>

4.2.10. **NVG Academics.** Each pilot is required to participate in one training session every 24 months IAW AFI 11-202 Volume 1. This training may be conducted in conjunction with CT Weapons/Tactics academic training. Refresher training as a minimum will consist of common NVG hazards, MDS specific hazards, spatial disorientation, 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.

**4.3. Flight Training.** All aircrew will accomplish the requirements found in the B-1 RTM 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.

#### **4.4. Multiple Qualification/Currency.**

4.4.1. MAJCOM A3 may authorize qualification in more than one mission design series (MDS) aircraft for a crewmember 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 crewmembers qualified in primary mission aircraft to maintain qualification in support aircraft

4.4.1.1. Submit multiple qualification requests through command channels to MAJCOM A3T. 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.

4.4.1.2. Individually authorized multiple qualifications are valid as long as the crewmember is assigned to the specific position, and aircraft requested, or rescinded by MAJCOM A3.

4.4.2. Multiple qualifications are 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).

4.4.3. Multiple Requirements: Crewmembers 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, the crewmember 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.

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

4.4.5. Crewmember must complete conversion training IAW an approved syllabus.

#### 4.5. Currencies, Recurrencies, and Requalification.

4.5.1. Currency.

##### Table 4.1. defines currency requirements for B-1 aircrews.

4.5.2. Recurrency.

4.5.2.1. 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 4.1**

4.5.2.2. 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.

4.5.2.3. Regaining currency is based on time elapsed from the date the individual became non-current. **NOTE:** Use landing currency (P) and weapon delivery (W) currency to determine when the individual became non-current.

4.5.2.3.1. Up to 180 days: Training as directed by the SQ/CC and crewmember must demonstrate proficiency in all delinquent events with an instructor of like specialty.

4.5.2.3.2. Over 180 days: A crewmember with an expired qualification evaluation and any currency expired as designated under **Table 4.1** will be unqualified. If the individual crewmember is non-current for an event designated under **Table 4.1** for over 180 days and has a current qualification evaluation, then training must be accomplished as directed by the SQ/CC. 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 a Qualification evaluation as defined in AFI 11-2B-1 Volume 2.

4.5.3. **Requalification. NOTE:** A crewmember is unqualified upon expiration of his or her qualification evaluation, loss of currency exceeding 6 months (see **4.5.1.3.2**), or completion of a qualification evaluation in a different MDS (Exception: authorized multiple qualifications in aircraft). Use landing currency for pilots and weapon delivery currency for WSOs to determine when the crewmember became non-current due to PCS.

4.5.3.1. Unqualified up to 39 months at the end of a non-flying assignment or 48 months at the end of any active flying assignment: Completion of an FTU requalification

academic course and FTU flight training (TX-2), or training as directed by the SQ/CC in-unit (TX-3). All training will culminate in a flight evaluation. Aircrew 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.

4.5.3.2. Unqualified 39 months at the end of a non-flying assignment or 48 months at the end of any active flying assignment to 8 Years: Complete an FTU requalification academic course (TX-2) and FTU flight training. A flight evaluation will be conducted in accordance with [paragraph 2.7](#) and the B-1 Requalification Training Course Syllabus.

4.5.3.3. Unqualified over 8 years: Individuals non-current over 8 years will complete the Initial Qualification Course (TX-1).

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

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

4.5.4.2. They become non-current in an event/sortie which causes removal from CMR/BMC 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 CMR/BMC status, instructor status may be retained, but the instructor will not instruct in that event/sortie until the required currency is regained.

**Table 4.1. ACC Aircrew Currencies.**

EVENT	CREW	INEXP/EXP	AFFECTS CMR/BM C	UPDATE WITH	NOTES
Takeoff	P	45 / 60	YES	Sortie	1, 2
Day Landing	P	45 / 60	YES	Sortie	1, 2
Night Landing	P	90 / 90	NO	Sortie	2, 7
Instrument Approach	P	60 / 90	NO	Sortie or WST	3, 4
Day AR	P	60 / 90	YES	Sortie	4
Night AR	P	90 / 120	NO	Sortie	4, 7
Visual Contour	P	60 / 90	NO	Sortie	2
Low Altitude Vis Form	P	60 / 90	NO	Sortie	5
TF Night/IMC	P	90 / 90	NO	Sortie or WST	2, 7
TF	ALL	60 / 90	YES	Sortie or WST	2
Guided Weapon Hit	ALL	60 / 90	YES	Sortie or WST	1, 6
Unguided Weapon Hit	ALL	60 / 90	YES	Sortie or WST	1, 6
Threat Activity	W	60 / 90	YES	Sortie or WST	1

Notes:

- Loss of currency greater than 180 days results in unqualified status IAW AFI 11-202V1 2.2. and AFI 11-2B-1V1 4.6.
- For sorties without a current Instructor Pilot, both pilots must be current in the event to be flown.
- If non-current, currency may be regained by flying at least one precision and one non precision approach with a current Instructor Pilot.
- The designated aircraft commander must be current for the event to be flown. The non current Pilot will not accomplish the event.
- If non-current, qualified IPs may regain currency by flying at or above 2,000' AGL.
- If non-current, currency may be regained by flying 3 simulated and/or actual weapon deliveries with an instructor of like specialty.
- Accomplishing the night/IMC event dual-credits the day event for currency only.

**4.6. Regression (see Figure 4 1).**

4.6.1. **CMR/BMC 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, the SQ/CC can: regress the crewmember to N-CMR/N-BMC, as applicable; remove the crewmember from a CMR/BMC manning position; or initiate action to remove the crewmember from active flying status.

4.6.1.1. Failure to meet 1-month RAP lookback, either for a sortie or WST, requires a review of the crewmember's respective 3-month sortie or WST history. If the 3-month lookback has been met, the crewmember may, at SQ/CC discretion, remain CMR/BMC. Failure to meet the 3-month lookback for either sortie or WST requirements will result in regression to N-BMC/N-CMR, or the crewmember may be placed in probation status for 1 month at the SQ/CC'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.

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

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

4.6.2. **Regression for Failed Evaluations.** In addition to the requirements of AFI 11-202 Volume 2 and AFI 11-2B-1 Volume 2, crewmembers who fail a periodic evaluation will regress to N-CMR/N-BMC as applicable. Crewmembers will remain N-CMR/N-BMC until accomplishing AFI 11-202 Volume 2 requalification requirements and are recertified by the SQ/CC.

4.6.3. **Regression for Weapons Certification.** Failure to maintain RAP tasked weapons certification at the end of the training cycle will require:

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

4.6.3.2. **For events tasked as Familiarization (FAM) at CMR/BMC.** Regression to N-BMC/ N-CMR. To regain CMR/BMC, a crewmember must accomplish at least three actual or simulated 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.

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

4.6.5. Crewmembers that accomplish in-unit upgrade training may not be reported as CMR until completion of upgrade training and an AFI 11-202 Volume 2 evaluation.

**4.7. End of Cycle Requirements.** Crewmembers who fail to complete mission or event requirements by the end of the training cycle 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 4.8](#) to determine if any of these requirements may be prorated. In all cases, report training shortfalls IAW RTM instructions.

4.7.1. Crewmembers who fail to meet the total RAP mission requirements may continue at CMR/BMC as determined by lookback. The SQ/CC will determine if additional training is required.

4.7.2. Failure to meet RAP mission type requirements will result in:

4.7.2.1. Regression to N-CMR/N-BMC if the SQ/CC determines that the mission type is significant. To regain CMR/BMC, the crewmember will complete the appropriate number of mission types as determined by the SQ/CC. These missions may be counted against the total requirements for the new training cycle.

4.7.2.2. Continuation at CMR/BMC if total RAP missions and lookback are maintained and the mission type deficiencies are deemed insignificant by the squadron by the SQ/CC. The SQ/CC will determine if any additional training is required to address shortfall.

4.7.3. Failure to accomplish mission required for Special Capabilities or Certification/Qualifications will result in loss of that certification/qualification. The SQ/CC will determine recertification requirements. Requalification requirements are IAW AFI 11-202 Volume 2 and AFI 11-2B-1 Volume 2.

#### **4.8. Proration of End of Cycle Requirements.**

4.8.1. At the end of the training cycle the SQ/CC may prorate any training requirements as necessary for crewmembers when Duty Not Including Flight (DNIF), emergency leave, non-flying TDYs or exercises, and/or combat/contingency deployments preclude training for a portion of the training cycle. Ordinary leave will not be considered as non-availability. Extended bad weather or other environmental factors that precludes the unit from flying for more than 15 consecutive days may be considered as non-availability. The following guidelines apply:

4.8.1.1. Proration will not be used to mask training or planning deficiencies.

4.8.1.2. Proration is based on cumulative days of non-availability for flying during the training cycle. Use **Table 4.2** to determine the number of months to be prorated based on cumulative calendar days of non-availability.

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

4.8.1.4. No requirement may be prorated below one. Prorated numbers resulting in fractions of less than 0.5 will be rounded to the next lower whole number (one or greater).

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

4.8.1.6. A crewmember's last month on station prior to a Permanent Change of Station (PCS) may be prorated provided one month's proration is not exceeded. Crewmembers who are in the process of a 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, whichever occurs first.

4.8.1.7. CMR crewmembers 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 crewmembers will accomplish a prorated share of mission and event requirements (see [Table 4.2](#)).

4.8.1.8. 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).

**4.8.2. 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.

4.8.2.1. 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 lookback 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 missions and events for the period of time each individual was deployed. In addition, proration is authorized for the deployment spin-up and reconstitution where home station flying is reduced by the MAJCOM.

4.8.2.2. 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 missions. Events accomplished on these sorties count toward RAP event requirements, and these sorties and events may not be prorated upon return to home station.

4.8.2.3. 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 4.2. Proration Allowance.**

<b>CUMULATIVE DAYS OF TRAINING NON-AVAILABILITY</b>	<b>MONTHS OF PRORATION ALLOWED</b>
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

#### 4.9. Regaining CMR/BMC Status.

4.9.1. If CMR/BMC status is lost due to failure to meet the end of cycle weapons certifications or event requirements, recertification/requalification is IAW [paragraph 4.6.3](#)

4.9.2. If CMR/BMC status is lost due to failure to meet lookback IAW [paragraph 4.6](#), the following applies (timing starts from the date the crewmember became N-CMR/N-BMC):

4.9.2.1. **Up to 90 Days.** The crewmember must complete a SQ/CC approved recertification program (documented in the crewmember's gradebook/training records) to return to CMR/BMC status. Upon completion of the recertification program, the CMR/BMC crewmember must also meet the subsequent 1-month lookback requirement prior to regaining CMR/BMC status. The missions and events accomplished during the recertification program may be credited towards the crewmember's RAP mission and event requirements for the training cycle as well as for lookback purposes. In addition, all Aircrew Currencies which affect CMR/BMC status must be regained. The SQ/CC will approve any other additional training prior to re-certification to CMR.

4.9.2.2. **91-180 Days.** Same as [paragraph 4.9.2.1](#), plus open/closed book qualification examinations (IAW AFI 11-202 Volume 2 and AFI 11-2B-1 Volume 2). Open/closed book examinations will be documented on the AF Form 8 as SPOT IAW AFI 11-202 Volume 2, Chapter 7.

4.9.2.3. **181 Days and Beyond.** Reaccomplish a SQ/CC directed MQT program to include a formal Mission (MSN) evaluation IAW AFI 11-202 Volume 2 and AFI 11-2B-1 Volume 2.

