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Flying Operations

F-16--AIRCREW TRAINING

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This volume implements AFPD 11-2, *Aircraft Rules and Procedures*; AFPD 11-4, *Aviation Service*; and AFI 11-202V1, *Aircrew Training*. It establishes the minimum Air Force standards for training and qualifying personnel performing duties in the F-16 A/B/C/D. Selected paragraphs of this publication do not apply to all Air Force units. When an exception exists to the requirements of a paragraph, the exception is indicated in a parenthetical within the paragraph, or by using subparagraphs directed at specific 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 AFPD 11-2, paragraph **4.2.** 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 and NGB 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, paragraph 3.66 (periodic review). See paragraph **1.3.** for guidance on submitting comments and suggesting improvements to this publication.

This instruction requires the collection or maintenance of information protected by the Privacy Act of 1974. The authority to collect and maintain the records prescribed in this instruction are 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, *Flight Management*; and E.O. 9397. The reporting requirements in this instruction are exempt from licensing in accordance with paragraph 2.11.10 of AFI 37-124, *The Information Collections and Reports Management Program*; *Controlling Internal, Public, and Intra-Agency Air Force Information Collections*. System of records notice F011 AF XO A, Air Force Operational Resource Management System (AFORMS), applies.

NOTE:

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

Publications: ACCPAM 10-453, MCM 3-1, ACCI 11-464, (MAJCOM) 11-301

NOTE

MAJCOM-specific guidance is embedded within the text and prefaced with the MAJCOM acronym.

Chapter 1

GENERAL GUIDANCE

1.1. Abbreviations, Acronyms, and Terms. See **Attachment 1**.

1.2. Responsibilities:

1.2.1. HQ ACC/DO is designated as the responsible agency for this instruction IAW AFPD 11-2. The ACC/DO will:

1.2.1.1. Chair semiannual 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 applicable Major Commands (MAJCOMs) will:

1.2.2.1. Determine training requirements to meet expected unit tasking.

1.2.2.2. Forward all MAJCOM/FOA/DRU supplements to HQ USAF/XOOT for approval. Inform all MAJCOM/DO/XOs of approved supplements to this instruction.

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

1.2.3. Direct Reporting Units (DRUs) will:

1.2.3.1. Provide standard instructional texts to support operational weapons/tactics training. Forward two copies 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. ACC wings/groups will also assist ANG and AFRC unit training programs as required/requested IAW the AFRC unit advisory support program.

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

1.2.4.3. Designate the training level to which each RPI-6 flyer (ANG and AFRC: All flyers) will train. Provide MAJCOM/DOT (AETC: N/A, ANG: ACC/DOT) with a list of BMC and CMR designated manning positions NLT the beginning of each training cycle. Review programs and manning position designations annually. OG/CCs will report changes in position designations as they occur during the year to MAJCOM/DOT (AETC: N/A, ANG: HQ ACC/DOT).

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

1.2.4.5. Identify training shortfalls that adversely impact combat capability through appropriate channels. (For training report format see **Attachment 5**, Training Shortfall Report).

1.2.5. Squadron supervision (ANG, AFRC: Appropriate operations supervisor) 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 instruction 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 FS/GLO and determine appropriate flight restrictions.

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 breadth and depth of 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 pilot 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 instruction.

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 instruction to MAJCOM/DOT on AF Form 847, **Recommendation for Change of Publication**.

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

1.3.3. HQ ACC/DO will:

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

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

1.3.3.3. Address time sensitive changes by immediate action message.

1.3.3.4. MAJCOM/DOs (ANG: ACC/CG) will determine training requirements for their subordinate units. This includes making changes, additions, or deletions to this instruction at anytime. 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 pilot in a basic position and flying duties without regard to the 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 a pilot, other than general officers above the wing level, to remain BAQ is MAJCOM DO/XO (ANG: ACC/CG).

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 complete MQT. Completion of MQT or 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 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 pilots to be qualified and proficient in all of the primary missions tasked to their assigned unit and weapons system. (PACAF: Pilots who fail to maintain CMR may be considered BMC. All other guidance for regaining CMR status applies).

1.4.4.2. All CC-coded unit active duty RPI-1 positions, flying SQ/CC and SQ/DO positions are designated CMR positions. OG/CCs may designate other RPI-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) RPI-1s to CMR and designate the overage BMC. In this case, priority should be given to inexperienced pilots with at least 50 percent, if available, designated CMR). [For ANG, AFRC: Any pilot may be designated CMR/BMC at OG/CC discretion]. 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 exercise and contingencies) in which they are current, qualified, and either familiar or proficient, similar to BMC pilots. (PACAF: Pilots who fail to maintain BMC may be considered BAQ. BAQ pilots may not perform combat training without supervision. All other guidance for regaining BMC status applies).

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.

All other 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, are FTU instructors, or are 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. BMC pilots maintain familiarization with all unit core missions. They may also maintain proficiency and qualification in some of the unit core missions. 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, pilots may not perform combat training without supervision until recertified.

1.4.4.4. N-CMR/N-BMC. Pilots that regress to N-CMR/N-BMC status will accomplish a tailored program to regain CMR/BMC status as specified by the SQ/CC.

1.4.4.5. Specialized Training. Specialized training is training in any special skills necessary to carry out the unit's assigned missions that is not required by every pilot. Specialized training consists of upgrade training such as FLUG, IPUG, CSAR upgrade, 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 instruction provides training guidelines and policies for use with operational procedures specified in applicable flying/operations publications.

1.5.2. ACC Training Support Squadron (TRSS) will develop and validate training programs when/where tasked by HQ ACC/DO. Other MAJCOMs may submit requests for training program support to HQ ACC/DO. If validated, these requests will be prioritized and tasked to ACC TRSS. Designated

Test Units (PDAI) may develop syllabi to upgrade Operational 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 will include use of inert and live ordnance, threat simulators, countermeasures, and dissimilar aircraft as much as possible.

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 IP may be required. However, if mission objectives require direct supervision, then a SQ supervisor may be necessary.

1.5.4.2. IPs and FL-qualified SQ supervisors may allow any pilot to lead limited portions of a mission if appropriately briefed. This provision will only be used to allow the 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 a 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 instruction or AFI 36-2201, *Developing, Managing, and Conducting Training.*

1.5.6. The pilot training cycle is 12 months; 1 July through 30 June. Units will complete training requirements during the appropriate training cycle unless specifically excepted. (For AETC: The training cycle is 1 Jan through 31 Dec).

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

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

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

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

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

1.6.5. Progression from BMC to CMR requires:

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

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

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

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

1.6.5.5. Squadron CC certification.

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

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

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

1.6.9. Units converting to another MDS may fly pilots in CMR positions at the BMC rate until one month prior to the operationally ready date if the UTE rate will not support CMR sortie rates. CMR pilots should be flown at a CMR rate for the month prior to IOC.

1.7. Training Sortie Program Development:

1.7.1. RAP sortie and event requirements (see **Attachment 2**) apply to CMR and BMC pilots including 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 instruction and may contain an updated sortie requirement or missions/events not yet incorporated in **Attachment 2**.

1.7.2. Non-RAP requirements (Inst/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 RPI-1 pilots. These sorties ensure that pilots maintain their 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, functional check flights, ferry flights, incentive/orientation flights, FCFs, deployments, and air shows. For the annual training cycle, the MAJCOM allocates a block of sorties to the unit for these purposes (does not apply to the ANG).

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-16 RAP Sortie Requirements (Inexperienced/Experienced).

MAJCOM	Cycle	BMC	CMR
ACC **AETC** **USAFE** **PACAF**	RAP Total	72/60	116/96
	3-Month Lookback	18/15	29/24
	1-Month Lookback	6/5	10/8
ANG **AFRC**	RAP Total	72/60	90/76
	3-Month Lookback	18/15	22/19
	1-Month Lookback	6/5	8/6

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 11-401

1.8.1.2. AFMAN 37-139, Table 36-44

1.8.1.3. ACCR 50-31 (ACCI 11-464)

1.8.1.4. AFM 171-190, Volume 2, Sections A through K

1.8.1.5. 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 AFORMS with either the date of the last FTU or USAFWS equivalent 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 ACMI, AVTR tapes, and/or tape recorders 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, weapons parameters, accuracy, identification procedures, fragmentation clearance, adherence to Training Rules (TR), communications procedures and discipline, flight discipline, proper Anti-G Straining Maneuver IAW paragraph **4.13.** tactical employment, and instrument approaches.

1.10. Pilot Utilization Policy:

1.10.1. Commanders will ensure that wing/group tactical pilots (RPI-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. For inexperienced pilots in the first year of their initial operational assignment, supervisors will limit the non-flying duties to those related to combat activities.

1.10.2. Duties required by various publications that may be assigned to CAF RPI-1 pilots are weapons and tactics officer, programmer, flying safety officer, SOF, mobility/contingency plans, training (except AFORMS 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, RPI-1s may be attached to the wing. RPI-1s will not be attached to wing staffs or man wing staff positions unless total wing pilot RPI-1 manning is 100 percent or better. CCs will ensure wing staff pilots (RPI-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 RPI-1 pilots should receive sortie allocation priority over experienced pilots. Priorities for sortie allocation are as follows:

1.11.1.1. Formal Training Units. Formal syllabus training, Instructor Upgrade, Instructor CT, authorized staff personnel not performing Instructor or SEFE duties (to include RPI-5 pilot physicians not on IP orders).

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

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

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

1.11.2. Wing RPI-6 authorizations are IAW unit manning documents. Active duty wings converting to new PAI are authorized one SQ equivalent (7/6 for 24/18 or less PAI) of additional RPI-6s during

the conversion period. However, total wing staff flying the new aircraft shall not exceed total authorized for final conversion equipage.

1.11.3. For FTU-only wings, all RPI-6 pilots will maintain instructor status (optional for WG/GP CC, FCF pilots, and one other). These wings will fly RPI-1/-6 pilots as required by PFT. For wings consisting of both FTU and operational units, at least one of the following pilots will maintain formal IP status: WG/CC, WG/CV, OG/CC, OG/CD.

1.11.4. RPI-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. Non-RAP requirements will be accomplished within their BMC number of sorties. Wings are allocated flying hours for attached RPI-8s.

1.11.5. (Does not apply to the ANG or AFRC.) 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, but this may impact training of other pilots.

Table 1.2. Annual F-16 Sortie Requirements for Other than RPI-1 Pilots.

RPI Level	CT Status (Minimum Sortie Requirement)	Unit's Aircraft Code	Organization Level	Maximum Sortie Allowance (Inexp/Exp)
6	CMR	PMAI	Any	As required by qualifications
6	BMC	PMAI	Wing	106/90 (Block 30/50) 118/100 (Block 40)
6	BMC	PTAI	Wing	As required by PFT
6	BMC	PDAI	Wing	As determined by test program requirements
8	BMC	PDAI	Wing	90/78
8	BMC	PMAI or PDAI	Above Wing	90/78
8	BMC	PTAI	Above Wing	As required by PFT
5	BMC	PMAI, PTAI, or PDAI	All	If qualified and current in unit aircraft -90/78. Otherwise IAW AFI 11-401, as supplemented
Any	BAQ	Any	Any	BMC Rate

1.12. Waiver Authority:

1.12.1. Unless specifically noted otherwise in the appropriate section, the waiver authority for all requirements of the RAP Tasking Message and for all provisions of **Chapter 4**, **Chapter 5**, and

Chapter 6 of this instruction is the OG/CC (AETC: 19 AF/DO). For all other provisions of this instruction, the waiver authority is MAJCOM/DO (ANG: ACC/CG, AETC: AETC/DOF).

1.12.2. Units subordinate to a NAF will forward requests directly to MAJCOM/DOT and provide their NAF/DO/OV with an information copy. (Exception: For USAFE, forward through NAF/DO and info USAFE/DO). Waivers from other than MAJCOM/DO (ANG: ACC/DOT, AETC: AETC/DOF) will include their appropriate MAJCOM/DOT (ANG: ACC/DOT, AETC: AETC/DOF) as an information addressee. All waivers will include HQ USAF/XOOT and ACC/DOT as an information addressee.

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

1.12.4. Units will submit an annual report of all incomplete training to MAJCOM/DOT (ANG: ACC/DOT, AETC: AETC/DOF) (Info copy to NAF/DO/OV) by 31 July (AETC: By 31 Jan). Prior to submitting the annual report, units are reminded to prorate incomplete training as detailed in **Chapter 4**, **Chapter 5**, and **Chapter 6** of this instruction and the RAP Tasking Message. Reports will be submitted using the format at **Attachment 5** Specify reasons training was not accomplished and whether failure to accomplish the training resulted in regression, retraining, or was waived IAW paragraph **1.12.1.** Negative reports are required.

Chapter 2

INITIAL QUALIFICATION TRAINING

2.1. General. This chapter outlines Initial Qualification Training (IQT) of pilots into unit aircraft. IQT includes Basic (B-Course) and Transition/Requalification/Senior Officer (TX-Course) training and normally will be conducted during formal syllabus courses at a formal training unit (FTU) squadron whenever possible. In exceptional circumstances, when FTU training is not available within a reasonable time period, IQT may be conducted at the local unit IAW 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, the gaining MAJCOM assumes responsibility for the burden of providing this training locally. The following guidance applies only to other than formal course IQT.

2.2. Approval/Waiver for IQT:

2.2.1. MAJCOM/DO (ANG: HQ ACC/DOL) is 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 (ANG: HQ ACC/CG) 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 (AFI 11-2F-16V2).

2.3. Prerequisites. Course prerequisites will be IAW the appropriate formal course syllabus and AFCAT 36-2223.

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 MCH 11-F16V5, instructor guides, and audiovisual programs, should be used as supporting materials to the maximum extent possible. Simulator missions will be accomplished in a CFT or CPT if an OFT is not available. Combat Edge ground training (if unit is equipped) will be conducted IAW MAJCOM Life Support regulations and **Chapter 3**.

2.5. Flying Training:

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

2.5.2. Training will be completed within the time specified by the syllabus, as approved. Failure to complete within the specified time limit requires notification, through channels to MAJCOM/DO

(ANG: HQ ACC/DOT), with pilot's name, rank, reason for delay, planned actions, and estimated completion date.

2.5.3. Pilots in IQT will fly under IP supervision (dual or chased) 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.

2.5.5. Combat Edge familiarization flight training (if unit is equipped) will be conducted IAW paragraph **3.6.** before other high-G flight maneuvers are accomplished.

2.6. IQT for Senior Officers:

2.6.1. All formal training courses for senior officers (colonel selectees and above) will be conducted at FTUs 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 directives and paragraph **2.2.1.**

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 (ANG: NGB/XO).

Chapter 3

MISSION QUALIFICATION TRAINING

3.1. General. Mission Qualification Training (MQT) is a unit developed training program that upgrades newly assigned pilots to BMC or CMR to accomplish the unit mission. Guidance in this chapter is provided to assist the unit in developing their MQT programs which SQ/CCs develop and OG/CCs approve. Units are allowed to further tailor their programs for all pilots, based on current qualification, experience, currency, documented performance, and formal training. Applicable portions of MQT may be used to create a requalification program for pilots who have regressed from BMC or CMR to specifically address deficiencies which caused regression.

3.1.1. MQT will be completed within the time specified by each MAJCOM below. Timing starts at the pilot's first duty day at the gaining operational unit. If the pilot elects to take leave prior to being entered into MQT, the timing will begin after the termination of the pilot's leave. Training is complete upon SQ/CC certification to BMC or CMR.

3.1.1.1. For AFRC, notify the HQ AFRC/DO and NAF/DO if training exceeds 120 calendar days.

3.1.1.2. For ANG, notify HQ ACC/DOL if training exceeds 120 calendar days.

3.1.1.3. For ACC and USAFE, notify HQ ACC/DO or HQ USAFE/DO, respectively, if training exceeds 90 calendar days.

3.1.1.4. For PACAF, notify the HQ PACAF/DO and NAF/DO if training exceeds 90 calendar days.

3.1.2. Initial verification/certification, AAR, and initial CW flight training will be completed NLT 90 days (ANG, AFRC: 180 days for initial verification) from completion of MQT. AAR accomplished in IQT may fulfill MQT requirements as determined by the SQ/CC. Failure to comply will result in regression to N-CMR/N-BMC until qualification is complete.

3.1.3. Pilots in MQT will not fly in FLAG, AIR WARRIOR, COPE THUNDER exercises, Weapons School support deployments, or WSEP (AETC: FTU SQ/CCs may authorize upgrading IPs with a current mission check to fly syllabus direct support sorties and in exercises where a BMC pilot is required).

