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SECRETARY OF THE AIR FORCE**

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F-117 AIRCREW TRAINING



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This volume implements AFD 11-2, *Aircraft Rules and Procedures*; AFD 11-4, *Aviation Service*; and AFI 11-202V1, *Aircrew Training*. It applies to all F-117A units. This instruction is not applicable to Air National Guard or Air Force Reserve Command units. MAJCOMs/DRUs/FOAs are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ USAF/XOOT, through HQ ACC/DOTO, for approval prior to publication IAW AFD 11-2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DOTO, and the user MAJCOM/DRU/FOA offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. **NOTE:** The terms Direct Reporting Unit (DRU) and Field Operating Agency (FOA) as used in this paragraph refer only to those DRUs/FOAs that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. See paragraph 1.3 of this volume for guidance on submitting comments and suggesting improvements to this publication.

This volume 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 volume are 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); DOD Directive 7730.57, *Aviation Career Incentive Act and Required Annual Report*; AFI 11-401, *Aviation Management*; and E.O. 9397. System of records notice F011 AF XO A, Aviation Resource Management System (ARMS), applies. The reporting requirements in this volume are exempt from licensing in accordance with paragraph 2.11.10 of AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW AFD 37-1, *Information Management*, and AFMAN 37-123, *Management of Records*, and disposed of IAW the Air Force Records Disposition Schedule (RDS), located at <http://webrims.amc.af.mil>.

This volume contains references to the following field (subordinate level) publications and forms which, until converted to departmental level publications and forms, may be obtained from the respective MAJ-COM publication distribution office:

Publications: ACCPAM 10-453, AFTTP 3-1, ACCI 11-301

SUMMARY OF REVISIONS

There are administrative changes and new ACC level office symbols incorporated throughout. Paragraphs have been renumbered where necessary to accommodate updates. NVG upgrade training has been added to **Chapter 6** and NVG currency/recurrency requirements are clearly defined. Added requirement for all locally developed training programs to be forwarded to ACC/DOT for approval. Changed material is indicated by a bar (|).

Chapter 1—GENERAL GUIDANCE 5

1.1.	Abbreviations, Acronyms, and Terms.	5
1.2.	Responsibilities:	5
1.3.	Processing Changes:	6
1.4.	Training.	7
1.5.	Training Concepts and Policies:	8
1.6.	Ready Aircrew Program (RAP) Policy and Management:	9
1.7.	Training Sortie Program Development:	10
Table 1.1.	Annual F-117 RAP Sortie Requirements (Inexperienced/Experienced).	11
1.8.	Training Records and Reports:	11
1.9.	Armament Recording:	11
1.10.	Pilot Utilization Policy:	12
1.11.	Sortie Allocation Guidance:	12
Table 1.2.	F-117 Maximum Sorties for Other Than API-1 Pilots.	13
1.12.	Waiver Authority:	13

Chapter 2—FORMAL TRAINING 14

2.1.	General.	14
2.2.	Approval/Waiver for Local IQT:	14
2.3.	Prerequisites.	14
2.4.	Ground Training.	14
2.5.	Flying Training:	14
2.6.	IQT for Senior Officers:	15

Chapter 3—MISSION QUALIFICATION TRAINING	16
3.1. General.	16
3.2. Ground Training:	16
3.3. Simulator Training:	16
3.4. Flying Training.	17
Chapter 4—CONTINUATION TRAINING	19
4.1. General.	19
4.2. Ground Training.	19
Table 4.1. Ground Training.	21
4.3. Flying Training.	24
Table 4.2. Non-RAP Annual Requirements.	26
4.4. Special Categories:	26
4.5. Multiple Qualification/Currency:	27
4.6. Currencies/Recurrencies/Requalification:	28
Table 4.3. F-117 Pilot Currencies.	29
4.7. Regression:	30
4.8. End-of Cycle-Requirements.	30
4.9. Proration of End-of-Cycle Requirements.	31
Table 4.4. Proration Allowance.	33
4.10. Regaining CMR/BMC Status:	33
4.11. Example of Lookback, Regression, Proration, and Requalification Process:	33
4.12. Instrument Training.	34
Figure 4.1. Regression Flow Chart.	35
Chapter 5—WEAPONS DELIVERY QUALIFICATION	36
5.1. General.	36
5.2. Initial Qualification:	36
5.3. CT Qualification:	36
5.4. Weapons Delivery Parameters.	36
5.5. Live Ordnance.	37
Chapter 6—SPECIALIZED TRAINING	38
6.1. Introduction.	38

6.2.	Peacetime Mission Lead (PML) Upgrade.	38
6.3.	Combat Mission Lead (CML) Upgrade.	38
6.4.	Flight Lead Upgrade.	38
6.5.	Multiship Flight Lead Upgrade.	39
6.6.	Mission Commander (MCC) Upgrade.	40
6.7.	Instructor Pilot (IP) Upgrade.	41
6.8.	Requalification Program.	43
6.9.	Night Vision Goggle (NVG) Qualification Program.	43
6.10.	Pre-deployment Spin-up Training.	45
6.11.	Forms.	46
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION		47
Attachment 2—GLOSSARY OF MISSION/SORTIE AND EVENT DEFINITIONS		64
Attachment 3—VERIFICATION GUIDE FOR AIR-TO-SURFACE		69
Attachment 4—TRAINING SHORTFALL REPORT		71

Chapter 1

GENERAL GUIDANCE

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

1.2. Responsibilities:

1.2.1. HQ ACC/DO is designated the responsible agency for this volume in accordance with (IAW) AFPD 11-2, *Aircraft Rules and Procedures*. HQ ACC/DO will:

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

1.2.1.2. Process all change requests.

1.2.2. All Major Commands (MAJCOMs) will:

1.2.2.1. Determine training requirements to meet expected unit tasking.

1.2.2.2. Submit MAJCOM supplements to HQ USAF/XOOT, through HQ ACC/DOTO, for approval before publication. Provide HQ USAF/XOOT, HQ ACC/DOTO, and all applicable MAJCOM/DOs a copy of their supplements after publication.

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

1.2.3. Direct reporting units (DRUs) will:

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

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

1.2.3.3. Review subordinate unit training programs annually.

1.2.4. Wings/groups will:

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

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

1.2.4.3. Except when otherwise mandated, designate the training level to which each API-6 flyer will train. Upon request provide MAJCOM/DO with a list of BMC and CMR manning positions. Review programs and manning position designations annually.

1.2.4.4. If applicable, forward supplements to this volume and other supporting documents to the MAJCOM for review. Review supplements annually.

1.2.4.5. Identify training shortfalls that adversely impact combat capability. Units are required to submit anticipated shortfall reports each quarter to MAJCOM/DOT (info copy to NAF/DO or A3) (due the first day of the 2nd, 3rd, and 4th quarters) and an annual summary shortfall report due at the

end of the training cycle (ref: paragraph 1.6.1.). Prior to submitting the annual report, units are reminded to prorate incomplete training. For training report format, see [Attachment 4](#), TRAINING SHORTFALL REPORT. Negative reports are required.

1.2.4.6. Forward all locally developed flying training programs to ACC/DOT for approval.

1.2.5. Squadron supervision will:

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

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

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

1.2.5.4. Review qualifications and training requirements of Flight Surgeons and determine appropriate flight restrictions if applicable (T-38 only).

1.2.5.5. Determine missions/events in which individual BMC pilots will maintain qualification versus familiarization.

1.2.5.6. Determine utilization of BMC pilots.

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

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

1.2.5.9. Determine program for supervisory review of armament recordings.

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

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

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

1.2.6. Individual pilots will:

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

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

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

1.3. Processing Changes:

1.3.1. Forward recommendations for change to this volume to MAJCOM DO on Air Force (AF) Form 847, **Recommendation for Change of Publication**.

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

1.3.3. HQ ACC/DO will:

1.3.3.1. Coordinate all changes to the basic volume with MAJCOM/Dos.

1.3.3.2. Process recommendations for change after approval by HQ USAF/XO.

1.3.3.3. Address time sensitive changes by immediate action message.

1.3.4. MAJCOM/DO will determine training requirements for their subordinate units. This includes making changes, additions, or deletions to this volume at any time. These changes may be via supplement or RAP tasking message. HQ ACC/DO will be an info addressee on all changes. HQ ACC/DO will include MAJCOM supplemental guidance in the next publication of the AFI.

1.4. Training. Training programs are designed to progress pilots from Initial Qualification Training (IQT) (B course or Transition/Requalification Training (TX)), then to Mission Qualification Training (MQT), and finally to Continuation Training (CT).

1.4.1. IQT provides the training necessary to initially qualify pilots in a basic position and flying duties without regard to a unit's mission. Upon completion of IQT, the pilot attains Basic Aircraft Qualification (BAQ) status. BAQ is a prerequisite for MQT. Except for general officers above wing level, BAQ is not a long-term qualification status. Waiver authority for any pilot, other than general officers above the wing level, to remain BAQ is MAJCOM/DO.

1.4.2. MQT provides the training necessary to initially qualify or requalify pilots in a specific position and flying duties to perform the missions assigned to a specific unit. Pilots maintain BAQ status until they have completed MQT. Completion of MQT or Formal Training Unit (FTU) instructor course is a prerequisite for BMC and CMR.

1.4.3. CT. There are two aspects of CT. The first consists of pilot training in the basic flying skills contained in **Table 4.2**. These skills (Non-RAP requirements) ensure safe operation of the aircraft. The second consists of specific mission-related training required to accomplish the unit's assigned missions.

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

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

1.4.4.2. All designated Combat Aircraft (CC-coded) unit active duty API-1 positions, flying SQ/CC and SQ/DO positions are designated CMR positions. OG/CCs may designate other API-6 positions not assigned to the flying squadron as CMR. (**EXCEPTION:** If a unit is over-manned, the SQ/CC may elect to train the front line of their Unit Manning Document (UMD) API-1s to CMR and designate the overage BMC. In this case, priority should be given to inexperienced pilots with at least 50%, if available, designated CMR). CMR pilots maintain proficiency and

qualification in all core missions of the flying unit to which they are assigned or attached. CMR pilots maintain currencies which affect CMR status, accomplish all core designated flight training (sorties and events), and all mission ground training. Failure to complete this training or maintain these currencies results in regression to Non-CMR (N-CMR) status unless waived by appropriate authority. While N-CMR, pilots may perform missions (including exercises and contingencies) in which they are current, qualified, and either familiar or proficient, similar to BMC pilots.

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

1.4.4.4. All N-CMR active duty wing pilot positions are designated BMC positions. BMC designations are assigned to pilots who have a primary job performing wing supervision or staff functions that directly support the flying operation, or are FTU instructors, Weapons School instructors or operational test pilots. However, these pilots are required to provide additional sortie generation capability, either in lieu of or in addition to, the personnel assigned to the flying squadrons. For those missions in which they maintain familiarization only, BMC pilots must be able to attain proficiency and qualification in 30 days or less. BMC pilots accomplish all mission related ground training designated by their attached SQ/CC. BMC pilots may deploy and may participate in any mission for which they are proficient and qualified, without additional training, as determined by the SQ/CC. Failure to complete BMC required training results in regression to Non-BMC (N-BMC) status. While N-BMC, SQ/CC will determine missions the pilots may perform and supervision required.

1.4.4.5. N-CMR/N-BMC. Pilots that regress to N-CMR/N-BMC status will accomplish the requirements IAW para. **4.10**.

1.4.4.6. Specialized Training. Specialized training is training in any special skills necessary to carry out the unit's assigned missions that are not required by every pilot. Specialized training consists of upgrade training such as Flight Lead Upgrade (FLUG), Instructor Pilot Upgrade (IPUG), etc., as well as CT to maintain proficiency and qualification in unit tasked special capabilities and missions. Specialized training is normally accomplished after a pilot is assigned CMR/BMC status; and is normally in addition to CMR/BMC requirements. Unless otherwise specified, pilots in CMR or BMC positions may hold special capabilities/qualifications as long as any additional training requirements are accomplished.

1.5. Training Concepts and Policies:

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

1.5.2. ACC Training Support Squadron (ACC TRSS) will develop and validate training programs when/where tasked by the HQ ACC/DO. Other MAJCOMS may submit requests for training program support to the HQ ACC/DO. If validated, these requests will be prioritized and tasked to ACC TRSS. Designated test units (CB-coded) may develop syllabi to upgrade operation test pilots in support of specific test plans. These syllabi will be approved by the OG/CC and submitted to ACC TRSS.

1.5.3. 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 should include use of inert and live ordnance.

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 pilot (IP) may be required.

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

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

1.5.5. Pilots will not be required to accomplish ground and/or ancillary training except as required by this volume or AFI 36-2201V1, *Training Development, Delivery, and Evaluation*.

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

1.6.1. The pilot training cycle is 12 months; 1 Oct through 30 Sep. Units will complete training requirements during the appropriate training cycle unless specifically exempted.

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

1.6.3. The total number of RAP sorties for a qualification level is the primary factor for maintaining an individual's qualification level. The breakout of sortie/mission types is provided as a guideline to be followed as closely as possible but minor variances (other than Red Air allocations) are authorized. Variations in sortie/mission types may be used as a basis for regression by the SQ/CC. Qualification in a mission is determined by the SQ/CC considering the MAJCOM guidance and the individual's capabilities.

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

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

1.6.6. Progression from BMC to CMR requires:

1.6.6.1. A 1-month lookback at the CMR sortie rate.

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

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

1.6.6.4. Completion of mission-related ground training, to include a current verification or certification.

1.6.6.5. Squadron CC certification.

1.6.7. SQ/CCs will determine and assign pilots that will train for and maintain special capabilities or qualifications. Special capability/qualification sortie and event requirements are normally accomplished in addition to baseline CMR/BMC sortie/event requirements except for mission commander and flight lead training.

1.6.8. Wing CMR and BMC pilots will fly the required monthly sortie rate. If unable, refer to Regression, paragraph 4.7.

1.6.9. End of Cycle training requirements are based on the pilots experience level on the last day of the current training cycle.

1.6.10. Units converting to another Mission Design Series (MDS) may fly pilots in CMR positions at the BMC rate until one month prior to the operationally ready date if CMR sortie rates cannot be supported. CMR pilots should be flown at a CMR rate for the month prior to IOC. Active duty wings converting to new Primary Aircraft Inventory (PAI) are authorized one SQ equivalent (7/6 for 24/18 or less, PAI) of additional API-6s during the conversion period. However, total wing staff flying the new aircraft shall not exceed total authorized for final conversion equipage.

1.7. Training Sortie Program Development:

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

1.7.2. Non-RAP requirements (Inst/Aircraft Handling Characteristics (AHC)) are in addition to RAP requirements. These sorties ensure basic pilot skills are maintained. All active duty units are also allocated Navigation sorties for their API-1 pilots. These sorties ensure that pilots maintain the skills necessary to operate safely in the civil airspace environment.

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

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

Table 1.1. Annual F-117 RAP Sortie Requirements (Inexperienced/Experienced).

MAJCOM	Cycle	BMC	CMR
ACC (Annual)	RAP Total	72/60	94/82
	3-Month Lookback	18/15	23/20
	1-Month Lookback	6/5	8/7

1.8. Training Records and Reports:

1.8.1. Units will maintain pilot records for individual training and evaluations IAW:

1.8.1.1. AFI 11-202V1, *Aircrew Training*.

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

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

1.8.1.4. AFMAN 37-123, *Management of Records*

1.8.1.5. Air Force *Records Disposition Schedule (RDS)*, located at <http://webrims.amc.af.mil>.

1.8.1.6. ACCR 50-31 *Training Records and Performance Evaluation in Formal Flying Training Programs* (will be superseded by AFI 11-464 *Training Records and Performance Evaluation in Formal Flying Training Programs*).

1.8.1.7. Appropriate MAJCOM directives.

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

1.8.2.1. Ground training.

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

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

1.8.2.4. Currencies.

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

1.8.3. Units will fill in ARMS with either the date of the last FTU or USAF Weapons School (USAFWS) equivalent training accomplished or the unit mission certification date.

1.9. Armament Recording:

1.9.1. Pilots will use and assess all available training documentation such as Aircraft Video Tape Recorder (AVTR) and Head Up Display (HUD) tapes on all tactical missions. Pilots will review their own tapes with their flight/element member(s).