#### 4.10. Example of the Lookback, Regression, Proration, and Requalification Process.

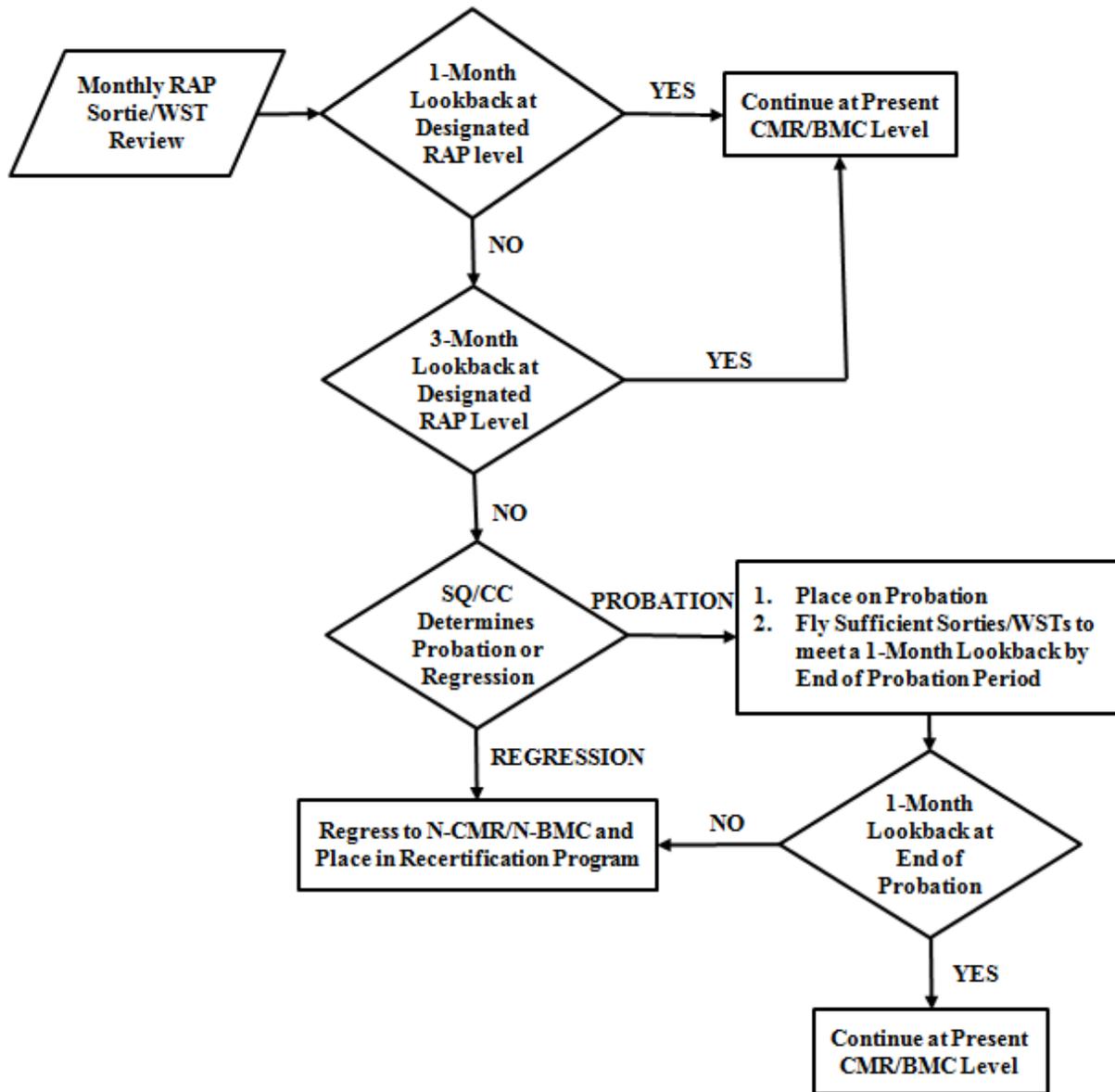
4.10.1. Capt Clarke is an experienced CMR crewmember with a 1- and 3-month RAP lookback requirement of 3 and 9 RAP sorties respectively. On Feb 3, he flew a RAP sortie prior to departing for a non-flying TDY for two months. He returned to the squadron from the TDY on 6 Apr. What is Capt Clarke's readiness status throughout his TDY and upon his return?

4.10.2. The SQ/CC intended to report Capt Clarke as CMR for readiness reporting purposes throughout the TDY. Therefore, on 1 Mar, Capt Clarke's flight commander (Flt/CC) performed the mandatory 1-month lookback on Capt Clarke. Capt Clarke flew only one RAP sortie in February, thus failing the 1-month lookback RAP requirements. The Flt/CC then performed a 3-month lookback which indicated that Capt Clarke failed to meet his 3-month RAP lookback requirement for CMR aircrew because he flew only eight sorties total during the months of December, January, and February. Had Capt Clarke flown one more sortie during that time span and met his 3-month lookback, his SQ/CC could continue to report Capt Clarke as CMR. The SQ/CC had the option to regress Capt Clarke to N-CMR, but instead elected to place Capt Clarke on probation based on his past demonstrated abilities and continued to report him as CMR.

4.10.3. On 1 April, Capt Clarke's 1-month lookback for the month of March was 0 sorties requiring the SQ/CC to regress Capt Clarke to N-CMR and place him in a SQ/CC directed recertification program. Upon completing this program, Capt Clarke will need to re-establish his 1-month lookback by 1 May in order to regain CMR status (if he completes the Sq/CC directed program prior to 15 April). **NOTE:** If Capt Clarke had returned on 22 March 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 March, the SQ/CC would fly Capt Clarke with an IP on his first sortie in order to regain his landing currency.

4.10.4. At the end of the training cycle, the SQ/CC prorated two months off of Capt Clarke's total requirements. In spite of this proration, Capt Clarke was deficient in two RAP sorties (26 out of 28). The SQ/CC could regress Capt Clark to N-CMR status and place him in a SQ/CC directed recertification program, if he deemed the shortfall to be significant. If this action was taken and Capt Clarke accomplished the recertification program (the deficient missions), the SQ/CC would recertify Capt Clarke as CMR. This training also would count for the new training cycle.

Figure 4.1. RAP Regression Flow Chart.



## Chapter 5

### WEAPONS DELIVERY/EMPLOYMENT QUALIFICATION/CERTIFICATION

**5.1. General.** This chapter outlines requirements for attaining initial qualification and maintaining continuation training (CT) certification for CMR/BMC WSOs in the employment of air-to-surface weapons. Refer to “Description of Events” in [Attachment 2](#) for further guidance on weapons events.

**5.2. Initial Qualification.** Pilots and WSOs must accomplish initial qualification in guided and unguided weapons delivery (simulated or actual) requiring qualification at CMR/BMC.

**5.2.1. Initial Qualification Criteria.** Initial qualification for guided and unguided weapons requires a qualified evaluator monitor crewmember mission planning and in flight weapon delivery procedures (actual or simulated) during an AFI 11-202 Volume 2 evaluation. Initial qualification is awarded if the planning and delivery requirements specified in the RAP Tasking Memo are accomplished and the hit criteria are achieved.

**5.2.2.** Qualification achieved during IQT or MQT satisfies the requirements for initial qualification, but not for CT certification. Initial qualification and CT certification will carry over for crewmember upgrades if previously certified in the weapon type. If unqualified up to 39 months initial qualification criteria carries over from previous qualification. If unqualified for 39 months, the initial qualification criteria must be re-accomplished. In either case CT certification still applies.

**5.3. CT Certification.** CT certification criteria establishes the minimum standards for crewmembers to maintain certification in the appropriate weapon delivery events, and does not determine evaluation criteria established by other instructions, regulations, or agencies. Weapon delivery events requiring PROF/FAM are specified in the RAP Tasking Memo.

**5.3.1. CT Certification Criteria.** CT certification criteria for Pilots and WSOs are achieved by maintaining a 75% hit rate for guided weapons and a 50% hit rate for unguided weapons, assessed during normal reporting periods of the RAP training cycle. PROF/FAM status carries over to the next training cycle. Failure to certify in one event does not invalidate certification in the other. Overall hit percentages for guided and unguided weapon certifications are calculated by dividing number of hits by number of attempts.

*Guided Hit % = Guided Weapon Hits (WE70) / Guided Weapon Attempts (WE69)*

*Unguided Hit % = Unguided Weapon Hits (FH27) / Unguided Weapon Attempts (FO27)*

**5.3.2. Mission Lead Responsibilities.** Mission Leads will use all available means to accurately assess weapon delivery effectiveness of the pilot flying (PF) and OSO for each bomb run during the mission debrief. Navigation Weapons Scoring (NWS) data for simulated releases and/or range scoring for actual releases will be the primary methods for determining hit criteria. The intent is to ensure an adequate debrief is accomplished that quantifies and records weapon delivery effectiveness, while ensuring crewmembers remain certified to employ ordnance.

5.3.2.1. **Weapon Hit.** A hit will be assessed for each bomb run where the PF and OSO deliver actual or simulated weapon(s) against the correct target, within the established released criteria.

5.3.2.2. **Weapon Miss Assessment.** A miss will be assessed for each bomb run where the PF and OSO have an aircrew error that precludes an effective simulated or actual weapon(s) release (failure to open weapon bay doors, delivery outside briefed release criteria, wrong target coordinates entered into offensive avionics system (OAS), premature safing of stores management system (SMS), etc.).

5.3.3. **CT Weapon Deliveries.** 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. Actual 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 actual munitions. To take credit for a record delivery, WSO must be occupying the OSO position in the aircraft.

5.3.4. **Failure to Certify.** Failure to certify in one event does not invalidate certification in others. SQ/CCs may declare a crewmember uncertified 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 certifications. The crewmember will revert to N-CMR/N-BMC and will remain in that status until achieving initial certification in the deficient event(s). Crewmembers failing to meet required guided and/or unguided weapons hit percentages will become uncertified in that event(s) until completion of a squadron directed recertification program is completed.

5.3.5. **Certification Cycle.** Weapon certification will be aligned with the squadron's 12-month training cycle. At the end of the training cycle, crewmembers' weapons delivery scores will be reviewed to assess their certification. If certified, the crewmember's certification is valid through the following training cycle.

**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 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 altitude is safe separation/escape/fuse arm for ordnance being delivered/simulated, aircrew minimum low altitude certification, or range/target area restrictions, whichever is higher. Maximum altitude is 5,000 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 5,000 feet AGL).

5.4.1.2. **Medium/High Altitude System Delivery (MASD/HASD).** For the purposes of accomplishing this event, minimum altitude is above 5,000 feet AGL. Hit Criteria: from 5,000 feet AGL up to but not including 25,000 feet MSL - 475 feet (145m). At or above 25,000 feet MSL - 575 feet (175m).

5.4.2. **Degraded Delivery (DD).** A delivery of a weapon by the best means available without position updates to the host aircraft from the GPS. This type of delivery applies to guided weapons. Hit criteria: 226 feet (69m).

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-31s, GBU-38s or GBU-54s. 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 (Where the GPS is updating the aircraft but not the weapon itself). 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. 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. Actual Ordnance.** Actual 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, actual ordnance requirements are listed in the semiannual RAP Tasking Memo and AFI 11-212, *Munitions Requirements for Aircrew Training*.

## Chapter 6

### SPECIALIZED TRAINING

**6.1. General.** This chapter outlines aircrew upgrade training programs for special capabilities, certifications, and qualifications. Units will develop and maintain local specialized training programs based on these guidelines. SQ/CCs may tailor programs for individual crewmembers based on previous experience, qualifications, and documented performance.

6.1.1. 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 SQ/CC. Units will annotate initial event accomplishment in the crewmember's training record.

### **6.2. Visual Formation Certification.**

6.2.1. General. The Visual Formation training program is designed to certify aircrew in B-1 formations other than Trail or Stream. Wingman will be certified in Trail and Stream formation upon completion of the requisite TX-1 or TX-2 training. Those certified in visual formation positions at the FTU require no additional formal training in those positions at the gaining unit. Visual formation certification consists of training in the Route/Observation, Fluid, Wedge, and Line Abreast (LAB) positions. The visual formation checkout program consists of two separate phases: high altitude visual formation and low altitude visual formation. Units will track certification for each phase separately on the squadron's Letter of Certification. High altitude and low altitude visual formation training may be accomplished on the same sortie. All crewmembers require visual formation academic training before flying any visual formation positions. WSOs do not require flight training. Document all ground and flight training activity in the crewmember's training folder.

6.2.2. An instructor pilot will conduct all training. At no time will an uncertified pilot fly in positions or perform maneuvers not signed off in their training record as proficient without supervision. Training is complete following SQ/CC's review of training records and written certification.

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

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

6.2.3.2. Study formation relevant tactics, techniques, and procedures contained in AFTTP 3-1.B-1, *Tactical Employment-- B-1* with emphasis placed on:

6.2.3.2.1. Formation definitions, procedures and references.

6.2.3.2.2. Maneuvering techniques.

6.2.3.2.3. Defensive Maneuvering.

6.2.3.2.4. Mission Flow.

6.2.3.2.5. Formation hazards and formation mishaps.

6.2.4. Flight Training. Pilots will complete all flight training for each phase within 90 days of that phase's academic training. If a pilot exceeds the 90 day limit, academic training for the phase will be reaccomplished.