3.1.4. Night MQT will satisfy any unaccomplished night training requirement from IQT. If night training was accomplished in IQT, the SQ/CC may certify pilots to BMC/CMR without night MQT. All night training requires demonstrated proficiency and currency in similar day events, unless accomplished dual with an IP. Night MQT may be flown with NVGs if the upgrading pilot is already NVG qualified. If not completed during MQT, night training will be accomplished NLT 180 days (ACC: 90 days) from completion of MQT.

3.1.5. Prior to CMR certification, pilots must complete LASDT CAT I training and initially qualify in all weapons delivery/employment events required QUAL at CMR/BMC.

3.1.6. LANTIRN MQT programs will include day/night medium altitude LANTIRN training. The CMR/BMC flight evaluation will certify the pilot as Medium Altitude LANTIRN qualified (only for pilots who have completed FTU/Weapons Instructor Course LANTIRN training).

3.1.7. Pilots designated for the FAC(A) special capability must have completed the Joint Firepower Control Course (JFCC), normally taught by the Air Ground Operations School (AGOS), at one time during their career IAW AFI 13-102.

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. Pilots transferring from another theater require the theater-specific portions of IRC before flying.

3.2.2.1. (For USAFE) All pilots will complete Theater Indoctrination (TI) ground training prior to flight training. The wing/group will develop the TI ground training program. The following blocks of instruction will be covered as a minimum:

3.2.2.1.1. Instrument Training. Accomplish a thorough review of theater unique instrument requirements and procedures to include but not limited to: NAVAIDS, European air traffic control, local publications and instructions, non-DoD approach procedures (Jeppesen), required instrumentation for specific approaches, flight planning, European weather phenomena (emphasis on local conditions), spatial disorientation, and theater buffer zone procedures.

3.2.2.1.2. Video Presentation. Jeppesen approach charts.

3.2.2.1.3. Basic Airmanship Review. visual illusions, lost wingman procedures, route abort procedures, MIJI training, command special interest items, USAFE local area exercise procedures.

3.2.3. Initial Verification (N/A for PDAI-coded units):

3.2.3.1. Initial verification will be completed within 90 days (ANG, AFRC: 180 days) after completing MQT. Suggested briefing guides are at **Attachment 3** and **Attachment 4**. Each pilot will demonstrate to a formal board a satisfactory knowledge of the squadron's assigned mission. Board composition will be established by the SQ/CC (OG/CC for composite wings). Desired composition is SQ/CC or Ops Officer (chairman), weapons, electronic combat, intelligence, and plans representatives.

3.2.3.2. (Does not apply to the ANG) **Certification.** Pilots assigned to nuclear-tasked squadrons will certify IAW AFI 10-710. Pilots who certify are exempt from verification requirements.

3.3. Simulator Training:

3.3.1. OFTs will be used if available. If an OFT is unavailable, OFT MQT-1, -2, and -3 may be combined into one or more CFT missions to accomplish appropriate switchology and emergency procedures training. MQT pilots should fly the missions outlined below (ANG, AFRC: locally developed OFT profiles) as typical RAP profiles. Each training device mission will include selected critical action emergency procedures and unusual attitude/inadvertent weather entry procedures. OFT MQT-1 is a prerequisite for the first MQT flight.

3.3.2. MQT OFT Profiles:

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

3.3.2.2. OFT MQT-2--Air-to-Surface Procedures (If Required). Heavyweight takeoff, weapons deliveries, jettison procedures, EC equipment operation, threat recognition and defensive reactions, local range procedures, emergency divert procedures, hung ordnance procedures. For LANTIRN MQT include SMS/UFC refresher, NAV/TGP operations and tuning, Maverick techniques, night attack procedures and techniques. (ANG: ADF units will fly a DCA and CD/Air Sovereignty OFT profile to satisfy the OFT MQT-2 profile).

3.3.2.3. OFT MQT-3--Air-to-Air Procedures (If Required). Trail departure, intercepts, EC equipment operation, threat detection and defensive reactions, switchology, emergency procedures. (ANG: ADF units will fly a DCA and CD/Air Sovereignty OFT profile to satisfy the OFT MQT-3 profile).

3.3.2.4. OFT MQT-4--Emergency Procedures Evaluation (If Required). This evaluation will be administered by a SEFE IAW MAJCOM and unit directives.

3.4. Flying Training. The appropriate missions from those listed below will be used to upgrade to BMC or CMR. Unit-developed MQT programs should use profiles typical of squadron missions. Maximum use of armament recording assets and captive missiles is encouraged on all MQT missions.

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

3.4.2. If more than 14 calendar days elapse between sorties, an additional review sortie will be flown before continuing in the program.

3.4.3. All pilots must conduct practice airborne emergency procedures training during any one of the MQT sorties. As a minimum, the training will consist of briefing, flying, and debriefing a simulated critical action procedure scenario to include airborne communication with the SOF.

3.4.4. Sortie Requirements. The LAO/AHC/Instrument mission is mandatory. The Mission Evaluation Checkride is also mandatory, if not previously accomplished in the MQT portion of formal training. The sorties listed in paragraphs **3.4.5.**, ACBT Qualification, **3.4.6.** Low Altitude Step Down Training, and **3.4.7.** Air-to-Surface Training, are suggested mission profiles that the SQ/CC may use to develop the unit's MQT program based on unit tasking. The MQT night sortie, if required, may be delayed until after CMR/BMC is achieved. If not completed during MQT, this sortie will be accomplished NLT 180 days (ACC: 90 days) from completion of MQT. (USAFE only: USAFE Theater Indoctrination (TI) flight training may be combined with initial MQT sorties, but must be the first sorties flown in theater.) Supervision will be an IP or FL-qualified SQ Supervisor. The wing/group developed TI program will consist of a minimum of two sorties (one sortie for experienced pilots). These sorties will emphasize basic airmanship skills (i.e., instruments, formation, etc.) while providing the pilot a local area orientation (LAO). Individual TI events may be accomplished during MQT, however all TI events will be accomplished prior to CMR/BMC or theater certification. Pilots will demonstrate proficiency in the following minimum events:

Trail departure

Lost wingman

Route abort

Instrument approach (precision and non-precision):

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

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

Radar Trail Arrival

3.4.4.1. LAO/AHC/Instrument (IP Required)--Mission Objectives. Practice advanced handling characteristics, local area orientation, local instrument procedures. Specific Mission Tasks: Local area familiarization, emergency airfield(s) overflight/approach(es), Combat Edge (if unit is equipped), high AOA/low-speed warning horn recovery, vertical recovery, and AHC.

3.4.4.2. Mission Evaluation Checkride (If Required). This sortie will be flown IAW AFI 11-202V2 and local standardization/evaluation criteria on a mission representing the unit's primary mission tasking.

3.4.5. ACBT Qualification. The following sorties (in sequence) will be used to become ACBT qualified. Units may expand this program to achieve desired proficiency or capability. ACBT programs for pilots with previous fighter experience may be individually tailored based on experience, currency, and documented performance.

3.4.5.1. Aircraft Handling Characteristics (AHC)--Mission Objectives. Familiarize the pilot with aircraft maneuvering capabilities and limitations, by practicing advanced handling maneuvers. Specific Mission Tasks: High AOA/low speed horn recovery, vertical recovery, high and low speed turn rate/radius maneuvers, acceleration demonstrations.

3.4.5.2. (D)BFM-1--Mission Objectives. Introduce the pilot to basic skills required during offensive A/A maneuvering. Specific Mission Tasks: Tactical formation, ranging exercises, gun employment exercise, offensive perch setups.

3.4.5.3. (D)BFM-2--Mission Objectives. Demonstrate proficiency in basic A/A maneuvering skills. Specific Mission Tasks: Tactical formation, formation maneuvering, defensive perch setups, high aspect setups (time and proficiency allowing).

3.4.5.4. (D)ACM-1--Mission Objectives. Demonstrate proficiency in element A/A maneuvering. Specific Mission Tasks: Offensive setups, defensive setups, engaged/supporting fighter role switching, correct RT, entries into the fight.

3.4.5.5. (D)ACT-1--Mission Objectives. Demonstrate proficiency in 2v2 BVR maneuvering. Specific Mission Tasks: Tactical formation, offensive/defensive maneuvering, disengagement/egress.

3.4.6. Low Altitude Step-Down Training (LASDT):

3.4.6.1. To conduct low altitude operations safely, pilots need to be knowledgeable of aircraft handling and performance characteristics, tactical formation, intercept, offensive and defensive responses, and navigation. The low altitude environment requires a well-supervised LASDT program, including initial certification and currency requirements. LASDT qualifies pilots to conduct low altitude training (LOW AT) at or below 1,000 feet AGL. Training and certification is required in a low altitude block prior to performing unsupervised operations in that low altitude block.

3.4.6.2. To provide a sequential approach, the step-down training program is built on a multi-phase training process IAW **Table 3.1.** There is no time limit to progress beyond Category I and progress will be based upon individual pilot proficiency and training availability. Progression through the step-down training program is based on IP/squadron supervisor assessment of pilot performance, TR compliance, and judgment. All LASDT missions will be supervised by an IP or squadron supervisor who has completed LASDT training and is current.

Table 3.1. LOWAT Categories.

Category	Altitude Block	Upgrade Sorties To Certify
I	1,000-500	1, 2, 3
II	Below 500-300	5, 6, 7
III	Below 300-100	8, 9, 10
NOTE: For the purposes of LASDT training, USAFE substitutes 250 feet for the listed 300 feet restrictions due to national requirements.		

3.4.6.3. Demonstrated proficiency down to 500 feet AGL is required for Category I certification and is normally accomplished during IQT and/or MQT. Units may accept a transfer pilot's LOWAT qualification from other units. Category I qualification is a minimum requirement for CMR status. Category II training may not be conducted during MQT.

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

3.4.6.5. LASDT will be scheduled and briefed as a primary portion of the mission. Compatible RAP CT events may be accomplished in conjunction with LASDT as long as the objectives of the LASDT sortie are met. LASDT will not be flown as an alternate mission. IPs/FLs must be aware of the added stress and task loading associated with low altitude operations and provide breaks in training above the training altitude. Training profiles will be developed to avoid over-tasking the upgrading pilot, and upgrade sortie continuity should be emphasized.

3.4.6.6. Ground Training. The following outline is applicable to all LASDT training. Coverage should support the mission and concept of operations of the squadron, incorporating appropriate portions of MCMs 3-1 and MCH 11-F16V5. All academic training will be completed prior to flight training/briefing.

3.4.6.7. AHC. LASDT AHC will be IAW the MCH 11-F16V5, Low Altitude Training Series exercises. Discussion of aircraft performance as it applies to the low altitude environment, to include: control response (low/high speed, over-G potential, speed brake use, stores effects); afterburner (fuel considerations, selection techniques), acceleration/deceleration, level turns, vertical maneuvering, climb/dive/slice, recoveries, effects of gross weight, power settings, density altitude, G-loading, and bank angles; terrain avoidance (ridge crossings), HUD use, terrain clear-

ance versus turning room, dangers inherent in overbanking during turns, importance of frequent cross check of aircraft attitude relative to horizon; and the videotape "How Low Can You Go?"

3.4.6.8. Environmental Factors. Discuss out-of-cockpit visibility and FOV restrictions, sun angle, terrain and G-excess illusions/perceptions, WX considerations, and use of the HUD.

3.4.6.9. Task Management. Discuss low altitude tasks and task management/prioritization concept.

3.4.6.10. Low Altitude Tactical Navigation (LATN). Discuss dead reckoning, pilotage, INS use/techniques, RADAR, etc.

3.4.6.11. LATF. Discuss formations (including line abreast and wedge), hazards at low altitudes, task prioritization, tactical turns, visual lookout/mutual support.

3.4.6.12. Defensive Reactions. Discuss visual lookout and mutual support, threat weapons systems envelopes, defensive maneuvering against air-to-air and surface-to-air threats, and flight member deconfliction.

3.4.6.13. Discuss factors affecting low level awareness: airspeeds and maneuverability, formation size and design, formation and pilot responsibilities, environmental effects on visibility, factors influencing individual proficiency and airmanship, route familiarity and complacency, air turbulence, jet wash and bird strike, route obstacles, terrain features, planning and chum responsibilities, route abort procedures, techniques and considerations.

3.4.6.14. Special Subjects. Discuss training rules, WX abort procedures, aircraft emergencies, and separation/disengagement considerations.

3.4.6.15. Low Altitude Air-to-Air Employment. Discuss level intercepts (horizontal turn radii, preferred aspects, pursuit options), fuel rules of thumb, required turning room, maximum dive angle restrictions, low altitude weapons employment (weapons envelope/rules of thumb, weapons selection, missile pursuit curves, minimum launch altitudes), low altitude intercept (radar capabilities including detection, LOS problems, false targets, and sorting), low-to-high, high-to-low, and co-altitude intercepts (altitude, airspeed, and power considerations, vertical vice offset conversions, conversion aborts, high/low speed targets, use of HUD, and VID procedures against a low/slow speed target with emphasis placed on threat VID procedures IAW MCM 3-1).

3.4.6.16. Flying Training:

3.4.6.16.1. LASDT-1 (Dual or Single-Ship w/Chase)--Mission Objectives. Demonstrate proficiency in single-ship maneuvering in the low altitude environment between 5,000 and 1,000 feet AGL. Introduce low altitude operations down to a minimum altitude of 500 feet AGL. Specific Mission Tasks: AHC IAW MCH 11-F16V5, Low Altitude Training Series exercises (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, CAT III maneuvering, vertical jink turns, orthogonal SAM break, reversals, visual lookout exercise); G-awareness exercise; low level navigation; airspeed control; fuel management; low level turns; ridge crossings; terrain masking/maneuvering techniques for level/rolling/rough terrain; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; defensive reactions; and single-ship low altitude tactical intercepts.

3.4.6.16.2. LASDT-2 (Dual or Single-Ship w/Chase)--Mission Objectives. Demonstrate proficiency in single-ship maneuvering in the low altitude environment down to a minimum

altitude of 500 feet AGL. Specific Mission Tasks: AHC IAW MCH 11-F16V5, Low Altitude Training Series exercises (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, CAT III maneuvering, vertical jink turns, orthogonal SAM break, reversals, visual lookout exercise) not flown on previous sorties or needing review; G-awareness exercise; low level navigation; airspeed control; fuel management; low level turns; ridge crossings; terrain masking/maneuvering techniques for level/rolling/rough terrain; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; defensive reactions; single-ship low altitude tactical intercepts.

3.4.6.16.3. LASDT-3 (Two-Ship)--Mission Objectives. Demonstrate proficiency in two-ship maneuvering in the low altitude environment down to a minimum altitude of 500 feet AGL. Specific Mission Tasks: AHC IAW MCH 11-F16V5, Low Altitude Training Series exercises (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, CAT III maneuvering, vertical jink turns, orthogonal SAM break, reversals, visual lookout exercise) not flown on previous sorties or needing review; G-awareness exercise; low level navigation; fuel management; low level turns; LATF; terrain masking maneuvering techniques for level/rolling/rough terrain; ridge crossings; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; defensive reactions; weather route abort; two-ship low altitude tactical intercepts and low altitude weapons employment considerations. Upon satisfactory completion of this mission, the SQ/CC can certify the pilot to LOWAT Category I.

3.4.6.16.4. LASDT-4 (Two-Ship)--Mission Objectives. Introduce two-ship maneuvering (against low/slow target) in a low altitude environment down to a minimum altitude of 500 feet AGL. Specific Mission Tasks: G-awareness exercise, low level navigation, fuel management, low level turns, LATF, visual lookout, altitude awareness/control, attack maneuvering, practice KIOs, two-ship low altitude tactical intercepts, low altitude weapons employment considerations, and EID/VID procedures against a low/slow target (dissimilar asset required; helicopter, if able) with emphasis placed on threat VID procedures IAW MCM 3-1. This ride is not required for LOWAT Category I, but should be accomplished as part of pre-deployment spin-up training in support of contingency operations or exercises.

3.4.6.16.5. LASDT-5 (Dual or Single-Ship w/Chase)--Mission Objectives. Demonstrate proficiency in single-ship maneuvering in the low altitude environment above 500 feet AGL. Introduce low altitude operations down to a minimum altitude of 300 feet AGL. Specific Mission Tasks: AHC IAW MCH 11-F16V5, Low Altitude Training Series exercises (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, CAT III maneuvering, vertical jink turns, orthogonal SAM break, reversals, visual lookout exercise); G-awareness exercise; low level navigation; airspeed control; fuel management; low level turns; ridge crossings; terrain masking/maneuvering techniques for level/rolling/rough terrain; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; defensive reactions; and single-ship low altitude tactical intercepts.