1.9.2. As a guide, the following AVTR items should be reviewed: titling, stealth/destealth check, weapons parameters, accuracy, adherence to Training Rules (TR), communications procedures and discipline, flight discipline, tactical employment, and instrument approaches.

1.10. Pilot Utilization Policy:

1.10.1. Commanders will ensure wing/group tactical pilots (API-1/6s) fill authorized positions IAW unit manning documents and that pilot status is properly designated. The overall objective is that pilots perform combat-related duties. Supervisors may assign pilots to valid, short-term tasks (escort officer, FEB/mishap board member, etc.), but must continually weigh the factors involved, such as level of pilot tasking, flying proficiency, currency, and experience.

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

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

1.11. Sortie Allocation Guidance:

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

1.11.1.1. Formal Training Units and USAFWS. Formal syllabus training, Instructor Upgrade, Instructor CT, authorized staff personnel not performing Instructor or Stan/Eval Flight Examiner (SEFE) duties (to include API-5 pilot physicians not on instructor orders).

1.11.1.2. Combined Formal Training and Operational Units. Formal syllabus training, CMR API-1, MQT API-1, CMR API-6, MQT API-6, BMC, API-5 pilot physicians, others.

1.11.1.3. Operational Units. CMR API-1, MQT API-1, CMR API-6, MQT API-6, BMC (to include API-5 pilot physicians).

1.11.1.4. Test, and Tactics Eval Squadron (TES) Units. Requirements directed by MAJCOM, training required to prepare for assigned projects/tasking, BMC training requirements that cannot be accomplished on primary missions, API-5 pilot physicians.

1.11.2. Wing API-6 authorizations are IAW unit manning documents.

1.11.3. For wings consisting of both FTU and operational units, at least one of the following pilots will maintain formal instructor status: WG/CC, WG/CV, OG/CC, OG/CD.

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

for attached API 8 and applicable API 6 flyers must request program changes IAW MAJCOM directives.

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

Table 1.2. F-117 Maximum Sorties for Other Than API-1 Pilots.

API Level	CT Status (Minimum Sortie Requirement)	Unit's Aircraft Code	Organization Level	Maximum Sortie Allowance (Inexperienced/Experienced)
6/8	CMR	CC	Any	As required by qualifications
6	BMC	CC	Wing	96/82
6	BMC	TF	Any	As required by PFT
6	BMC	CB	Wing	As determined by test program requirements
8	BMC	CB	Wing	94/82
8	BMC	CC, TF, or CB	Above Wing	94/82
5	BMC	CC, TF, or CB	All	If qualified and current in unit aircraft- 94/82. Otherwise , IAW AFI11-202V1 as supplemented

1.12. Waiver Authority:

1.12.1. Unless specifically noted otherwise in the appropriate section, waiver authority for all requirements of the RAP tasking message and for all provisions in **Chapter 4**, **Chapter 5**, and **Chapter 6** of this volume is the OG/CC. This waiver is on a case-by-case basis considering the experience level of an individual pilot. For all other provisions of this volume, the waiver authority is MAJCOM/DO, or as delegated.

1.12.2. Units subordinate to a NAF will forward requests directly to MAJCOM/DOT and provide their NAF/DO/OV/A3 with an information copy. All waivers will include HQ ACC/DOT as an information addressee.

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

Chapter 2

FORMAL TRAINING

2.1. General. This chapter outlines Initial Qualification Training (IQT) of pilots into the F-117. IQT includes Transition/Requalification (TX) training and normally will be conducted during formal syllabus courses at a formal training unit (FTU) whenever possible. In extenuating circumstances, when FTU training is not available within a reasonable time period, IQT may be conducted at the local unit IAW the provisions of this chapter. This local IQT will normally be conducted using appropriate formal USAF Transition or Requalification Training Course syllabus tracks, flow programs, and requirements. When local IQT is authorized, ACC assumes responsibility for the burden of providing this training locally. The following guidance applies only to local IQT (other than being accomplished in the FTU).

2.2. Approval/Waiver for Local IQT:

2.2.1. HQ ACC/DO is the approval authority to conduct local IQT, and is waiver authority to change the formal requirements of locally conducted IQT. Info HQ ACC/DOT.

2.2.2. MAJCOM/CC is the approval authority for non-formal course IQT for Colonel selectees and above to be conducted at the unit to which the officer is assigned.

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

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

2.2.3.2. Summary of individual's flying experience, to include last centrifuge training date.

2.2.3.3. Date training will begin and expected completion date.

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

2.2.4. Successful completion of IQT requires the upgrading pilot to complete an aircraft qualification and instrument evaluation IAW AFI 11-202V2 and AFI 11-2F-117V2.

2.3. Prerequisites. Course prerequisites will be IAW the appropriate formal course syllabus and the USAF Education and Training Course Announcements (ETCA).

2.4. Ground Training. Ground training may be tailored to the individual's background and experience or peculiar local conditions. However, available and current reference materials such as phase manuals, instructor guides, and audiovisual programs should be used as supporting materials to the maximum extent possible.

2.5. Flying Training:

2.5.1. Mission sequence and prerequisites will be IAW the appropriate formal course syllabus flow chart.

2.5.2. Training will be completed within the time specified by the approved syllabus. Failure to complete within the specified time limit requires notification through channels to HQ ACC/DO with pilot's name, rank, reason for delay, planned actions, and estimated completion date.

2.5.3. Pilots in IQT will fly under IP chared supervision until completing the qualification checkride.

2.5.4. Formal course syllabus mission objectives and tasks are minimum requirements for IQT. However, additional training events, based on student proficiency and background, may be incorporated into the IQT program with authorization of the SQ/CC. 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. IQT for Senior Officers:

2.6.1. All formal training courses for senior officers (colonel selectees and above) will be conducted at the FTU unless waived IAW paragraph 2.2.

2.6.2. Senior officers must meet course entry prerequisites and will complete all syllabus requirements unless waived IAW syllabus and paragraph 2.2.2.

2.6.3. If senior officers must be trained at the base to which they are assigned, they will be in formal training status. Unit duties will be turned over to appropriate deputies or vice commanders until training is completed. Exceptions to this policy must be approved by MAJCOM/CC.

Chapter 3

MISSION QUALIFICATION TRAINING

3.1. General. Mission Qualification Training (MQT) is a unit developed training program that upgrades pilots completing IQT to BMC or CMR. Guidance in this chapter is provided to assist the unit in developing their MQT program. MQT will train pilots to accomplish the unit mission. Units are allowed to tailor this program for all pilots, based on experience, currency, documented performance, and formal training.

3.1.1. During academic and flying training, special emphasis should be placed on AHC, night illusions, transition to instruments, task saturation, and spatial disorientation.

3.1.2. The Initial Mission Evaluation will be completed NLT 90 calendar days (150 for Holloman AFB's monsoon season) after the individual's completion of IQT. MQT will be completed within 60 days of the individual's first F-117A MQT sortie. Training is complete upon SQ/CC certification to BMC/CMR. Notify HQ ACC/DO if training exceeds 90 (150 for monsoon season) calendar days.

3.1.3. If waived for scheduling reasons by OG/CC, Night Air Refueling (NAAR), initial Chemical Warfare (CW) training (including simulator), and actual Laser Guided Bomb (LGB) delivery will be completed NLT 90 calendar days from completion of MQT. Failure to comply will result in regression to N-CMR until qualification is complete. If accomplished in IQT, actual LGB delivery may fulfill MQT requirements at the discretion of the SQ/CC.

3.1.4. Pilots in MQT will not fly in FLAG, AIR WARRIOR, COPE THUNDER exercises, Weapon School support deployments, WSEP, or equivalent type exercises.

3.1.5. Night transition training must be completed prior to night tactical training. Night training requires demonstrated proficiency and currency in similar day events.

3.1.6. Prior to CMR certification, pilots must initially qualify in all weapons delivery events required to be Qualified (QUAL) at CMR.

3.2. Ground Training:

3.2.1. Units will develop blocks of instruction covering areas pertinent to the mission as determined by the SQ/CC. Training accomplished during IQT may be credited towards this requirement.

3.2.2. Initial Verification. Pilots will initially accomplish a formal verification for their first CMR certification in the F-117A. Initial verification will be completed within 90 days of completing MQT. Suggested briefing guide is at [Attachment 3](#). Each pilot will demonstrate to a formal board a satisfactory knowledge of the squadrons' assigned mission. Board composition will be established by the OG/CC. Failure to comply will result in regression to N-CMR/N-BMC until qualification is complete.

3.3. Simulator Training:

3.3.1. OFTs will be used if available. If an OFT is unavailable, MQT simulator requirements may be combined into one or more Cockpit Procedures Trainer (CPT) missions to accomplish appropriate switchology and emergency procedures training. MQT pilots should fly mission profiles that replicate RAP missions or wartime tasking. Each training device mission will include selected critical action emergency procedures, spatial disorientation, channelized attention, and unusual attitude/inadvertent

weather entry procedures. Basic night procedures should be practiced in the simulator prior to conducting night flying operations.

3.3.2. MQT OFT Event Requirements:

3.3.2.1. Night Transition, Instruments, and Emergency Procedures. Personal and mission preparation, normal ground operations, flight operations, navigation, emergency airfield procedures and approaches, published penetration and approach to primary alternates and home base, partial panel instrument approaches, post-flight ground ops, BOLDFACE Emergency Procedures, and selected non-BOLDFACE emergency procedures.

3.3.2.2. Night Attack and Weapons Anomalies. Heavyweight takeoff, jettison procedures, tactical procedures, tactical navigation, weapons deliveries (normal and backup), weapons anomalies, emergency divert procedures, hung ordnance procedures, and selected emergency procedures. These missions will be accomplished using a tactical scenario from a deployed location.

3.3.2.3. Tactical Mission/Emergency Procedures Evaluation. This mission will be administered by a SEFE IAW ACC and local directives.

3.3.3. Initial CW Training (ICWT). Is designed to ensure pilot proficiency in the overall use of CW protective ensemble and to familiarize pilots with combat capabilities while wearing CW equipment.

3.3.3.1. Ground Training. All pilots will complete Phase I and Phase II training IAW AFI 32-4001, *Disaster Preparedness Planning*; and AFI 32-4002, *Operations, and Hazardous Material Emergency Planning and Response Compliance*; and MAJCOM supplements. The following training will be accomplished prior to the OFT training:

3.3.3.1.1. Physiological effects/first aid of chemical agents and protective gear.

3.3.3.1.2. Equipment orientation/fitting of full pilot ensemble.

3.3.3.1.3. Egress/hanging harness and water survival IAW MAJCOM and local guidance.

3.3.3.1.4. Full donning and doffing procedures/sequence.

3.3.3.2. CW OFT. Mission will be conducted in full ensemble (anti-exposure liners may be substituted for charcoal undergarment), harness, and G-suit. Mission will consist of emergency procedures, tactical mission profile, and doffing of simulated contaminated equipment.

3.3.3.3. Pilots will be CW certified upon the completion of all initial ground and OFT training.

3.3.3.4. The initial CW OFT mission may be credited towards CW CT requirements for the training cycle in which they were accomplished.

3.4. Flying Training. Unit-developed MQT programs should use profiles typical of squadron missions. Maximum use of armament recording assets and actual deliveries are encouraged on all MQT missions.

3.4.1. Supervision. An IP is required unless specified otherwise. The SQ/CC will determine the proper flight position of supervision unless specified otherwise.

3.4.2. Prerequisites and Currency. If more than 14 calendar days elapse between sorties, an additional review sortie will be flown before continuing the program. A Night Phase Brief is a prerequisite for night sorties.

3.4.3. MQT Sortie Event Requirements.

3.4.3.1. Transition Events: Night preflight checks and taxi, departure, maneuvering in cruise and landing configurations, Navigation/Steering modes practice, holding, penetration, precision approaches, non-precision approaches, Simulated Single Engine (SSE) approach (two engine go around), no HUD approaches, and partial panel approaches.

3.4.3.2. Tactical Events: Medium altitude tactical navigation, timing control using both manual and system aided methods, stealth/destealth procedures, sensor operation, weapons deliveries (normal and backup), FSWD (LGB) delivery, optimum range climb/cruise, and maximum range descent.

3.4.3.3. NAAR Events: Trail departure (#2), station-keeping, tanker rendezvous, tanker wing formation flying, and NAAR. NAAR may be flown as a mission in itself or be combined with any other mission.

3.4.3.4. Tactical Mission Evaluation. This mission will be administered by a SEFE IAW ACC and local directives.

Chapter 4

CONTINUATION TRAINING

4.1. General. This chapter outlines ground and flying training requirements for CMR, BMC, and BAQ pilots. Refer to **Chapter 6**, Specialized Training, for additional training program specifics. Pilots must be qualified IAW AFI 11-202V1 and AFI 11-202V2. Additionally, they must complete IQT to fly in BAQ status; MQT or FTU instructor upgrade to fly in BMC; or MQT to fly in CMR status.

4.2. Ground Training. Ground Training will be accomplished IAW **Table 4.1**. Waiver authority for the ground training specified is IAW the reference directive. This list is intended as a single source reference. Where discrepancies exist, the reference directive takes precedence. Ground training accomplished during IQT/MQT may be credited toward CT requirements for the training cycle in which it was accomplished. **Chapter 6** contains specialized programs with both flying and ground training requirements. The following programs comprise ground training only.

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

4.2.2. Instrument Refresher Course. IAW AFMAN 11-210, *Instrument Refresher Course Program*; AFI 11-202V2; and MAJCOM supplements.

4.2.3. Life Support. Includes egress, ejection, hanging harness, wet drill, personal survival equipment, pilot chemical warfare ensemble training, and local/deployment survival IAW MAJCOM life support directives.

4.2.3.1. Each pilot must attend pilot CWD ground training annually, consisting of: donning the full ensemble, hanging harness and egress training, donning of overcape and overboots, doffing of the CW ensemble IAW current shelter processing procedures, physiological effects of chemical agents and the appropriate first aid.

4.2.3.2. Survival, Evasion, Resistance, and Escape (SERE) Code of Conduct Continuation Training (CoCCT). SERE CoCCT will be conducted IAW AFI 36-2209, *Survival and Code of Conduct Training*, and MAJCOM supplements to AFI 11-301, *Aircrew Life Support (ALS) Programs*, and AFI 14-105ACC1, *Unit Intelligence Mission and Responsibilities*. SERE CoCCT will be a coordinated Intelligence, Life Support, and SERE Specialist effort.

4.2.4. Pilot Training Device—Operational Flight Trainer (OFT).

4.2.4.1. **Table 4.2** depicts the minimum training requirements. Units should determine additional CT training device supervision requirements based on expected employment tasking, training device capabilities, and mission training objectives.

4.2.4.2. Units will develop scenarios that cover all BOLDFACE emergency procedures, precision instrument approach procedures, and will develop other scenario requirements based on expected employment tasking and training device capabilities. Emphasis should be placed on training not readily attainable during daily flying activities. Units will review scenarios annually and update as required.

4.2.4.3. Unusual attitude and inadvertent weather entry procedures training and unusual attitude recovery training will be accomplished during all instrument or emergency procedure OFT train-

ing. Unusual attitude training will include recognition of HUD limitations, and non-HUD recoveries.

4.2.4.4. Pilots may receive credit for training accomplished in special devices such as the Advanced Simulator for Pilot Training (ASPT) or Higher Headquarters (HHQ)-directed simulator test support, if approved by the SQ/CC.

4.2.4.5. Tactical, EP, and CW missions will be accomplished in the OFT if available. If a unit does not have access to an OFT, EP and CW missions will be accomplished in the CFT.

4.2.4.6. An OFT in full CW gear (anti-exposure suit liner may be substituted for charcoal undergarment), harness, and G-suit will be accomplished once each training cycle. Within the mission profile, practice doffing simulated contaminated equipment. CW OFT missions are intended to complement existing OFT mission profiles. CW missions are not additive to OFT requirements. Units without access to an OFT will use a CFT, egress trainer, or aircraft cockpit for CW training.