6.2.4.1. High Altitude Visual Formation Phase. Pilots will be certified in High Altitude Visual formation prior to flying in the tanker observation position unsupervised. Prior to SQ/CC High Altitude Visual Formation certification, pilots will be proficient in:

- 6.2.4.1.1. Formation departure and rejoin to Fluid.
- 6.2.4.1.2. Practice overshoot, lost wingman, and breakout procedures.
- 6.2.4.1.3. Turning rejoin to Fluid as wing.
- 6.2.4.1.4. Straight-ahead rejoin to Fluid as wing.
- 6.2.4.1.5. Route Maneuvering, to include battle damage check.
- 6.2.4.1.6. Fluid Maneuvering.
- 6.2.4.1.7. Wedge Maneuvering, including hook turns, 90 degree turns into and away from the wingman, and shackle.
- 6.2.4.1.8. Line Abreast Maneuvering.
- 6.2.4.1.9. Defensive Maneuvering (Notch/Break and Pump).
- 6.2.4.1.10. Lead change.
- 6.2.4.1.11. Rejoin to Tanker Observation position from Echelon.
- 6.2.4.1.12. Maintaining Tanker Observation position while the tanker executes turns into and away from the aircraft.

6.2.4.2. Low Altitude Visual Formation Phase. Pilots will practice all formation maneuvers at least once above 5,000' AGL prior to attempting the maneuvers low altitude. Initial letdown and maneuvering will be to 1,000' AGL. At the IP's discretion, aircrew may perform training as low as 500' AGL. Prior to SQ/CC Low Altitude Visual Formation certification, pilots will be proficient in:

- 6.2.4.2.1. Dive to low altitude.
- 6.2.4.2.2. Turning rejoin to Wedge as wing.
- 6.2.4.2.3. Wedge Maneuvering, including hook turns, 90 degree turns into and away from the wingman, and shackle.
- 6.2.4.2.4. Wedge maneuvering in mountainous terrain.
- 6.2.4.2.5. Defensive Maneuvering (Notch/Break, Pump, and Gun Jinks) as the Lead and Wingman.
- 6.2.4.2.6. Split as wing.
- 6.2.4.2.7. Pop to Level.

**6.3. Night Vision Goggle (NVG) Certification.** Pilot NVG training will be conducted IAW AFI 11-202 Volume 1.

6.3.1. Program Entry. Pilots are cleared for NVG training once a flight surgeon reviews the pilot's medical records IAW AFI 11-202 Volume 3, *General Flight Rules*, and AFI 48-123, *Medical Examinations and Standards*. All training accomplished to proficiency at the FTU

applies towards the requirements listed below. Document all training activity in the pilot's training folder.

6.3.2. Ground Training. All initial NVG ground training will be IAW AFI 11-202 Volume 1, *Aircrew Training*, conducted by AFRL/AETC/AATTC/MAJCOM FTU certified instructors or WIC graduates. Instructors will use AF-approved courseware for initial aircrew ground training.

6.3.3. Flight Training. Accomplish all ground training before entering the flight phase. Training will consist of a minimum of two sorties flown with NVGs and at least two NVG low altitude navigation events, each with an NVG certified instructor. Flight profiles will include at least one sortie with mountainous low altitude navigation and one formation sortie as a wingman. In addition to events required by AFI 11-202 Volume 1, initial flight training will include:

6.3.3.1. 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.

6.3.3.2. 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.

6.3.4. All pilots must complete the unit NVG training program and be certified by the SQ/CC prior to NVG flights without an instructor.

6.3.5. Refresher Training. Once NVG qualified, crewmembers will receive annual NVG academic refresher training. Topics will include recent hot topics, NVG mishaps, B-1 tactical issues, and any other relevant NVG discussion items.

**6.4. Targeting Pod (TGP) Training.** This program is focused on utilizing and integrating the targeting pod as an advanced sensor to augment B-1 capabilities to find, fix, track, target, engage and assess fixed and mobile targets in a dynamic or static environment. WSOs are the primary operators of the TGP and will be certified to employ all TGP modes/functions to enhance weapons employment; conduct bomb hit assessment (BHA); and fulfill intelligence, surveillance and reconnaissance (ISR) roles. Pilots are to be certified to a familiarization level for TGP controls and displays, but must be proficient in orbit management and employment considerations. Crew coordination (roles and responsibilities) will be emphasized throughout ground and flight training. All training accomplished to proficiency at the FTU applies towards training requirements. This program establishes the minimum guidelines for those pilots and WSOs to receive TGP certification. Document all training activity in the crewmember's training folder.

6.4.1. Ground Training. Accomplish all ground training within 30 days prior to the first sortie.

6.4.1.1. Academic training will be locally developed and will include, but is not limited to:

6.4.1.1.1. TGP employment considerations: basic laser/electro-optical (EO)/infrared (IR) theory, Air Force/Command directives and restrictions, mission planning considerations, and Crew Resource Management (CRM).

6.4.1.1.2. TGP concept of operations: components, capabilities/limitations, controls/displays, and operating procedures.

6.4.1.1.3. TGP tactical employment: target location and delivery accuracy, search techniques, target acquisition/designation/weapon delivery, targeting/attack geometry, and other employment considerations.

6.4.1.2. Aircrew Training Devices (ATD). Units will integrate TGP ATDs to reinforce academics and supplement flight training. Pilots and WSOs will complete one ATD session focusing on TGP controls and displays familiarization prior to TGP flight training. ATDs may be used in lieu of flight training to certify an individual only on specified events as determined by unit commanders.

6.4.1.2.1. ATD-1. TGP Familiarization. Demonstrate familiarization/proficiency with TGP controls and displays in all TGP operating modes. Specific Mission Tasks: target detection (A/G and A/A), recognition, and identification using TV, FLIR, LSS/T, and IR Marker procedures; target coordinate derivation; and employment considerations.

6.4.2. Flight Training. A minimum of one night sortie is required for initial flight certification. An instructor, certified to instruct TGP by the squadron commander, is required on all TGP certification sorties.

6.4.2.1. TGP Sortie 1. Basic Weapons Employment. Demonstrate familiarization/proficiency with TGP controls and displays in all TGP operating modes with emphasis on correct combat identification (CID) and verification of the assigned Desired Point of Impact (DPI), obtaining TGP-generated coordinates, and updating the weapon solution for a typical B-1 attack. Specific Mission Tasks: mission planning; TGP pre-flight/ground mode usage; TGP controls and displays; laser procedures; integration of TGP with existing avionics; target area search, detection, recognition, positive ID, and tracking of fixed and mobile targets using all operating modes of the TGP; crew coordination hand-off procedures within (Pilot to WSO talk-on using the IR Marker) and outside the aircraft (VDL, IR Marker and LSS/T with comparably equipped platforms); and target area BHA monitoring post release.

6.4.3. Certification. Targeting pod mission certification may be accomplished in two phases as approved by the SQ/CC if TGP resources are unavailable.

6.4.3.1. TGP Safety of Flight Certification. Following completion of academic training and demonstrated proficiency/familiarization during TGP focused ATD(s) the SQ/CC may designate a crewmember as TGP Safety of Flight certified. A crewmember TGP Safety of Flight certified is permitted to operate all modes and functions of the TGP unsupervised in subsequent sorties, with the exception of LSS/T and employment of actual weapons using TGP derived coordinates, in order to develop proficiency and experience with the TGP.

6.4.3.2. TGP Mission Certification. Upon demonstrated familiarization/proficiency with the TGP following TGP flight training, the SQ/CC may designate a crewmember as TGP mission certified. Upon combat certification, a crewmember is fully certified on TGP employment IAW technical orders and published guidance.

**6.5. Aircraft Commander (AC) Certification.** This establishes minimum guidelines for designation as an AC. Document this designation in the pilot's training folder and the squadron's Letter of Certification.

6.5.1. Program Entry Requirements:

6.5.1.1. Nominated by the unit commander.

6.5.1.2. Current and qualified pilot.

6.5.1.3. One of the following flying hour requirements:

6.5.1.3.1. 300 post FTU B-1 hours, and 50 RAP/contingency missions.

6.5.1.3.2. 750 total hours and 50 post FTU B-1 hours.

6.5.1.3.3. 1250 total hours and 1000 instructor/evaluator hours.

6.5.2. Simulator Training.

6.5.2.1. Aircraft Systems Simulator. Objective: Demonstrate Aircraft systems and emergency procedure focused training. Units without access to WST may substitute an in-depth discussion of aircraft systems and emergency procedures.

6.5.3. Additional ground training requirements are not required but may be determined by the SQ/CC. A pilot must be LOWAT Category IIA certified, see **Table 3.1**, prior to SQ/CC certification as an AC.

6.5.4. Commander's certification. Individuals will demonstrate AC proficiency in flight to their SQ/CC or designated representative (no specific events). Following successful completion of training, the SQ/CC will certify the pilot's new status as an AC.

**6.6. Single-Ship Mission Lead (SML) Certification.** This program establishes the minimum guidelines for those pilots and WSOs identified by the SQ/CC to upgrade to SML. Document all training activity in the crewmember's training folder.

6.6.1. Program Entry Requirements:

6.6.1.1. Nominated by the unit commander

6.6.1.2. Meet one of the following criteria:

6.6.1.2.1. 200 post-FTU B-1 hours and 50 RAP/contingency missions, or

6.6.1.2.2. 750 total hours, 50 post-FTU B-1 hours, and 6 months mission ready status.

6.6.1.2.3. 1250 total hours and 1000 instructor/evaluator hours.

6.6.1.3. LOWAT IB certified.

6.6.2. Ground Training.

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

6.6.2.1.1. SML responsibilities: SML/AC relationship, unit training objectives.

6.6.2.1.2. Mission preparation: mission objectives, desired learning objectives, currencies, delegation of mission planning duties, tactics, attack planning, and briefing preparation.

6.6.2.1.3. Conduct of mission briefings and debriefings: use of briefing guides and audiovisual aids, mission reconstruction.

6.6.2.2. Combat Planning Exercise (CPEX). Combat planning exercise focusing on developing mission-planning cell (MPC) planning skills to solve a tactical problem using one of the B-1 RAP mission sets. At the conclusion of the exercise, the crewmember will be prepared to facilitate attack-planning activities. Crewmember will demonstrate to an instructor satisfactory the ability to facilitate mission planning. Objective: Practice mission development, mission planning leadership, briefing and debriefing.

### 6.6.3. Simulator Training.

6.6.3.1. SML Surface Attack. Objective: Surface attack mission in a robust threat environment employing medium altitude ingress. Specific Mission Objectives. "Leadership," mission planning, briefing, tactical ingress, medium threat target area tactics, tactical egress, weapons employment procedures/techniques, and mission reconstruction and debriefing.

6.6.3.2. SML Standoff Weapons. Objective: Surface attack standoff weapons delivery mission with follow-on SAT strike in opposed environment to include JASSM planning and management considerations. Specific Mission Objectives. Mission planning, briefing, JASSM operations, and mission reconstruction and debriefing.

6.6.4. Flying Training. Training will be conducted in accordance with a program approved by the SQ/CC. The program below provides a basic guideline and may be modified by SQ/CCs based on unit needs and/or upgrade candidate's previous experience, qualifications, and demonstrated performance. All SML training will be under the supervision of a SML-, Multi-Ship Mission Lead (MML)- or Flight Lead (FL)-certified instructor. At least one sortie will be completed at night.

6.6.4.1. SML- Flex targeting. (CAS and/or Dynamic Targeting). Mission Objectives: mission to a range/working area in a low to medium threat scenario. Specific mission tasks: Mission planning, briefing, target area tactics, weapons employment, and mission reconstruction/debrief.

6.6.4.2. SML-Surface Attack. Mission Objectives: mission to a range/working area in a medium threat scenario. Specific mission tasks: Mission planning, briefing, LOWAT tactical ingress to guided weapon delivery, medium threat, target area tactics, weapons employment, tactical egress, and mission reconstruction/debrief.

6.6.5. Following successful completion of training, the SQ/CC will certify the individual's new status as a SML.

**6.7. Multi-Ship Mission Lead (MML) Certification.** This program establishes the minimum guidelines for those WSOs identified by the SQ/CC to upgrade to MML. Document all training activity in the individual's training folder.

6.7.1. Program Entry Requirements:

6.7.1.1. Nominated by the unit commander.

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

6.7.2.1. MML responsibilities: MML/FL/AC relationship

6.7.2.2. Formation tactical employment considerations and formation attack planning

6.7.3. Simulator Training.

6.7.3.1. MML-Formation Management DMO. Formation tactical mission in a medium threat environment. Objective: EP handling, defensive maneuver standards and deconfliction, night/IMC formation management, night/IMC tanker procedures, formation non-visual rejoin procedures. Specific Mission Objectives. "Leadership"

6.7.4. Flight Training. Training will be conducted in accordance with a program approved by the SQ/CC. The program below provides a basic guideline and may be modified by SQ/CCs based on unit needs and/or upgrade candidate's previous experience, qualifications, and demonstrated performance. All MML training will be under the supervision of a MML- or FL-certified instructor or squadron supervisor.