3.4.6.16.6. LASDT-6 (Dual or Single-Ship w/Chase)--Mission Objectives. Demonstrate proficiency in single-ship maneuvering in the low altitude environment down to a minimum altitude of 300 feet AGL. Specific Mission Tasks: AHC IAW MCH 11-F16V5, Low Altitude Training Series exercises (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, CAT III maneuvering, vertical jink turns, orthogonal

SAM break, reversals, visual lookout exercise) not flown on previous sorties or needing review; G-awareness exercise; low level navigation; airspeed control; fuel management; low level turns; ridge crossings; terrain masking/maneuvering techniques for level/rolling/rough terrain; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; defensive reactions; single-ship low altitude tactical intercepts.

3.4.6.16.7. LASDT-7 (Two-Ship)--Mission Objectives. Demonstrate proficiency in two-ship maneuvering in the low altitude environment down to a minimum altitude of 300 feet AGL. Specific Mission Tasks: AHC IAW MCH 11-F16, Vol 5, Low Altitude Training Series exercises (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, CAT III maneuvering, vertical jink turns, orthogonal SAM break, reversals, visual lookout exercise) not flown on previous sorties or needing review; G-awareness exercise; low level navigation; fuel management; low level turns; LATF; terrain masking maneuvering techniques for level/rolling/rough terrain; ridge crossings; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; defensive reactions; weather route abort; two-ship low altitude tactical intercepts and low altitude weapons employment considerations. Upon satisfactory completion of this mission, the SQ/CC can certify the pilot to LOWAT Category II.

3.4.6.16.8. LASDT-8 (Dual or Single-Ship w/Chase)--Mission Objectives. Demonstrate proficiency in single-ship maneuvering in the low altitude environment above 300 feet AGL. Introduce low altitude operations down to a minimum altitude of 100 feet AGL. Specific Mission Tasks: AHC IAW MCH 11-F16V5, Low Altitude Training Series exercises (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, CAT III maneuvering, vertical jink turns, orthogonal SAM break, reversals, visual lookout exercise); G-awareness exercise; low level navigation; airspeed control; fuel management; low level turns; ridge crossings; terrain masking/maneuvering techniques for level/rolling/rough terrain; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; defensive reactions.

3.4.6.16.9. LASDT-9 (Dual or Single-Ship w/Chase)--Mission Objectives. Demonstrate proficiency in single-ship maneuvering in the low altitude environment down to a minimum altitude of 100 feet AGL. Specific Mission Tasks: AHC IAW MCH 11-F16V5, Low Altitude Training Series exercises (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, CAT III maneuvering, vertical jink turns, orthogonal SAM break, reversals, visual lookout exercise) not flown on previous sorties or needing review; G-awareness exercise; low level navigation; airspeed control; fuel management; low level turns; ridge crossings; terrain masking/maneuvering techniques for level/rolling/rough terrain; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; defensive reactions.

3.4.6.16.10. LASDT-10 (Two-Ship)--Mission Objectives. Demonstrate proficiency in two-ship maneuvering in the low altitude environment down to a minimum altitude of 100 feet AGL. Specific Mission Tasks: AHC IAW MCH 11-F16V5, Low Altitude Training Series exercise (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, CAT III maneuvering, vertical jink turns, orthogonal SAM break, reversals, visual lookout exercise) not flown on previous sorties or needing review; G-awareness exercise; low level navigation; fuel management; low level turns; LATF; terrain masking

maneuvering techniques for level/rolling/rough terrain; ridge crossings; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; defensive reactions; weather route abort. Upon satisfactory completion of this mission, the SQ/CC can certify the pilot to LOWAT Category III.

3.4.7. Air-to-Surface Training:

3.4.7.1. SA/SAT--Mission Objectives. Practice mission employment. Specific Mission Tasks: Route/threat planning, timing control, weapon system checks, medium/low altitude ingress, weapons deliveries simulating combat munitions, threat reactions, visual lookout, battle damage checks, inflight report, authentication procedures, SEAD employment procedures/techniques (if applicable).

3.4.7.2. SAT--Mission Objectives. Practice tactical mission employment in a high threat environment. Specific Mission Tasks: Mission planning, threat detection and reactions (adversary desired), first-look attack using simulated combat munitions, egress, battle damage checks, safe recovery procedures, inflight report, authentication procedures, SEAD employment procedures/techniques (if applicable).

3.4.7.3. Night Weapons (IP Required--Dual if Similar Mission Not Accomplished in IQT)(ANG, AFRC: If Required)--Mission Objectives. Introduce/practice night weapons employment. Specific Mission Tasks: IAW unit tasking.

3.4.7.4. (Does Not Apply to ANG or AFRC) Low Level Strike (LLS) (If Required)--Mission Objectives. Practice strike mission planning, briefing, and execution to a first-run simulated strike delivery. Specific Mission Tasks: Strike mission planning, strike briefing, low altitude tactical navigation, visual and radar strike loft deliveries, laydown deliveries (to include emergency release procedures) to a TOD, practice systems update/timing procedures, min-risk departure and recoveries, proper IFF/SIF procedures, and execution message authentication.

3.4.7.5. LANTIRN (If Required)--Mission Objectives. Practice day/night medium altitude LANTIRN mission employment. Specific Mission Tasks: Practice navigation and targeting pod operations/tuning, FLIR trail departure, in-flight boresighting, formations, station keeping, medium altitude attacks, threat reactions, weapons employment IAW unit tasking.

3.5. Initial Chemical Warfare (CW) Defense Training. (Does not apply to ANG ADF units.) Accomplish ICWT IAW AFPD 32-40 and AFIs 32-4001/4002 and MAJCOM guidance. This training is intended to integrate pilot training with other functional areas (maintenance, intelligence, security, etc.) required to conduct combat operations in a CW environment and is applicable to all CMR/BMC pilots assigned or deployable to chemical high threat areas.

3.5.1. 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. Pilots must complete ICWT NLT 90 days from completion of MQT. Pilots who achieved ICWT in previous tours in the F-16 do not require the ICWT Flight.

3.5.2. Ground Training. All pilots will complete Phase I and Phase II training IAW AFPD 32-40 and AFIs 32-4001/4002 and MAJCOM supplements. The following training will be accomplished prior to the first flight with CW gear:

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

3.5.2.2. Equipment orientation/fitting of full aircrew ensemble.

3.5.2.3. Egress/hanging harness and water survival IAW MAJCOM guidance.

3.5.3. OFT CW-1. 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, a tactical mission profile and doffing of simulated contaminated equipment. This mission should be conducted as close as possible to the day prior to flight, but not more than 30 days prior to initial flight.

3.5.4. ICWT Flight. Flight training must consider limitations of operating in CW equipment. Full donning and doffing procedures/sequence will be practiced in conjunction with the ICWT flight but the only CW equipment worn inflight will be mask, filter pack, and gloves.

3.5.5. ICWT Flight Restrictions:

3.5.5.1. Pilots will be fully current and qualified in an event prior to accomplishing that event on a CW sortie.

3.5.5.2. Minimum formation spacing is route unless fingertip is required for safe mission accomplishment (i.e., WX penetration).

3.5.5.3. Minimum altitude is 500 feet AGL except approaches and landings.

3.5.5.4. No ACBT or night sorties. AAR requires an IP in the flight.

3.5.5.5. Weather minimums are 1,500 feet ceiling and 3 miles (4.8 km) visibility for pilots in CW gear.

3.5.5.6. Dual cockpit operations will be used to the maximum extent possible with a safety observer, qualified in the aircraft, without CW gear in the rear cockpit. Solo operations will be supervised by a CW qualified FL from a chase position. Formations, to include chase, are limited to two-ship and only one pilot in the formation will be in CW gear unless both aircraft are dual with an experienced pilot in each RCP.

3.5.5.7. No CW training will be conducted when temperature/dew point conditions fall outside the normal range of the fighter index of thermal stress (FITS) chart adjusted for the partial CW gear IAW AFPD 32-40 and AFIs 32-4001/4002.

3.5.6. Pilots will be CW certified upon the completion of all initial ground/flight training.

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

3.6. Combat Edge (CE) Training. Training previously completed (i.e., FTU, another CE-equipped unit) may be credited toward this requirement. Training will include:

3.6.1. Academics on theory of operation, normal and optional modes of operation, failure modes and corrective actions. The CE videotape, when fielded, should also be part of the unit's academic program. CE academics will normally be taught by a Life Support Officer.

3.6.2. Life Support ground training to include equipment fitting, don-doff procedures, and preflight test procedures. This training will normally be given by a life support specialist.

3.6.3. Flight training consisting of one aircraft sortie to orient the pilot to the CE system, and to ensure correct fit of the pilot's mask, vest and helmet. The sortie profile should begin with low to medium G maneuvers to check the continuity and function of the CE system. Once system integrity is verified, higher G maneuvers may be performed. If equipment fit is not correct, and/or if the CE system does not function as designed, the mission may be continued, limiting G and maneuvering as appropriate. This sortie may be combined with other mission profiles as long as CE orientation training is conducted before other mission elements which require high G maneuvers.

3.7. Flight Surgeon (FS) and Ground Liaison Officer (GLO) Training:

3.7.1. Ground Training. Flight Surgeons and GLOs who are assigned to tactical units and who have not previously flown the unit-assigned aircraft will accomplish the following before the initial flight briefing: Aircraft general review; hanging harness training (as applicable); egress training, protective equipment training; AGSM training (to include the review of "Anti-G Strain Technique Reinforcement and Assessment"), and an instrument/EP simulator (if available) with an instructor (1 hour minimum).

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

Chapter 4

CONTINUATION TRAINING

4.1. General. This chapter outlines ground and flying training requirements for CMR, BMC, and BAQ pilots. Pilots must be qualified IAW AFI 11-401 and IAW AFI 11-202V2. Additionally, they must complete IQT to fly in BAQ status, MQT or FTU IP upgrade to fly in BMC status, 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. The following programs comprise ground training only.

4.2.1. Physiological Training. IAW AFI 11-403 and MAJCOM supplements.

4.2.2. Instrument Refresher Course. IAW AFMAN 11-210, *Instrument Refresher Course*, and MAJCOM supplements.

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

4.2.3.1. 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, *Life Support Program*; and (ACC: ACCR 200-1, *ACC Unit Intelligence Functions and Responsibilities*). SERE CoCCT will be a coordinated Intelligence, Life Support, and SERE Specialist effort.

4.2.4. Operational Flight Trainer (OFT):

4.2.4.1. **Table 4.2.**, as applicable, depicts the minimum OFT training requirements. SQ/CC will determine the minimum number/type of training device continuation training (CT) missions that require supervision. 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 critical action and precision instrument 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 low altitude unusual attitude recovery training should be accomplished during ATD training. 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), Simulator for Air-to-Air Combat (SAAC), or HHQ-directed simulator test support, etc., if approved by the SQ/CC.

4.2.4.5. Tactical simulator missions may be accomplished in either the OFT, WTT, or UTD. EP and CW missions will be accomplished in the OFT or UTD. If a unit does not have access to an OFT or UTD, EP and CW missions will be accomplished in the CFT.

4.2.4.6. (ANG) Units without a homestation OFT or UTD are required one OFT per training cycle with a goal of two.

4.2.5. Situational Emergency Procedures Training (SEPT):

4.2.5.1. 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. Critical action procedures (if applicable) and squadron special interest items should be emphasized. Incorporate the following elements into squadron SEPT training programs:

4.2.5.1.1. SQ/CC involvement in the selection of a monthly SEPT topic.

4.2.5.1.2. Develop SEPT scenarios using F-l6 mishaps/incidents as baseline cases.

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

4.2.5.1.4. Accomplish two SEPTs each training period with an IP or squadron supervisor to include min fuel and emergency divert training.

4.2.5.2. This training will be accomplished each calendar month. Failure to accomplish by the end of the month will result in grounding until subsequently completed.

4.2.5.3. SEPTs will be accomplished in a CFT, if available. 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.

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

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

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.

4.2.6.1. Academic instructors should be USAF Weapons School graduates or have attended the applicable academic portion(s) of school, if possible.

4.2.6.2. Instruction and tests should include (as applicable) but are not limited to:

4.2.6.2.1. Conventional Air-to-Surface and/or Air-to-Air Weapons (Concentrating on UCML). Description, operation, parameters, fuzing, limitations, preflight, tactics, normal and emergency procedures/techniques.

4.2.6.2.2. Nuclear Weapons. (Does not apply to ANG, AFRC.) Description and effects, safety and security, operation, options, delivery considerations, preflight, arming/dearming, normal and emergency procedures.

4.2.6.2.3. ACBT. Principles of aerodynamics, maneuverability, AHC, formations, VLC, RT, tactical intercept principles, alert procedures and scrambles, use of GCI/AWACS, and enemy capabilities.

4.2.6.2.4. Electronic Combat Equipment. Capabilities, operation, checks, procedures, IRMD/RMD, and hostile ECM/friendly ECCM tactics.

Specialized training to support specific weapons, tactics (to include threat VID tactics), mission capabilities, authentication, wartime ROE, and safe passage procedures.

Low altitude flying academics review IAW the outline in paragraph **3.4.6.**, LASDT Ground Training.

NVG academic review taught by an NVG qualified IP IAW the academics outline in paragraph **6.11.** for all NVG qualified pilots.

CAS/JAAT refresher training.

4.2.7. Verification. (Does not apply to PDAI-coded units.)

4.2.7.1. Continuation verification updates pilots on their squadron's wartime mission. Each pilot will participate in a squadron initial/continuation verification every 18 months as a briefer, board member, or seminar participant. Pilots who participate in a unit deployment to a tasked theater of operations may receive credit for continuation verification.

4.2.7.2. 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. Certification. (Does not apply to ANG, AFRC, and PDAI-coded units.) Pilots assigned to nuclear-tasked squadrons will certify IAW AFI 10-710. Pilots who certify are exempt from verification requirements.

4.2.9. 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:

4.2.9.1. Visual Recognition. 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. Aircraft with forward firing ordnance will use the JVID program to the maximum extent possible for flight briefings and academics. Completion of the JVID program test is required semiannually (ANG: annually).

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

4.2.9.3. Collection and Reporting. 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.

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

4.2.9.5. (ACC and ANG) Use guidance contained in ACCR 200-1 to develop and manage unit intelligence training programs. The OG/CC will determine pilot testing requirements for intelligence and EC training.

4.2.10. Nuclear Surety (If Required). IAW AFI 91-101 and MAJCOM supplements.

4.2.11. 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 the JCS Memorandum of Policy (MOP) No. 2. Training requires review of MOP or video tapes (US-Russia Agreement for the Prevention of Dangerous Military Activities) and a squadron briefing on established communication procedures outlined in local inflight guides. (Contact MAJCOM/DOT for copies of MOP and videotape).

4.2.12. Cockpit Resource Management (CRM). Units will establish CRM CT. Training builds upon the basic cockpit management skills taught in UPT and FTU. Each pilot is required to participate in one session per cycle.

Table 4.1. Ground Training.