4.2.5. Situational Emergency Procedures Training (SEPT). This training is not an evaluation, but a review of abnormal/emergency procedures and aircraft systems operations/limitations during realistic scenarios. One pilot should present a situation and another discuss actions necessary to cope with the malfunction and carry it to a logical conclusion. **BOLDFACE** and squadron special interest items should be emphasized. Incorporate the following elements into the squadron SEPT training program:

4.2.5.1. SQ/CC or SQ/DO involvement in the selection of a monthly SEPT topic.

4.2.5.2. Develop SEPT scenarios using F-117 mishaps/incidents as baseline cases.

4.2.5.3. Discuss at least two EPs for each phase of flight during the SEPT session.

4.2.5.4. Accomplish two SEPTs each training period with an IP or SQ supervisor to include minimum fuel and emergency divert training.

4.2.5.5. Accomplish one SEPT each calendar month. Failure to accomplish by the end of the month will result in grounding until subsequently completed.

4.2.5.6. SEPTs should be accomplished in a CFT. If a CFT is not available, SEPTs should be accomplished one-on-one, but small flight-sized groups are allowable in order that all members participate to the full extent and share equal time responding to emergency situations.

4.2.5.7. Completion of an OFT EP profile satisfies the monthly SEPT requirement.

4.2.5.8. Formal course student SEPTs may satisfy the monthly SEPT requirement for the IP who administers the training.

Table 4.1. Ground Training.

MOBILITY TRAINING - These items are required for mobility units or units that generate in place.				
SUBJECT	FREQUENCY	REFERENCE DIRECTIVE	GROUNDING	AFFECT CMR/BMC
Chemical Warfare Defense Training-- Ground Crew Ensemble	Initial and Refresher every 12 Months	AFPD 32-40, AFI 32-4001, AFI 32-4002	No	No
Handgun Training	Initial and Requal every 24 Months	AFI 36-2226	No	Yes
ISOPREP Review	6 Months	AFI 14-105	No	Yes
Intelligence Training	12 Months	AFI 11-2F-117V1 and AFI 14-105	No	Yes
Air Force Anti-terrorism/ Force Protection	12 Months	AFI 31-210	No	No
PILOT TRAINING				
SUBJECT	FREQUENCY	REFERENCE DIRECTIVE	GROUNDING	AFFECT CMR/BMC
Physiological Training (Altitude Chamber)	5 years	AFI 11-403	Yes	No
Instrument Refresher	PERIODIC	AFMAN 11-210 and AFI 11-202V2	No	No
Life Support Training		AFI 11-301as supplemented		
a. Egress/Ejection Training	180 Days		Yes	No
b. Hanging Harness Training	180 Days		Yes	No
c. Life Support Equip Training	12 Months		No	No
d. Combat Survival Training (CST)	24 Months		No	Yes
f. Water Survival Training	24 Months		No	No
Initial Chemical Warfare Defense Training Pilot Ensemble	Prior to 1st CW OFT	AFI 11-2F-117V1, Chapter 3	No	Yes
Annual Chemical Warfare Defense CT Pilot Ensemble	12 Months	AFI 11-2F-117V1, Chapter 4.	No	Yes

SUBJECT	FREQUENCY	REFERENCE DIRECTIVE	GROUNDING	AFFECT CMR/BMC
Simulator (OFT/WST) Training	IAW Table 4.2. , this volume	AFI 11-2F-117V1, Chapter 4	No	Yes
Situational Emergency Procedures Training (SEPT)	Monthly	AFI 11-2F-117V1, Chapter 4	Yes	No
Verification	18 Months	AFI 11-2F-117V1	No	Yes (No for BMC)
Weapons/Tactics Academics	12 Months	AFI 11-2F-117V1	No	Yes
Marshalling Exam	Initial/PCS	AFI 11-218	No	No
Flying Safety Training	Quarterly	AFI 91-202	No	No
Supervisor Safety Training	Initial Only	AFI 91-301	No	No
CRM	24 Months	AFI 11-290	Yes (waivable by OG/CC)	No
NVG Academics	12 Months	AFI 11-202 V1	No	No
AIR FORCE AWARENESS PROGRAM TRAINING				
SUBJECT	FREQUENCY	REFERENCE DIRECTIVE	GROUNDING	AFFECT CMR/BMC
Protection of the President and Others	PCS	AFI 71-101V2	No	No
US/Russia Prevention of Dangerous Military Activities	Initial/12 Months and Pre-deployment	CJCS 2311.01	No	No
Fire Extinguisher	Initial/PCS	AFOSHSTD 91-56	No	No
Code of Conduct	24 Months	AFI 36-2209	No	No
Law of Armed Conflict	12 Months	AFI 51-401	No	No
Substance Abuse Education	After PCS	AFI 44-121	No	No
Military Equal Opportunity Newcomers' Orientation	After PCS	AFI 36-2706	No	No

4.2.6. Weapons/Tactics Academic Training. Units will establish a weapons/tactics academic training program to satisfy MQT and CT requirements. Training is required in each training cycle. Audiovisual programs may be used in place of academic instruction. The program will require successful completion of an examination (85 percent minimum to pass). Use testing to validate qualification to the maximum extent possible throughout the training program. Pilots successfully scoring 85 percent

or greater may be given training credit in lieu of ground CT, where authorized by the governing publication. Academic instructors should be USAFWS graduates or have attended the applicable academic portion(s) of school, if possible. Instruction and tests should include (as applicable) but are not limited to:

4.2.6.1. Air-to-surface weapons (concentrating on UCML): description, operation, parameters, fusing, limitations, preflight, tactics, normal and emergency procedures/techniques.

4.2.6.2. Specialized training to support specific weapons, tactics, mission capabilities, authentication, wartime Rules Of Engagement (ROE), on-scene commander (OSC) procedures, and safe passage.

4.2.7. Verification. CT verification updates pilots on their squadron's wartime mission. Each pilot will participate in a squadron initial/CT verification every 18 months as a briefer, board member, or seminar participant. Suggested briefing guide is at [Attachment 3](#). Pilots who participate in a unit deployment to a tasked theater of operations may receive credit for continuation verification. BMC pilots 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.

4.2.8. Intelligence Training. The intelligence training program will be closely aligned with the unit weapons and tactics training program. The focus and extent of academic training will be determined by the OG/CC and will be aligned with projected wartime tasking, threats, and unit equipage. In addition to threat knowledge, pilot training will include:

4.2.8.1. Visual Recognition (VR). Pilots must be able to visually identify aircraft (rotary and fixed-wing, including joint/allied assets) they are likely to encounter by name or numerical designator and determine whether the aircraft is a threat or non-threat (training should incorporate all aspects/angles, theater-specific paint schemes/fin flashes, and various configurations). Identify ground equipment, and determine major categories of naval vessels. Completion of VR training is required IAW local VR directives.

4.2.8.2. Escape and Recovery (E&R). E&R training will prepare pilots for the possibility of evasion, captivity, and escape in hostile territory.

4.2.8.3. Collection and Reporting (C&R). C&R training will enable pilots to initiate pilot-originated reports (INFLTREP, CIRVIS, etc.) and will familiarize them with the information requirements of the intelligence-generated MISREP and INTREP.

4.2.8.4. Current Intelligence is required, and will cover significant military/political developments (including threat updates), in the squadron's mission areas of interest. Use guidance contained in AFI 14-105, *Unit Intelligence Mission and Responsibilities*, to develop and manage unit intelligence training programs. The OG/CC will determine pilot testing requirements for intelligence and Electronic Combat (EC) training.

4.2.9. US/Russia Prevention of Dangerous Military Activities. Initial, annual refresher, and pre-deployment training for the Prevention of Dangerous Military Activities will be conducted to ensure that all pilots are familiar with the agreement and the implementing provisions contained in CJCSI2311.01. The procedures for the Prevention of Dangerous Military Activities between the U.S. and Russia are located in the Flight Information Handbook.

4.2.10. Crew Resource Management (CRM). Units will participate in MAJCOM established CRM CT. Training builds upon the basic cockpit management skills taught in SUPT and FTUs. Each pilot is required to participate in one session every 24 months.

4.2.11. Night Vision Goggle Refresher Academics. Refresher training as a minimum will consist of common NVG hazards, F-117 specific hazards, limitations, and performing preflight adjustment procedures.

4.3. Flying Training. All pilots except API 8 will accomplish the requirements as shown on **Table 4.2.** API 8 flyers will strive to accomplish the requirements as shown on **Table 4.2.** Failure to accomplish these requirements will not affect BAQ, BMC, or CMR status but may require additional training as determined by the SQ/CC. If any sortie or event requirement from **Table 4.2.** is subsequently added in the RAP tasking message, it becomes a requirement for BMC and CMR status (as specified in the RAP Tasking Message). In addition, the following are required for:

4.3.1. Basic Aircraft Qualification (BAQ) requirements.

4.3.1.1. Qualification Evaluation IAW AFI 11-202V2.

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

4.3.1.3. BAQ pilots will fly a supervised (SQ supervisor/IP) sortie at least once every 60 calendar days. In addition, if a BAQ pilot does not fly for 21 days (inexperienced) or 30 days (experienced), the next sortie must be flown with a squadron supervisor or an instructor.

4.3.1.4. BAQ pilots that remain in BAQ status for more than 6 months will be grounded (except general officers), unless currently enrolled in a program to achieve CMR/BMC (waiver authority: MAJCOM DO).

4.3.2. Basic Mission Capable (BMC) requirements.

4.3.2.1. Mission Evaluation IAW AFI 11-202V2.

4.3.2.2. Applicable currencies IAW paragraph **4.6.**

4.3.2.3. BMC pilots fly RAP sorties and/or events as required by the RAP tasking message and as authorized by the SQ/CC, based on their PAI experience, proficiency, and training. Maintain sortie rate (lookback) IAW **Table 1.1.** and paragraph **4.7.1.**

4.3.2.4. Ground training requirements related to applicable RAP sorties/events.

4.3.3. Combat Mission Ready (CMR) requirements.

4.3.3.1. Performance satisfactory to the SQ/CC.

4.3.3.2. Mission Evaluation IAW AFI 11-202V2.

4.3.3.3. Sortie rate (lookback) IAW **Table 1.1.** and paragraph **4.7.1.**

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

4.3.3.5. Weapons qualifications.

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

4.3.3.7. Ground training IAW **Table 4.1.**

- 4.3.3.8. Verification IAW paragraph [4.2.7](#).
- 4.3.3.9. Intelligence training IAW paragraph [4.2.8](#).
- 4.3.4. Special Capabilities/Qualification requirements:
 - 4.3.4.1. Specialized training IAW [Chapter 6](#) and guiding syllabi.
 - 4.3.4.2. Sortie requirements IAW the RAP tasking message.
 - 4.3.4.3. Failure to accomplish the requirements specified in this document or the RAP tasking message requires loss of designation/qualification.
 - 4.3.4.4. Re-certification/Re-qualification is IAW [4.8.4](#).
- 4.3.5. Designated Training Aircraft (TF-Coded)/Designated Test Aircraft(CB-Coded) Aircraft Unit Requirements:
 - 4.3.5.1. Pilots assigned/attached to TF or CB-coded units will fly at the BMC rate and accomplish the non-RAP BMC requirements as shown on [Table 4.2](#). For IPs, failure to accomplish these requirements will not affect instructor status, but will require additional training as determined by the SQ/CC prior to resuming IP duties in the delinquent event(s).
 - 4.3.5.2. Mission/Instructor Evaluation, as applicable, IAW AFI 11-202V2. Pilots assigned/attached to CB-coded units need not maintain IP status.
 - 4.3.5.3. Weapons Events. To instruct in a weapons event, IPs must achieve initial qualification in that event.
 - 4.3.5.4. Ground training as directed by the SQ/CC.
 - 4.3.5.4.1. There is no requirement for pilots assigned or attached to CB-coded units to accomplish CW training, handgun training, and verification.
 - 4.3.5.4.2. There is no requirement for CB-coded units to accomplish formal intelligence training and/or weapons and tactics academics. Pilots will be thoroughly familiar with all current intelligence and weapons and tactics issues affecting all on-going test projects.
- 4.3.6. Additional guidance for pilots attached to USAF Air Warfare Center (USAFAWC) and USAF Weapons and Tactics Center (USAFWTC):
 - 4.3.6.1. Only require annual mission ground training as determined by the unit CC. Waiver authority for all other ground training is the USAFAWC/USAFWTC CC.
 - 4.3.6.2. OFT requirements do not apply.
 - 4.3.6.3. Night flying and NAAR requirements are waived unless required to meet program objectives unless otherwise specified.

Table 4.2. Non-RAP Annual Requirements.

REQUIREMENT	BAQ	BMC	CMR	REMARKS
AHC Sortie	2	2	2	
Instrument Sortie	4	4	4	
Trail Departure	0	8	8	N/A for CB-coded units.
Night Sortie	0	8	*	* See RAP Tasking message for CMR requirement
Penetration	12	12	12	High Altitude Penetration or Local Published Recovery Routing.
Precision Approach	16	16	16	4 of 16 will be flown no HUD
Non-Precision Approach	16	16	16	4 of 16 will be flown no HUD
Emergency Patterns (SSE)	12	12	12	Night requirements will be at the discretion of the OG/CC
Minimum Total Sorties	48	See Table 1.1.	See Table 1.1.	
OFT Total Sorties (Inexp/Exp)	12/8	12/8	12/8	
Chemical Warfare OFT	0	1	1	No requirement for TF/CB coded units
Emergency Procedures OFT (Inexp/Exp)	6 /4	6/4	6/4	Sim Instructors may log two of these missions on the console. Half will be supervised by a SI.

4.4. Special Categories:

4.4.1. Flight Surgeon (FS). FS flying rates and requirements will be IAW AFI 11-202V1.

4.4.2. MAJCOM and NAF API-8 Pilots:

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

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

4.4.2.1.2. Review assigned pilot accomplishments and currencies prior to authorizing pilots to participate in MDT.

4.4.2.1.3. Provide each pilot with written documentation specifying the sortie types and events the pilot is authorized to fly. API-8 personnel who fly with only one unit may receive this from their attached unit commander.

4.4.2.2. HHQ pilots maintaining BMC status are exempt from non-grounding academic ground training, NAAR, CW training, and special training programs within authorized mission areas. Specific currencies will be provided to the host squadron and HHQ supervisors will determine pilot qualifications to participate in squadron scenarios for MDT. Pilots will:

4.4.2.2.1. Review accomplishments and currencies for accuracy.

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

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

4.4.2.2.4. Instructor-qualified pilots may perform instructor duties with the concurrence of the OG/CC, if qualified and current for the applicable missions/events.

4.5. Multiple Qualification/Currency:

4.5.1. HQ ACC/DO may authorize qualification in more than one mission design series (MDS) aircraft for pilots 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 pilots qualified in primary mission aircraft to maintain qualification in support aircraft.

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

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

4.5.2. Multiple qualification is authorized as follows and do not require a multiple qualification authorization: pilots and instructor pilots participating in the Companion Trainer Program (CTP) or maintaining tactical aircraft qualification in the applicable companion trainer/chase aircraft.

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

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

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

4.5.6. Pilots must complete conversion training IAW an approved syllabus.

NOTE: F-117 pilots dual qualified in the T-38 under the provisions of the F-117 Companion Trainer Program, will complete both MDS annual training requirements in full. The provisions of paragraph 4.5 apply to an F-117 pilot dual qualified in another aircraft not associated with the F-117 CTP program (ex. Dual qualified in the F-117 and the F-4E).

4.6. Currencies/Recurrencies/Requalification:

4.6.1. Currency. **Table 4.3.** defines currency requirements for all F-117A pilots. If a pilot loses a particular currency, that sortie/event may not be performed except for the purpose of regaining currency as noted.

4.6.2. Recurrency. Recurrency is required whenever a pilot exceeds a currency requirement in this volume.

4.6.2.1. Overdue training requirements must be satisfied before the pilot is considered qualified to perform tasks applicable to the type of training in which delinquent. Training annotated as affecting CMR status will require regression to N-CMR 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.

4.6.2.2. Unless otherwise specified, supervisory requirements pertaining to recurrency may be satisfied in the flight position that offers the best control of the mission, as determined by the SQ/CC.

4.6.3. ACC AOS Currency Requirements. Units will comply with AFI 11-207, *Flight Delivery of Fighter Aircraft*, for additional currencies required for delivery of aircraft coordinated through ACC AOS.

4.6.4. Landing/Sortie Recurrency. Loss of landing/sortie currency requires the following action (timing starts from last landing):

4.6.4.1. 31-90 Days (46-90 Days Experienced). Regain landing currency.