6.7.4.1. MML-Surface Attack: Formation tactical mission to a range/working area in a medium threat scenario. Specific mission tasks: Mission planning, briefing, formation tactical ingress (at least one of two sorties will be low altitude), medium threat target area formation tactics, formation weapons employment, formation tactical egress, and mission reconstruction/debrief.

6.7.4.2. MML-Flex Targeting: Formation tactical mission in limited threat environment to include formation deconfliction and management considerations. Specific Mission Tasks: Mission planning, briefing, mission accomplishment, formation DT and CAS considerations (see AFTTP 3-1.B-1, *Tactic Employment--B-1*), and mission reconstruction/debrief.

6.7.5. Following successful completion of training, the SQ/CC will certify the individual's new status as a MML.

**6.8. Flight Lead Upgrade (FLUG) Certification.** This program establishes the minimum guidelines for those aircraft commanders identified by the SQ/CC to upgrade to Flight Lead. FL training should place appropriate emphasis on formation tactical employment. Certification as a FL also certifies an individual as a MML. Document all training activity in the individual's training folder.

6.8.1. Program Entry Requirements:

6.8.1.1. Nominated by the unit commander.

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

6.8.2.1. FL responsibilities - FL/wingman relationship, FL/ML relationship, squadron training objectives.

6.8.2.2. Mission Preparation. Mission objectives, wingman requirements and responsibilities.

6.8.2.3. Wingman consideration, formation tactical employment considerations and formation attack planning.

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

6.8.3. Simulator training.

6.8.3.1. FLUG-Formation Management DMO. Formation tactical mission in a medium threat environment. Objective: EP handling, defensive maneuver standards and deconfliction, night/IMC formation management, night/IMC formation air refueling procedures, formation non-visual rejoin procedures. Specific Mission Objectives. "Leadership"

6.8.4. Flight training. Training will be conducted in accordance with a program approved by the SQ/CC. The program outlined below provides a basic starting point and may be modified by SQ/CCs based on unit needs and/or candidate'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.). A day sortie, night sortie, formation departure, formation recovery, and a mid-mission rejoin will be accomplished as a flight lead during the flight training portion of the program. Pilots will brief, fly, and demonstrate proficiency as flight lead during formation checkout. It is expected that at the completion of FLUG the individual is Low Visual Formation certified. All MML training will be under the supervision of a MML- or FL-certified instructor or squadron supervisor.

6.8.4.1. FLUG-Surface Attack: Formation tactical mission to a range/working area in a medium threat scenario. Specific Mission Tasks: Mission planning, briefing, formation departure, formation tactical ingress (at least one of three sorties will be low altitude), medium threat target area formation tactics, formation weapons employment, formation tactical egress, and mission reconstruction/debrief. Formation AR procedures are highly encouraged.

6.8.4.2. FLUG-SOW: Formation standoff weapons delivery mission with follow-on SAT strike in opposed environment to include formation deconfliction and management considerations. Specific Mission Tasks: Mission planning, briefing, formation range operations, formation weapons delivery patterns, and mission reconstruction/debrief.

6.8.4.3. FLUG-Flex Targeting: Formation tactical mission in limited threat environment to include formation deconfliction and management considerations. Specific Mission Tasks: Mission planning, briefing, mission accomplishment, formation DT and CAS considerations (see AFTTP 3-1.B-1, *Tactic Employment--B-1*), and mission reconstruction/debrief.

6.8.5. Following successful completion of training, the SQ/CC will certify the individual's new status as a FL.

**6.9. Mission Commander (MC) Certification.** This program establishes the minimum guidelines for upgrade to MC. USAFWS graduates are certified as Mission Commanders. Document all training activity in the individual's training folder.

6.9.1. The MC 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.

6.9.2. Program Entry Requirements:

6.9.2.1. Nominated by the unit commander, and

6.9.2.2. FLUG/MML certified.

6.9.3. Ground training. Upgrading MCs must satisfactorily complete the following unit-developed blocks of instruction prior to certification as a MC:

6.9.3.1. Mission Brief/Debrief techniques and procedures.

6.9.3.2. CAF Aircraft Capabilities Familiarization

6.9.3.3. CSAR Familiarization

6.9.3.4. Joint Theater Air Control Systems.

6.9.3.5. Air Tasking Order creation/breakout.

6.9.3.6. Mission Planning Procedures.

6.9.3.7. AFTTP 3-1.General Planning, AFTTP 3-1.Threat Guide, AFTTP 3-1.B-1, *Tactic Employment-- B-1*, review.

6.9.3.8. Integrated Air Defense Systems.

6.9.3.9. Joint/Composite Force Integration.

6.9.4. Simulator training. The MC candidate will plan, brief, fly, and debrief a minimum of one joint/composite force DMO long-haul mission under the supervision of a weapons officer.

6.9.5. Flight training. The MC candidate will plan, brief, fly, and debrief a minimum of one joint/composite force mission under the supervision of a weapons officer.

6.9.6. Following successful completion of training, the SQ/CC will certify the individual's new status as a MC.

**6.10. Strike Coordination and Reconnaissance Coordinator (SCAR-C) Certification.** This program establishes the minimum guidelines for upgrade to SCAR-C. Individuals will be selected for SCAR-C upgrade by SQ/CC during a Training Review Panel (TRP). USAFWS graduates are certified as SCAR-Cs. Document all training activity in the individual's training folder.

6.10.1. Program Entry Requirements:

6.10.1.1. Nominated by the unit commander, and

6.10.1.2. 10 RAP/contingency missions performed as a FL or MML.

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

6.10.2.1. SCAR mission planning to include SPINS, ROE, AOD, ATO creation/breakout

6.10.2.2. Kill box usage

6.10.2.3. SCAR-C authority

6.10.2.4. SCAR check-in, SCAR 9-line procedures, SCAR deconfliction techniques, crew duties, asset capes and LIMFACs, and C2 situational reports.

6.10.2.5. AFTTP 3-2.78, SCAR, and AFTTP 3-2.59, *Kill Box* review.

6.10.3. Flight training. The SCAR-C candidate will fly a minimum of one flight as the SCAR-C. Ideally, the candidate will fly part of the sortie as a SCAR asset before assuming the role of SCAR-C. The candidate will fly this sortie with dissimilar SCAR assets. To accomplish the SCAR-C requirement of this sortie, a targeting pod is required. A WST mission configured for DMO long-haul may substituted in lieu of a sortie at the discretion of the unit commander.

**6.11. JASSM Planner.** The JASSM Planner program is designed to certify a crewmember to plan a Joint Air-to-Surface Standoff Missile (JASSM) mission. Upon completion of the program, the crewmember will be able to proficiently to conduct JASSM mission planning for B-1 missions. USAFWS graduates are certified as JASSM Planners.

6.11.1. Ground Training.

6.11.1.1. Academics. Academics will include instruction on downloading terminal-area models, threat orders of battle and other pertinent information required for JASSM planning as well as how to import the appropriate data to the Joint Mission Planning System (JMPS). The student will also receive training on planning rules and techniques for all of the possible JASSM release options.

6.11.1.2. CPEX. JASSM combat planning exercise based on real-world B-1 operations plan (OPLAN) and areas-of-responsibility (AOR). This practical exercise focuses on developing mission-planning cell (MPC) planning skills to solve a tactical problem. At the conclusion of the exercise, the crewmember will be prepared to take part in JASSM attack-planning activities. Objectives: Apply B-1 JASSM planning to mission plan a standoff weapon strike, download terminal-area models and JASSM planning data, and archive these for future use, import JASSM mission-planning data to JMPS.

6.11.2. Certification. Following successful completion of training, the SQ/CC will certify the crewmember as a JASSM planner on the unit's Letter of Certification.

**6.12. Quickstrike Planner.** The Quickstrike Planner program is designed to certify a crewmember to plan a Mk-62 or Mk-65 Quickstrike mine mission. Upon completion of the program, the crewmember will be able to correctly plan a B-1 Quickstrike mining operation. USAFWS graduates are certified as Quickstrike Planners.

6.12.1. Ground Training.

6.12.1.1. Academics. Academics will include instruction on the basics of mine design, mine sterilization, mine countermeasures (MCM), the Quickstrike series of mines, minefield planning folder (MFPP) content and how MFPP data are used to plan B-1 mine operations in support of the US Navy.

6.12.1.2. CPEX. Quickstrike combat planning exercise based on real-world B-1 operations plan (OPLAN) and areas-of-responsibility (AOR). This practical exercise

focuses on developing mission-planning cell (MPC) planning skills to solve a tactical problem. At the conclusion of the exercise, the crewmember will be prepared to take part in Quickstrike attack-planning activities. Objectives: Understand the damage mechanisms of an underwater bottom-mine detonation and their effects on naval vessels; understand the primary components, arming process, employment envelope, primary targets and minimum spacing of the Mk-62 and Mk-65 Quickstrike mines when configured for B-1 employment; know the contents of an MFPF segment data sheet; understand the formulas for Rules-of-Eight; diagram and explain the weaponeering ROT for mining.

6.12.2. Certification. Following successful completion of training, the SQ/CC will certify the crewmember as a Quickstrike planner on the unit's Letter of Certification.

**6.13. Simulator Console Operator.** The following WST mission profiles should be used to train and certify simulator console operators to operate the Instructor Operator Station (IOS). The required supervision for this upgrade program is a console operator certified instructor. Document all training activity in the individual's training folder.

6.13.1. Simulator Mission Profiles (Based on simulator capabilities).

6.13.1.1. WST-1, IOS Operations. Objectives: Mission initialization, keyboard operation, emergency shutdown, hard copy, performance, and procedures monitoring.

6.13.1.2. WST-2, Practical Exercise. Objectives: The upgrade console operator will conduct a regularly scheduled simulator mission from the IOS under supervision of a console operator-certified instructor.

6.13.2. Following successful completion of training, the SQ/CC will certify the crewmember's new status as console operator.

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

6.14.1. FIC prepares crewmembers for instructor qualification.

6.14.2. Prerequisites and time limitations are listed in ETCA <https://etca.randolph.af.mil> and the B-1 FIC syllabus at the ACC TRSS, Detachment 14 CoP at: <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=AC-OP-01-89>.

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

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

6.14.3. 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 6.15](#) 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-1 Volume 3, *B-1--Operations Procedures*, Attachment 5.

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

**6.15. FIC Instructor Certification.** This program establishes minimum guidelines for those instructors nominated by the SQ/CC to be FIC Instructors. Document all training activity in the individual's training folder.

6.15.1. Requirements. Candidates must have a minimum of one year as a B-1 instructor.

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

6.15.2.1. Methods of instruction, including role-play.

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

6.15.3. Flight training is only required for pilots. As a minimum, candidates must complete all FIC/FTU Only maneuvers listed in Attachment 11 of AFI 11-2B-1 Volume 3, *B-1—Operations Procedures*, to proficiency. **NOTE:** Completion of a simulated engine out full stop may be waived so long as a simulated engine out touch and go is completed.

**6.16. USAF Weapons Instructor Course (WIC).**

6.16.1. This program trains qualified instructor pilots and WSOs in all phases of B-1 weapons employment and tactics. Graduates are certified bomber weapons and tactics instructors capable of implementing, conducting, and managing the weapons and tactics program at their units according to AFI 11-415, *Weapons and Tactics Programs*.

6.16.2. Prerequisites are listed in ETCA <https://etca.randolph.af.mil/> and the WIC syllabus.

**6.17. USAFWS Instructor Upgrade Course.** This program certifies B-1 USAFWS instructors to perform academic and flight instructor duties. Upon completion, USAFWS instructors are certified in each phase of training and may be assigned as primary mission flight instructors as well as the primary instructor for specific MDS academic courses.

**6.18. Pre-Deployment Spin-Up Training.** This training will be conducted prior to deploying in support of contingency operations (if time permits) or exercises. 77 WPS is exempt from completing this training when deploying to Nellis AFB. The objective of this training is to ensure the crewmember'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.

6.18.1. 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.

6.18.2. Flight Training. Spin-up training will be tailored to ensure all deploying crewmembers are proficient, current, and qualified in all expected mission taskings.