MOBILITY TRAININGThese items required for mobility units or units that generate in place				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUNDING**	**AFFECTC MR**
Self-Aid and Buddy Care Training	Initial and refresher every 2 yrs	AFI 36-2238	No	No
Initial Chemical Warfare Defense Training - Ground Crew Ensemble (Does not apply to ANG ADF units) (AETC: N/A)	Initial	AFPD 32-40 AFI 32-4001 AFI 32-4002 (ANG: ANGR 355-1)	No	No

Handgun Training (AETC: N/A)	Initial & Qual with Requal every 2 yrs (ANG: 4 hrs Initial academics and qual-ify)	AFI 36-2226 (ANG: ANGI 36-2226)	No	Yes
ISOPREP Review (AETC: N/A)	Semiannual	AFI 14-105	No	Yes
Intelligence Training	Annual	AFI 14-105 AFI 11-2F16V1	No	Yes
PILOT TRAINING				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUNDING**	**AFFECTC MR**
Physiological Training (Altitude Chamber)	Every 3 years	AFI 11-403	Yes	No
Instrument Refresher	Periodic	AFMAN 11-210 AFI 11-202V2, as sup-plemented	No	No
Life Support Training a. Egress and Ejec-tion Training b. Hanging Harness c. Life Support Equip Training d. Combat Survival Training (CST) (AETC: N/A) e. Water Survival Training (Wet Dill)	 180 Days 180 Days Annually Biennial Biennial	AFI 11-301	Yes Yes No Yes No	No No No No No
Initial Chemical War-fare Defense Training - Pilot Ensemble (AETC: N/A)	Prior 1st CW Flight	AFI 11-2F16V1, **Chapter 3**	No	Yes

Annual Chemical Warfare Defense CT - Pilot Ensemble (AETC: N/A)	Annually	AFI 11-2F16V1, **Chapter 4**	No	Yes
Simulator (OFT) Training	IAW **Table 4.2.**	AFI 11-2F16V1, **Chapter 4**	No	No
Situational Emergency Procedures Training (SEPT)	Monthly	AFI 11-2F16V1, **Chapter 4**	Yes	No
Verification (AETC: N/A)	18 Months	AFI 11-2F16V1, **Chapter 4**	No	Yes
Weapons/Tactics Academics	Annual	AFI 11-2F16V1, **Chapter 4**	No	Yes
JVID Test (ACC)	Semiannual	AFI 11-2F16V1, **Chapter 4**	No	No
Flying Safety Training	Once per Qtr	AFI 91-202	No	No
Supervisor Safety Training	Initial Only	AFI 91-301	No	No
Marshaling Exam	Initial and after a PCS	AFI 11-218	No	No
CRM	Annual	AFI 11-2F16V1, **Chapter 4**	Yes	No
AIR FORCE AWARENESS PROGRAM TRAINING				
SUBJECT	**FREQUENCY**	**REFERENCEDIRECTIVE**	**GROUNDING**	**AFFECTC MR**
Protection of the President	As Required	AFR 124-16 (AFI 71-101V1)	No	No
US/Russia Prevention of Dangerous Military Activities	Initial/Annual and Predeployment	JCS Memorandum of Policy Number 2 (MOP 2) and AFI 11-2F16V1	No	No

Standards of Conduct	As Required	DOD Directive 5500.7R	No	No
Code of Conduct	Biennial	AFI 36-2209	No	No
Law of Armed Conflict	Annual	AFPD 51-4 AFI 51-401	No	No
Social Actions	Initial and 2 hrs refresher every 4 years	AFPD 36-27 and AFI 36-2701	No	No

4.3. Flying Training. All pilots will accomplish the requirements as shown on **Table 4.2.** Failure to accomplish these requirements may not affect BAQ, BMC, or CMR status but will 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:

4.3.1. Basic Aircraft Qualification (BAQ) Requirements:

4.3.1.1. Qualification Evaluation IAW AFI 11-202V2.

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

4.3.1.3. BAQ pilots will fly a supervised sortie (squadron supervisor or IP) 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 IP.

4.3.1.4. BAQ pilots that remain in BAQ status for more than 6 months will be grounded (except general officers).

4.3.2. Basic Mission Capable (BMC) Requirements:

4.3.2.1. Mission Evaluation IAW AFI 11-202V2.

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

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

4.3.2.4. Sortie rate (lookback) IAW **Table 1.1.** and paragraph **4.7.1.**(N/A RPI-8s).

4.3.2.5. RAP sorties, mission types, and events including weapons qualification IAW the procedures set forth in this instruction and the MAJCOM RAP message. (Failure to accomplish RAP-tasked missions types may be waived by the SQ/CC as long as the total RAP sorties are accomplished. Report mission type waivers IAW paragraph **1.12.4.** if the waivers are due to overtasking or unit LIMFACS).

4.3.2.6. LASDT Category I certification.

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 instruction and the MAJCOM RAP tasking message. (Failure to accomplish RAP-tasked mission types may be waived by the SQ/CC as long as total RAP sorties are accomplished. Report waivers IAW paragraph **1.12.4.**)

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

4.3.3.6. LASDT Category I certification.

4.3.3.7. Ground Training IAW **Table 4.1.**

4.3.3.8. Verification IAW paragraph **4.2.7.**

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 recertification IAW paragraph **4.8.4.**

4.3.5. Designated Training (PTAI-Coded)/Designated Test (PDAI-Coded) Aircraft Unit Requirements:

4.3.5.1. Pilots assigned/attached to PTAI- or PDAI-coded units are BMC will accomplish the non-RAP BMC requirements as shown in **Table 4.2.** (with the below exceptions) and any requirements directed in MAJCOM RAP tasking message. 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 events.

4.3.5.1.1. (ACC) Pilots assigned/attached to PDAI-coded units and the 475 Weapons Evaluation Group (WEG) need not maintain IP status. ADS pilots will satisfy BMC requirements.

4.3.5.1.2. (ACC) For pilots assigned to AWFC night flying and AAR requirements are waived unless required for syllabus requirements or to meet program objectives.

4.3.5.2. Weapons Events. Instructors must be initially qualified in the weapons events they plan to instruct. For PDAI-coded units, pilots only require weapons delivery qualifications as determined by the unit CC to support test requirements.

4.3.5.2.1. (ACC) Pilots assigned/attached to AWFC, 422 TES, 85 TES, and 86 FWS will maintain appropriate weapons delivery currencies, and at the unit CC's discretion, may fly in the RCP of aircraft participating in A/G WSEP.

4.3.5.2.2. (ACC) 83 FWS pilots will maintain ACBT currency and, at the 83 FW/CC's discretion, may fly in the RCP of aircraft participating in A/A WSEP.

4.3.5.3. Ground Training. Training as directed by the SQ/CC.

4.3.5.3.1. (ACC) Pilots assigned to AWFC only require annual mission ground training as determined by the unit CC.

4.3.5.3.2. (ACC) OFT requirements do not apply for AWFC pilots.

4.3.5.4. Mission/Instructor Evaluation. As applicable IAW AFI 11-202V2.

4.3.5.5. (ACC) Visits/Deployments. Only qualified USAF Weapons School IPs or Operational Test IPs will be sent on weapons school visits/deployments or test visits/road shows, respectively. During these visits, WIC/Test IPs may perform FL and IP duties during tactical missions if they fly in the aircraft in which they are qualified. When flying with student pilots in F-16B/D model aircraft during deployments to FTUs, WS/Test IPs will occupy the FCP.

Table 4.2. F-16 Non-RAP Annual Requirements.

REQUIREMENT	BAQ	BMC	CMR	REMARKS
AHC Sortie	2	2	2	Does not apply to the ANG or AFRC
Instrument Sortie	4	4	4	Does not apply to the ANG or AFRC
AHC/Instrument Sortie	4	4	4	For ANG only
Trail Departure	0	8	8	
Night Sortie	4	4	4	See definition at **Attachment 1**.
Penetration	12	12	12	IAW AFMAN 11-217, 4 of 12 will be flown no HUD.
Precision Approach	16 (ANG, AFRC: 12)	16 (ANG, AFRC: 12)	16 (ANG, AFRC: 12)	6 of 16 will be flown no HUD. (ANG, AFRC: 4 of 12 will be flown no HUD).
Non-Precision Approach	16 (ANG, AFRC: 12)	16 (ANG, AFRC: 12)	16 (ANG, AFRC: 12)	6 of 16 will be flown no HUD. (ANG, AFRC: 4 of 12 will be flown no HUD).
Trail Recovery	0	4	4	Does not apply to the ANG
SFO	12	12	12	4 will be flown from straight-in or alternate-entry (if authorized) approaches
Minimum Total Sorties	48	See **Table 1.1.**	See **Table 1.1.**	ANG: 60 Sorties for PDAI/PTAI-Coded Units. ACC: CMR rates for PDAI-assigned pilots; non-RAP BMC rates (60 sorties) for PDAI-attached pilots.
OFT Total Sorties (Inexp/Exp)	12/8 (ANG, AFRC: 6/4)	12/8 (ANG, AFRC: 6/4)	12/8 (ANG, AFRC: 6/4)	
Tactical OFT Sorties (Inexp/Exp)	8/4 (ANG, AFRC: 4/2)	8/4 (ANG, AFRC: 4/2)	8/4 (ANG, AFRC: 4/2)	The WTT, MTT or UTD may be used to accomplish tactical OFT requirements.
Chemical Warfare OFT	0	1	1	May be conducted in conjunction with other OFT requirements. 0 for PTAI/PDAI-Coded, ANG, and ADF Units.

Emergency Procedures OFT	4 (ANG, AFRC: 2)	4 (ANG, AFRC: 2)	4 (ANG, AFRC: 2)	Units who do not have access to an OFT should utilize the CFT/UTD. Sim Instructors and SEFEs may log 50 percent of these missions when administering an OFT/UTD/CFT/EPE mission. (ACC: Will be supervised by a Sim IP, IP, or Sq Supervisor).

4.4. Special Categories:

4.4.1. Flight Surgeon (FS)/Ground Liaison Officer (GLO):

4.4.1.1. FS may fly selected missions to enhance understanding of tactical missions with which they are directly associated. GLOs will fly with an experienced pilot or flight lead. Initial checkouts will be IAW paragraph **3.7.**

4.4.1.2. FS flying rates and requirements will be IAW AFI 11-202V1.

4.4.2. MAJCOM and NAF RPI-8 Pilots. (USAFE: N/A. ANG: Responsibilities for RPI-8/staff flyers are contained in AFI 11-401 as supplemented by the ANG).

4.4.2.1. 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 AFORMS 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.

4.4.2.2. HHQ flying personnel maintaining BMC status are exempt from 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.

4.4.2.3. HHQ pilots will:

4.4.2.3.1. Review accomplishments and currencies for accuracy.

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

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

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

4.4.3. Active Duty Pilots Flying with ANG or AFRC Units:

4.4.3.1. Wing/group air advisor rated personnel on duty with operational training units can maintain CMR/instructor status, as appropriate, and may be qualified as a SEFE.

4.4.3.2. Active duty pilots, other than assigned advisors, are authorized to fly with reserve component units IAW AFI 11-401.

4.4.3.3. Pilots on exchange programs from active duty units are authorized mission oriented sorties IAW the specific OPlan that establishes the exchange. Squadron commanders may authorize their participation IAW their specific experience and qualification.

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

4.5. Multiple Qualification/Currency:

4.5.1. MAJCOM DO/XO (ANG: ACC/CG) 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. Individuals assigned to positions covered by paragraph **4.5.2.** have MAJCOM DO/XO approval and do not need to submit specific requests.

4.5.1.1. Submit multiple qualification requests through command channels to MAJCOM DOT (ANG: HQ ACC/DOT). 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 AFORMS.

4.5.1.2. Individually authorized multiple qualifications are valid as long as the individual is assigned to the specific position, and aircraft requested, or rescinded by MAJCOM DO/XO (ANG: ACC/CG).

4.5.2. Multiple qualification is authorized for the F-16A/B and F-16C/D which are considered the same MDS.

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 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, aircrew will fly an equitable distribution of emergency patterns, instrument sorties, penetrations, non-precision approaches, and precision approaches in each MDS to fill their non-RAP requirements.

4.5.5. 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.

Pilots must complete conversion training IAW an approved syllabus.

4.6. Currencies/Recurrencies/Requalifications:

4.6.1. Currency. **Table 4.3.** defines currency requirements for all F-16 A/B/C/D 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 is required whenever a pilot exceeds a currency requirement in this instruction.

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 cockpit or flight position that offers the best control of the mission, as determined by the SQ/CC.

4.6.3. MAJCOM/AOS Currency Requirements. Units will comply with AFI 11-207 for additional currencies required for the flight delivery of aircraft coordinated through ACC AOS.

4.6.4. Landing/Sortie Recurrency:

4.6.4.1. Loss of landing/sortie currency requires the following action (timing starts from date of last landing):

4.6.4.1.1. 31-90 Days (46-90 Days--Experienced). Regain landing currency.

4.6.4.1.2. 91-135 Days. Same as 31-90 days above, plus instructor supervised OFT (tactics, normal and emergency procedures for CMR pilots; normal, instrument, and emergency procedures for BMC pilots).

4.6.4.1.3. 136-225 Days. Same as 91-135 days above, plus qualification and tactical written examinations and EP evaluation.

4.6.4.1.4. 211 Days (226 Days--Experienced) or More Days. IQT, landing recurrency, appropriate weapons event initial qualification, and requalification IAW AFI 11-202V1.

4.6.4.2. ACBT Recurrency. Pilots losing currency in ACBT must accomplish the following sorties:

4.6.4.2.1. 61-90 Days (91-120 Experienced). BFM-1.

4.6.4.2.2. 91-180 Days (121-180 Experienced). AHC, and BFM-1.

4.6.4.2.3. Over 180 Days. Accomplish a tailored program IAW **Chapter 3**.

4.6.4.3. Loss of TFR currency requires the following actions (timing starts from date of last event):

4.6.4.3.1. 31-90 Days (46-90 Experienced). Regression to Medium Altitude until recurrent. Accomplish a night dual-supervised TFR event. Supervision required is an IP or SQ/CC-designated supervisor current and qualified in the event.

4.6.4.3.2. 91-210 Days. Accomplish a LANTIRN OFT and a night dual-supervised TFR event.

4.6.4.3.3. 211 Days-1 Year. Reaccomplish unit Low Altitude LANTIRN top-off training IAW paragraph **6.6.7.**

4.6.4.3.4. Over 1 Year. Accomplish FTU LANTIRN requalification training.

PDAI-coded units may use single seat aircraft with a current/qualified IP or SQ/CC-designated supervisor in a chase aircraft to update TFR currency requirements.

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 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 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-16 Pilot Currencies.

EVENT	To update fly:	INEXP	EXP	Affects CMR	To regain currency:	NOTES
DEMANDING SORTIE	Any Sortie	21	30	NO	Non-demanding	1, 12
LANDING (Appropriate Cockpit)	Landing	30	45	NO	Landing	2, 14
NIGHT LANDING	Day or night Landing	21	30	NO	Day landing	
SFO	Event	90	90	NO	Event	2
ACBT	ACBT	60	90	YES	ACBT	3, 4, 13
(ANG: 4 Ship Air-to-Air Event)	4 Ship A/A Event	60	90	NO	4 Ship A/A Event	2
WEAPONS DELIVERY	Event	60	90	YES	Event	3, 14
NIGHT WEAPONS DELIVERY	Day or Night WD	30	60	YES	Day event	3
LOW ALT LGB	Event	45	60	NO	Day Event	3
TFR	Night Event	30	45	NO	Night Event	13
LOW A/A	LOW A/A Events	60	90	NO	LOW A/A Event	3, 6, 9

EVENT	To update fly:	INEXP	EXP	Affects CMR	To regain currency:	NOTES
LOW ALT	LOW ALT Event	60	90	NO	LOW ALT Event	3, 7, 9
AAR	Day or Night AAR	180	180	YES	Event	3
FORMATION T/O	Event	60	90	NO	Event	3, 5
FORMATION LANDING	Event	60	90	NO	Event	3, 5
PRECISION APPROACH	Event	30	45	NO	Event	8
INSTRUCTOR	Event	N/A	60	NO	Event	10,12
NVG (Tasked Units)	Event	90	120	NO	Event	3, 11

EVENT	To update fly:	INEXP	EXP	Affects CMR	To regain currency:	NOTES
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 in aircraft or chase, qualified and current in event. To regain RCP IP landing currency, FCP must be occupied by a BMC/CMR pilot current and qualified in landing. (ANG: IP must be in the flight to update 4-ship A/A currency). 3. Supervision will be SQ supervisor or instructor, qualified and current in the event. 4. Performance or instruction of ACBT will update CT ACBT currency. For formal course IP's, CT and exercise participation require above currencies; formal syllabus training missions require 180 days currency. 5. Flight leaders may update currency from either lead or wing position. Recurrency will be accomplished from wing position. Wingmen may only update currency from wing position. 6. LOW A/A - Event is defined as performing realistic, mission oriented air-to-air operations while in a LOWAT certified low altitude block. Event includes skills necessary to seek out, and engage offensively, an aerial target at low altitude. 7. LOW ALT - Event is defined as performing realistic, mission oriented low altitude operations while in a LOWAT certified low altitude block. Events include low altitude navigation, tactical formation, defensive maneuvering to avoid or negate threats, and air-to-surface attacks. 8. Supervision will be dual or on the wing in chase. If day VFR, the supervision level is pilot, current and qualified in event. All other times require an IP IAW AFI 11-206. 9. Currency is required in the pilot's low altitude category for operations below 1000 feet (Category I, II, III). Loss of currency requires regression to the next higher category in which current. Operations in a lower block category will update the higher block categories. Recurrency requires satisfactory performance in the following events: vertical awareness training, hard turns, tactical formation, and offensive/defensive maneuvering. 10. Instructor pilot currency is 60 days. Non-currency for 61-180 days requires an instructor recurrency flight with an IP; over 180 days requires a Stan/Eval flight check. IP rear cockpit landing currency is 45 days. WIC student sorties count as instructor sorties for currency. 11. If the last NVG sortie was accomplished more than 150/180 (Inexp/Exp) days ago, an NVG academic review is required prior to the recurrency sortie. 12. For IPs, accomplishing or instructing the event from either cockpit will update currency. 13. Refer to paragraph **4.6.5.** 14. Loss of currency exceeding 6 months requires requalification IAW paragraph **1.7.** in AFI 11-202V1.						