4.6.4.2. 91-135 Days. Same as above, plus instructor supervised CFT (tactics, normal and emergency procedures for CMR pilots; normal instrument, and emergency procedures for BMC pilots).

4.6.4.3. 136-210 Days. Same as above, plus qualification and tactical written examinations and EP evaluation.

4.6.4.4. 211 or More Days. IQT, landing recurrency, and appropriate weapons events initial qualification, and requalification IAW AFI 11-202V1. The requalification program may be tailored.

4.6.5. Loss of/Requalification to IP Status. IPs will be decertified if:

4.6.5.1. They fail a flight check. To regain IP status, the IP must successfully complete a flight check IAW AFI 11-202V2.

4.6.5.2. They fail a qualification, instrument, or tactical written examination. To regain IP status, the IP must successfully reaccomplish the written exam.

4.6.5.3. Their instructor currency expires. To regain status, see **Table 4.3.**

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

Table 4.3. F-117 Pilot Currencies.

EVENT	To update fly:	INEXP	EXP	Affects CMR	To regain currency:	NOTES
DEMANDING SORTIE	Sortie	21	30	No	Non-demanding	1,4
LANDING	Landing	30	45	No	Day landing	2
NIGHT LANDING	Day or night Landing	21	30	No	Day landing	
AAR	Day or Night AAR	180	180	Yes	Event	3,6
WEAPONS DELIVERY	Event	60	90	No	Event	4,
PRECISION APPROACH	Event	30	45	No	Event	
INSTRUCTOR	Event	N/A	60	No	Event	5
NVG	Event	120	180	No	Event	7,8

NOTES:

1. See [Attachment 1](#) for demanding/non-demanding sortie definitions. In addition, BAQ pilots will fly in a supervised status (with a SQ supervisor or IP) any time a non-demanding sortie is required.
2. Recurrency supervision level is IP chase, qualified and current in event.
3. Supervision will be SQ supervisor or instructor in element, qualified and current in the event.
4. For formal course IPs, CT and exercise participation require above currencies. TF-coded unit instructors are authorized 180 days currency for operations conducted within formal syllabus training missions.
5. Non-currency for 61-180 days requires an instructor recurrency flight with an IP; over 180 days requires a Stan/Eval flight check.
6. Loss of AAR currency will result in regression to N-CMR.
7. Recurrency supervision will be an NVG current and qualified IP/SQ supervisor.
8. An NVG academic review is required prior to the recurrency sortie.

4.7. Regression:

4.7.1. CMR/BMC Regression for Failure to Meet Lookback. Only RAP training and Contingency Operations sorties (SC13) may be used for lookback. If a pilot does not meet lookback requirements throughout the training cycle, SQ/CCs can (1) regress the pilot to N-CMR/N-BMC status (as applicable), (2) remove the pilot from a CMR manning position, or (3) initiate action to remove the pilot from active flying status.

4.7.1.1. Failure to meet 1-month RAP/Contingency Operations sortie lookback requires a review of the pilot's 3-month sortie history. If the 3-month lookback has been met, pilots may, at SQ/CC discretion, remain CMR/BMC. Failure to meet the 3-month lookback will result in regression to N-CMR/N-BMC status, as appropriate, or the pilot may be placed on probation status for 1 additional month at the squadron commander's discretion. If probation is chosen, the only way to remove a pilot from probation and preserve the current status is to establish a 1-month lookback at the end of the probation period. (See [Figure 4.1.](#))

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

4.7.1.3. Lookback computations begin the calendar day following completion of MQT. The pilots must maintain 1-month lookback until 3-month lookback is established. SQ/CCs may apply probation rules as described in paragraph [4.7.1.1.](#) if a new CMR/BMC pilot fails to meet 1-month lookback while establishing 3-month lookback. In addition, 1-month lookback will start the first full month of CMR/BMC status.

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

4.7.2.1. For events tasked as Qual at CMR/BMC, regression to N-CMR/N-BMC unless waived by OG/CC. To regain CMR/BMC, the pilot must reaccomplish initial qualification in the deficient weapons event (see paragraph [5.2.](#)). Events accomplished for this initial qualification may count toward the cumulative CT event qualification required at the end of the next training cycle.

4.7.2.2. For events tasked as FAM at CMR/BMC, regression to N-CMR/N-BMC unless waived by OG/CC. To regain CMR/BMC, the pilot must accomplish at least three weapons deliveries reviewed by a squadron supervisor or instructor. Events accomplished for this initial qualification may count toward the cumulative CT event qualification required at the end of the next training cycle.

4.7.3. Pilots who fail an aircraft qualification, mission, or instrument eval will be handled IAW AFI 11-202V2. Pilots will regress to N-CMR or N-BMC as applicable. These pilots will remain N-CMR/N-BMC status until successfully completing required corrective action, a re-evaluation, and are recertified by the SQ/CC.

4.8. End-of Cycle-Requirements. Pilots who fail to complete sortie and/or event requirements of this volume at the end of the training cycle may require additional training depending on the type and magni-

tude of the deficiency. Refer to paragraph 4.9. to see if some of these requirements can be prorated. In all cases, report training shortfalls IAW paragraph 1.2.4.5.

4.8.1. Failure to meet the total RAP sortie requirement after proration may be cause for regression. If the pilot has valid lookback, the SQ/CC may allow the individual to continue CT at CMR/BMC. The SQ/CC will determine if additional training is required. Shortfalls will be reported IAW 1.12.4.

4.8.2. Failure to meet non-RAP sortie and/or event requirements may continue CT at CMR/BMC as determined by lookback. The SQ/CC will determine if additional training is required.

4.8.3. Failure to maintain qualification in weapons events tasked at Qual will result in regression, and may not be waived. To regain CMR/BMC, a regressed pilot will accomplish initial weapons qualification in the deficient event. Failure to accomplish any other RAP events, after proration, will result in regression unless waived by the SQ/CC. To regain CMR/BMC, a regressed pilot will complete all deficient events. These sorties and events may be counted against the total requirements for the new training cycle. Report all shortfalls IAW 1.12.4.

4.8.4. Failure to accomplish sorties required for Special Capabilities/Qualifications will result in loss of that qualification unless otherwise specified in this publication or the RAP tasking message. The SQ/CC will determine re-qualification requirements.

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

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

4.9.2. Proration is based on cumulative days of non-availability for flying during the training cycle. Use **Table 4.4.** to determine the number of months to be prorated based on cumulative calendar days of non-availability.

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

4.9.3.1. Example: Capt Jones 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 (two months for the 73 cumulative days of non-availability for flying).

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

4.9.5. Newly assigned/converted pilots and pilots 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 purposes. A prorated share of RAP sorties must be completed in CT.

4.9.6. Night, and AAR requirements accomplished during MQT may be credited toward prorated CT requirements if accomplished during the cycle in which the pilot was declared CMR/BMC, unless specified otherwise by MAJCOM.

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

4.9.8. CMR pilots who attend WIC in TDY-and-return status may be reported throughout the TDY as CMR. Upon return, the pilot will accomplish a prorated share of sortie/event requirements (see [Table 4.4](#)).

4.9.9. Contingency Operations. Contingency operations can have a positive or negative impact on a unit's CT program, as emphasis is on supporting the actual contingency. A potential lack of training opportunities while deployed can place a burden on the unit, forcing it to accomplish the majority of its CT program in a reduced period of time at home station. The following proration procedures are intended to provide flexibility in accomplishing the unit's CT program.

4.9.9.1. Normally, all sorties flown during contingency operations will be logged as contingency operations sorties. These sorties do not count toward annual RAP requirements but may be used for lookback purposes. Except AAR, RAP events logged during contingency operations sorties do not count toward annual RAP requirements but may be used to update currencies. Upon relief from contingency operations, units will prorate RAP sorties and events for the period of time each individual was tasked. Additionally, proration is authorized for deployment preparation and deployment recovery time where home station flying is reduced by the MAJCOM.

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

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

Table 4.4. Proration Allowance.

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

4.10. Regaining CMR/BMC Status:

4.10.1. If CMR/BMC status is lost due to failure to meet the End-of-Cycle weapons qualifications and/or event requirements, requalification is IAW paragraph 4.7.

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

4.10.2.1. Up to 90 days: The pilot must complete SQ/CC directed re-certification program in accordance with paragraph 4.7.1.2. In addition, all RAP event currencies must be regained. The SQ/CC will approve any other additional training prior to re-certification to CMR.

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

4.10.2.3. 181 Days and Beyond. Reaccomplish MQT.

4.11. Example of Lookback, Regression, Proration, and Requalification Process:

4.11.1. Capt Smith is an experienced CMR pilot with a 1 and 3 month lookback requirement of 7 and 20 RAP sorties respectively. On 3 Feb, he flew a Surface Attack Tactics (SAT) sortie prior to departing for a non-flying TDY for two months. He reported back for flight duty on 6 Apr. What is his status throughout his TDY and on his return?

4.11.1.1. The SQ/CC wanted to list Capt Smith as a countable CMR pilot for reporting purposes throughout the TDY. Therefore, on 1 Mar, his FLT/CC performed the mandatory 1 month lookback (Feb) on Capt Smith. He only flew 1 RAP sortie, failing the 1 month lookback. The FLT/CC then performed a 3 month lookback (Dec, Jan, Feb). This showed that he flew only 18 sorties for

this period. Had he flown two more sorties, his SQ/CC could continue Capt Smith at CMR. However, with 18 sorties, Capt Smith did not meet the 3 month lookback for a CMR pilot. The SQ/CC could regress Capt Smith to N-CMR, but instead elected to put him on probation, still carrying him as CMR.

4.11.1.2. The SQ/CC decided to carry Capt Smith on 1 month probation. On 1 Apr, Capt Smith's 1 month lookback (Mar) was 0 sorties. The SQ/CC must now regress Capt Smith to N-CMR. When Capt Smith returns, the SQ/CC will have to place him in a re-certification program. Upon completing this program, Capt Smith will need to re-establish his 1-month lookback by 1 May. Failing to do so would force him to be reported N-CMR one more month until the next lookback process on 1 June.

4.11.1.3. If he had returned on 22 Mar, and had last landed the jet 48 days ago, he could fly a non-demanding sortie to regain demanding sortie and landing currency. For CMR purposes, Capt Smith would need to fly 7 RAP sorties to recapture his 1-month lookback and get off probation. Although Capt Smith was still CMR in Mar, the SQ/CC flew him with an IP on his first few sorties in order to regain his landing, AAR, LOWAT, and Formation T/O and Landing currencies.

4.11.1.4. At the end of the training cycle on 30 September, the SQ/CC prorated 2 months off of Capt Smith's total requirements. In spite of this proration, Capt Smith was deficient in one RAP sortie type. The SQ/CC could regress Capt Smith to N-CMR, if the deficiency in training is deemed significant. After accomplishing the tailored recertification program (the deficient sorties), the SQ/CC would re-certify Capt Smith to CMR. This training counts for the new training cycle.

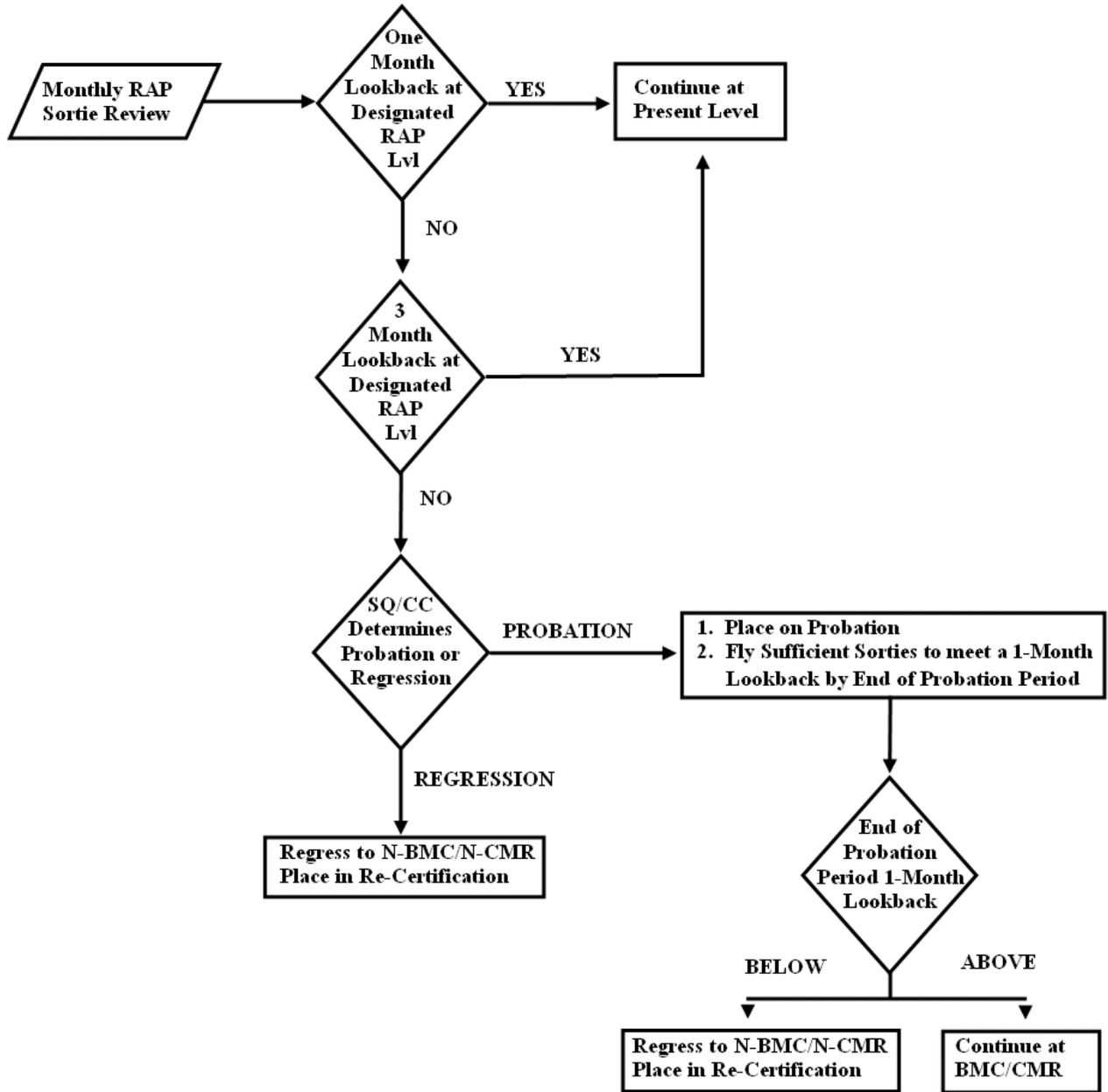
4.12. Instrument Training. An instrument training program will be developed to ensure instrument proficiency to include lost wingman training, briefings on recognition and how to deal with spatial disorientation, HUD-off unusual attitude recoveries, and transition from visual to instrument conditions. It will also stress the use of primary and standby cockpit flight instruments, rather than the HUD, during instrument recovery from unusual attitudes or spatial disorientation and proper integration of the HUD into the normal instrument crosscheck.

4.12.1. Units which seldom encounter bad weather and/or night recoveries should exercise pilots and approach facilities by periodically simulating "weather day" recovery operations, as determined by the SQ/CC.

4.12.2. Pilots transferring from another MAJCOM require the theater-specific portions of Instrument Refresher Course (IRC) before flying without a theater-experienced pilot in the formation. MQT/IQT academics and the MQT/IQT local area orientation mission may satisfy this requirement.

4.12.3. RAP events may be accomplished on an instrument sortie provided accomplishment does not interfere with the primary goal of instrument training. The transition from instruments to visual references should be practiced on all instrument approaches. Instrument approaches should be filmed on video tape recorder and reviewed. Instrument sorties are Non-RAP requirements and will be logged as such. Units are allocated sorties for every pilot to accomplish their minimum Non-RAP requirements.

Figure 4.1. Regression Flow Chart.



Chapter 5

WEAPONS DELIVERY QUALIFICATION

5.1. General. This chapter outlines requirements for attaining initial qualification and maintaining CT qualification in the employment of Air-to-Surface (A/S) weapons. Refer to [Attachment 2](#) for further guidance in weapons events.