HERBERT J. CARLISLE, Lt Gen, USAF  
DCS, Operations, Plans and Requirements

## ATTACHMENT 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

*References*

- ACCI 11-464, *Training Records and Performance Evaluation in Formal Flying Training Programs*, 4 December 2003
- AFI 11-103, *Flying Hour Program Management*, 29 March 2002
- AFI 11-102 ACC Supplement, *Flying Hour Program Management*, 7 June 2007
- AFI 11-2B-1 Volume 2, *B-1--Aircrew Evaluation Criteria*, 13 June 2008
- AFI 11-2B-1 Volume 3, *B-1--Operations Procedures*, 7 January 2011
- AFI 11-202 Volume 1, *Aircrew Training*, 22 November 2010
- AFI 11-202 Volume 2, *Aircrew Standardization/Evaluation Program*, 13 September 2010
- AFI 11-202 Volume 3, *General Flight Rules*, 22 October 2010
- AFI 11-207, *Combat Aircraft Delivery*, 24 October 2007
- AFI 11-212, *Munitions Requirements for Aircrew Training*, 8 April 2009
- AFI 11-214, *Air Operations Rules and Procedures*, 22 December 2005
- AFI 11-218, *Aircraft Operations and Movement on the Ground*, 11 May 2005
- AFI 11-290, *Cockpit/Crew Resource Management Training Program*, 11 April 2001
- AFI 11-301 Volume 1, *Aircrew Flight Equipment Program*, 25 February 2009
- AFI 11-401, *Aviation Management*, 10 December 2010
- AFI 11-401 ACC Supplement, *Aviation Management*, 7 March 2007, Incorporating Change 1, 13 August 2007
- AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Aviation Badges*, 13 December 2010
- AFI 11-403, *Aerospace Physiological Training Program*, 20 February 2001
- AFI 11-412, *Aircrew Management*, 10 December 2009
- AFI 11-415, *Weapons and Tactics Programs*, 17 August 2010
- AFI 11-421, *Aviation Resource Management*; 13 December 2010
- AFMAN 11-210, *Instrument Refresher (IRP) Program*, 03 February 2005
- AFMAN 11-217 Volume 1, *Instrument Flight Procedures*, 22 October 2010
- AFPD 11-2, *Aircraft Rules and Procedures*, 14 January 2005
- AFPD 11-4, *Aviation Service*, 1 September 2004
- ACCI 14-250, *Command Collection Management*, 11 October 2006
- AFI 14-105, *Unit Intelligence Mission and Responsibilities*, 03 June 2002

AFI 16-402, *Aerospace Vehicle Programming, Assignment, Distribution, Accounting and Termination*, 1 December 2009

AFI 16-1301, *Survival, Evasion, Resistance, and Escape (SERE) Program*, 6 September 2006

AFI 31-207, *Arming and Use of Force by Air Force Personnel*, 29 January 2009

AFI 33-201 Volume 1, *Communications Security (COMSEC)*, 1 May 2005

AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*, 01 June 2000

AFI 33-360, *Publications and Forms Management*, 18 May 2006

AFMAN 33-363, *Management of Records*, 1 March 2008

ACCI 36-2252, *ACC Formal Operations Training*, 22 June 2010

AFI 36-2226, *Combat Arms Program*, 24 February 2009

AFI 36-2238, *Self-Aid and Buddy Care Training*, 19 Jan 2006

AFI 48-123 Volume 3, *Medical Examination And Standards*, 24 September 2009

AFOSHSTD 48-139, *Laser Radiation Protection Program*, 10 December 2009

AFI 51-401, *Training and Reporting to Ensure Compliance with the Law of Armed Conflict*, 19 July 1994

AFPD 51-4, *Compliance with the Law of Armed Conflict*, 26 April 1993

AFI 91-202, *The US Air Force Mishap Prevention Program*, 01 August 1998

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Prevention and Health (AFOSH) Program*, 01 June 1996

AFTTP 3-1. *General Planning*, 17 February 2010

AFTTP 3-1. *Threat Guide*, 2 July 2010

AFTTP 3-1.B-1, *Tactical Employment-- B-1 (Classified)*

AFTTP 3-3.B-1, *Combat Aircraft Fundamentals-- B-1* AFTTP 3-2.59, *Kill Box*, August 2009

AFTTP 3-2.78, *Strike Coordination and Reconnaissance*, November 2008

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

**NOTE:** List of reference publications is provided only as an initial reference. Publication information may change as requirements change and the list may not include all applicable directives.

**Adopted Forms**

AF Form 847, *Recommendation for Change of Publication*

AF Form 4348, *USAF Aircrew Certifications*, 12 December 2006

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*.

***Abbreviations and Acronyms***

**A3**—Director of Operations

**A/A**—Air-to-Air

**A/G**—Air-to-Ground

**AATTC**—Advanced Airlift Tactics Training Center

**AC**—Aircraft Commander

**ACC**—Air Combat Command

**ACCI**—Air Combat Command Instruction

**ACDE**—Aircrew Chemical Defense Ensemble

**AETC**—Air Education and Training Command

**AF**—Air Force

**ARMS**—Aviation Resource Management System

**AFRC**—Air Force Reserve Command

**AFRICOM**—Africa Command

**AFRL**—Air Force Research Laboratory

**AGL**—Above Ground Level

**AGM**—Air-to-Ground Missile

**AI**—Air Interdiction

**AILA**—Airborne Instrument Landing Approach

**ANG**—Air National Guard

**AOC**—Air Operations Center

**AOR**—Area of Responsibility

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

**AR**—Air Refueling

**ATD**—Aircrew Training Device

**AWACS**—Airborne Warning & Control System

**B**—Basic (Initial)

**BAQ**—Basic Aircraft Qualification

**BHA**—Bomb Hit Assessment

**BLOS**—Beyond Line Of Site

**BMC**—Basic Mission Capable  
**BS**—Bomb Squadron  
**C2**—Command and Control  
**C&R**—Collection and Reporting  
**CAF**—Combat Air Forces  
**CAS**—Close Air Support  
**CAT**—Category  
**CBI**—Computer Based Instruction  
**CBU**—Cluster Bomb Unit  
**CC**—Commander  
**CC-coded**—Combat Aircraft Purpose Identifier Code  
**CENTCOM**—Central Command  
**CEP**—Circular Error Probable  
**CDE**—Collateral Damage Estimate  
**CIRVIS**—Communication Instructions Reporting Vital Intelligence Sighting  
**CMDP**—Common Mission Debrief Program  
**CMR**—Combat Mission Ready  
**C-NAF**—Component Numbered Air Force  
**CNMS**—Communications Navigation Management System  
**COMACC**—Commander, Air Combat Command  
**CPEX**—Combat Planning Exercise  
**CPS**—Consolidated Planning Schedule  
**CPT**—Cockpit Procedures Trainer  
**CRC**—Control & Reporting Center  
**CRM**—Crew Resource Management  
**CSAR**—Combat Search and Rescue  
**CST**—Combat Survival Training  
**CT**—Continuation Training  
**CV**—Vice Commander or Cornering Velocity  
**CW**—Chemical Warfare  
**CWD**—Chemical Warfare Defense  
**D**—Demonstration

**DCI**—Digital Communications Improvement  
**DD**—Degraded Delivery  
**DLO**—Desired Learning Objectives  
**DMO**—Distributed Mission Operations  
**DMPI**—Desired Mean Point of Impact  
**DNIF**—Duty Not Involving Flying  
**DO**—Director of Operations  
**DOC**—Designed Operational Capability  
**DRU**—Direct Reporting Unit  
**DSO**—Defensive Systems Officer  
**DT**—Dynamic Targeting  
**E**—Experienced Crewmember  
**E&R**—Escape and Recovery  
**EA**—Electronic Attack  
**EC**—Electronic Combat  
**EEL**—Essential Elements of Information  
**EMCON**—Emissions Control  
**EP**—Electronic Protection/Emergency Procedure  
**ETCA**—Education & Training Course Announcements  
**EUCOM**—European Command  
**EW**—Electronic Warfare  
**EXORD**—Execute Order  
**F**—Familiarization  
**FAC**—Forward Air Controller  
**FAM**—Familiarization  
**FIC**—Flight Instructor Course  
**FL**—Flight Lead  
**FLUG**—Flight Lead Upgrade  
**FOV**—Field of View  
**FS**—Flight Surgeon/Aircrew Physician  
**FTU**—Formal Training Unit  
**G**—Gravitational Load Factor

**GBU**—Guided Bomb Unit  
**GD**—Guided Delivery  
**GLO**—Ground Liaison Officer  
**GMTI**—Ground Moving Target Indicator  
**GPS**—Global Positioning System  
**HASD**—High Altitude Systems Delivery  
**HF**—High Frequency/Height Finder  
**HHD**—Higher Headquarters Directed  
**HHQ**—Higher Headquarters  
**I**—Inexperienced Crewmember  
**IAW**—In Accordance With  
**IFF**—Identification, Friend or Foe  
**ILS**—Instrument Landing System  
**IMC**—Instrument Meteorological Conditions  
**INFLTREP**—Inflight Report  
**INS**—Inertial Navigation System  
**INTREP**—Intelligence Report  
**IOS**—Instructor Operator Station  
**IP**—Instructor Pilot  
**IQC**—Initial Qualification Course  
**IQT**—Initial Qualification Training  
**IR**—Infrared  
**IRC**—Instrument Refresher Course  
**ISOPREP**—Isolated Personnel Report  
**ISR**—Intelligence, Surveillance & Reconnaissance  
**IWSO**—Instructor Weapon Systems Officer  
**JASSM**—Joint Air-to-Surface Standoff Missile  
**JDAM**—Joint Direct Attack Munition  
**JTAC**—Joint Terminal Attack Controller  
**LAAT**—Low Altitude Awareness Training  
**LAHD**—Low Altitude High Drag  
**LALD**—Low Altitude Low Drag

**LAO**—Local Area Orientation  
**LAR**—Launch Acceptability Region  
**LASD**—Low Altitude Systems Delivery  
**LCTP**—Laptop Controlled Targeting Pod  
**LGB**—Laser Guided Bomb  
**LIMFAC**—Limiting Factors  
**LOS**—Line-of-sight  
**LOWAT**—Low Altitude Training  
**LP**—Launch Point  
**LSS/LST**—Laser Spot Search/Laser Spot Track  
**MAJCOM**—Major Command (i.e. ACC)  
**MASD**—Medium Altitude Systems Delivery  
**MCC**—Mission Commander  
**MDS**—Mission Design Series  
**MDT**—Mission Directed Training  
**MFPPF**—Minefield Planning Folder  
**MISREP**—Mission Report  
**MLUG**—Mission Lead Upgrade  
**MM**—Monopulse Measurement  
**ML**—Mission Lead  
**MML**—Multi-ship Mission Lead  
**MO**—Maritime Operations  
**MOA**—Military Operating Area  
**MPC**—Mission Planning Cell  
**MQT**—Mission Qualification Training  
**MR**—Mission Ready  
**MSA**—Minimum Safe Altitude  
**MSL**—Mean Sea Level  
**MT**—Mission Trainer  
**MUTES**—Multiple Threat Emitter System  
**N/A**—Not Applicable  
**NAF**—Numbered Air Force

**NAV**—Navigation  
**NCST**—Non-Combat Survival Training  
**NLT**—Not Later Than  
**NORTHCOM**—Northern Command  
**NTF**—Night Terrain Following  
**NVG**—Night Vision Goggles  
**NWS**—Navigation Weapons Scoring  
**OAS**—Offensive Avionics System  
**OCA**—Offensive Counterair  
**OCA-AO**—Offensive Counterair-Attack Operations  
**OG**—Operations Group  
**OPLAN**—Operational Plan  
**OPR**—Office of Primary Responsibility  
**OPCON**—Operational Control  
**OSO**—Offensive Systems Officer  
**OSS**—Operations Support Squadron  
**P**—Pilot/Proficient  
**PACOM**—Pacific Command  
**PCS**—Permanent Change of Station  
**PFT**—Programmed Flying Training  
**PIC**—Pilot in Command  
**PROF**—Proficient  
**QUAL**—Qualification  
**RDS**—Records Disposition Schedule  
**RO**—Release Option  
**ROE**—Rules of Engagement  
**RMM**—Removable Memory Module  
**RPA**—Remotely Piloted Aircraft  
**RTC**—Requalification Training Course  
**SA**—Surface Attack/Situational Awareness/Strategic Attack  
**SAE**—Situation Awareness Enhancement  
**SAFE**—Secure Area for Evasion

**SAM**—Surface-to-Air Missile  
**SAT**—Surface Attack Tactics  
**SATCOM**—Satellite Communication  
**SCAR**—Strike Coordination and Reconnaissance  
**SCARC**—Strike Coordination and Reconnaissance Coordinator  
**SCL**—Standard Conventional Load  
**SCP**—Set Clearance Plane  
**SEAD**—Suppression of Enemy Air Defenses  
**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  
**SIMCERT**—Simulator Certification  
**SML**—Single-ship Mission Lead  
**SOUTHCOM**—Southern Command  
**SOW**—Standoff Weapons  
**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  
**TDS**—Target Direct Shot  
**TDY**—Temporary Duty  
**TF**—Terrain Following or Training Coded Aircraft  
**TGP**—Targeting Pod  
**TO**—Takeoff(s)/Technical Order  
**TOO**—Target of Opportunity  
**TR**—Training Rule

**TRSS**—Training Support Squadron  
**TSS**—Training Systems Squadron  
**TST**—Time Sensitive Targeting  
**TTI**—Time to Impact  
**TX**—Training Course  
**UCMJ**—Uniform Code of Military Justice  
**UCML**—Unit Committed Munitions List  
**UMD**—Unit Manning Document  
**USAF**—United States Air Force  
**USAFWS**—United States Air Force Weapons School  
**VDL**—Video Downlink  
**WCMD**—Wind Corrected Munitions Dispenser  
**WG**—Wing  
**WIC**—Weapons Instructor Course  
**WISS**—Weapon Impact Scoring Set  
**WS**—Weapons School  
**WSO**—Weapon Systems Officer  
**WST**—Weapon System Trainer

### *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. Academics prepare aircrew for flight training and are normally completed before flight training.