4.7. Regression:

4.7.1. CMR/BMC Regression for Failure to Meet Lookback. Only RAP training and Contingency Operations sorties may be used for lookback. If a pilot does not meet monthly lookback requirements throughout the training cycle, SQ/CCs can either: Regress the pilot to N-CMR/N-BMC, as applica-

ble; remove the pilot from a CMR/BMC manning position; or 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 in probation status for one 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 reestablish a 1-month lookback at the end of the probation period. (See **Figure 4.1.**)

4.7.1.2. CMR pilots regressed to N-CMR for lookback must complete a SQ/CC approved recertification program to return to CMR standards. As a minimum, this program will consist of sorties equaling one-half of 1-month's RAP sortie requirement. BMC pilots regressed to N-BMC must complete a SQ/CC directed recertification program. Upon completion of the recertification program, CMR/BMC pilots must also meet the subsequent 1-month lookback requirement prior to reclaiming CMR/BMC status. The sorties and events accomplished during a recertification program may be credited towards total sortie and event requirements for the training cycle as well as for the 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.

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. To regain CMR/BMC, the pilot must re-achieve 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. To regain CMR/BMC, the pilot must accomplish at least three of the weapons deliveries under the supervision of a squadron supervisor or instructor. These weapons deliveries 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 evaluation 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 until successfully completing required corrective action, a reevaluation, 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 instruction at the end of the training cycle may require additional training depending on the type and magnitude 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 **1.12.**

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

4.8.2. Pilots failing to meet annual 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. Pilots failing to meet RAP sortie type requirements will:

4.8.3.1. Regress to N-CMR/N-BMC if SQ/CC determines the sortie type deficiency is significant. To regain CMR/BMC the pilot must complete all deficient sortie types. These sorties may count towards total requirements for the new training cycle.

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

4.8.4. Pilots failing to accomplish sorties required for Special Capabilities/Qualifications will loose their qualification. The SQ/CC will determine requalification 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, non-flying TDY/exercises (ANG, AFRC, and/or mandatory training required for civilian employment) 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 and not to mask training or planning deficiencies.

4.9.2. Proration is based on cumulative days of non-availability for flying in the training cycle. Use **Table 4.4.** to determine the number of months to be prorated based on the cumulative number of calendar days the pilot was not available for flying during the training cycle.

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

4.9.4. 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 3 months proration from his training cycle (1 month for emergency leave and 2 months for SOS).

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

4.9.6. 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.

4.9.7. 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.

4.9.8. A pilot's last month on station prior to departing 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.

Table 4.4. Proration Allowance.

CUMULATIVE 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
over 225	See para **4.6.5.**

4.9.9. CMR pilots who attend USAF Weapons School in TDY-and-return status may be reported throughout the TDY as CMR. Upon return, those pilots will accomplish a prorated share of sortie/event requirements (see **Table 4.4.**).

4.9.10. 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.

4.9.10.1. 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. RAP events logged during contingency operations sorties, except AAR, do not count toward annual RAP requirements but may be used to update currencies. Upon returning from contingency operations, units will prorate RAP sorties and events for the period of time each individual was deployed. Additionally, proration is authorized for deployment preparation and deployment recovery time where home station flying is reduced by the MAJCOM. (ANG, AFRC: Individuals deployed for more than a seven day period may prorate a one month portion of RAP sorties and events.)

4.9.10.2. 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.

4.9.10.3. 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.

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 **4.7.2.**

4.10.2. If CMR/BMC status is lost due to failure to meet lookback IAW paragraph **4.7.**, 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 meet one-half of one month's CMR/BMC sortie rate (rounded up) plus satisfy the one month sortie requirement. Additionally, all RAP event currencies must be regained. The SQ/CC will approve any other additional training prior to recertification to CMR/BMC.

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 the Lookback, Regression, Proration, and Requalification Process:

4.11.1. Capt Smith is an experienced CMR pilot in ACC with a 1 and 3 month lookback requirement of 8 and 24 RAP sorties respectively. On 3 Feb, he flew an ACBT sortie prior to departing for a non-flying TDY staff tour for two months. He reported back for flight duty on 6 Apr. What is his status throughout his TDY and on his return?

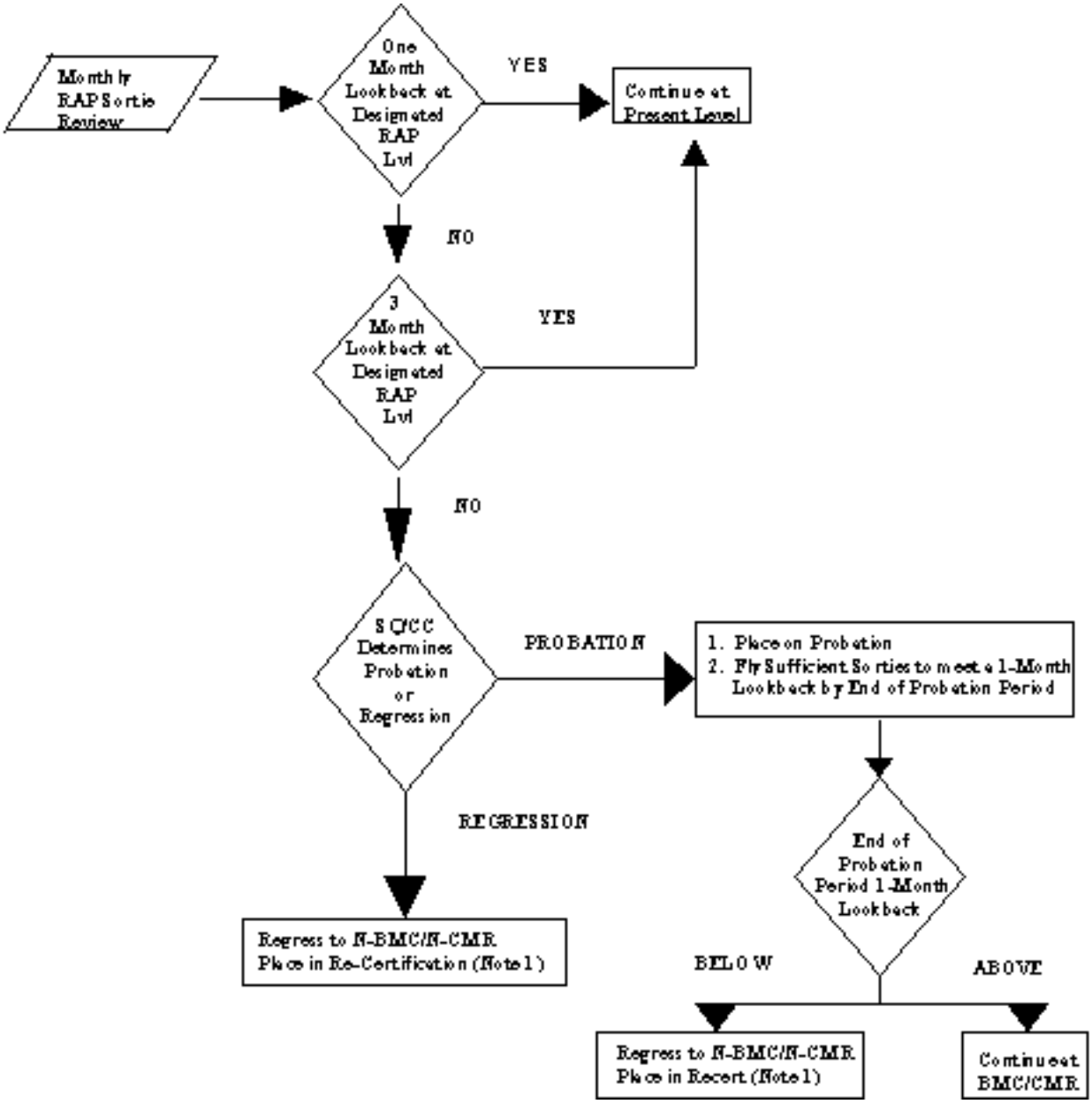
4.11.1.1. The SQ/CC wanted to list Capt Smith as a countable CMR pilot for reporting purposes throughout the TDY. Therefore, on 1 Mar, his Flt/CC performed the mandatory 1-month lookback (Feb) on Capt Smith. He only flew one RAP sortie, failing the 1-month lookback. The Flt/CC then performed a 3-month lookback (Dec, Jan, Feb). This showed that he flew only 21 sorties for this period. Had he flown three more sorties, his SQ/CC could continue Capt Smith at CMR. However, with 21 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. On 1 Apr, Capt Smith's 1-month lookback (March) was 0 sorties. The SQ/CC must now regress Capt Smith to N-CMR. In April, the SQ/CC will have to place him in a four sortie minimum (one half of the 8 sortie 1-month lookback requirement for CMR) recertification program. Upon completing this program, Capt Smith will need to then fly four more RAP sorties in April to reestablish 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 Jun.

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 8 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 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 Jun, 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 category. The SQ/CC could regress Capt Smith to N-CMR if deemed significant. After accomplishing the tailored recertification program (in this case, the deficient sorties), the SQ/CC would recertify Capt Smith to CMR. This training counts for the new training cycle.

Figure 4.1. Regression Flow Chart.



NOTE:

SQ/CC will approve a program to bring the pilot up to CMR/BMC standards equaling ½ of 1 month's RAP sortie rate. Prior to being recertified CMR/BMC, the pilot must satisfy the subsequent 1-month sortie lookback requirement.

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 instru-

ment 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 IRC before flying without a theater-experienced pilot in the formation. MQT academics and the MQT LAO 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 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.

4.13. G-Awareness Continuation Training. Units will develop a CT program that provides feedback to pilots and imprints a proper L-1 AGSM so that it becomes an integral part of pulling Gs.

4.13.1. The basis of this program is to give each FL, SQ supervisor, and flight surgeon the skills needed to evaluate a flight member's AVTR to ensure a proper L-1 AGSM is being performed. This program also makes assessment of the AGSM a normal debrief item after every flight. The intent of this training is not to force FLs, supervisors, and flight surgeons to spend excessive amounts of time assessing the AGSM. The assessment should be done as a normal part of AVTR assessment while reviewing other tactical portions of the mission.

4.13.2. Use the following minimum guidance to implement the unit's program:

4.13.2.1. AGSM technique and assessment will be incorporated into the squadron CT program. Emphasis will be placed on briefing, debriefing, and assessing the L-1 AGSM using the AVTR in the debrief on a daily basis. FLs, IPs, SQ supervisors, and flight surgeons should become adept at assessing and teaching the correct AGSM. The video, "Anti-G Strain Technique Reinforcement and Assessment," already an integral part of FL and IP upgrade, will be presented annually to all pilots as part of weapons academics. A/A weapons academics will include a discussion of the limitations imposed on aircraft performance as a result of an ineffective AGSM.

4.13.2.2. FLs will emphasize G-awareness during appropriate portions of the flight briefing.

4.13.2.3. G-awareness exercises will be filmed in HUD (if so equipped) and in hot mic. The second turn of the G-awareness exercise for A/A sorties will be a minimum of 180 degrees of turn.

4.13.2.4. The tactical portion of all basic missions (BFM, BSA, ACM, etc.) will be flown in hot mic to enable assessment of the AGSM. Intercom volumes will be set at a level which is comfortable for the pilot but still allow assessment of breathing and AGSM technique in the debrief. For high task sorties (DACT, CFTR, JAAT, etc.), it is highly desired for pilots to fly in hot mic. The purpose of this is to identify breakdowns in the AGSM which commonly occur during high task portions of a mission.

4.13.2.5. FLs will assess the AGSM effectiveness of flight members during mission debriefings. This assessment should not be limited to the G-awareness exercise. It is imperative to evaluate the AGSM after the pilot has had the time to fatigue, as this is usually when the AGSM breaks down

and G-LOC occurs. The intent of this requirement is to get an honest assessment of a pilot's AGSM during a tactically and G-demanding portion of flight. The same AGSM should be performed anytime G is applied; only the intensity of the maneuver is varied. Therefore, the AGSM should also be evaluated under relatively low intensity G such as A/S sorties.

4.13.3. Pilots identified as having poor AGSM technique or low G-tolerance will be identified to the Flt/CC or appropriate operations supervisor. The operations officer or appropriate operations supervisor will determine what action is required to improve the pilot's G-tolerance. The SQ/CC will determine if refresher training is required IAW AFI 11-404, *Centrifuge Training for High-G Aircrew*.

4.13.4. The involvement of the aerospace medical team is important to the success of this program. All SQ flight surgeons assigned to fighter/attack/FAC(A)/FTU are required to complete centrifuge training IAW AFI 11-404. During centrifuge training they will receive instruction on AVTR review.

4.13.5. The squadron will develop a program to ensure an A/A mission tape for each pilot is reviewed each training cycle. Tapes will be reviewed by the squadron flight surgeon or a squadron supervisor (ACC and USAFE: Tapes will be reviewed by both the squadron flight surgeon and a squadron supervisor). It is highly encouraged that both a flight surgeon and a supervisor participate. The reviews will be documented. **Exception:** AETC students enrolled in a formal syllabus course are exempt from this requirement.

4.14. Air-to-Air Training. Air-to-Air continuation training programs will be conducted IAW AFI 11-214 and applicable flying/operations publications. All units will train for successful self-defense, as a minimum. Further Air-to-Air training will be based on unit tasking. As a goal, at least 50 percent of ACBT requirements should be against dissimilar aircraft.

4.15. CW CT Defense Training:

4.15.1. Ground Training. Each pilot must attend aircrew CWD ground training annually. This training will include:

4.15.1.1. Donning the full pilot ensemble.

4.15.1.2. Hanging harness and egress training.

4.15.1.3. Doffing of the CW ensemble IAW current shelter processing procedures.

4.15.1.4. Physiological effects of chemical agents and the appropriate first aid.

4.15.2. 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 by tasked units. 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.

4.15.3. CW CT Flight/Exercise. As determined by the unit.

CW CT flight requirements are IAW MAJCOM supplements. Restrictions include:

4.15.3.1. Pilots must be fully current and qualified in an event prior to accomplishing that event on a CW sortie.

4.15.3.2. Minimum altitude is 500 feet AGL (day) and 1,000 feet AGL (night) except for takeoffs, approaches, and landings.

4.15.3.3. Night AAR is unauthorized. A/A training is restricted to "limited maneuvering" training rules.

4.15.3.4. Weather minimums for pilots in CW gear are 700 feet ceiling and 2 miles (3.2 km) visibility.

4.15.3.5. Four ship formations may be flown, but only one pilot in an element will be solo in CW gear. **Exception:** If the element consists of two dual-placed aircraft, one pilot in one cockpit of each aircraft may be in CW gear if the other cockpit is occupied by a squadron supervisor or IP not wearing CW gear.

4.15.3.6. CW mask, filter pack, and gloves are required for CW CT flight credit.

4.15.3.7. CW CT flight fulfills the annual CW CT OFT requirement.

4.16. Low/Slow Speed VID Procedures:

4.16.1. For Strategic Defense Units and units specifically tasked to perform the strategic defense mission or counter drug role, comply with current approved guidance.

4.16.2. For all other units, the objective of this low/slow speed VID training is to expose pilots to problems associated with intercepting low (below 5000 ft AGL)/slow flying aircraft (rotary and fixed wing) for visual identification practice in a threat environment. Emphasis should be placed on intercepting dissimilar adversaries below 2000 feet AGL and 250 KIAS (helicopters are desired). Training will be conducted IAW MCM 3-1 and AFI 11-214.

4.16.2.1. Unit-developed ground training programs will be designed for unit specific equipage and employment taskings. Academic sessions should be conducted during weapons and tactics training and maximum use of the visual recognition program is encouraged.

4.16.2.2. Flying training missions should, to the maximum extent possible, include helicopter operations and considerations. Possible assets include USAF helicopters, USN helicopters, USA helicopters, and propeller aircraft. Creation of a realistic environment to stimulate the aircraft EID/VID suite is essential to the conduct of low/slow VID procedures. Units must make every effort to maximize effective use of limited assets as well as to instill awareness and actions appropriate to this training. SQ/CCs will determine the depth of ground and flying training necessary prior to participating in exercises and contingency operations.

Chapter 5

WEAPONS DELIVERY/EMPLOYMENT QUALIFICATION

5.1. General. This chapter outlines requirements for attaining initial qualification and maintaining CT qualification in the deployment of air-to-surface weapons and the employment of air-to-air weapons. Refer to "Glossary of Events" at **Attachment 2** for further guidance on 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 initial qualification, but not for CT event requirements. Initial qualification will carry over for consecutive tours in the F-16.

5.2.1.1. If not otherwise specified, initial qualification in a weapons event is satisfied when the pilot has achieved a minimum of 3 hits out of 6 consecutive record deliveries.

5.2.1.2. Strafe/Conventional. Deliveries may be accomplished from basic or tactical deliveries. Prior to initial qualification in strafe, there is no limit to the number of hot passes.