5.2. Initial Qualification:

5.2.1. Pilots must accomplish initial qualification in any weapons event requiring qualification at CMR/BMC. Initial qualification achieved in IQT or MQT satisfies requirements for CT qualification, but not for CT event requirements. If not otherwise specified, initial qualification in a weapons event is satisfied when the pilot has achieved a minimum of three hits out of six consecutive record deliveries.

5.3. CT Qualification:

5.3.1. These criteria establish the minimum standards for a pilot to maintain qualification in the appropriate weapons delivery events and do not necessarily determine evaluation criteria established by other regulations or agencies (e.g., inspection and/or evaluation teams). These qualifications are valid throughout the following training period.

5.3.1.1. CT weapons deliveries will be tactical deliveries simulating realistic employment of UCML munitions, considering such factors as fusing, safe separation/escape, recovery using published Dash-34 safe escape maneuver, egress, etc. CT air-to-surface weapons event requirements will be accomplished on tactical ranges to the maximum extent possible. To maintain a combat perspective in a peacetime environment, weapons deliveries should simulate realistic employment of live munitions/SCLs.

5.3.1.2. Weapons qualification will be maintained by completing the minimum number of record hits, record deliveries, and also by achieving appropriate qualification percentage during the training period.

5.3.1.3. Failure to qualify in one event does not invalidate qualification in others. SQ/CCs may declare a pilot unqualified in an event(s) and invalidate all previous record deliveries for that event at any time during a training cycle without affecting other weapons event qualifications. If qualification is required at CMR, failure to qualify will result in regression to N-CMR and entry into re-certification until requalification is accomplished.

5.3.1.4. At the end of the training cycle, each pilot's weapons delivery scores will be reviewed to assess the pilot's qualification. If qualified, the pilot's qualification is valid through the following training period.

5.3.1.5. Unless otherwise specified, qualification criteria is 12 record hits and an overall record hit rate of 50 percent.

5.4. Weapons Delivery Parameters. The following event parameters and requirements form the basic framework for pilot weapons delivery training and all deliveries will conform to limits established for each specific event.

5.4.1. Level Events—Systems Level. System level is a delivery with less than five degrees of climb or dive at weapons release (non-maneuvering) using any means of delivery without visual target acquisition/designation. Minimum altitude is safe separation for ordnance being delivered/simulated or 2000 feet AGL, whichever is higher.

5.4.2. Precision Guided Munitions—Laser Guided Bomb (LGB) Events. Events using aircraft systems (IRADS) to determine release point and simulated/actual laser designation on the target. Delivery of ordnance, actual or training, is not required. Minimum recovery is safe escape for the ordnance being delivered or simulated. Hit criteria for all LGB delivery profiles are:

5.4.2.1. Guided Bomb Unit (GBU) 10/12/27. 33 feet (10m) for actual GBU 10/12, 15 feet (4.5m) for GBU 27. If a weapons malfunction occurs and tape review shows simulated delivery hit criteria, the pilot will not be assessed a miss.

5.4.2.2. Simulated deliveries will be scored a hit if the weapon was released within planned allowable parameters with a demonstrated laser tracking accuracy IAW established OG hit criteria.

5.5. Live Ordnance. Live ordnance training is essential to pilot combat capability. Every attempt should be made to give each pilot the opportunity to deliver/employ as many types of weapons as are on the unit's UCML. To provide this opportunity, HQ ACC/DOT will, through the RAP tasking message, task F-117 pilots to fly Full Scale Weapons Delivery (FSWD)/Heavy weight sortie(s).

Chapter 6

SPECIALIZED TRAINING

6.1. Introduction. This chapter outlines upgrade training programs for special capabilities and qualifications. These programs are intended to provide a basic starting point and may be modified by the SQ/CC based on the unit's requirements and/or the upgrade's previous experience, qualifications and documented performance. Unless governed by a formal syllabus, all unit developed training for these programs will be approved by the OG/CC. Additionally, all programs will be forwarded to HQ ACC/DOT for review.

6.2. Peacetime Mission Lead (PML) Upgrade. The unique flying environment of the F-117A mandates use of pilots as Mission Lead (ML) on a daily basis. The following are the guidelines for the PML upgrade program.

6.2.1. PML Prerequisites. Nomination for PML upgrade by flight commander/supervisor, completion of the F-117A ML academics, and approval by SQ/CC.

6.2.2. Ground Training. Pilots must satisfactorily complete the unit developed blocks of instruction prior to certification as a PML. Units may expand as desired/required.

6.2.2.1. Mission Planning Considerations. Range availability, required ASD, and Air Traffic Control (ATC) restrictions and considerations, flight plans, air refueling operations, inter-unit coordination, and on-range controlling agencies coordination.

6.2.2.2. Mission Lead Briefings. The upgrading PML will plan and brief a minimum of two missions under the supervision of a qualified ML prior to certification

6.3. Combat Mission Lead (CML) Upgrade. The unique characteristics of the F-117 and its integration into the complex and dynamic combat environment, mandates the need for highly trained and qualified pilots to act as Combat Mission Leads. The following are the guidelines for the CML upgrade program.

6.3.1. CML Prerequisites. Squadron Commander approval, successful completion of MQT program, completion of CML academics, and be a qualified flight lead and PML.

6.3.2. Ground Training. Pilots must satisfactorily complete the unit developed blocks of instruction prior to certification as a CML. Units may expand as desired/required.

6.3.2.1. Mission Planning Considerations. Small force and large force F-117 tactical combat packages in both low and high density IADS threat environments. Planning process from ATO drop through final mission materials with extensive use of both AFMSS/CLOAR and BONN TAP mission planning tools.

6.3.2.2. Mission Lead Briefings. The upgrading CML will plan and brief a minimum of two tactical combat missions packages. Mission plans will be reviewed by the Chief of MPC or squadron supervision prior to certification.

6.4. Flight Lead Upgrade. This program establishes the minimum guidelines for those pilots identified by the SQ/CC to upgrade to flight lead.

6.4.1. Initial entry will be as a 2-ship/element FL until experience and proficiency warrant further progression, in which case, responsibilities for employment will not exceed two aircraft until certified as a multi-ship FL.

6.4.2. The following minimum flying hours are required prior to entering FL upgrade training:

6.4.2.1. 300 hours PAI, or

6.4.2.2. 400 hours IP/FP/MP in an 11FXX, 11BXX, 11K3C, 11K3D Air Force Specialty Code (AFSC), of which 200 hours are PAI, or

6.4.2.3. 50 hours PAI, if previously qualified as an 11FXX or 11BXX AFSC flight lead.

6.4.3. Ground training will be accomplished prior to flying training and will consist of locally developed instruction in the following areas:

6.4.3.1. FL Responsibilities. FL and wingman relationship in the F-117A as compared to other fighters and unit training objectives. Mission objectives, wingman requirements and responsibilities, currencies, capabilities, delegation of mission planning duties, and briefing preparation.

6.4.3.2. Conduct of flight briefings and debriefings: objectives, use of briefing guides and audio-visual aids, flight member involvement, briefing techniques, debriefing/questioning techniques, tape review responsibilities and procedures.

6.4.3.3. Conduct of missions: control of flight, flight discipline, training rules, and responsibilities to SQ/CC.

6.4.3.4. In-flight emergency procedures and emergency divers.

6.4.4. Flight training:

6.4.4.1. General Guidance. The upgrading FL will normally brief and lead, as a minimum, two formation flights. OG/CCs may waive selected missions based on previous experience. Unaccomplished mission tasks may be waived at the discretion of the SQ/CC. The upgrading FL will plan/brief a minimum of one simultaneous target attack. The wingman will be an IP or a squadron supervisor, as designated by the SQ/CC.

6.4.4.2. CT FL-1—Day Formation. Mission Objectives: Practice leading and controlling a two-ship day formation. Specific Mission Tasks: Briefing, ground operations, trail departure, station-keeping, fingertip, wingwork, route and echelon formation, turning and straight ahead rejoins, practice lost wingman procedures, formation approach, low approach, overhead, debrief and tape review.

6.4.4.3. CT FL-2—Night Tanker. Mission Objectives: Lead a two-ship element to the tanker at night, refuel, and proceed on individual mission. Specific Mission Tasks: Briefing, ground operations, trail departure, enroute navigation (trail/station-keeping), tanker rendezvous, refueling, individual mission, simultaneous target attack, beacon out rejoin (optional), recovery (2-ship optional), debrief and tape review.

6.5. Multiship Flight Lead Upgrade. SQ/CCs will select the most qualified, motivated, and responsible FL qualified pilots for this program.

6.5.1. Prerequisites: Squadron Commander selected Flight Lead.

6.5.2. Ground training will be accomplished prior to flying training and will consist of locally developed instruction in the following areas:

6.5.2.1. FL Responsibilities. Review.

6.5.2.2. Conduct of Flying Mission. Rejoin out of traffic, multiship trail departure, multiship enroute formation (trail/station-keeping/route/fingertip), lost wingman/lost sight procedures, day versus night formations, air refueling (rejoins/day versus night/aborts/post AAR deconfliction), Multiship post strike rejoins, flight breakup/recovery and common errors.

6.5.3. Flight training:

6.5.3.1. General Guidance. The upgrading MFL will brief and lead, as a minimum, two formation flights. Unaccomplished mission tasks may be waived at the discretion of the SQ/CC. The upgrading MFL will plan/brief a minimum of one simultaneous target attack. The IP or multiship qualified flight lead squadron supervisor designated by the SQ/CC will fly in the number three position.

6.5.3.2. CT MFL-1—Day Formation. Objectives: Lead a flight of more than two aircraft on a departure, enroute navigation and flight split-up for individual surface attack missions, rejoin the flight off target and recover to initial. Specific Mission Tasks: Briefing, ground operations, departure, multiship enroute navigation, individual missions, simultaneous attack, post strike rejoin, multiship lost wingman, multiship recovery to initial, debrief and tape review.

6.5.3.3. CT MFL-2—Night Tanker. Objectives: Lead a flight of three aircraft to the tanker for night air refueling. May be accomplished pre or post-strike. Specific Mission Tasks: briefing, Multiship (ground operations, takeoff, trail departure, enroute navigation, tanker rendezvous, air refueling), recovery, debrief and tape review. Optional items include: individual missions, simultaneous attack and post strike rejoin.

6.6. Mission Commander (MCC) Upgrade. This program establishes the minimum guidelines for upgrade to MCC.

6.6.1. Responsibilities:

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

6.6.1.2. MCCs may delegate authority and responsibility for a portion of the mission to a secondary MCC. For example, a MCC flying in an A/S weapons system may designate a MCC in an A/A weapons system to be in charge of the A/A portion of the mission.

6.6.2. MCC Prerequisites. SQ/CCs will consider ability, judgment, technical expertise, skill, and experience when selecting a pilot for mission commander upgrade.

6.6.2.1. Minimum qualification is Multiship FL or Instructor Pilot.

6.6.3. Ground Training. Upgrading MCCs must satisfactorily complete the following unit developed blocks of instruction prior to certification as a MCC.

6.6.3.1. Mission Planning Considerations. Range space and availability, ATC restrictions/considerations/flight plans, air refueling operations, inter-unit coordination, air-to-air and air-to-surface

force integration, IADS penetration/avoidance, on-range controlling agencies coordination, GCI coordination.

6.6.3.2. Review appropriate AFTTP 3-1 volumes for specific mission commander checklists and considerations.

6.7. Instructor Pilot (IP) Upgrade. This program establishes the minimum guidelines for those pilots identified by the SQ/CC to upgrade to IP. OG/CCs may waive selected missions based on previous experience. FTU instructors will complete a formal syllabus course as defined in ETCA (<https://etca.randolph.af.mil>).

6.7.1. Pilots selected for IP upgrade must be FLs with either:

6.7.1.1. 1000 IP/MP/FP hours of which 300 hours are PAI, or

6.7.1.2. 700 IP/MP/FP hours in an 11FXX AFSC of which 100 hours are PAI, or

6.7.1.3. 600 IP/MP/FP hours in an 11FXX AFSC of which 200 hours are PAI, or

6.7.1.4. 500 IP/MP/FP hours in an 11FXX AFSC of which 300 hours are PAI.

6.7.2. Ground Training. Upgrading IPs (UIP) must satisfactorily complete the following unit developed blocks of instruction prior to certification as an IP. An IP will instruct the UIP in all blocks prior to UIP practice. Squadrons may expand these requirements as desired.

6.7.2.1. Principals of Instruction. Learning objectives, instructor responsibilities, IP/upgrading pilot relationship, recognition and analysis of common pilot errors, review and use of briefing guides, use of audiovisual aids, techniques for briefing/debriefing, review of performance training standards, preparation/use of grade sheets, and gradebook management. Given by IP to UIP.

6.7.2.2. Avionics and Weapons. Target acquisition procedures/techniques, target designation procedures/techniques, sensor displays and controls, conventional bombs, guided munitions, fuses, stores management system, weapons delivery procedures, and review of avionics/weapons malfunctions. Given by UIP to IP.

6.7.2.3. Mission Planning. AFMSS and DIMES capabilities, navigation route planning considerations, Expanded Data Transfer Module (EDTM) programming and use, threat capabilities and countertactics. Given by UIP to IP.

6.7.2.4. MQT Phase Briefs. Items as listed in the current Operations MQT Program.. Given by UIP to IP.

6.7.2.5. Formation and Multiship Phase Briefs. Items as listed in the current Operations Formation and Multiship Programs. Given by UIP to IP.

6.7.2.6. CRM instructor training will be accomplished IAW AFI 11-290 *Cockpit/Crew Resource Management Training Program* prior to assuming duties as an instructor. Instructor CRM training can be accomplished prior to entering instructor upgrade training.

6.7.3. Simulator Training:

6.7.3.1. General Guidance. Upgradee must first observe one instructional OFT session performed by a qualified IP. The upgradee will then instruct one OFT session under the observation of a qualified IP.

6.7.3.2. CT IPUG OFT-1. Objectives: Observe simulator mission. The mission profile is not specified.

6.7.3.3. CT IPUG OFT-2. Objectives: Conduct/Instruct a simulator mission. Specific Mission Tasks: briefing, mission preparation (normal, weapons delivery, instrument, and emergency procedures), inflight instruction to include ground operations, takeoff, departure, navigation, unusual attitudes, selected emergency procedures, weapons delivery, recovery, instrument approaches and landings, debriefing and gradesheet preparation.

6.7.4. Mission Briefs/Debrief Training. The UIP will brief an IP simulating an MQT student. The IP will then fly the briefed mission IAW UIP instructions for debriefing purposes. For the NTR brief, a "canned" mission tape is maintained with common errors and may be used for debriefing purposes instead of the IP flying.

6.7.4.1. Mission 1. Objectives: Instruct an MQT NTR mission. Specific Mission Tasks: Items included in the current MQT Course.

6.7.4.2. Mission 2. Objectives: Instruct an MQT NSAT mission. Specific Mission Tasks: Items included in the current MQT Course.

6.7.5. Flying Training. The UIP inflight training program will consist of briefing / debriefing MQT profiles, and flights supervising and monitoring tanker operations, flight lead upgrades, and multiship flight lead upgrades. MQT briefings will include at least the events as listed in the current MQT course.

6.7.5.1. CT IPUG-1 Objectives: The UIP will demonstrate proficiency in leading a two-ship element to the tanker at night, refueling, and proceeding on individual missions. The UIP will develop and practice thorough IP instruction and demonstrate techniques on teaching NAR to MQT students. The UIP will demonstrate supervision and instructional techniques. Specific Mission Tasks: Mission planning/preparation, briefing (content, organization, presentation, time utilization), ground operations, flight instruction (departure, enroute, tanker rendezvous, boom operation, split-up, rejoin), debriefing (presentation, mission reconstruction, performance evaluation, gradesheet preparation), checklist procedures, radio procedures, fuel management, situational awareness and judgment/flight discipline.

6.7.5.2. CT IPUG-2 Objectives: The UIP will demonstrate proficiency in supervision of a Flight Lead Upgrade with two aircraft going to a night tanker, refueling, and proceeding on individual missions. The UIP will demonstrate instructional techniques. Specific Mission Tasks: Mission planning/preparation, briefing, ground Instruction/supervision, flight instruction/supervision (departure, enroute, tanker rendezvous, air refueling, split-up, rejoin), simultaneous attack (optional), debriefing (mission reconstruction, performance evaluation, gradesheet preparation), checklist procedures, radio procedures, fuel management, situational awareness and judgment/flight discipline.