**Aircraft Commander (AC)**—The individual certified to perform B-1 aircrew duties, designated on the Flight Authorization as the pilot responsible for the safe and efficient conduct of flight operations.

**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.

**Aircrew Position Indicator (API) Codes**—Codes assigned to identify rated officer and career enlisted aviator (CEA) inventory. See AFI 11-401, *Aircrew Management*, for further details.

**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 crewmembers until completion of MQT. BAQ is not a permanent qualification except for General Officers above the wing level, API 6/8 crewmembers in designated Test Squadrons located at a base without B-1 aircraft, and any other crewmembers specifically authorized by MAJCOM A3. Flight duties will be limited to those identified in [paragraph 4.3](#)

**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. Crewmembers accomplish 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 crewmembers may also maintain special capabilities. (Refer to [paragraph 4.3](#))

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

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

**Close Air Support (CAS)**—Mission flown in support of ground forces (actual or simulated) under the control of a Joint Terminal Attack Controller (JTAC), 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 JTAC 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](#))

**Combat Planning Exercise (CPEX)**—Unit designed mission planning exercise against current target and threat sets reflective the unit’s DOC statement.

**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.

**Distributed Mission Operations (DMO)**—Networked simulator training integrating DMO battlespace by linking high fidelity combat and combat support training devices to exercise to permit training at the operational and strategic levels of war while facilitating unit-level training.

**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.

**Familiar (FAM)**—Crewmember has a basic knowledge of mission area and may make errors of omission or commission. Crewmember is able to operate in a permissive environment and is able to handle some basic contingencies and unusual circumstances. Familiar crewmember may need additional training prior to first mission tasking.

**Flag Exercise**—Realistic combat training exercise involving the air forces of the United States and its allies (e.g. Red Flag, Green Flag, Maple Flag, etc.).

**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.

**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 11-202 Volume 3, *General Flight Rules*, (i.e. 16 hours for the B-1).

**Long Haul DMO**—Connection of simulators across the DMO network outside organic Wing assets.

**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)

**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](#))

**Multi-ship Mission Lead (MML)**—The crewmember responsible for developing an overall 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. Also known as "radar targeting".

**Mountainous Terrain Following**—TF over terrain that varies more than 1,000 feet in elevation within 10 NM of the flight path track line.

**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.

**Proficient (PROF)**—Crewmember has a thorough knowledge of mission area but occasionally may make an error or omission or commission. Crewmember is able to operate in a complex, fluid environment and is able to handle most contingencies and unusual circumstances. Proficient crewmembers are prepared for mission taskings on the first sortie in theater.

**Radar Targeting**—The process of using the B-1 radar to accurately determine target coordinates and elevation. Also known as "monopulse measurement".

**Requalification Training (TX-2)**—Training necessary to requalify aircrew in the aircraft.

**Single-ship Mission Lead (SML)**—The crewmember responsible for overall developing a plan for accomplishing the mission from preflight preparation/briefing to post flight debriefing, regardless of actual crew position. The AC retains responsibility for the overall safe conduct of the mission.

**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 FL, MML, MCC, etc.

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

**Surface Attack Tactics (SAT)**—Strategic Attack (SA), Air Interdiction (AI), and Offensive Counterair-Attack Operations (OCA-AO) training that includes tactical mission planning and weapons delivery IAW unit tasking, simulating UCML munitions, and SCLs against a tactical target.

**Tactics and Training Range (TTR)**—Sites capable of 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., 4.2.4.** and **Attachment 3.**

**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.

**Weapons System Officer (WSO)**—An individual qualified in both the DSO and OSO crewmember 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 RAP MISSION/SORTIE AND EVENT DESCRIPTIONS

**A2.1. RAP Mission Definitions.** The following is a listing of training missions required to fulfill tasked requirements. Only one RAP mission may be logged per sortie or WST. Requirements to log effective RAP mission types are contained within each mission description.

**A2.1.1. Surface Attack (SAT) – Strategic Attack (SA), Air Interdiction (AI), and Offensive Counterair-Attack Operations (OCA-AO) mission designed to strike pre-fragged targets with guided or unguided weapons, delivered from medium or low altitude, in a robust threat environment, using single-ship and formation tactics. Critical skills include:**

- A2.1.1.1. JDAM employment
- A2.1.1.2. WCMD employment
- A2.1.1.3. MM/Radar targeting (guided and unguided weapons)
- A2.1.1.4. Pattern Management of weapons (guided)
- A2.1.1.5. Large scale multiple weapons bay simultaneous releases
- A2.1.1.6. Multiple target area bomb runs
- A2.1.1.7. Defensive tactics against surface and airborne threats
- A2.1.1.8. Operation in a contested EMS environment
- A2.1.1.9. Low altitude ingress and egress tactics (TF and visual contour)
- A2.1.1.10. Package integration with strike, OCA, and SEAD assets
- A2.1.1.11. Mixed weapons bay loadout employment – GMTI targeting
- A2.1.1.12. Unguided (MK82, MK84, CBU) weapons employment

**A2.1.2. Surface Attack - Standoff Weapons Employment (SOW) – Strategic Attack (SA), Air Interdiction (AI), and Offensive Counterair-Attack Operations (OCA-AO) mission designed to strike planned and dynamic targets with JASSM to an opposed target area, delivered from medium altitude in a permissive launch area, using single-ship and formation tactics. Critical skills include:**

- A2.1.2.1. JASSM planning and employment
- A2.1.2.2. Target Data Set (TDS) employment (RO-1 and RO-3)
- A2.1.2.3. Target of Opportunity (TOO) employment (direct and waypoint)
- A2.1.2.4. Large scale multiple weapons bay simultaneous releases
- A2.1.2.5. Multiple target areas
- A2.1.2.6. Package integration with strike, OCA, and SEAD assets
- A2.1.2.7. Weapon deconfliction planning
- A2.1.2.8. Operation in a contested EMS environment
- A2.1.2.9. Low altitude ingress and egress tactics (TF and visual contour)

**A2.1.3. Dynamic Targeting** – Mission designed to strike dynamically located surface targets using onboard and offboard cueing employing flexible weapons loadouts of guided and/or unguided weapons, delivered from medium altitude, in a robust threat environment, in adverse weather, in a contested EMS environment, using single-ship or formation tactics.

**Critical skills include:**

- A2.1.3.1. MM/Radar targeting Airborne interdiction of maritime targets
- A2.1.3.2. TGP operations
- A2.1.3.3. Pattern management of weapons
- A2.1.3.4. 14-Line TST procedures
- A2.1.3.5. Package integration with strike, OCA, and SEAD assets
- A2.1.3.6. Defensive tactics against surface and airborne threats
- A2.1.3.7. Operation in a contested EMS environment
- A2.1.3.8. Mixed loadout employment
- A2.1.3.9. Kill-box interdiction
- A2.1.3.10. Armed Reconnaissance
- A2.1.3.11. Strike Coordination and Reconnaissance (SCAR)
- A2.1.3.12. GMTI targeting
- A2.1.3.13. Battle Damage Assessment (BDA) confirmation / bomb hit assessment (BHA)
- A2.1.3.14. Maritime air support
- A2.1.3.15. Air interdiction of maritime targets
- A2.1.3.16. Maritime surveillance and aerial reconnaissance

**A2.1.4. Close Air Support (CAS)** – Mission designed to strike targets in close proximity to ground forces, in a semi-permissive threat environment, in adverse weather, using single-ship or formation tactics. Emphasis is on detailed coordination with ground parties while under positive control of a simulated or actual JTAC/FAC to find, fix, track, target, engage, and assess static and mobile targets. **Critical skills include:**

- A2.1.4.1. MM/Radar targeting
- A2.1.4.2. TGP Operations
- A2.1.4.3. Pattern management of weapons
- A2.1.4.4. Show of Force/Show of Presence (TF and visual contour)
- A2.1.4.5. MANPAD and AAA defensive tactics
- A2.1.4.6. Mixed loadout employment
- A2.1.4.7. Special Operations Forces integration
- A2.1.4.8. Show of Force/Show of Presence (TF and visual contour)

A2.1.4.9. Special Operations Forces integration

A2.1.4.10. Emergency CAS considerations

A2.1.4.11. Convoy escort

A2.1.4.12. Non-traditional ISR

A2.1.4.13. Remotely Operated Video Enhanced Receiver (ROVER)

A2.1.4.14. Battle Damage Assessment (BDA) confirmation / bomb hit assessment (BHA)

A2.1.4.15. Digital CAS TTP

A2.1.5. **Maritime Operations** – Mission designed to strike static and dynamic maritime targets from medium altitude or employ maritime minefields from low altitude, typically in a permissive threat environment, in adverse weather, using single-ship and formation tactics.

**Critical skills include:**

A2.1.5.1. JDAM employment in maritime environment

A2.1.5.2. WCMD employment in maritime environment

A2.1.5.3. Onboard sensor find, fix, track, target, engage, and assess (F2T2ES) (TGP, GMTI/GMTT)

A2.1.5.4. Offboard sensor F2T2ES (JSTARS, P-3, etc.)

A2.1.5.5. Naval C2 integration

A2.1.5.6. Weaponing and identification of surface vessels

A2.1.5.7. Unguided weapons employment

A2.1.5.8. Maritime minefield planning and low altitude (below 1,000 ASL) employment of MK-62 and MK-65 mines

A2.1.5.9. Maritime air support

A2.1.5.10. Air interdiction of maritime targets

A2.1.5.11. Maritime surveillance and aerial reconnaissance

A2.1.6. **Commander Option Sortie (CC Opt)**. Any one of the RAP sorties (e.g. SA, SOW, CAS, DT, MO) the commander designates. Unit commanders will allocate these sorties IAW C-NAF priorities or unit preparation to deploy messages.

**A2.2. RAP Mission Enablers.** The following is a listing of training mission enablers required to fulfill tasked requirements. Mission enablers may be dual logged with RAP missions. More than one mission enabler may be logged for RAP per training mission. Requirements to log effective RAP mission enablers are contained within each enabler description.