5.2.1.3. Maverick. Deliveries must be accomplished from tactical deliveries.

Initial A/A missile employment qualification is achieved by meeting the QUAL criteria for weapons employment IAW AFI 11-202V2.

Initial A/A gun employment qualification is achieved by scoring an individual hit (i.e., element/team hit is not applicable for initial qualification) during a live fire pass on a DART/AGTS target.

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 instructions or agencies (e.g., inspection/evaluation teams). These qualifications are valid throughout the following training period.

5.3.1.1. CT weapons deliveries will be tactical deliveries or intercepts simulating realistic employment of UCML munitions, considering such factors as fuzing, safe separation/escape, recovery using published Dash-34 safe escape maneuver, egress, etc. CT air-to-surface weapons event requirements will be accomplished on scoreable 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 minimum number of record hits, and record deliveries (if required), 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/BMC, failure to qualify will result in regression to N-CMR/N-BMC and entered into recertification 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. Each pilot's air-to-air weapons employment will be assessed for validity IAW MCM 3-1 criteria and the results in each category (AIM 7/9/120 and gun) will be recorded for the current training period. Qualification requires a *75 percent success rate for missiles, at pickle, 50 percent for gun*.

5.3.1.6. Unless otherwise specified, qualification criteria is 12 record hits and an overall record hit rate of 50 percent. Additional guidance:

5.3.1.6.1. Strafe. Multiple strafe for the same type event is authorized if cockpit rounds count is declared between events, the appropriate total number of rounds are set in the limiter, and different target arrays are used (i.e., a different range or at least 90 degrees heading change). Pilots will be charged actual rounds fired or rounds set per event, whichever is greater, for each event.

5.3.1.6.2. Maverick. If a unit is equipped with both EO and IR Mavericks, 12 hits are required and should be equitably divided between types based on unit equipage and expected tasking.

5.3.1.6.3. DART/AGTS. Pilots will use basic or tactical patterns, as specified by MAJCOM, and must achieve a hit. DART/AGTS qualification criteria (other than initial) using combat/ tactical patterns, is one hit on DART/AGTS as sole shooter; or at least one hit during sequential attack tactics when both shooters have fired on DART (N/A for AGTS) and VTR reviews verify that sufficient tracking was accomplished during actual time of fire to warrant crediting a hit to each element member.

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. Hit criteria for LANTIRN GP bombs is 1.5 times the non-LANTIRN GP bomb hit criteria.

5.4.1. Air-to-Ground and Air-to-Air Gunnery Events. Pattern descriptions, procedures, training rules, and foul criteria are contained in AFI 11-2F16V3, and AFI 11-214.

5.4.1.1. Low Angle Strafe (LAS). Dive angle of 15 degrees or less. Foul line is 2,000 feet. Minimum recovery altitude is 75 feet AGL. Maximum number of passes is 2. Aircraft rounds limiter will normally be set to provide 100 scoreable rounds. Hit criteria: 25 percent (total hits divided by actual rounds fired or 50 rounds whichever is greater). Each valid hole or acoustiscore count is a hit. If acoustiscore is not available, number of hits will be adjusted by percentage of surface area when target size is other than 625 square feet.

5.4.1.2. High Angle Strafe (HAS). Event is scored on a point target from a dive angle greater than 15 degrees. Minimum recovery altitude is 1,500 feet AGL. Maximum number of passes is 2. Aircraft rounds limiter will normally be set to provide 100 scoreable rounds. Hit criteria: On any pass, bullet dispersion within 75 feet of point target with independently observed impacts on the target.

5.4.1.3. Two Target Strafe (TTS). 30mm GPU-5 gun pod event only. Three passes with a dive angle of 15 degrees or less. Foul line is 2,000 feet. Minimum recovery altitude is 75 feet AGL. 100 rounds loaded per event. Hit criteria: 4 separate impacts out of 6 total attempts (3 long/3 short) on two targets (minimum of 1 round fired on each target per pass). Impacts may be acoustically scored or independently observed (suitable targets).

5.4.1.4. Long Range Strafe (LRS). Three passes with a dive angle of 15 degrees or less. Minimum recovery altitude is 75 feet AGL. Open fire range is IAW range restrictions. Cease fire range is 5,000 feet. Foul line is 2,000 feet. 100 rounds loaded per event. Hit criteria: 5 acoustically scored impacts or independently observed impacts (suitable target) on any pass.

5.4.1.5. DART. One bullet impact is required.

5.4.1.6. AGTS/IAGTS. Five sensor scored hits are required.

5.4.2. Free Fall Ordnance Events:

5.4.2.1. Loft Event. Is a low altitude climbing delivery using appropriate aircraft systems for target acquisition, tracking, and weapons release while maximizing standoff range or weapons effects. Minimum run-in/recovery altitude is the pilot's minimum low altitude qualification or range/target area restrictions, whichever is higher. Hit criteria: 750 feet (229m).

5.4.2.2. Level Events:

5.4.2.2.1. Visual Level. Is a delivery with less than five degrees of climb or dive at weapons release (non-maneuvering) using any means of delivery with visual target acquisition/designation. Minimum altitude is safe separation/escape/fuze arm for ordnance being delivered/simulated or the pilot's minimum low altitude qualification or range/target area restrictions, whichever is higher. Hit criteria: 130 feet (40m).

5.4.2.2.2. Systems 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/escape/fuze arm for ordnance being delivered/simulated or the pilot's minimum low altitude qualification or range/target area restrictions, whichever is higher. Hit criteria: 195 feet (60m).

5.4.2.3. Dive and Toss Events:

5.4.2.3.1. Low Angle High Drag (LAHD). Dive angle is less than 30 degrees. Minimum recovery altitude is safe escape for ordnance being simulated/delivered, or as required to recover above 100 feet AGL (300 feet on a Class B/C range or over water), or one-half the computed altitude loss from bomb release to recovery, whichever is higher. Hit criteria: 75 feet (23m) for computed deliveries; 105 feet (32m) for manual; or within the target area or impacting the vertical panel in the skip target.

5.4.2.3.2. Low Angle Low Drag (LALD). Dive angle is less than 30 degrees. Minimum recovery altitude is safe escape for ordnance being simulated/delivered or as required to recover above 1,000 feet AGL, whichever is higher. Hit criteria: 100 feet (31m) for computed deliveries; 175 feet (53m) for manual.

5.4.2.3.3. Dive Bomb (DB). Dive angle is 30 degrees or greater. Minimum recovery altitude is safe escape for ordnance being simulated/delivered, or as required to recover above 1,500

feet AGL, whichever is higher. Hit criteria: 85 feet (26m) for computed deliveries; 145 feet (44m) for manual.

5.4.2.3.4. High Altitude Dive Bomb (HADB). Dive angle is 30 degrees or greater. Minimum recovery altitude is 4,500 feet AGL. Hit criteria: 125 feet (38m) for computed deliveries; 250 feet (76m) for manual.

5.4.2.3.5. High Altitude Release Bomb (HARB). Any aircraft system may be used for target designation and weapon release. Minimum recovery altitude is 10,000 feet AGL. Hit criteria: 255 feet (78m) for computed deliveries; 510 feet (136m) for manual.

5.4.2.3.6. Low Altitude Toss (LAT). A delivery executed from a pop- up or roll-in with less than a 10,000 feet AGL base/apex. Minimum designation range is 9,000 feet slant range and minimum approach to the target is 3,000 feet horizontally. Any system may be used for target designation and weapon release. If this delivery is used for a LGB event, use paragraph **5.4.3.** Hit criteria is: 175 feet (53m).

5.4.2.3.7. Special Weapons Event. A delivery which utilizes all applicable nuclear switchology to release simulated or actual ordnance. Minimum altitude is safe separation for ordnance being delivered/simulated or 100 feet AGL, whichever is higher. Hit criteria: Based on the delivery method used.

5.4.3. Precision Guided Munitions Events:

5.4.3.1. AGM-65 Maverick. A delivery initiated from a level, diving, or pop-up maneuver to achieve line-of-sight to the target(s). Acquisition, missile lock-on and launch, or 2 seconds stable lock-on in "No launch" conditions, followed by a tactical escape maneuver is required. Hit criteria: either actual target impact or valid, recorded TGM simulated weapon release within launch parameters with stabilized target tracking.

5.4.3.2. Laser Guided Bomb (LGB). An event using LANTIRN/aircraft systems to determine pull-up/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. During a low altitude delivery, weapon release will be followed immediately by a tactical escape maneuver. Minimum recommended approach to the target is 9,000 feet. Hit criteria for LGB delivery profiles (with the exception of GBU-24) is:

5.4.3.2.1. 33 feet (10m) for actual ordnance.

5.4.3.2.2. Simulated deliveries will be scored a hit if the weapon was released within planned allowable parameters and a laser tracking accuracy of 1.8 mils during the last 8 seconds of flight is demonstrated.

5.4.3.2.3. Refer to TO 1-34-1-1-1 for GBU-24 hit criteria.

5.4.4. AGM-88 High Speed Antiradiation Missile (HARM). Maneuver as required to achieve weapon employment. Acquisition and launch may be performed from a level, climbing, or diving maneuver to achieve firing parameters. Hit criteria: Valid HARM launch (actual or simulated) IAW MCM 3-1 shot criteria at pickle as determined by VTR review.

5.4.5. Rocket Events. Hit criteria applies to controlled deliveries only. Impromptu target marking should be validated by the timeliness and effectiveness of rocket impact for fighters to locate the target.

5.4.5.1. Low Angle Rocket (LAR). 10 to 30 degrees dive angle; slant range 4,000 feet minimum; minimum recovery altitude is one-half the computed altitude loss or 100 feet AGL, whichever is higher. Hit criteria: 100 feet (30m).

5.4.5.2. High Angle Rocket (HAR). Dive angle of 30 degrees or greater; slant range as required; minimum recovery altitude 1,000 feet AGL. Hit criteria: 100 feet (30m).

5.4.5.3. Low Altitude Tactical Rockets (LATR). A tactical delivery from a dive angle of 0 to 30 degrees; slant range at release of 10,000 feet or greater from the target; minimum recovery altitude 1,000 feet AGL. Hit criteria: 1000 feet (300m).

5.4.5.4. High Altitude Tactical Rockets (HATR). A tactical delivery from a dive angle of 0 to 30 degrees; slant range at release of 10,000 feet or greater from the target; minimum recovery altitude 4,000 feet AGL. Hit criteria: 500 feet (152m).

5.4.5.5. Loft Rockets (LR). A tactical delivery from level to 45 degrees of climb; slant range at release of 10,000 feet or greater from the target; minimum recovery altitude 300 feet AGL. Hit criteria: 1650 feet (500m).

5.4.6. Air-to-Air Weapons Events (AIM-7/9/120 and Gun). A hit is IAW MCM 3-1 shot criteria as determined by VTR review or actual delivery.

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 inventoried on the unit's UCML as possible. To provide this opportunity, as a goal, all CMR pilots should expend the following ordnance (AFI 36-2217).

5.5.1. For units tasked with AI, CAS, SEAD, OCA-S, and/or SA missions:

5.5.1.1. One free fall ordnance FSWD (IAW definition at **Attachment 1**) sortie per year.

5.5.1.2. One FSWD sortie with the delivery of one PGM per year. Units tasked with SEAD-A should emphasize AGM-88 deliveries.

5.5.2. For units tasked with DCA, Strategic Defense, and/or OCA-A missions: One live A/A missile employment per year.

5.5.3. (ANG) ADF Units. One Dart/AGTS shoot per year.

Chapter 6

SPECIALIZED TRAINING

6.1. Specialized Training Programs. 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 upgradee's previous experience, qualifications, and documented performance. Unless governed by a formal syllabus, ground and device training for these programs will consist of unit-developed academics and scenarios. Flight training will be conducted in accordance with a program approved by the SQ/CC.

6.2. Simulator Instructor (SI). The following OFT mission profiles should be used to train and qualify selected simulator instructor upgradees to operate the IOS. The contractor simulator instructor program will be IAW the appropriate contract. SQ/CCs will determine the number of SIs required to perform unit mission. The required supervision for this upgrade program is an Instructor Operator Station (IOS)-qualified/current OFT instructor.

6.2.1. Academic Training. Prior to the first IOS mission, the USI will complete the following unit developed blocks of instruction:

6.2.1.1. Principles of Instruction. Learning objectives, instructor responsibilities, instructor relationship, training facilities, and publications.

6.2.1.2. Techniques of Flight Instruction. Training objectives and environment; maneuver demonstration, performance, and review; recognition and analysis of common errors.

6.2.1.3. Conduct of Flight Briefing. Training objectives, order of presentation, use of briefing guides and audiovisual aids, debriefing techniques.

6.2.1.4. Conduct of Phase Briefings. Techniques for briefing, use of visual aids, review of applicable briefings.

6.2.1.5. Evaluations. Grading systems and preparation/use of gradesheets.

6.2.2. Mission Profiles (Based on Simulator Capabilities):

6.2.2.1. SI-1, IOS Operations. Mission initialization, CRT page review and modification, keyboard operation, light pen operation, emergency shutdown, record/playback, hard copy, performance, and procedures monitoring.

6.2.2.2. SI-2, IOS Operations. Tactics mission file, console-operated air intercepts and options, A/A weapons scoring, ground threats and modifications, A/S weapons scoring, surface-to-air engagement scoring, program and simulator freeze, mission parameter modifications.

6.2.2.3. SI-3, Practical Exercise. The USI will conduct a regularly scheduled simulator mission from the IOS under supervision of an IOS-qualified instructor.

6.2.3. Following successful completion of SI-3, the SQ/CC will certify the pilot's SI status in appropriate written format (letter, AFORMS, gradesheet, etc.).

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

6.3.1. Initial entry may be as a two-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 four-ship FL. The squadron CC will determine when a two-ship FL may train toward larger, more complex formations (three- or four-ship, mission commander, etc.). FL training should place appropriate emphasis on four-ship tactical employment.

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

6.3.2.1. 300 hours PAI, or

6.3.2.2. 400 hours IP/FP/MP in a 11Fxx, 11K3C, or 11K3D AFSC, of which 200 hours are PAI, or

6.3.2.3. 50 hours PAI, if previously qualified as a 11Fxx AFSC flight lead.

6.3.2.4. (ANG, AFRC) For converting units, OG/CC's may select prior flight lead qualified pilots to upgrade to flight lead concurrently with the MQT top off program regardless of PAI hours.

6.3.3. Ground training will consist of locally developed instruction in the following areas. LANTIRN/HTS-equipped units will add LANTIRN/HTS-specific considerations/techniques to applicable areas:

6.3.3.1. FL Responsibilities. FL/wingman relationship, unit training objectives.

6.3.3.2. Mission Preparation. Mission objectives, wingman requirements and responsibilities, currencies, capabilities, delegation of mission planning duties, and briefing preparation.

6.3.3.3. Conduct of Flight Briefings and Debriefings. Objectives, use of briefing guides and audiovisual aids, flight member involvement, briefing techniques, debriefing/questioning techniques, tape review responsibilities and procedures.

6.3.3.4. Conduct of Missions. Control of flight, flight discipline, emergency procedures, training rules, and responsibilities to SQ/CC.

6.3.3.5. AGSM Techniques. Briefing, debriefing, and AVTR assessment. Review the video, Anti-G Strain Technique Reinforcement and Assessment.

6.3.3.6. IFEs and Emergency Diverts.

6.3.4. Flight training will be conducted in accordance with a program approved by the SQ/CC. Missions may be flown in any order. The program outlined below provides a basic starting point and may be modified by squadron commanders based on unit needs and/or upgradee's previous experience, qualifications, and documented performance. SQ/CCs will determine which sorties are required based on a review of previous experience and may certify a flight lead with appropriate restrictions based on training not accomplished (i.e. no DART, AAR, etc). An evaluation sortie is required. Two formation takeoffs and landings, a day and night aerial refueling, and a trail recovery will be accomplished as a flight lead during the program. All FLUG training will be under the supervision of an IP or flight lead-qualified squadron supervisor. Dissimilar adversaries should be used to the maximum extent practical during FLUG training. FLUG-4 should be flown with NVGs if the upgrading pilot is NVG qualified (**NOTE:** NVG-4 is not required if FLUG-4 is flown with NVGs). FLUG-9 through 12 are only required for 4-ship FL upgrade. (**NOTE:** If two- and four-ship upgrade training are combined, only one evaluation sortie is required). Units will add considerations/techniques for specialized capability (LANTIRN, HTS, etc) to applicable areas.

6.3.4.1. FLUG-1, Offensive BFM--Mission Objectives. Practice leading and controlling a 1v1 BFM mission including WVR and BVR setups. Specific Mission Tasks: Briefing, formation takeoff, weapons system checks, WVR setups, tactical intercepts to BFM, weapons employment, formation landing (lead), mission reconstruction and debriefing, tape review/assessment (to include AGSM).