6.7.5.3. CT IPUG-3 Objectives: The UIP will demonstrate proficiency in supervision of more than two aircraft conducting a Multiship Flight Lead Upgrade. The UIP will demonstrate instructional techniques. Specific Mission Tasks: Mission planning/preparation, briefing, ground Instruction/supervision, flight instruction/supervision (departure, enroute, tanker rendezvous, air refueling, split-up, rejoin), simultaneous attack (optional), debriefing (mission reconstruction, performance evaluation, gradesheet preparation), checklist procedures, radio procedures, fuel management, situational awareness and judgment/flight discipline.

6.7.5.4. IP Check. This mission will be administered by a SEFE IAW ACC and local directives.

6.7.6. IP Certification. Following satisfactory completion of the above requirements, the OG/CC will personally interview the UIP and review IP responsibilities, scope of duties, authority, and philosophy. Failure to complete scheduled training events need not delay certification. The SQ/CC will certify the UIP by providing the necessary documentation, including any restrictions, in appropriate written format.

6.8. Requalification Program. The intent of this program is to requalify a previously experienced F-117A pilot, who has been out of the cockpit for 18 months or less, to Mission Lead, Multiship Flight Lead and Instructor status in a timely manner.

6.8.1. Prerequisites. Previously qualified Mission Lead, Multiship Flight Lead, and Instructor Pilot in the F-117A with a maximum of 18 months out of the F-117A cockpit, CMR/BMC status and squadron commander approval.

6.8.2. Ground Training. Requalification pilots (RPs) must satisfactorily complete the following unit developed blocks of ground training prior to progressing to simulator and flying events. Mission Lead Upgrade: RPs will plan and brief one mission under the direction of the Squadron Chief of MPC or designated experienced Mission Lead (ML). As a minimum the mission will include: Two-ship departures, AR Track (if available), and simultaneous attack. Instructor Academics: An experienced IP, as determined by the squadron commander, will conduct academic training. An IP will review the MQT Phase Brief with the RP prior to RP practice. The RP will demonstrate satisfactory performance in instructing the MQT Phase Brief to the IP.

6.8.2.1. CT RQP Mission Lead 1. Objectives: Demonstrate satisfactory performance in planning and briefing a squadron surface attack mission. Specific Mission Tasks: Mission planning, coordination and mission briefing.

6.8.2.2. CT RQP BLOCK 1. Mission Planning. AFMSS and DIMES capabilities, navigation route planning considerations, Expanded Data Transfer Module (EDTM) programming and use, threat capabilities and countertactics. Given by UIP to IP.

6.8.2.3. MQT Phase Briefs. Items as listed in the current Operations MQT Program. Given by UIP to IP.

6.8.3. Simulator Training.

6.8.3.1. CT RQP OFT-1. Objectives: Develop/demonstrate proficiency in instructing/ conducting a simulator mission. Specific Mission Tasks: Briefing, mission preparation (normal, weapons delivery, instrument, and emergency procedures), flight instruction to include ground operations, takeoff, departure, navigation, unusual attitudes, selected emergency procedures, weapons delivery, recovery, instrument approaches and landings, debriefing and gradesheet preparation.

6.8.4. Flying Training. The FP inflight training program will consist of four sorties, one each Flight Lead and Multiship Flight Lead upgrades and two Instructor upgrade flights. CT RQP-1F and CT RQP-3 will be accomplished at night. CT RPQ-4F should be accomplished at night.

6.9. Night Vision Goggle (NVG) Qualification Program. The intent of this program is to produce fully qualified F-117 pilots in the employment of NVGs. Completion of the qualification training allows the pilot perform missions under NVGs IAW AFI 11-214.

6.9.1. Prerequisites: Current and qualified F-117 pilot with a minimum of 50 hours in the F-117 (20 hours of which are at night). Has accomplished at least two tanker rejoins (single ship/or as lead). Has flown a night sortie with 30 days preceding the first NVG sortie. Must be CMR/BMC and approved by the SQ/CC.

6.9.2. **Ground Training.** Upgrading NVG pilots must satisfactorily complete the following requirements prior to OFT-1.

6.9.2.1. **Academics.**

6.9.2.1.1. Academic instruction must include Air Force Research Labs (AFRL) or equivalent NVG academics, F-117 specific academics, and an NVG Phase Brief. Each Operations Group is required to have 1 AFRL/NVG school house certified instructor to teach these academics. This instructor may certify additional instructors within the Operations Group.

6.9.2.1.2. Units will designate highly experienced NVG IPs to conduct local academic training, and will use MAJCOM approved courseware. For local academics, NVG instructional videos will be used to demonstrate NVG visual illusions in place of the terrain board.

6.9.2.1.3. Academics will be accomplished within 60 days prior to accomplishing NVG-1. If more than 60 days elapse prior to NVG-1, pilots must review the NVG academics. If more than 180 days elapse between completion of NVG academics and NVG-1, pilots must re-accomplish NVG academics.

6.9.2.2. **Simulator.**

6.9.2.2.1. **OFT-1 (NVG Familiarization)**-- Mission Objectives. Develop/demonstrate proficiency in donning, doffing and use of NVGs while executing a standard mission profile. Specific Tasks: NVG ground operations, (storage, donning/doffing and egress considerations), takeoff, departure, NVG flight operations (donning, doffing, battery change out, navigation, instrument scan techniques, unusual attitudes, effects of non-compatible lighting, ejection considerations), instrument approaches, and landings.

6.9.3. **Flying Special Instructions.**

6.9.3.1. CT NVG-1F must occur within 7 calendar days of CT NVG OFT-1.

6.9.3.2. A break in flight training greater than 14 calendar days between CT NVG-1F and CT NVG-2F requires re-fly of CT NVG-1F.

6.9.3.3. CT NVG-3F should be flown to a tanker. SQ/CC waiver authority for this requirement.

6.9.3.4. No IP evaluations or upgrade training will be conducted in conjunction with NVG upgrade training.

6.9.3.5. Takeoff, air refueling (inside 1 mile of tanker), and approaches and landings will be accomplished without NVGs.

6.9.3.6. CT NVG-1F and CT NVG-2F must be flown with 2 mLux or greater illumination.

6.9.3.7. Fifty percent (50%) of CT NVG-1F will be flown as Night Transition, in order to allow the UP sufficient time to become familiar with the NVGs and cockpit lighting.

6.9.4. **Flying Training.** Upgrade sorties will be dedicated to use of NVGs IAW the following sorties.

6.9.4.1. **CT NVG-1F, Night Transition/Night Surface Attack.** Mission Objectives. Primary emphasis of CT NVG-1F is to introduce the capabilities and limitations of NVGs to night transition and night surface attack. Specific Mission Tasks: NVG equipment preflight, ground operations, cockpit lighting setup, NVG donning and doffing, illumination level assessment, NVG instrument scan techniques, navigation, camera attacks/weapons delivery, RTB (doffing/storage), approach landing, checklist procedures and debrief.

6.9.4.2. **CT NVG-2F, Night Air Refueling.** Mission Objectives: Introduce the capabilities and limitations of NVGs to night air refueling and practice night transition and surface attack. Specific Mission Tasks: NVG ground operations, cockpit lighting setup, NVG donning and doffing, illumination level assessment, NVG tanker rendezvous, instrument scan techniques, and navigation, camera attacks/weapons delivery, RTB (doffing/storage), approach landing, checklist procedures and debrief.

6.9.4.3. **CT NVG-3F, Night Formation.** Mission Objectives: Introduce the capabilities and limitations of NVGs to night formation as a wingman (trail and station-keeping). Practice tanker rejoin as wingman and beacon out rejoin using NVGs. Specific Mission Tasks: NVG ground operations, cockpit lighting setup, NVG donning and doffing, illumination level assessment, NVG formation operations, tanker rendezvous, and navigation, camera attacks/weapons delivery, RTB (doffing/storage), approach landing, checklist procedures and debrief.

6.10. Pre-deployment Spin-up Training. This training will be conducted prior to deploying in support of contingency operations (time permitting) or exercises. The objective of this training is to ensure the pilot's ability to conduct all missions in support of expected tasking. For contingency operations, units are responsible for contacting appropriate gaining command/operations to determine expected tasking. For exercises, units are responsible for referring to appropriate EXPLANS and contacting appropriate exercise POCs prior to deployment to determine expected mission tasking. These EXPLANS include COMACC EXPLANS 80 for Red, Green, Maple, and Coalition Flags, EXPLANS 323 for Air Warrior 1, and EXPLANS 163 for Air Warrior 2. This assures the units are prepared for the appropriate tasking and allows the OG/CC to tailor this training for the theater, threat, and tactics for the assigned task. The SQ/CC is then responsible for implementation of this spin-up, prosecuting the required missions, and determining 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 IAW all applicable instructions.

6.10.1. If a pilot is not assigned to the deploying squadron, they must receive spin-up training as determined by the deploying SQ/CC. This applies to all attached pilots (OG/WG/HQ staffs, etc.), and all pilots augmenting from other squadrons (operational, FTU, weapons school, test, etc.). The objective of this training is to ensure attached/augmenting pilots are proficient to conduct all missions in support of expected tasking. The deploying SQ/CC will determine the amount of spin-up training required for each attached/augmenting pilot based on the pilot's level of proficiency, currency, qualification, experience, etc. For augmenting pilots, once the amount of spin-up training is determined, the augmentee's SQ/CC is responsible for ensuring the spin-up training is accomplished.

6.10.2. Ground Training. All applicable pilots will complete academic training prior to deployment.

6.10.2.1. Academics. Units will brief exercise SPINS, ROE/Training Rules, command and control, engagement authority and procedures, and visual identification. HQ ACC/DI will assist the

unit's intelligence functions in the development of threat assessments and visual identification training materials.

6.10.2.2. Flying Training. Spin-up training will be tailored to ensure all deploying pilots are proficient, current, and qualified in all expected mission tasking.

6.10.3. SQ/CCs are responsible for ensuring all participating pilots are ready to deploy and are proficient to conduct all missions in support of expected tasking.

6.11. Forms.

6.11.1. Forms prescribed. None.

6.11.2. Forms Adopted. AF Form 847, **Recommendation for Change of Publication.**

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

AFI 10-704, *Military Deception Program*

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

AFPD 11-2, *Aircraft Rules and Procedures*

AFI 11-2F-117V2, *F-117--Aircrew Evaluation Criteria*

AFI 11-2F-117V3, *F-117--Operations Procedures*

AFI 11-202V1, *Aircrew Training*

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

AFI 11-202V3, *General Flight Rules*

AFMAN 11-210, *Instrument Refresher Course (IRC) Program*

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

AFMAN 11-217V1, *Instrument Flight Procedures*

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

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

AFI 11-301V1, *Aircrew Life Support (ALS) Program*

AFPD 11-4, *Aviation Service*

AFI 11-401, *Aviation Management*

AFI 11-403, *Aerospace Physiological Training Program*

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

AFI 13-212V1, *Range Planning and Operations*

AFI 13-212V2, *Range Construction and Maintenance*

AFI 13-212V3, *Safe-Range Program Methodology*

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

AFI 14-105ACC1, *Unit Intelligence Mission and Responsibilities*

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

AFI 31-210, *Air Force Antiterrorism/Force Protection*

AFPD 32-40, *Disaster Preparedness*

AFI 32-4001, *Disaster Preparedness Planning*

AFI 32-4002, *Operations, and Hazardous Material Emergency Planning and Response Compliance*

AFI 33-360V1, *Publications Management Program*

- | AFI 36-2201V1, *Training Development, Delivery, and Evaluation*
AFI 36-2209, *Survival and Code of Conduct Training*
- | AFPAM 36-2211, *Guide for Management of Air Force Training Systems*
AFI 36-2217, *Munitions Requirements for Aircrew Training*
AFI 36-2226, *Combat Arms Program*
- | AFI 36-2251, *Management of Air Force Training Systems*
AFI 36-2706, *Military Equal Opportunity and Treatment Program*
AFPD 37-1, *Information Management*
- | AFMAN 37-123, *Management of Records*
AFI 44-121, *Alcohol and Drug Abuse Prevention and Treatment (ADAPT) Program*
AFI 51-401, *Training and Reporting to Ensure Compliance with the Law of Armed Conflict*
AFI 71-101V2, *Criminal Investigations*
AFI 91-202, *The US Air Force Mishap Prevention Program*
AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Prevention and Health (AFOSH) Program*
- | ACCI 11-464, *Training Records and Performance Evaluation in Formal Flying Training Programs*

Abbreviations and Acronyms

A/A—Air-to-Air

A/S—Air-to-Surface

AAR—Air/Air Refueling

ACBT—Air Combat Training

ACC—Air Combat Command

ACM—Air Combat Maneuvering

ACMI—Air Combat Maneuvering Instrumentation

ACT—Air Combat Tactics

ADA—Air Defense Alert, Air Defense Asset

ADL—Aircraft Data Link

AF—Air Force

AFRC—Air Force Reserve Command

AFSC—Air Force Specialty Code

AGL—Above Ground Level

AGM—Air-to-Ground Missile

AHC—Aircraft Handling Characteristics
AI—Air Intercept, Air Interdiction
AILA—Airborne Instrument Low Approach
ANG—Air National Guard
AOA—Angle of Attack
AOC—Air Operations Center
API—Aircrew Position Indicator
ARA—Airborne Radar Approach
ARC—Air Reserve Components
ARM—Anti-Radiation Missile
ARMS—Aviation Resource Management System
ASD—Average Sortie Duration
ATC—Air Traffic Control
ATD—Aircrew Training Device
AVTR—Aircraft Video Tape Recorder
AWACS—Airborne Warning and Control System
BAI—Backup Aircraft Inventory
BAQ—Basic Aircraft Qualification
BDA—Battle Damage Assessment
BFM—Basic Fighter Maneuvers/Maneuvering
BMC—Basic Mission Capable
BSA—Basic Surface Attack
BVR—Beyond Visual Range
C3—Command, Control, and Communications
C3I—Command, Control, Communications, and Intelligence
C&R—Collection and Reporting
CAF—Combat Air Forces
CAP—Combat Air Patrol, Critical Action Procedures
CAS—Close Air Support
CAT—Category
CA-Coded—Designated Aggressor Aircraft
CB-Coded—Designated Test Aircraft

CC—Commander
CC-Coded—Designated Combat Aircraft
CCIP—Continuously Computed Impact Point
CCRP—Continuously Computed Release Point
CDIP—Continuously Displayed Impact Point
CE—Combat Edge
CEP—Circular Error Probable
CF—Checkered Flag
CFT—Cockpit Familiarization Trainer
CFT—Conformal Fuel Tank
CFTR—Composite Force Training
CHUM—Chart Update Manual
CIRVIS—Communication Instructions Reporting Vital Intelligence Sighting
CM—Countermeasures
CMR—Combat Mission Ready
CMS—Combat Mission Section
COMM JAM—Communications Jamming
COMSEC—Communications Security
CPT—Cockpit Procedures Trainer
CRM—Cockpit Resource Management
CRO—Criterion Referenced Objectives
CSAR—Combat Search and Rescue
CT—Continuation Training
CV—Vice Commander
CW—Chemical Warfare
CWD—Chemical Warfare Defense
DACBT—Dissimilar Air Combat Training
(D)ACBT—Similar or Dissimilar Air Combat Training
DACM—Dissimilar Air Combat Maneuvering
(D)ACM—Similar or Dissimilar Combat Maneuvering
DACT—Dissimilar Air Combat Tactics
(D)ACT—Similar or Dissimilar Air Combat Training

DAR—Designated Area for Recovery
DBFM—Dissimilar Basic Fighter Maneuvers/Maneuvering
(D)BFM—Similar or Dissimilar Basic Fighter Maneuvers/Maneuvering
DCA—Defensive Counter Air
DMPI—Desired Mean Point of Impact
DNIF—Duties Not Involving Flying
DOC—Designed Operational Capability
DR—Dead Reckoning
DRU—Direct Reporting Unit
E&R—Escape and Recovery
EC—Electronic Combat
ECCM—Electronic Counter Countermeasures
ECM—Electronic Countermeasures
ECO—Electronic Combat Officer
ECR—Electronic Combat Range
EI—Essential Elements of Information
EO—Electro-Optical
EP—Emergency Procedure
EPE—Emergency Procedures Evaluation
EW—Electronic Warfare
EWO—Electronic Warfare Officer
EWWS—Electronic Warfare Warning Set
FAC—Forward Air Controller
FAC(A)—Forward Air Controller (Airborne)
FAM—Familiarization
FCF—Functional Check Flight
FCP—Front Cockpit
FEB—Flying Evaluation Board
FEF—Flying Evaluation Folder
FL—Flight Lead
FLIR—Forward Looking Infrared
FLUG—Flight Lead Upgrade