A2.2.1. **Night Employment** – Mission flown between the end of civil twilight and the beginning of morning civil twilight to utilize the inherent defensive attributes of night operations to achieve an asymmetrical advantage over the enemy. Night employment requires increased aircrew vigilance and proficiency with instrument procedures and radar

lookout. To receive credit at least 50% of scheduled tactical activity must be accomplished at night. **Critical skills include:**

- A2.2.1.1. NVG operations
- A2.2.1.2. Night formation station keeping/rendezvous using A/A radar
- A2.2.1.3. Instrument penetration and approach procedures
- A2.2.1.4. Night air refueling
- A2.2.1.5. Night/IMC terrain following
- A2.2.1.6. Night threat mitigation tactics

A2.2.2. **Contested/Degraded Operations** – Mission designed to train aircrew to effectively operate in a contested electro-magnetic spectrum (EMS) mission environment. Emphasis is on inflight operations with degraded or denied GPS which impacts navigation and/or weapons capability. **Critical skills include:**

- A2.2.2.1. INS-only navigation
- A2.2.2.2. INS-only weapon delivery tactics
- A2.2.2.3. INS-only weaponeering considerations
- A2.2.2.4. Operations without the use of moving map
- A2.2.2.5. Adversarial jamming environment (DRFM)
- A2.2.2.6. Communications jamming/denied environment (datalink, voice, LOS, SATCOM)

A2.2.3. **Formation Tactics** – Mission designed to utilize the inherent mutual support afforded by employing 2-ship formations for offensive and defensive tactics. **Critical skills include:**

- A2.2.3.1. Spike discrimination tactics
- A2.2.3.2. Target sorting
- A2.2.3.3. Formation applicability (wedge, line-abreast, stream, trail, low-altitude vis form)
- A2.2.3.4. Multi-axis guided weapon delivery
- A2.2.3.5. Weapon frag deconfliction
- A2.2.3.6. Contingency planning (aircraft fallout, fly-up, reattack, get-well, contracts)
- A2.2.3.7. Expected wingman positioning for mutual support
- A2.2.3.8. Radar search plans

A2.2.4. **Defensive Employment** – Mission designed to comprehensively train aircrew in B-1 defensive tactics with specific focus on performance and handling characteristics, defensive systems operations, defensive maneuvers, formation management (if applicable), threat-driven maneuver application, and effective communications. **Critical skills include:**

A2.2.4.1. High and low altitude AFTTP 3-1.B-1 and AFTTP 3-3.B-1 maneuvers and tactics

A2.2.4.2. DAS ground / in-flight procedures

A2.2.4.3. Effective employment of the ALQ-161 and the AN/APQ-164 against surface and air threats

A2.2.4.4. Threat ID, ambiguity resolution, threat triggers

A2.2.4.5. EXCM usage

A2.2.4.6. Low altitude transition procedures

A2.2.4.7. Effective inter-plane and strike communications

A2.2.5. **Integrated Tactics** – Mission designed to increase effectiveness through the integration of multiple assets and capabilities. Integrated tactics require coordination with other C2, OCA, SEAD, and strike assets to effectively utilize, deconflict, and manage package assets. **Critical skills include:**

A2.2.5.1. Develop communications plan

A2.2.5.2. Deconflict assets using time, altitude and/or geography

A2.2.5.3. Deconflict weapon deliveries

A2.2.5.4. Development employment contracts for threat mitigation and weapons delivery

A2.2.6. **Targeting Pod Operations** – Mission requiring full integration of targeting pod capabilities as an advanced sensor to augment B-1 capabilities to find, fix, track, target, engage, and assess fixed and mobile targets in a static or dynamic environment. **Critical skills include:**

A2.2.6.1. Buddy lasing tactics (AGM-114/LGBs)

A2.2.6.2. BHA maneuvers

A2.2.6.3. LSS/LST

A2.2.6.4. Targeting pod correlation with other sensors

A2.2.6.5. VDL target talk-on

A2.2.6.6. Combat identification

A2.2.6.7. CDE mitigation

A2.2.6.8. Fast search/slow search pod tactics

A2.2.6.9. Target acquisition, designation, and weapons delivery

A2.2.6.10. IR marker correlation tactics

A2.2.7. **Air Refueling Operations** – Requires day and/or night single-ship and formation rendezvous and refueling operations with a tanker(s). **Critical skills include:**

A2.2.7.1. Enroute rendezvous

A2.2.7.2. Point parallel rendezvous

A2.2.7.3. Bomber turn-on rendezvous

A2.2.7.4. Refueling operations

A2.2.8. **Tactical Communications Operations** – Requires proper configuration and use of secure and datalink communications during tactical mission accomplishment. Specifically focus on operations in degraded or denied datalink environment or communications environment that provides realistic effects (intervals and duration of noise, buzzer, jam, tones, etc) without use of active anti-jam radios (HaveQuick) and/or chattermark/backup radio procedures to counter jamming. **Critical skills include:**

A2.2.8.1. DCI operations

A2.2.8.2. Have Quick operations

A2.2.8.3. Secure voice

A2.2.8.4. SATCOM

A2.2.8.5. Inflight operations in communications jamming

A2.2.8.6. Inflight operations in datalink jamming

A2.2.9. **Emergency/Instrument Procedures** – Integrated aircrew WST mission designed to review aircraft systems operations/limitations, abnormal/emergency procedures, and ensure instrument proficiency during realistic scenarios not normally available in flight. Profile should include a minimum of two emergency procedures per phase of flight (i.e. pre-takeoff, takeoff, cruise, tactical employment and landing) and all Bold Face procedures. **Critical Skills include:**

A2.2.9.1. Standby instrument procedures

A2.2.9.2. Strange field approach

A2.2.9.3. Approach to minimums

A2.2.9.4. Heavy weight takeoff/abort/continuation procedures

A2.2.9.5. Low visibility takeoff

A2.2.9.6. Engine failed takeoff

A2.2.9.7. Spatial disorientation

A2.2.9.8. Instrument penetration

A2.2.9.9. Holding procedures (random and chartered)

A2.2.9.10. CNMS flight planning operations

A2.2.9.11. Weapon malfunctions

A2.2.9.12. Weapon jettison

A2.2.9.13. System malfunctions

A2.2.9.14. Critical action/boldface procedures

A2.2.9.15. TF malfunctions

**A2.3. RAP Event and Currency Definitions.** Unless otherwise specified in these event descriptions, units will determine the necessary parameters for fulfilling and/or logging tasked events.

A2.3.1. **Takeoff.** 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 takeoff while performing PNF duties.

A2.3.2. **Landing.** Credit only to the pilot flying.

A2.3.3. **Night Landing.** May be logged when landing accomplished between the hours of official sunset and sunrise. Credit only to the pilot flying. Accomplishing a Night Landing dual-credits Day Landings for currency only.

A2.3.4. **Instrument Approach.** 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.

A2.3.5. **Air Refueling (AR).** To receive credit, contact must be maintained for a sufficient time to demonstrate the ability to receive onloads commensurate with unit taskings. Contact time does not apply to Higher Headquarters Directed (HHD) missions. Credit only to the pilot flying.

A2.3.6. **Night AR.** May be logged when the requirements of [A2.3.5](#) are met between the hours of official sunset and sunrise. Accomplishing Night AR dual-credits Day AR for currency only.

A2.3.7. **Visual Contour.** To receive credit, at least 10 minutes of visual contour flight must be flown. Credit only to the pilot flying.

A2.3.8. **Terrain Following (TF).** To receive credit, at least 10 minutes of actual TF must be flown. Event should include a flyup and TF set clearance plane changes if training environment permits. Any intentionally generated flyups are restricted IAW AFI 11-2B-1 Volume 3, *B-1—Operations Procedures*. Log a TF event for each 10 minutes of TF flown.

A2.3.9. **Terrain Following Night/IMC (TF Night/IMC).** To receive credit, at least 10 minutes of actual TF at night or in IMC must be flown. Event should include a flyup and TF set clearance plane changes if training environment permits. Any intentionally generated flyups are restricted IAW AFI 11-2B-1 Volume 3, *B-1—Operations Procedures*. Pilot must be current in TF to accomplish TF Night/IMC unsupervised

A2.3.10. **Low Altitude Visual Formation.** Accomplish this activity IAW AFTTP 3-3.B-1, *Combat Aircraft Fundamentals-- B-1*, and AFI 11-2B-1 Volume 3, *B-1—Operations Procedures*. A minimum of 10 minutes formation is required. Must fly Wedge position below 5,000 feet AGL to receive credit.

A2.3.11. **Threat Activity.** To receive credit, WSO must detect a surface or airborne threat via electronic means, applies electronic combat procedures and techniques, request appropriate maneuvers, and/or employ expendables (simulated or actual). WSO must occupy the DSO position to receive credit. Instructor WSOs may update from the OSO position when providing instruction to the DSO during threat activity.

**A2.4. Pilot Instrument/Emergency Procedure Event Definitions.**

A2.4.1. **No Slat/Flap Touch-Go.** Credit only to the pilot flying.

A2.4.2. **Off Station Instrument Transition.** Perform at least two instrument approaches or one instrument approach and one visual approach at an airfield other than home station.

## **A2.5. Weapon Event Definitions.**

A2.5.1. **JDAM Release** – Simulated or actual release of any JDAM variant (GBU-31/GBU-38/GBU-54). Properly configure all weapon release systems to effect release at the associated LAR/LP.

A2.5.2. **JASSM Release** – Simulated or actual release of any JASSM variant (AGM-158A or B). Properly configure all weapon release systems to effect release for the required delivery.

A2.5.3. **WCMD Release** – Simulated or actual release of any WCMD variant (CBU-103/104/105). Properly configure all weapon release systems to effect release for the required delivery.

A2.5.4. **Guided Weapon Attempt** – Simulated or actual guided weapon attempt of any JDAM, JASSM, or WCMD variant. A guided weapon attempt will be logged anytime the aircrew intends to deliver a weapon at the planned LAR/LP, regardless if the aircrew is successful or not. Credible to only the OSO and Pilot Flying.

A2.5.5. **Guided Weapon Hit** – Mission lead assessed guided weapon hit in accordance with qualification criteria established in AFI 11-2B-1 Volume 1, Chapter 5.

A2.5.6. **CBU Release** - Simulated or actual unguided weapon attempt of any CBU variant (CBU-87/89). Properly configure all weapon release systems to effect release at the BRL.

A2.5.7. **MK-84 Release** - Simulated or actual unguided MK-84 weapon attempt. Properly configure all weapon release systems to effect release at the BRL.

A2.5.8. **MK-82 Release** - Simulated or actual unguided weapon attempt of any MK-82 variant (MK-82A/LD). Properly configure all weapon release systems to effect release at the BRL.

A2.5.9. **MK-62/65 Release** - Simulated or actual unguided weapon attempt of any Quick Strike Mine variant. Properly configure all weapon release systems to effect release at the BRL.

A2.5.10. **Unguided Weapon Attempt** – Simulated or actual unguided weapon attempt of any CBU, MK-84/82/62/65 variant. A unguided weapon attempt will be logged anytime the aircrew intends to deliver a weapon at the planned BRL, regardless if the aircrew is successful or not. Credible to only the OSO and Pilot Flying.

A2.5.11. **Unguided Weapon Hit** – Mission lead assessed unguided weapon hit in accordance with criteria established in AFI 11-2B-1 Volume 1, Chapter 5.

A2.5.12. **Actual Chaff Event.** 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 sortie. WSO must occupy the DSO position to receive credit. Pilot may initiate per DSO direction and still receive credit.

A2.5.13. **Actual Flare Event.** 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 sortie. WSO must occupy the DSO position to receive credit. Pilot may initiate per DSO direction and still receive credit.

A2.5.14. **Actual Weapon Release.** May be accomplished at any altitude using live weapons, inert shapes, or other training weapons. WSO must occupy the OSO position to receive credit.

## **A2.6. Special Capability Definitions.**

A2.6.1. **Mission Commander Sortie (MCC).** Joint/Composite Force mission where crewmember is the MCC and is responsible for two or more types of aircraft and four or more aircraft, or more than two B-1 aircraft versus a minimum of two preplanned adversary aircraft.

A2.6.2. **JASSM Planner.** JASSM planning exercise. Must be certified as a JASSM Planner to log.

A2.6.3. **Quickstrike Planner.** Mk-62 or Mk-65 Quickstrike mine mission planning exercise. Must be certified as a Quickstrike Planner to log.

A2.6.4. **SCAR-C.** Mission flown as a SCAR-C with dissimilar SCAR assets. To accomplish the SCAR-C requirement, use of a targeting pod is required. Must be certified as a SCAR-C to log.

## ATTACHMENT 3

### VERIFICATION GUIDE

**A3.1. Guideline for Verification Briefings:** The following outlines are provided as guidelines for the development of certification or verification briefings.

**A3.1.1. Overview:**

A3.1.1.1. Introduction (participants and briefing classification).

A3.1.1.2. Mission overview.

A3.1.1.3. Status of friendly forces (ground, air, and support).

**A3.1.2. Area of Operations:**

A3.1.2.1. Geography (topography, population centers, lines of communications, chokepoints and natural obstacles, major visual and radar significant identification points).

A3.1.2.2. Climatology (effects on unit operations, ground troop movements, and inflight operations).

A3.1.2.3. Operating base (location, facilities, procedural constraints, strengths and limitations).

**A3.1.3. Status of Enemy Forces:**

A3.1.3.1. Ground forces and accompanying air defense threats (IADS (critical nodes), EW radars, SAMs, Anti Aircraft Artillery (AAA), EC, and MIJI), capabilities, strengths and weaknesses.

A3.1.3.2. Airborne forces (numbers, locations, capabilities and tactics).

**A3.1.4. Mission Employment Briefing:**

A3.1.4.1. Ground operations.

A3.1.4.2. Departure (contingencies, options).

A3.1.4.3. Route of flight (threat analysis, alternatives, fuel requirements, decision points).