6.3.4.2. FLUG-2, Defensive BFM--Mission Objectives. Practice leading and controlling a 1v1 BFM mission including WVR and BVR setups. Specific Mission Tasks: Briefing, formation takeoff, weapons system checks, WVR setups, tactical intercepts to BFM, weapons employment, formation landing (lead), mission reconstruction and debriefing, tape review/assessment (to include AGSM).

6.3.4.3. FLUG-3, BSA--Mission Objectives. Practice leading and controlling a two-ship weapons delivery mission to a controlled range. Specific Mission Tasks: Briefing, formation takeoff, LATN, LATF, controlled range procedures, conventional and nuclear weapons delivery patterns, specialized capability (LANTIRN, HTS, etc) employment procedures/techniques (if applicable), hung ordnance recovery, landing, mission reconstruction and debriefing, tape review and assessment.

6.3.4.4. FLUG-4, Night Weapons--Mission Objectives. Practice leading and controlling a two-ship night weapons delivery mission to a controlled range. Specific Mission Tasks: Briefing, trail departure, joinup, night range operations, weapons delivery patterns, specialized capability (LANTIRN, HTS, etc) employment procedures/techniques (if applicable), formation instrument approach, flight split-up, tape review/assessment when applicable.

6.3.4.5. FLUG-5, SAT--Mission Objectives. Practice leading and controlling an element as number three of a four-ship tactics mission to a tactical range/working area in a medium/high threat scenario (IP will fly as number four). Specific Mission Tasks: Trail departure, LATN, LATF, tactical ingress, medium/high threat target area tactics, specialized capability (LANTIRN, HTS, etc) employment procedures/techniques (if applicable), tactical egress, comm jam procedures.

6.3.4.6. FLUG-6, SAT--Mission Objectives. Practice leading and controlling a two-ship tactics mission to a tactical range/working area in a high-threat scenario. Specific Mission Tasks: Briefing, LATN, LATF, tactical ingress, high-threat target area tactics, specialized capability (LANTIRN, HTS, etc) employment procedures/techniques (if applicable), tactical egress, comm jam procedures, mission reconstruction and debriefing, tape review/assessment.

6.3.4.7. FLUG-7, (D)ACT--Mission Objectives. Practice leading and controlling a 2vX (D)ACT mission. Specific Mission Tasks: Briefing, tactical formation, BVR setups for sweep and lane/point defense (concentrating on element/flight integrity), fuel awareness, RT, ACMI procedures (if available), minimum fuel recovery, mission reconstruction and debriefing, tape review/assessment (to include AGSM).

6.3.4.8. FLUG-8, Commander's Evaluation, Two-Ship FL--Mission Objectives. Evaluation (by SQ/CC or designated representative) of flight lead abilities in a tactical mission scenario based on squadron tasking. Specific Mission Tasks: Briefing, mission accomplishment, flight management and control, mission reconstruction and debriefing, tape review/assessment, critique.

6.3.4.9. FLUG-9, (D)ACT--Mission Objectives. Practice leading and controlling a 4vX (D)ACT mission. Specific Mission Tasks: Briefing, tactical formation, BVR setups for sweep

and lane/point defense (concentrating on element/flight integrity), fuel awareness, RT, ACMI procedures (if available), minimum fuel recovery, mission reconstruction and debriefing, tape review/assessment (to include AGSM).

6.3.4.10. FLUG-10, BSA--Mission Objectives. Practice leading and controlling a four-ship weapons delivery mission to a controlled range. Specific Mission Tasks: Briefing, formation takeoff, LATN, LATF, controlled range procedures, conventional and nuclear weapons delivery patterns, hung ordnance recovery, landing, mission reconstruction and debriefing, tape review/assessment.

6.3.4.11. FLUG-11, SAT--Mission Objectives. Practice leading and controlling a four-ship tactics mission in a high-threat scenario. Specific Mission Tasks: Briefing, LATN, LATF, threat reaction(s) to air and surface threats, tactical ingress, high-threat target area tactics, tactical egress, specialized capability (LANTIRN, HTS, etc) employment procedures/techniques (if applicable), mission reconstruction and debriefing, tape review/assessment.

6.3.4.12. FLUG-12, Commander's Evaluation, Four-Ship FL--Mission Objectives. Evaluation (by SQ/CC or designated representative) of flight lead abilities in a tactical mission scenario based on squadron tasking. Specific Mission Tasks: Briefing, mission accomplishment, flight management and control, mission reconstruction and debriefing, tape review/assessment, critique.

6.3.5. Following successful completion of FLUG-8 and/or FLUG-12, the SQ/CC will personally interview the upgrading pilot and review flight lead responsibilities, scope of duties, authority, and philosophy. Failure to complete scheduled training events (i.e., Dart, AAR, etc.) need not delay certification. The SQ/CC will certify new flight lead's status, including any restrictions, in appropriate written format (letter, gradesheets, AFORMS, etc.).

6.4. 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 AFCAT 36-2223.

6.4.1. Pilots selected for IP upgrade must be four-ship FLs with either:

6.4.1.1. 1,000 hours IP/MP/FP time of which 300 hours are PAI, or

6.4.1.2. 700 IP/MP/FP hours in a 11Fxx AFSC of which 100 hours are PAI, or

6.4.1.3. 600 IP/MP/FP hours in an 11Fxx AFSC of which 200 hours are PAI, or

6.4.1.4. 500 IP/MP/FP hours in an 11Fxx AFSC of which 300 hours are PAI.

6.4.1.5. (ANG, AFRC) For converting units, pilots may be designated by the OG/CC for IP upgrade regardless of time in the new PAI if they have at least 1,000 hours IP/MP/FP in a fighter AFSC and the IP upgrade will be conducted in a formal course at FTU.

6.4.2. Ground Training. Upgrading pilots must satisfactorily complete the following unit-developed blocks of instruction prior to certification as IPs. Units will add considerations/techniques for specialized training (LANTIRN, HTS, etc) to applicable areas:

6.4.2.1. Principles of Instruction. Learning objectives, instructor responsibilities, IP/upgrade pilot relationship, training facilities, and publications.

6.4.2.2. Techniques of Flight Instruction. Training objectives and environment, maneuver demonstration, performance and review, recognition and analysis of common pilot errors.

6.4.2.3. Conduct of Flight Briefing. Training objectives, order of presentation, use of briefing guides and audiovisual aids, debriefing techniques.

6.4.2.4. Conduct of Phase Briefings. Techniques for briefing, use of visual aids, review of applicable phase briefings.

6.4.2.5. AGSM Techniques. Briefing, debriefing, and AVTR assessment. Review the video, Anti-G Strain Technique Reinforcement and Assessment.

6.4.2.6. Student Evaluations. Grading systems and preparation/use of gradesheets.

6.4.3. Flying Training. Training will be conducted according to mission outlines listed below. IPUG sorties may be flown in any order, as aircraft configurations and sortie scheduling permit. IPUG programs for pilots with previous fighter experience may be individually tailored, based on experience, currency, and documented performance. IPUG-7 should be flown with NVGs if the upgrading pilot is NVG qualified. NVG-4 is not required if IPUG-7 is flown with NVGs. Unit programs should specify which tasks the upgrading IP will practice demonstrating, which tasks the upgrading IP will practice evaluating the "student's" performance, and which tasks he will do both. AAR may be completed on any mission. Failure to complete specific training events (e.g., AAR, DART, RCP transition) need not delay certification. In such cases, SQ/CCs will certify IPs with appropriate limitations to preclude performance of duties in which training is incomplete. LANTIRN IPUG training is only required for equipped units.

6.4.3.1. IPUG-1, Day Transition (F-16B/D Desired)--Mission Objectives. Introduce upgrading IP to dual cockpit instruction, selected transition/instrument demonstrations, maneuvers, and procedures. Specific Mission Tasks: Briefing, joinup, tanker rendezvous, AAR, basic and tactical formation, pitchouts and rejoins, flight control demonstration, confidence maneuvers, aircraft handling maneuvers, aerobatics, unusual attitude recoveries, instrument approach, touch-and-go landing, SFO, VFR pattern and landing (if desired), debrief/flight reconstruction.

6.4.3.2. IPUG-2, Night Transition (F-16B/D Desired)--Mission Objectives. Introduce upgrading IP to instructing night transition procedures. Specific Mission Tasks: Briefing, RCP takeoff, trail departure, joinup, tanker rendezvous, NAAR, basic formation, pitchouts and rejoins, intercepts, debrief.

6.4.3.3. IPUG-3, BFM--Mission Objectives. Introduce upgrading IP to instructing 1v1 BFM. Specific Mission Tasks: Briefing, formation takeoff, formation departure, weapons system checks, intercepts, BFM, recovery, chased VFR patterns, debrief (to include AGSM).

6.4.3.4. IPUG-4, (D)ACM--Mission Objectives. Introduce upgrading IP to instructing maneuvers/countermaneuvers against an adversary. Specific Mission Tasks: Briefing, formation takeoff, weapons system checks, WVR offensive and counteroffensive setups, instruction on various entries into engagement, instruction on RT, instruction on role reversal maneuvers, instruction on disengagement plan, mutual support instruction, recovery and landing, debrief (to include AGSM).

6.4.3.5. IPUG-5, (D)ACT--Mission Objectives. Practice instructing and controlling a 2v2 air combat mission. Specific Mission Tasks: Briefing, formation takeoff, weapons system checks,

tactical formation, 2v2 tactical intercepts to engagements, combat separations, formation recovery and landing, debrief (to include AGSM).

6.4.3.6. IPUG-6, (D)ACT--Mission Objectives. Practice instructing and controlling a 4vX air combat mission. Specific Mission Tasks: Briefing, formation takeoff, weapons system checks, tactical formation, 4vX tactical intercepts to engagements, combat separations, recovery and landing, debrief (to include AGSM).

6.4.3.7. IPUG-7, Basic Surface Attack--Mission Objectives. Introduce upgrading IP to instructing a basic surface attack mission to a controlled range. Specific Mission Tasks: Briefing, LATN (LASDT), LATF, conventional and nuclear delivery patterns (both basic and tactical patterns), specialized capability (LANTIRN, HTS, etc) employment procedures/techniques (if applicable), recovery and landing, debrief.

6.4.3.8. IPUG-8, Night Weapons--Mission Objectives. Introduce upgrading IP to instructing and controlling a night surface attack mission to a controlled range. Specific Mission Tasks: Briefing, trail departure, night formation, night weapons delivery patterns, specialized capability (LANTIRN, HTS, etc) employment procedures/techniques (if applicable), rejoin, formation approach, landing, debrief.

6.4.3.9. IPUG-9, Surface Attack Tactics--Mission Objectives. Introduce upgrading IP to instructing and controlling a low- to medium-threat tactics mission, and/or strike profile. Specific Mission Tasks: Briefing, tactical formation, low/medium-threat tactics, threat reactions, strike employment (strike profile only), specialized capability (LANTIRN, HTS, etc) employment procedures/techniques (if applicable), debrief.

6.4.3.10. IPUG-10, Surface Attack Tactics--Mission Objectives. Introduce upgrading IP to instructing and controlling a tactics mission in a high-threat environment. Specific Mission Tasks: Briefing, tactical ingress, high-threat target area tactics, simulated/actual weapons delivery, specialized capability (LANTIRN, HTS, etc) employment procedures/techniques (if applicable), tactical egress, threat reactions, ECM, debrief.

6.4.3.11. IPUG-11, IP Flight Evaluation--Mission Objectives. Complete a successful IP evaluation IAW AFI 11-202V2, using a profile simulating unit tasking.

6.5. Mission Commander (MCC) Upgrade. This program establishes the minimum guidelines for upgrade to MCC. MCC upgrade programs will be tailored to meet specific unit taskings (i.e., Defense Suppression units will include Electronic Combat related academics and training assets).

6.5.1. Responsibilities:

6.5.1.1. 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.

6.5.1.2. 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.

6.5.2. MCC Prerequisites. Squadron commanders will consider ability, judgment, technical expertise, skill, and experience when selecting pilots for mission commander upgrade. Minimum qualification is four-ship FL.

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

6.5.3.1. 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.

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

6.5.4. Flying Training. As a minimum, the upgrading MCC will observe a certified MCC during the planning, briefing, flight, and debriefing of at least one composite force mission. Prior to certification, the upgrading MCC will then plan, brief, fly, and debrief a minimum of one mission under the supervision of an IP or Squadron Supervisor who is MCC qualified.

6.5.4.1. Unit tasking should drive force composition, adversaries, and minimum flight size.

6.5.4.2. The MCC will determine overall upgrade mission effectiveness in case of fallout.

6.5.5. Certification. Following satisfactory completion of the above requirements, the SQ/CC will certify a new MCC by placing a letter of certification in the training folder and indicating qualifications on Letter of Xs.

6.6. Low Altitude Navigation and Targeting Infrared for Night (LANTIRN):

6.6.1. The purpose of this program is to build on basic skills learned during formal LANTIRN training at the FTU. Pilots in LANTIRN units will attend applicable training at the FTU, then complete a unit MQT/topoff training program prior to assuming flying duties which include LANTIRN system employment. Pilots will not use LANTIRN systems for which they have not been formally trained. Pilots who have completed medium altitude LANTIRN training during WIC are considered qualified in Medium Altitude LANTIRN operations.

6.6.2. LANTIRN system employment is a standard unit capability at CMR. Squadron commanders may train LANTIRN to BMC pilots as appropriate. Pilots will commence duties as new LANTIRN system pilots in Medium Altitude operations. As squadron needs dictate and pilot proficiencies/capabilities allow, they may upgrade to Low Altitude LANTIRN operations. The following are definitions of LANTIRN categories:

6.6.3. Medium Altitude. The basic level of F-16 LANTIRN system qualification. A Medium Altitude LANTIRN qualified pilot has graduated from LANTIRN FTU and received unit MQT.

6.6.3.1. During the day, Medium Altitude pilots are qualified to use the LANTIRN system to assist in navigation and weapons delivery at any altitude, except self-designated LGB lofts. Pilots who have not completed FTU LANTIRN Track 2 training are not qualified to operate the TFR at any time.

6.6.3.2. During the night, Medium Altitude pilots are qualified to operate above MSA for navigation and weapons delivery. However, Medium Altitude qualified pilots are not authorized to use the TGP at night below 5,000 ft AGL. Pilots who have not completed FTU LANTIRN Track 2 training are not qualified to operate the TFR at any time. Pilots may use the FLIR for all phases of flight.

6.6.4. Low Altitude. A more advanced level of F-16 LANTIRN system qualification. The minimum prerequisites are 150 F-16 hours (PACAF: N/A), completion of FTU LANTIRN Track 2 training and unit LANTIRN top-off program, and SQ/CC approval. Once qualified, pilots may fly low/medium altitude sorties during both day and night. Low Altitude qualified pilots may use the full LANTIRN system (to included LGB designation) during the day at all altitudes. At night, Low Altitude qualified pilots are allowed full system use at all altitudes except for low altitude TGP self-designated LGB lofts.

6.6.5. Prerequisites. Table 6.1. lists prerequisites and qualifications for pilots in each LANTIRN category.

Table 6.1. LANTIRN Prerequisites/Qualifications.

CATEGORY	PREREQUISITES	QUALIFICATIONS
Medium Altitude	- LANTIRN FTU - Track 1 (Med Alt Only) - Track 3 or equivalent training - CMR/BMC	- Day: No self-designated LGB lofts or TFR operation. - Night: Above MSA for Nav and weapons delivery, no TFR, and no TGP below 5,000 ft AGL.
Low Altitude	- 150 F-16 hours (PACAF: N/A) - Track 2 FTU training - Unit Top-Off (3 Ride Min) - SQ/CC approval	- Full System Except Night LGB Self-Designated Loft.

6.6.6. Supervision:

6.6.6.1. For units tasked with LANTIRN Low Altitude capability, at least one of the squadron top-three supervisors will be Low Altitude qualified.

6.6.6.2. For units tasked with LANTIRN Low Altitude capability, it is desired that at least one wing-level supervisor (WG/CC, WG/CV, OG/CC, OG/CD) be Low Altitude qualified.

6.6.6.3. LANTIRN upgrade training requires a qualified and current LANTIRN IP or SQ/CC-designated supervisor in the flight or aircraft unless otherwise specified. This IP/supervisor must be qualified and current for the applicable category events to be supervised.

6.6.7. LANTIRN Top-Off. Unit top-off program follows completion of the FTU night low altitude targeting pod training and is used to certify LANTIRN pilots for Low Altitude operations. This program will include, as a minimum: One graded OFT, one single-ship night sortie (dual), one element night sortie (as wingman), and commander's (or designated supervisor) evaluation (night).