FM—Form
FOT&E—Follow-on OT&E
FOV—Field of View
FP—First Pilot
FPA—Flight Path Angle
FPM—Flight Path Marker
FS—Fighter Squadron, Flight Surgeon
FSCL—Fire Support Coordination Line
FSWD—Full Scale Weapons Delivery
FTR—Fighter
FTU—Formal Training Unit
FW—Fighter Wing
G—Gravitational Load Factor
GBU—Guided Bomb Unit
GCI—Ground Controlled Intercept
GLO—Ground Liaison Officer
GLOC—G-induced Loss of Consciousness
GP—General Purpose
GS—Ground Speed
HADB—High Altitude Dive Bomb
HARB—High Altitude Release Bomb
HAS—High Angle Strafe
HASD—High Altitude Systems Delivery
HHQ—Higher Headquarters
HUD—Head Up Display
IAGTS—Improved AGTS
IAW—In Accordance With
ICWT—Initial Chemical Warfare Training
ID—Identify/Identification
IEWO—Instructor EWO
IFE—In Flight Emergency
IFF—Identification Friend or Foe

IFR—Instrument Flight Rules

IIR—Imaging Infrared

ILS—Instrument Landing System

IMC—Instrument Meteorological Conditions

INFLTREP—Inflight Report

INS—Inertial Navigation System

INTREP—Intelligence Report

IOC—Initial Operational Capability

IP—Instructor Pilot or Initial Point

IPSIM—IP Simulator

IPUG—Instructor Pilot Upgrade

IQT—Initial Qualification Training

IR—Infrared

IRC—Instrument Refresher Course

IRCM—Infrared Counter Measures

ISD—Instructional Systems Development

ITFR—IMC (or night) Terrain Following Radar

IWSO—Instructor WSO

IWUG—Instructor WSO Upgrade

JAAT—Joint Air Attack Team

JFT—Joint Force Training

KCAS—Knots Calibrated Airspeed

KIAS—Knots Indicated Airspeed

KIO—Knock It Off

KS—Killer Scout

KTAS—Knots True Airspeed

LADD—Low Angle Drogue Delivery

LADT—Low Altitude Dive Toss

LAHD—Low Angle High Drag

LAI—Low Altitude Intercept

LALD—Low Angle Low Drag

LANTIRN—Low Altitude Navigation and Targeting Infrared for Night

LAO—Local Area Orientation
LASD—Low Altitude Systems Delivery
LASDT—Low Altitude Step Down Training
LASTE—Low Altitude Safety and Targeting Enhancement
LAT—Low Altitude Toss
LATF—Low Altitude Tactical Formation
LATN—Low Altitude Tactical Navigation
LGB—Laser Guided Bomb
LIMFACS—Limiting Factors
LLLD—Low Level Low Drag
LLS—Low Level Strike
LOC—Limited Operational Capability
LOS—Line of Sight
LOW A/A—Low Altitude Air-to-Air
LOW ALT—Low Altitude
LOWAT—Low Altitude Training
LRDT—Long Range Dive Toss
LRS—Long Range Strafe
LTDSS—Laser Target Designator Scoring System
LVL—Level
MADT—Medium Altitude Dive Toss
MAJCOM—Major Command
MAV—Maverick
MCC—Mission Commander
MDI—Multi Display Indicator
MDS—Mission Design Series
MDT—Mission Directed Training
MEA—Minimum Enroute Altitude
MIJI—Meaconing, Intrusion, Jamming and Interference
mil—Milliradian
MIL—Military Power
MISREP—Mission Report

ML—Mission Lead
MOA—Military Operating Area
MP—Mission Pilot
MQF—Master Question File
MQT—Mission Qualification Training
MRM—Medium Range Missile
MS—Mission Support
MSA—Minimum Safe Altitude
MW—Mission WSO
N/A—Not Applicable
NAAR—Night Air/Air Refueling
NAF—Numbered Air Force
NAV—Navigation
NCO—Noncommissioned officer
NGB—National Guard Bureau
NLT—Not Later Than
NT—Night
NTR—Night Transition
NVG—Night Vision Goggle
OCA—Offensive Counterair
OCA-A—Offensive Counterair Air-to-Air
OCA-S—Offensive Counterair Air-to-Surface
OFT—Operational Flight Trainer
OG—Operations Group
OPR—Office of Primary Responsibility
OPS—Operations
OPSEC—Operations Security
OTD—Operations Training Development
OT&E—Operational Test and Evaluation
ORI—Operational Readiness Inspection
PACAF—Pacific Air Forces
PAI—Primary Aircraft Inventory

PAR—Precision Approach Radar
PCS—Permanent Change of Station
PDAI—Primary Development/Test Aircraft Inventory
PFT—Programmed Flying Training
PGM—Precision Guided Munitions
PMAI—Primary Mission Aircraft Inventory
POAI—Primary Other Aircraft Inventory
PPB—Positive Pressure Breathing
PPG—Positive Pressure Breathing for G
PQI—Professional Qualification Index (AFI 11-401)
PTAI—Primary Training Aircraft Inventory
PTT—Partial Task Trainer
PUP—Pull Up Point
QUAL—Qualification
RAP—Ready Aircrew Program
RCO—Range Control Officer
RCP—Rear Cockpit
RCS—Radar Cross Section
RECCE—Reconnaissance
RF—Radio Frequency
RFMDS—Red Flag Mission Debriefing System
ROE—Rules of Engagement (Combat only)
RT—Radio Terminology
RTB—Return To Base
RTT—Realistic Target Training
RW—Reconnaissance Wing
RWR—Radar Warning Receiver
RX—Rockets
SA—Situational Awareness, Strategic Attack
SAAC—Simulator for Air-to-Air Combat
SAFE—Selected Area For Evasion
SAR—Search and Rescue

SAT—Surface Attack Tactics
SCAR—Strike Control and Reconnaissance
SCL—Standard Conventional Load
SCP—Set Clearance Plane
SEAD—Suppression of Enemy Air Defenses
SEAD-A—Suppression of Enemy Air Defenses-Anti-Radiation
SEAD-C—Suppression of Enemy Air Defenses-Conventional
SEAD-E—Suppression of Enemy Air Defenses-Electronic
SEFE—Stan/Eval Flight Examiner
SELO—Stan/Eval Liaison Officer
SEPT—Situational Emergency Procedure Training
SFO—Simulated Flameout
SI—Simulator Instructor
SIF—Selective Identification Feature
SLD—Systems Level Delivery
SOCC—Sector Operations Control Center
SOF—Supervisor of Flying
SORTS—Status of Resources and Training System
SQ/CC—Squadron Commander
SRM—Short Range Missile
SSE—Simulated Single Engine
SUPT—Specialized Undergraduate Pilot Training
STR—Strategic Training Range
TA—Terrain Avoidance
TACAN—Tactical Air Navigation
TACS—Tactical Air Control System
TAI—Total Active Inventory
TD—Tactical Deception (AFI 10-704)
TDY—Temporary Duty
TF—Terrain Following
TF-Coded—Designated Training Aircraft
TFR—Terrain Following Radar

TGM—Training Guided Munitions
TGT—Target
T.O.—Technical Order
TOD—Time of Day
TOT—Time Over Target
TR—Training Rules
TX—Transition
UCML—Unit Committed Munitions List
UE—Unit Equipped
UIP—Upgrading Instructor Pilot
UIWSO—Upgrading IWSO
UMD—Unit Manning Document
UNITREP—Unit Status and Identity Report
USAF—United States Air Force
USAFAWC—USAF Air Warfare Center
USAFE—United States Air Forces in Europe
USAFR—United States Air Force Reserve
USAFWS—USAF Weapons School
USAFWTC—USAF Weapons and Tactics Center
UTE—Utilization Rate
VID—Visual Identification
VFR—Visual Flight Rules
VLD—Visual Level Delivery
VMC—Visual Meteorological Conditions
VR—Visual Recognition
VRD—Vision Restricting Device
VTR—Video Tape Recorder
WD—Weapons Delivery
WDL—Weapon Data Link
WG—Wing
WIC—Weapons Instructor Course
WS—Weapons School

WSEP—Weapon Systems Evaluation Program

WSO—Weapon Systems Officer

WST—Weapon System Trainer

WSTO—Weapons System Training Officer

WTT—Weapons and Tactics Trainer

WVR—Within Visual Range

WX—Weather

Terms

Air Combat Training (ACBT)—A general term which includes (D)BFM, (D)ACM, and (D)ACT. The prefix (D) refers to the type of adversary assets. When the prefix is present, dissimilar is optional. When the prefix is missing, similar is assumed as flown/required. When present without parenthesis, dissimilar is assumed flown or required. This convention corresponds to all facets of ACBT (i.e., BFM, ACM, ACT).

Air Combat Tactics (ACT)—Training in the application of BFM, ACM, and tactical intercept skills to achieve a tactical air-to-air objective. (AFI 11-214)

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

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

Basic Aircraft Qualification (BAQ)—A status of a pilot who has satisfactorily completed training prescribed to maintain the skills necessary to fly the unit aircraft. The member 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 pilots until completion of MQT. BAQ is not a permanent qualification except for General Officers above the wing level, and any other pilots specifically authorized by MAJCOM DO/XO. Pilots are not authorized to perform RAP-tasked combat event/sorties without instructor pilot or SQ supervisor supervision. Flight duties will be limited to those identified in paragraph 4.3.

Certification—The process of certifying pilots' tactical employment and special weapons capabilities, procedures, and rules. Replaces verification for nuclear tasked units.

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

Cockpit Familiarization Trainer (CFT)—A training device in which the controls, switches, and instruments do not have to respond to trainee inputs. Used for checklist use, normal procedures, and

emergency procedures (see AFP 50-11 (AFPAM 36-2211, *Guide for Management of Air Force Training Systems*)).

Cockpit Procedures Trainer (CPT)—A training device in which instruments and displays are activated to respond to trainee inputs.--Used--for safety of flight, instrument, normal, and emergency procedures (see AFP 50-11 (AFPAM 36-2211)).

Combat Edge—A positive-pressure breathing-for-G (PPG) system which provides pilots/WSOs additional protection against high positive G accelerations experienced during flight. The system consists of pilot equipment (high-pressure mask, counter-pressure suit, G-suit), and aircraft equipment (oxygen regulator, G-valve, and interfacing sense line). At 5-G and above, regulated air and oxygen are supplied to the system to provide automatic mask tensioning, vest inflation, and positive pressure breathing to the mask.

Combat Mission Ready (CMR)—A status of a pilot 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. All active duty API-1/2's, Squadron Commander, Operations Officers, and OG/CC designated API-6 manning positions are required to maintain this qualification level. **EXCEPTION:** If a unit is over-manned, they may elect to train the front line of their UMD to CMR with the overage designated as BMC. Approximately 50% of the pilots selected for CMR must be inexperienced. (Refer to paragraph 1.4.4.2.)

Composite Force Training (CFTR)—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. (AFI 11-214)

Continuation Training (CT)—Training to maintain proficiency and improve pilot capabilities to perform unit missions and pilot proficiency sorties not flown in formal syllabus missions, tests, or evaluations. Applicable to CMR and BMC pilots.

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

Delivery Parameters—Data reflecting current delivery considerations for general purpose ordnance as well as tactical survivability. Appropriate aircraft/ weapons Tech Orders must be consulted for live ordnance safe escape criteria and -1 performance charts for recovery altitudes.

Demanding Sortie—Sorties that task the pilot to the extent that flying frequency and continuity are most critical. Authorized sorties/events requiring demanding mission currency are: BFM (except for F-15 units), (D)ACM, (D)ACT, LOWAT (below 1,000 feet AGL), CAS, SAT (except dry level passes at or above 500 feet), CFTR, JFT, night missions, instructor duties, JAAT, aerial demonstrations, etc. SQ/CCs may add sorties/events to the demanding sortie list, depending on unit tasking and the individual's capabilities. Also see non-demanding sortie.

Dissimilar ACBT (DACBT)—ACBT in conjunction with another MDS aircraft as adversary. The connotation (D)ACBT refers to either similar or dissimilar ACBT. These connotations correspond to all facets of ACBT (i.e., BFM, ACM, ACT).

Emergency Procedures Evaluation (EPE)—An evaluation of pilot knowledge and responsiveness to critical and non-critical EPs conducted by a SEFE in an OFT, CPT, CFT or aircraft cockpit.

Experienced Pilot (EXP)—For pilots: hours are FP/IP/MP and fighter time is defined as FP/IP/MP hours logged in aircraft with an assigned AFSC of 11FX. OA-10 is considered fighter time. For WSOs, fighter

time is hours logged in aircraft assigned an AFSC of 12F3X or 12F4X. An experienced pilot has: 500 hrs PAI, or 1,000 hrs (FP/IP/MP), of which 300 are PAI, or 600 fighter hrs, of which 200 hrs are PAI, or previously fighter EXPERIENCED and 100 hrs PAI.

Familiarization (FAM)—Normally requires a minimum of six weapons deliveries for PGMs and bombing events in a twelve month cycle.

Flight Lead (FL)—As designated on flight orders, the individual responsible for overall conduct of mission from preflight preparation/briefing to postflight debriefing, regardless of actual position within the formation. A certified 4-ship FL may lead formations and missions in excess of four aircraft, unless restricted by the unit CC. A 2-ship FL is authorized to lead an element in a larger formation.

Full Scale Weapons Delivery (FSWD)—Delivery of live or inert ordnance representing a typical combat configuration or SCL in a tactical scenario.

Initial Qualification Training (IQT)—Training to qualify the pilot in basic aircraft flying duties without specific regard to the unit's operational mission. The minimum requirement for Basic Qualification status.

Joint Air Attack Team (JAAT)—Coordinated CAS with helicopters.

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

Killer Scout (KS) Operations—The employment of armed attack fighters in an Interdiction or Strategic Attack scenario for a specified geographic location flown to validate tasked targets, mark targets, and direct dedicated ground attack fighters against lucrative targets. Killer Scouts are normally used as part of the C3I interface, to coordinate flights, identify or neutralize targets and enemy air defenses, and provide BDA.

Limited-Threat VID—Visual identification of a bogey in a limited threat environment (i.e., counter-drug operations, NORAD procedures, etc.).

LITENING II/ER—Second generation targeting pod with unique built in capabilities such as laser marker, charge couple device (day use camera), laser spot search and track mode and lase ability above 25,000'.

Low Altitude Navigation and Targeting Infrared for Night (LANTIRN)—A navigation and targeting system that provides tactical aircraft with a low-altitude, under-the-weather, day and night operational capability.

Low Altitude Training (LOWAT)—Operations in a certified low altitude block as defined in Table 6.1. LOWAT is divided into two currencies/events - LOW A/A and LOW ALT. LOW A/A events include skills necessary to search for, and engage offensively, an aerial target at low altitude. LOW ALT events include low altitude navigation, tactical formation, defensive maneuvering to avoid or negate threats, and air-to-surface attacks.

Low Altitude Intercept (LAI)—An intercept conducted below 5,000 feet AGL.

Low Altitude Tactical Formation (LATF)—Flying tactical formation while conducting LATN training. (AFI 11-214)

Low/Slow Speed Threat VID Intercept—Tactical intercept performed to accomplish the tactical objective (ID the bogey, ID and kill the bandit, etc) on a target below 5000 feet AGL with airspeed less than 250 KIAS. Fighter should counter threat maneuvers and weapons engagement zones, consider

environmental factors, attain turning room and energy at end game, practice ID/ROE procedures, and terminate when briefed objectives or training rule stops are reached. These intercepts will not update ACBT currency. Two events may be logged per sortie, but not on the same engagement.

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.

Non-demanding sortie—A day sortie that provides the pilot with the opportunity to regain basic flying proficiency without excessively tasking those skills that have been under used during the non-flying period. Authorized events flown on a non-demanding sortie are: instruments, AHC, low level navigation at or above 500 feet AGL, basic weapons delivery, basic intercepts, etc. SQ/CCs may delete sorties/events from this non-demanding sortie list, depending on unit tasking and the individual's capabilities.