A3.1.4.4. Target ingress (IP-to-target specifics, tactics).

A3.1.4.5. Weapons employment (target data, DMPI, attack parameters, load, fusing, suitability, delivery modes/backups).

A3.1.4.6. Egress plan (route, mutual support agreements).

A3.1.4.7. Reattack plan/options.

A3.1.4.8. Downed crewmember/wounded bird plan.

A3.1.4.9. Recovery (safe corridor procedures, IFF procedures, alternate and emergency airfields).

**A3.1.5. Escape and Evasion:**

A3.1.5.1. SAFEs.

A3.1.5.2. SAR procedures.

A3.1.6. **Essential Elements of Information/Reports:**

A3.1.6.1. Essential elements of information (EEIs).

A3.1.6.2. Required reports and reporting procedures.

## ATTACHMENT 4

### GLOBAL POWER TRAINING

**A4.1. General.** Global Power is the unclassified term for ACC-tasked bomber out-of CONUS long-range conventional strike employment-deployment capabilities needed to respond to the spectrum of Air Expeditionary Force engagement scenarios. Global Power by itself is unclassified, although any exercises it may be associated with may be classified. The goal of Global Power sorties is to increase unit combat capability by providing robust and realistic training opportunities in the global arena, involving multiple Areas of Responsibility (AOR). Global Power missions are not intended to be an aircrew training requirement only, but rather a requirement for the entire unit, allowing each part of the war fighting 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. There is also the potential for these sorties to have much broader shaping or deterrent effects by demonstrating to our allies and adversaries, long-range aviation operations, activities, and capabilities. Office of Primary Responsibility is ACC/A300, DSN 574-7730.

**A4.2. Command Relationships.** The execution order (EXORD) for HHD missions will specify command relations. For most training missions Operational Control (OPCON) will remain with CDRUSJFCOM. The supported commander has Tactical Control (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 Administrative Control (ADCON), to include force protection and concurrent UCMJ authority, are also granted to the supported commander for deployment/diverts into the AOR.

**A4.3. Global Power Mission Requirements.**

A4.3.1. As a minimum, a Global Power sortie must depart the Continental United States (CONUS) and/or exit the Air Defense Identification Zone (ADIZ), conduct weapons activity (actual or simulated on a case by case approval basis), and exercise under the direct control of an Air Operations Center (AOC). Although not required, air refueling and entering/exiting another AOR meet the intent of improving long-range combat capability and are preferred. Sortie profiles should include a robust target set, a credible threat environment and varied mission tasks including a realistic Command and Control architecture. Targets, weapons, threats, C2 and tasks will be simulated when the sortie lacks actual training opportunities.

A4.3.2. Each sortie must be a minimum of 13 hours. A goal is for crews to experience the physiological effects of long duration flight and practice the required mitigation measures. The length of the Global Strike mission will depend upon the actual sortie profile and scenario.

**A4.4. Funding.** For specified Global Power missions ACC/A30 will fund TDY, per diem, and billeting costs of operation and maintenance personnel supporting the mission. ACC/A30 will

approve funding for Global Power missions on a case-by-case basis. Global Power funding is not authorized for air shows or airlift requests.

**A4.5. Scheduling.** ACC/A3O will manage the B-1 Global Power program. Global Power missions will be considered on a case-by-case basis and will be included on the ACC Consolidated Planning Schedule (CPS).

**A4.6. Public Affairs.** Many Global Power 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.

**A4.7. Numbered Air Force Responsibilities.**

A4.7.1. 12AF through 612 AOC should work range requests, fighter intercepts/escort, tanker/ALTRV, airlift support, diplomatic clearance, airspace coordination, Electronic Attack, etc, through the appropriate organization. 612 AOC will provide the bomber wing all information, once coordinated.

A4.7.2. 12AF through 612 AOC will ensure the correct Air Refueling Support Priority (IAW CJCSI 4120.02B) is assigned.

**A4.8. Individual Bomber Unit Responsibilities.**

A4.8.1. Units will develop local guidance and procedures for all aspects of Global Power missions.

A4.8.2. Appoint a primary and alternate POC to interface with ACC/A3O on all Global Power matters. Ensure ACC/A3O has a current name, message address, DSN number, and e-mail address for the POCs.

A4.8.3. Maintain ACC/A3O and 612 AOC as “info” addressee on all message traffic associated with Global Power. Similarly, info the concerned OCONUS MAJCOM and parent NAF.

A4.8.4. Units will consult the ACC CPS 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 can be assigned. Contact ACC/A3O if there is any question on the priority level to be assigned.

A4.8.5. Units should coordinate air refueling requests as soon as practical since tanker request are normally critical to ensure Global Power mission success. Submit tanker requests with the proper priority level annotated IAW CJCSI 4120.02B.

A4.8.6. Units will consult/comply with the DOD Foreign Clearance Guide and for applicable overseas/international guidance.

A4.8.7. 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 brief appropriate personnel and aircrew of relevant threat information.

A4.8.8. 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.

A4.8.9. Provide a detailed summary of planned employment activity to ACC/A3O and 612 AOC NLT 2 weeks before the mission date. Unit POCs will also contact ACC/A3O 48 hours prior to mission launch to update the two-week report.

A4.8.10. In flight reports must be made to the appropriate AOC IAW AFTTP 3-1.B-1, *Tactic Employment-- B-1*. These reports will include, as a minimum, 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, or navigation problems. The aircrew should request relay of the report to the 612 AOC. 612 AOC will relay the report to ACC Command Center as well as the parent wing command post.

A4.8.11. Within 3 days after the mission, a call must be made to ACC/A3O with a verbal report on the mission. This is not an official after-action report but a generalized “how it went” briefing. EXCEPTION: if anything occurs during the mission that needs to be briefed to the ACC or NAF Staff (diversion, emergency, diplomatic incident, etc.), call the ACC Command Post, DSN 574-1555, immediately.

#### **A4.9. Crew Rest and Flight Duty Limitations.**

A4.9.1. **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.

A4.9.2. **Maximum Flight Duty Period.** Maximum flight duty period for all sorties is defined in AFI 11-202 Volume 3, *General Flight Rules*, Table 9.1. and AFI 11-202 Volume 3, *General Flight Rules*, ACC Sup 1. For all sorties exceeding maximum flight duty day periods, units must request a duty day waiver from ACC/A3. For HHD missions including Global Power missions, the approved Execute Order (EXORD) should contain a statement approving the waiver request as well as identifying the maximum duty day for the sortie.

A4.9.3. Units are encouraged to use any reasonable means to shorten an extended crew duty day, such as using preflight crews, minimizing show 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).

A4.9.4. **Crew Chief Work and Rest Plan.** The aircraft commander, in conjunction with the en route station chief of maintenance, will determine how long the crew chief can safely perform aircraft recovery actions. The crew chief must have the opportunity for 8 hours sleep in each 24-hour period. See AFI 21-101, *Maintenance Operations and Management Policy*, for detailed guidance.

#### **A4.10. Human Factors/Physiological Issues.**

A4.10.1. It is highly recommended that units contact their Wing’s Aerospace and Physiology Training team for missions exceeding 24 hours. The Aerospace and Physiology Training

team 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.

A4.10.2. Unit flight surgeons will ensure medications (Go and No-Go Pills) are used IAW current AF/A3 and ACC/SG guidelines.

A4.10.3. Unit flight surgeons will also ensure aircrews receive briefings on human performance and physiological issues related to long duration missions.

A4.10.4. The wing life support officer will develop a long duration flight equipment package (i.e. noise reduction headsets, piddle packs, mattress, sleeping bag, etc.) as appropriate for the sortie. Use of long duration flight equipment, to include quick-don oxygen masks, is restricted to periods of high altitude cruise flight. Crewmembers will comply with ejection seat requirements for high altitude cruise removal of torso harness and leg and arm restraints in AFI 11-202 Volume 3, *General Flight Rules*.

A4.10.5. 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.

**A4.11. Theater Instructions.** Barring additional guidance (EXORD, SPINs, etc.) the following entry/exit procedures will be used by bomber aircraft operating in the specified AOR and should help minimize in-flight communications. These procedures do not replace any required exercise-specific reporting instructions or absolve planners and crew from confirming entry/exit procedures with applicable AORs, the DoD Foreign Clearance Guide, applicable DoD Flight Information Publication Area Planning guidance, or the applicable Flight Information Handbook. The delegated authority for requesting an aircraft diplomatic clearance should determine diplomatic clearance requirements by reviewing DoD foreign clearance guide entries for each country's airspace entered along the route of flight. Aircraft and aircrew clearance requests shall contain the information specified in the DoD Clearance Guide and applicable DoD Flight Information Publications Area Planning guidance for individual country entries. Initial coordination of EXORD creation should begin 1 month out from planned mission execution.

A4.11.1. **EUCOM.** The following procedure will be used by aircrew employing to or transiting the EUCOM AOR. Crossing 45W longitude eastbound, aircrew will contact the 603 AOC directly or via phone patch (DSN 314-478-8831/5014), call sign WOLFHOUND, at Ramstein AB, GE. Pass in-flight report to include, time of crossing, aircraft status, and ETA to target. The 603 AOC 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 and for the aircrew to comply with all range procedures. Keep the 603 AOC advised of any deviations to the original planned operation (use of an alternate range, weather divert, etc.). Contact the 603 AOC when exiting the AOR with an in-flight MISREP. If exiting eastbound/ entering westbound, make exit/entry report at 30E longitude to the 603 AOC. Units will coordinate with the 603 AOC NLT 7 business days prior to mission launch to confirm and coordinate the mission SPINs.

A4.11.2. **PACOM.** Upon entering the PACOM AOR, aircrew will contact the 613 AOC directly or via phone patch through (DSN 315-448-3041) call sign MAUKA, at Hickam AFB, HI. Pass in-flight report to include, time of crossing, aircraft status, and ETA to target. The 613 AOC will provide a weather update and confirm range availability if within the PACOM AOR. This does not replace the need to communicate directly with the specific range for final confirmation and for the aircrew to comply with all range procedures. Keep the 613 AOC advised of any deviations to the original planned operation (use of an alternate range, weather divert, etc.). Contact the 613 AOC when exiting the AOR with an in-flight MISREP. Units will call the 613 AOC Chief of Combat Operations (COD) (DSN 315-448-3040) on mission planning day to confirm the impending mission and any additional information.

A4.11.3. **CENTCOM.** 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 CAOC SODO (DSN 318 436-4293) via HF radio (or other suitable means) upon entry and exit of the CENTCOM AOR and continuously monitor directed frequencies throughout the mission. Aircrews will ensure they 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.

A4.11.4. **SOUTHCOM.** NLT 30 days prior to the mission, the unit POC will contact the AFSOUTH A3X (DSN 228--1770/0209) to conduct initial coordination. Simultaneously, the aircrew will also contact the 612 AOC MAAP Cell (DSN 228-8798/8790) to coordinate inclusion in the AFSOUTH ATO and any other AOC issues. During mission planning day the aircrew should contact the 612 AOC Duty Officer (DSN 228-1982/5189) to get further updates/restrictions, coordinate details and to confirm the mission. Upon entering the SOUTHCOM AOR, aircrew will contact the 612 AOC directly or via phone patch through (DSN 228-1982), call sign RAIDER, at Davis-Monthan AFB, AZ. Pass in-flight report to include, time of crossing, aircraft status, and ETA to target. The 612 AOC will provide a weather update and confirm range availability if within the SOUTHCOM AOR. This does not replace the need to communicate directly with the specific range for final confirmation and for the aircrew to comply with all range procedures. Keep the 612 AOC advised of any deviations to the original planned operation (use of an alternate range, weather divert, etc.). Contact the 612 AOC when exiting the AOR with an in-flight MISREP.

A4.11.5. **AFRICOM.** Upon entering the AFRICOM AOR, aircrew will contact the 617 AOC directly or via phone patch through (DSN 314-448-3041) at Stuttgart, GE. Pass in-flight report to include, time of crossing, aircraft status, and ETA to target. The 617 AOC will provide a weather update and confirm range availability if within the AFRICOM AOR. This does not replace the need to communicate directly with the specific range for final confirmation and for the aircrew to comply with all range procedures. Keep the 617 AOC advised of any deviations to the original planned operation (use of an alternate range, weather divert, etc.). Contact the 617 AOC when exiting the AOR with an in-flight MISREP.

Units will call the 617 AOC Chief of Combat Operations (COD) (314-448-3040) on mission planning day to confirm the impending mission and obtain any additional information

A4.11.6. **NORTHCOM.** Follow current ICAO/FAR procedures for entering/exiting the North American Air Defense Identification Zone (ADIZ).