Operational Flight Trainer (OFT)—A training device which dynamically simulates flight characteristics. Used for normal, emergency, and instrument procedures, to include safety of flight, warfighting tasks, and skill integration training (see AFP 50-11 [AFPAM 36-2211]).

Primary Aircraft Inventory (PAI)—Aircraft authorized for performance of the operational mission. The PAI forms the basis for allocation of operating resources to include manpower, support equipment, and flying-hour funds. The operating command determines the PAI required to meet their assigned missions. (See AFI 16-402.)

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

Qualification (QUAL)—Pilot has demonstrated capability to put appropriate ordnance on target according to criteria established for that event in [Chapter 5](#).

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

Specialized Training—Training in specialized tactics, weapons systems, or flight responsibilities such as flight lead, instructor, LASDT, etc. This training may be conducted in MQT or CT, as required.

Squadron Supervisor—Squadron Commander, Asst/Operations Officers, Flight CCs.

Tactical Deception—Any activity designed to mislead the enemy operational commander by manipulating, distorting, or falsifying evidence, thereby inducing the enemy to act in a manner favorable to our interests or desires (see AFI 10-704).

Tactics and Training Range (TTR)—Sites capable of Radar Bomb Scoring, EC range training and special training (also called radar bomb scoring).

Threat VID—Visual identification of a bogey in a threat environment IAW AFTTP 3-1.

Verification—Applies to procedure aimed at verifying and refreshing aircrew tactical employment knowledge, emphasizing conventional operations and mobile targets. Verification is conducted in both initial and follow-on phases. Initial verification phase is a formal board proceeding convened to verify individual aircrew knowledge. Continuation training is to reinforce, refresh, and update aircrews on unit wartime mission/tasking, tactics, and procedures. (DoD) 1. In arms control, any action, including inspection, detection, and identification, taken to ascertain compliance with agreed measures. 2. In computer modeling and simulation, the process of determining that a model or simulation implementation accurately represents the developer's conceptual description and specifications.

Visual Identification (VID)—(DoD, NATO) In a flight control system, a control mode in which the aircraft follows a radar target and is automatically positioned to allow visual identification.

Weapons Delivery—Simulated or actual expenditure of air-to-ground munitions representing a typical combat configuration or SCL in a tactical scenario.

Attachment 2

GLOSSARY OF MISSION/SORTIE AND EVENT DEFINITIONS

A2.1. Mission/Sortie Definitions. The following is a listing of mission/sortie definitions:

A2.1.1. Aircraft Handling Characteristics (AHC). Basic skills sortie. Training for proficiency in utilization and exploitation of the aircraft flight envelope, consistent with operational and safety constraints, including, but not limited to: high/maximum AOA maneuvering, energy management, minimum time turns, maximum/optimum acceleration and deceleration techniques and confidence maneuvers.

A2.1.2. Collateral Sorties. Sorties not directly related to combat employment or basic skills training but necessary for accomplishment of unit training programs, such as ferry flights, deployments, airshows, etc. MAJCOMs will normally assign collateral sorties in lump sum (nominally 200 per fighter unit), adjusted for local conditions and circumstances. These sorties are not required for RAP training purposes.

A2.1.3. Contingency Sortie. A mission tasked and flown while deployed for a contingency operation in which training is limited. These sorties are logged as Contingency Operations Sortie (SC13) in ARMS. These sorties and events accomplished on these sorties do not count towards annual RAP requirements, however, the sorties may be used for lookback and the events may be used to update currencies.

A2.1.4. Instructor Pilot (IP) Sortie. Sortie where IP acted in the capacity of an instructor.

A2.1.5. Instrument Sortie. Basic skills sortie. Training designed to ensure instrument proficiency. RAP events may be accomplished on an instrument sortie provided accomplishment does not interfere with the primary goal of instrument training. Units are allocated sorties for every pilot to accomplish their minimum basic skill, Non-RAP, requirements.

A2.1.6. Mission Commander (MCC) Sortie. Special qualification sortie. Sortie where aircrew acted in the capacity of a MCC for a joint/composite mission responsible for two or more types of aircraft with four or more total aircraft, or more than four own MDS aircraft versus a minimum of two pre-planned adversary aircraft. May be logged in conjunction with baseline training requirements.

A2.1.7. Surface Attack Tactics (Day) [SAT-(Day)]. Includes tactical mission planning, execution with actual or simulated threats, and weapons delivery IAW unit tasking, simulating UCML munitions and SCLs against a tactical target during the day. Simulated attacks may be conducted against realistic targets IAW local restrictions. Mission types include: Strategic Attack (SA), Air Interdiction (AI), Offensive Counterair Air-to-Surface (OCA-S), and Suppression of Enemy Air Defenses-Conventional (SEAD-C).

A2.1.8. Surface Attack Tactics (Night) [SAT-(NT)]. Includes tactical mission planning, execution with actual or simulated threats, and weapons delivery IAW unit tasking, simulating UCML munitions and SCLs against a tactical target at night. Simulated attacks may be conducted against realistic targets IAW local restrictions. Mission types include: Strategic Attack (SA), Air Interdiction (AI), Offensive Counterair Air-to-Surface (OCA-S), and Suppression of Enemy Air Defenses-Conventional (SEAD-C).

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

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

A2.2.2. Expending ordnance against a target according to predetermined flight path parameters and delivery methods. A single delivery constitutes an event.

A2.2.3. Accomplishment of a specific training element, function, or task (i.e., tactical formation, AAR, etc.).

A2.3. Weapons Delivery Events:

A2.3.1. A delivery is defined as a pass at a target on which ordnance is expended or simulated and meets the criteria defining a specific weapon delivery (GBU-10, etc.). Weapon events are defined in **Chapter 5**. All deliveries will be recorded, but not necessarily as a “record” delivery. There are two type of deliveries:

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

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

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

A2.3.2.1. Record Keeping:

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

A2.3.2.1.2. Record. Conventional or nuclear delivery scored for individual weapons qualification. Scoring shall be accomplished by ground, air or AVTR (for guided weapons) scoring, as appropriate. A maximum of two record deliveries may be accomplished during a sortie from a single run-in heading. Additional record deliveries may be accomplished from headings differing by at least 90 degrees or on different targets/ranges. May not be preceded by non-record deliveries in the event on the same sortie. The first two deliveries will be considered record unless otherwise declared prior to the roll-in to final. Scores will be documented by CEP and clock position. Additional guidelines are:

A2.3.2.1.2.1. Basic. Must be scored on a Class A range (IAW AFI 13-212V1, 2, and 3).

A2.3.2.1.2.2. Tactical. A minimum of 50% must be accomplished on a ground scored range (except for PT and EO/IR events). Remaining record hits may be air scored by reference to known distances from the target.

A2.3.2.1.2.3. LGB. Designator and bomber functions may be accomplished simultaneously by a single aircraft or separately using buddy designation techniques. To record a complete LGB delivery, one simulated or actual weapons release and one designation must be performed. Laser tracker accuracy may be scored by AVTR or Laser Target Designator Scoring System (LTDSS).

A2.3.2.2. RAP Tasking:

A2.3.2.2.1. FAM. Weapons events tasked at FAM may be basic/tactical record deliveries. Each single hot/camera pass counts as one delivery. Unless otherwise specified in the RAP tasking message or formal course syllabi, FAM tasking requires six weapons deliveries annually.

A2.3.2.2.2. QUAL. Weapons tasked at QUAL must be tactical, record deliveries. QUAL tasking demonstrates the pilot's capability to put appropriate ordnance on target. Unless otherwise specified in the RAP tasking message or formal course syllabi, QUAL criteria is established for each event in [Chapter 5](#).

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

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

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

A2.3.3.3. Full Scale Weapons Delivery. Delivery of live or inert ordnance representing a typical combat configuration or SCL in a tactical scenario.

A2.3.3.4. Gross Error. A penalty score or miss assigned to a pilot's records when a weapons delivery attempt results in: munitions impact outside the range scoring capability; a chargeable dry pass; a foul; an unintentional release, or exceeding tactical delivery time on final requirements.

A2.3.3.5. Hit. Any munitions impact within the weapons criteria established for that event.

A2.3.3.6. Multiple Release. More than one weapon released against the same target on a single pass.

A2.3.3.6.1. Intentional. The pilot must advise the range officer prior to delivery and designate which impact to be scored.

A2.3.3.6.2. Inadvertent. Ordnance which was released without command by the pilot. Impact will not be scored.

A2.3.3.6.3. System Malfunction. An undeclared multiple release caused by a verified system malfunction. Score is void after system malfunction verification, otherwise, unintentional rules apply.

A2.3.3.6.4. Unintentional. Ordnance released due to pilot error. Will be scored as gross error regardless of impact point.

A2.3.3.7. No Spot. A weapons release during which no impact was observed. No score or error will be assigned.

A2.3.3.8. Void Delivery. Weapons delivery not successfully completed due to: a documented and verified weapons system malfunction; a pass aborted for safety; no spot; or circumstances beyond the control of the pilot.

A2.4. Tactical Events. The following is an alphabetical listing of tactical events to be used for fulfilling tasked requirements. In the absence of guidance, units will determine the content of tasked events and how often they may be logged.

A2.4.1. **Air/Air Refueling (AAR).** An AAR event requires tanker rendezvous, hook-up and transfer of fuel or 1 minute of dry contact. More than one event may be credited if receivers accomplish another rendezvous, hook-up and fuel transfer/dry hook-up.

A2.4.2. **Comm Jam Event.** Inflight operations without use of active anti-jam radios in a _omm. jamming environment that provide realistic intervals and duration (completion of one attack profile desired) to counter jamming and/or effective chattermark procedures. Limited to logging of one event per sortie.

A2.4.3. **Composite Force Training (CFTR).** 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. Only one event may be logged per sortie (exception: If an AAR separates events, a maximum of two events may be logged per sortie. (AFI 11-214)

A2.4.4. **HAVE QUICK Event.** The practice of loading the combat or MAJCOM HAVE QUICK training net WOD, world-wide TOD. Requires proper radio configuration for HAVE QUICK operation and successful utilization during tactical mission accomplishment. During extended missions, the TOD should be updated from a world-wide master clock if available. Only one event may be logged per sortie.

A2.4.5. **Instructor Event.** An event logged by an instructor when performing instructor duties during the sortie, or a portion thereof. The instructor qualification must be required and used for the mission itself or a mission element. Examples include upgrade sorties, updating lost currencies, etc. Evaluators will log this event on evaluation sorties. Logging this event updates instructor currency.

A2.4.6. **Low Altitude (LOW ALT).** An event defined as performing realistic, mission-oriented low altitude operations while in a certified LOWAT altitude block (see Table 6.1). The event includes low altitude navigation, tactical formation, defensive maneuvering to avoid or negate threats, and air-to-surface attacks. Only one event may be logged per sortie. (**EXCEPTION:** If an AAR separates events, a maximum of two events may be logged per sortie). (AFI 11-214)

A2.4.7. **Secure Voice.** An event defined as properly configuring the radio for secure voice operations and completing at least one successful voice transmission and reception. Only one event may be logged per sortie.

A2.4.8. **Time Sensitive Target (TST) Event.** An event performing a tactical weapons delivery (actual or simulated) against an unplanned, highly lucrative target or target of opportunity requiring immediate response. The attacking aircraft should receive target data/description and clearance from

an appropriate command and control (C2) asset. Use of CRCs, AWACS, JSTARS, AOC, UAV, TACP, FAC or a simulation thereof is required. Scenarios should include standard fire support control measures utilizing standard J-FIRE terminology for clearance of fires. Data/description can be via datalink or normal radio communications. Only the attacking aircraft will receive credit for the event. Although the target is unplanned, the event and procedures must be thoroughly briefed. CAS may be used to fill the TST requirement.

Attachment 3

VERIFICATION GUIDE FOR AIR-TO-SURFACE

A3.1. Verification Briefing Guidelines. The following outlines are provided as guidelines for the development of 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 in-flight 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 (SAMs, 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 (WX 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, EOB, 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 pilot/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.

A3.1.5.3. DARs

A3.1.6. ESSENTIAL ELEMENTS OF INFORMATION/REPORTS:

A3.1.6.1. EEIs.

A3.1.6.2. Required reports and reporting procedures.

Attachment 4

TRAINING SHORTFALL REPORT

MEMORANDUM FOR MAJCOM/DOT

SUBJECT: XX SQ Training Shortfalls

FROM:

1. TRAINING SHORTFALLS By squadrons, report the training events/sorties not accomplished or locally waived. Only report shortfalls commanders feel will have a major impact on unit training. Report only those events/sorties that are 15% short of what would be expected that quarter **and** that affect 15% or greater of their CMR crew force. Expected shortfalls for the 1st, 2nd, 3rd and 4th quarters are 75%, 50%, 25%, and 0% respectively. You are simply reporting when your squadron misses one of those goals by 15% or more. Also note any specific reasons for the shortfall and the corrective action taken. If you think you will meet annual RAP requirements, then note in paragraph 3. See the example below.

Report math:

Problem: The 69th Fighter Squadron is a 24 PAA squadron with 30 API-1/6 CMR pilots assigned and attached. 15 CMR pilots only logged 10 of the 58 chaff events for the 1st quarter.

Solution:

Step 1: Determine the chaff requirements for that quarter:

$$(58 \times Y) = \text{chaff events required for that quarter}$$

$$Y = .25 \text{ for 1}^{\text{st}} \text{ quarter}$$

$$.50 \text{ for 2}^{\text{nd}} \text{ quarter}$$

$$.75 \text{ for 3}^{\text{rd}} \text{ quarter}$$

$$1.00 \text{ for 4}^{\text{th}} \text{ quarter (EOY report)}$$

$$(58 \times .25) = 14.5 \text{ chaff events required for 1}^{\text{st}} \text{ quarter}$$

Step 2: Determine minimum goal for each event:

$$(\text{events required}) \times (.85) = \text{events or less required to be reportable}$$

$$(14.5) \times (.85) = 12.3$$

Pilots who accomplish 12 or less chaff events may report a shortfall (if you have greater than 15% of your crew force under this goal)

Step 3: Figure out what % of CMR crewmembers, as required by specialty (AC, pilot, navigator, etc.), that came up 15% short. 15 of the 30 pilots logged only 10 chaff events therefore **50% CMR** pilots affected.

Step 4: Figure out what % shortfall is for that event. Only 10 chaff events were logged for those CMR pilots affected. Make that a percentage with the following formula:

$$\begin{aligned} \% \text{ Shortfall} &= 100\% - (\text{events accomplished} \div \text{events required}) \\ &= 100\% - (10 \div 58) \\ &= \mathbf{82\%} \end{aligned}$$

Report Example:

<u>EVENT</u>	<u>%CMR AFFECTED</u>	<u>% SHORTFALL</u>
Chaff	50%	82%

Reason for Shortfall: The squadron was deployed for ONE for first 2 months of the quarter.

Corrective Action: The squadron plans to fly more air to air in the 2nd quarter and have all jets loaded with deployable chaff.

2. SQUADRON PRORATION DATA. Use paragraph 2 to denote the squadrons' overall percentage of proration due to Contingency Operations (ONE, OEF, SWA) for CMR aircrew members. BMC crewmembers' data is not required or desired. Do not include proration due to DNIF's, emergency leaves, and non-contingency TDYs. Compile the proration data for each aircrew member and divide by the total number of CMR personnel by specialty to come up with a squadron average of quarterly/annual proration. Example: 10 CMR pilots out of 30 flew ONE for 1 month and were prorated appropriately. These 10 pilots were prorated for 33% of the quarter and the other 20 pilots for 0% of the quarter for a squadron average quarterly proration of 11% for pilots; Math is $(10 \times 33) \div 30$ total pilots = 11%.

Report Example:

<u>% AC PRORATED</u>	<u>% PILOT PRORATED</u>	<u>% NAV PRORATED</u>
N/A	11%	N/A

3. COMMANDERS COMMENTS. This is an open forum for specific concerns for his squadron's training and immediate concerns. Also note if you think your squadron will be able to accomplish annual RAP requirements. Comments to improve the training reporting system are also voiced here.

1st Ind, OG/CC

TO: HQ ACC/DOT

CC: NAF DO