Include Turning Maneuver and/or Turning Maneuver (Level Turn) safe escape maneuver(s) as a specific mission task during unit LANTIRN top-off training. Proficiency in day TSEMs is required prior to flying night TSEMs.

6.7. Maverick. This program establishes guidelines for pilots to qualify in the AGM-65 Maverick missile. AGM-65 programs for pilots with previous fighter experience may be tailored, based on familiarity and knowledge of the Maverick system, and documented performance. Emphasis for these pilots will be on learning the differences between the new type Maverick and the one in which they are already qualified and/or differences in switchology and tactics between old and new aircraft. Maverick training conducting in conjunction with the LANTIRN FTU Track 1 course may be used to satisfy the requirements of this upgrade program.

6.7.1. Initial ground training will include instruction that covers types of MAV missiles (EO, IR, or both) employed by the unit and will cover principles of EO systems, IR theory, mission planning to include effects of weather, AGM-65 guidance, control, capabilities, limitations, system interfaces, operation and switchology, video symbology, system anomalies, tracking and lock-on techniques, employment considerations, tactics, and weapons effects.

6.7.2. Initial flying training for EO and/or IR MAV will consist of the MAV missions outlined below. All sorties will be supervised by a designated Maverick instructor as determined by the SQ/CC.

6.7.2.1. MAV-1, Orientation--Mission Objectives. Familiarization with weapon preflight and inflight operations. Specific Mission Tasks: Preflight, system warm-up, operating limitations, switchology, option selections, boresight check, acquisition, track, and launch techniques, maximum standoff range launches.

6.7.2.2. MAV-2, Proficiency and Tactics--Mission Objectives. Demonstrate proficiency in track and launch, element attack procedures and tactics. Specific Mission Tasks: Demonstrate proficiency in MAV-1 tasks, tactics orientation, preplanned element attack profiles against first-look targets.

6.7.2.3. MAV-2, Tactical Employment--Mission Objectives. Practice formation tactics (2/4 aircraft), demonstrate proficiency in weapons employment. Specific Mission Tasks: Element attacks, tactical maneuvering, ordnance limitations, attacks against preplanned targets and targets of opportunity.

6.7.2.4. MAV-3, Night Proficiency and Tactics (Only Required for IR Maverick Equipped Units)--Mission Objectives. Demonstrate proficiency in night track and launch, practice attack procedures and tactics. Specific Mission Tasks: Demonstrate proficiency in MAV-1 tasks during night conditions, tactics orientation, preplanned attack profiles.

6.7.3. CT ground training will consist of elements listed above for initial ground training.

6.7.4. CT flying training requires use of an operable TGM-65 or the launch of an actual AGM-65.

6.8. Dart/Aerial Gunnery Target System (AGTS) Tow:

6.8.1. Ground Training. Prior to the first DART/AGTS tow mission, the upgrading tow pilot will be thoroughly familiar with preflight, takeoff, enroute, deployment, employment, flight restrictions, emergency procedures, towing procedures/techniques, and training rules.

6.8.2. Flying Training. Tow pilots will be certified by the squadron commander and accomplish a minimum of one upgrade sortie which will include one basic dart pattern and one tactical pattern (if applicable). The upgrading pilot will accomplish the upgrade sortie in the FCP of a B/D model under the supervision of a tow-qualified (for the pattern being flown) pilot in the RCP.

6.9. Forward Air Controller (Airborne) [FAC(A)] Upgrade. FAC(A) is a special capability to support unit DOC requirements. Initial FAC(A) training will be accomplished at the FTU IAW the USAF F-16C/D Airborne Forward Air Controller Training. Upgrade training for previously qualified F-16 or A/OA-10 FAC(A) pilots may be conducted locally.

6.9.1. Prerequisites:

6.9.1.1. Qualified and current flight lead in the F-16C (Block 40/42).

6.9.1.2. Qualified and current in LANTIRN Medium Altitude.

6.9.1.3. Graduate of the Joint Fire Power Control Course (JFCC).

6.9.1.4. Qualified in High Angle Rocket (HAR) and High Angle Tactical Rocket (HATR) weapons deliveries (Desired prior to attending FTU course).

6.9.2. Supervision:

6.9.2.1. For units tasked with FAC(A) capability, at least one of the squadron top-three supervisors will be FAC(A) qualified.

6.9.2.2. For units tasked with FAC(A) capability, it is desired that at least one wing-level supervisor (WG/CC, WG/CV, OG/CC, OG/CD) be FAC(A) qualified.

6.9.3. Ground Training. Pilots will receive FAC(A) academics prior to the start of flying training. For local upgrades, units will develop blocks of instruction covering areas pertinent to FAC(A) operations, as determined by the SQ/CC. This will include review of elements and functions of the Air-Ground Operation System and air strike control.

6.9.4. Flying Training. The program below outlines upgrade missions contained in the USAF F-16C/D Airborne Forward Air Controller Training Course. This program provides a basic starting point for FAC(A) upgrade and may be modified by the SQ/CC based on unit needs and/or upgradee's previous experience, qualifications, and documented performance.. Upon completion of upgrade, the pilot will be capable of providing airborne Air Strike Control (ASC) in low- to medium-threat environments.

6.9.4.1. ASC-1--Mission Objectives. Introduce low threat ASC, fighter rendezvous/briefing/control using prebriefed targets in a non-radar threat environment. Initial qualification in conventional and tactical rocket events. Specific Mission Tasks: Medium altitude navigation, map reading/target plot, authentication, ASC coordination, fighter-to-FAC and FAC-to-fighter briefs, rendezvous, target plotting/ID/marking, observation position, threat avoidance, binocular use, BDA.

6.9.4.2. ASC-2--Mission Objectives. Practice low threat ASC. Introduce use of TGP for marking targets and BDA. Introduce non-prebriefed targets. Specific Mission Tasks: Medium altitude navigation, map reading/target plot, ASC coordination, airbrief one or more targets from ASOC, TACP, GFAC, fighter rendezvous/briefing/control, observation position, target plotting/ID/marking (include TGP use), threat avoidance, binocular use, BDA (include TGP use).

6.9.4.3. ASC-3--Mission Objectives. Practice low threat ASC. Introduce artillery coordination. Specific Mission Tasks: Medium altitude navigation, map reading/target plot, ASC coordination, plot changes to enemy and friendly positions, airbrief one or more targets from ASOC, TACP,

GFAC, fighter rendezvous/briefing/control, observation position, target plotting/ID/marking, artillery coordination, BDA.

6.9.4.4. ASC-4--Mission Objectives. Practice low threat ASC. Introduce communications jamming. Specific Mission Tasks. Medium altitude navigation, map reading/target plot, ASC coordination, plot changes to enemy and friendly positions, airbrief one or more targets from ASOC, TACP, GFAC, fighter rendezvous/briefing/control, observation position, target plotting/ID/marking, artillery coordination, ASC with limited communications jamming, BDA.

6.9.4.5. ASC-5--Mission Objectives. Practice low threat ASC. Introduce troops-in-contact and collateral damage scenarios. Specific Mission Tasks. Medium altitude navigation, map reading/target plot, ASC coordination, plot changes to enemy and friendly positions, airbrief one or more targets from ASOC, TACP, GFAC, fighter rendezvous/briefing/control, observation position, target plotting/ID/marking, artillery coordination, introduce friendly troops-in-contact and collateral damage situations.

6.9.4.6. ASC-6--Mission Objectives. Practice low threat ASC. Introduce use of TGP laser in conjunction with Pave Penny to "laser verify" the correct target. Specific Mission Tasks. Medium altitude navigation, map reading/target plot, ASC coordination, plot changes to enemy and friendly positions, airbrief one or more targets from ASOC, TACP, GFAC, fighter rendezvous/briefing/control, observation position, target plotting/ID/marking, artillery coordination, target marking with TGP laser for A-10 Pave Penny.

6.9.4.7. ASC-7--Mission Objectives. Practice low threat ASC. Introduce medium threat ASC with IR threats and heavy AAA. This sortie is to be flown at medium altitude (**NOTE:** The threat scenario will not be heavy enough to require employment). Specific Mission Tasks. Medium altitude navigation, map reading/target plot, ASC coordination, plot changes to enemy and friendly positions, airbrief one or more targets from ASOC, TACP, GFAC, fighter rendezvous/briefing/control, observation position, target plotting/ID/marking, artillery coordination, introduce limited time-over-target and limited approach axes due to medium threats in the target area.

6.9.4.8. ASC-8--Mission Objectives. Introduce night low threat ASC. Introduce use of TGP and WP rockets at night to AFAC for LANTIRN TGP-equipped CAS asset. Practice AFAC buddy-lase delivery for LGB-equipped CAS asset. Specific Mission Tasks. Medium altitude navigation, map reading/target plot, ASC coordination, plot changes to enemy and friendly positions, airbrief one or more targets from ASOC, TACP, GFAC, fighter rendezvous/briefing/control, night position/altitude/laser deconfliction, introduce night target plotting/ID/marking, introduce night buddy-lase LGB attacks in a CAS scenario.

6.9.4.9. ASC-9--Mission Objectives. Demonstrate proficiency at low threat ASC. Upgrade pilot will develop a tactical plan and brief the mission based on a troops-in-contact ground/air situation provided by IP. Specific Mission Tasks. Medium altitude navigation, map reading/target plot, ASC coordination, plot changes to enemy and friendly positions, airbrief one or more targets from ASOC, TACP, GFAC, fighter rendezvous/briefing/control, observation position, target plotting/ID/marking, artillery coordination.

6.10. Killer Scout (KS) Upgrade. KS is a RAP special capability to support unit DOC requirements. Upgrade training for previously qualified KS pilots, A/OA-10 pilots, and Forward Air Controllers will consist of appropriate portions of the KS training program as determined by the SQ/CC.

6.10.1. Supervision:

6.10.1.1. At least one squadron supervisor must be KS qualified.

6.10.1.2. SQ/CC will determine the level of supervision required for the initial KS flying training.

6.10.2. Pilots will receive KS academics prior to the start of flying training. Academics will follow the KS Handbook and be taught by a KS qualified flight lead and a Ground Liaison Officer (GLO) (if a GLO is available).

6.10.3. Minimum entry requirement for a KS flight lead is CMR/BMC 2-ship flight lead. Minimum entry requirement for a KS wingman is CMR/BMC.

6.10.4. Unit developed scenarios will be used on each upgrade mission. They will include as a minimum: Mission planning with a GLO (Intel may be substituted if a GLO is unavailable), interface with ABCCC, AWACS, and the AOC for initial check-in and Intel/Ground Order of Battle (GOB) updates, KS-to-KS coordination brief, target ID, ordnance selection for both KS and attack fighter aircraft for various target types, FSCL awareness, avionics use, target marking, air strike control, binocular use and positioning during ejection, and BDA reporting procedures.

6.10.5. KS Flight Lead Upgrade:

6.10.5.1. The following upgrade sorties will be flown in sequence and include the above mission elements:

6.10.5.1.1. KS-1--Mission Objectives. Local area familiarization (if required) and introduce KS. The upgrade pilot will fly on the wing of a qualified KS flight lead. Additional mission elements will include fluid maneuvering, avionics use for obtaining target coordinates, and should include the use of binoculars for visual recce. Introduce flight lead techniques, as applicable.

6.10.5.1.2. KS-2--Mission Objectives. Brief as a KS flight lead, find and mark a target, control two sets of fighters (attack fighters should employ ordnance), and provide BDA.

6.10.5.1.3. KS-3, Commander's Evaluation, Killer Scout--Mission Objectives. Evaluation (by SQ/CC or designated representative) of KS abilities in a tactical mission scenario based on squadron taskings. Specific Mission Tasks: Briefing, mission accomplishment, flight management and control, fighter control, mission reconstruction and debriefing, tape review/assessment, and critique.

6.10.5.2. Following successful completion of KS-3, the SQ/CC will interview the upgrading pilot and review KS responsibilities, scope of duties, authority, and philosophy. The SQ/CC will certify the upgrade pilot's status, including any restrictions, in appropriate written format (letter, gradesheet, AFORMS, etc.).

6.10.6. KS Wingman Upgrade. Wingmen require only KS academics to be qualified for KS operations.

6.11. Night Vision Goggle Upgrade . Night Vision Goggle (NVG) upgrade training will be IAW the USAF Night Vision Goggles Training Course Syllabus F1600NVCGPD as supplemented by each MAJCOM.

6.12. Suppression of Enemy Air Defenses--Antiradiation (SEAD-A) Upgrade. This program establishes guidelines for pilots to qualify in the AGM-88 HARM and HARM Targeting System (HTS). The program outlined below provides a basic starting point and may be modified by SQ/CC based on unit needs and/or upgradee's previous experience, qualifications, and documented performance.

6.12.1. Ground Training. Ground training will consist of unit developed academics and Weapons and Tactics Trainer (WTT) missions. Academics will cover ALIC, HARM and HTS preflight and operations, threat capabilities, SEAD and Force Protection tactics, and SEAD mission planning to include use of the AFMSS/MSS II. WTT mission profiles will be integrated with upgrade flight training missions and designed to introduce and practice cockpit management, HTS employment, air-to-surface and air-to-air threat reactions, HARM as Sensor (HAS) and Position Known (POS) deliveries, and Data Link (DL) operations.

6.12.2. Flying Training. All SEAD upgrade sorties will be under the supervision of a SEAD-qualified IP. Upgrade sorties should be dedicated SEAD missions with CATM and functional HTS pod. VTR documentation of the HARM/HTS display from threat detection to simulated missile launch is required. SEAD-4, Night SEAD, may be flown after the upgradee is certified CMR/BMC.

6.12.2.1. SEAD-1, HARM Employment and Introduction to HTS Operations--Mission Objectives. Practice weapon preflight and ground operations, employ HARM against active radar emitters using HAS/EOM/RUK delivery modes, introduce HTS operations, accomplish weapon qualification IAW AFI 11-2F16, Vol 1. Specific Mission Tasks: Preflight, ground operations, chased medium/low altitude HARM engagements, HARM employment using HAS, POS, and DL delivery modes, threat reactions, weapon qualification.

6.12.2.2. SEAD-2, Two-Ship SEAD--Mission Objectives. Introduce two ship HTS tactics in medium/low altitude and low/medium threat environments to include comm, formations, responsibilities, and DL procedures. Practice HARM employment against active radar emitters using the HTS. Specific Mission Tasks: Medium altitude SEAD CAPs, two ship coordinated attacks using available delivery modes, and threat reactions.

6.12.2.3. SEAD-3, Four Ship SEAD--Mission Objectives. Introduce force protection tactics in medium/low altitude and high/low threat environments. Practice HARM employment to support a simulated/actual strike package TOT window. Specific Mission Tasks: Force protect a simulated/actual strike package (adversary air desired), coordinated four ship medium/low altitude SEAD tactics, HARM employment supporting a simulated/actual strike package TOT, and threat reactions.

6.12.2.4. SEAD-4, Night SEAD--Mission Objectives. Introduce and practice night HARM employment (two or four ship) against active radar emitters using the HTS in a medium altitude/low threat environment. Specific Mission Tasks: Medium altitude two/four ship night SEAD tactics, weapons employment, and threat reactions.

6.12.2.5. SEAD-5, SEAD/EC Mission Commander--Mission Objectives. Introduce force protection in a composite strike force. Specific Mission Tasks: Plan, brief, and lead a mission as EC package commander to include ATO break out, integration of additional SEAD assets (RJ, EA-6B, AWACS, etc.), development of the SEAD targeting, employment, and deconfliction plan and strike package support.

6.13. Joint Air Attack Team (JAAT). Initial JAAT qualification training will be conducted with Army attack/cavalry helicopter units or equivalent units of other nations under the supervision of a squadron supervisor or JAAT-qualified FL. Qualification is retained with aircraft qualification.

6.13.1. Pilots will receive a JAAT phase briefing no more than 60 days prior to the start of training. The phase brief should include a review of TACP 50-20, review of lessons learned, and special operating instructions. Squadrons will attempt to have a JAAT-qualified attack helicopter pilot and a JAAT experienced FAC/ALO present during appropriate portions of the briefing.

6.13.2. The following sorties will be flown in sequence:

6.13.2.1. JAAT-1--Mission Objectives. Local area familiarization (if required) and introduce JAAT. Two-ship preplanned or immediate scenario using training ordnance. Minimum altitude is 500 feet AGL.

6.13.2.2. JAAT-2--Mission Objectives. Practice two- or four-ship preplanned or immediate scenario with training/inert or live ordnance. Practice using specific TODs. Minimum altitude is the pilot's minimum certified altitude.

6.14. Photo Documentation. CMR/BMC pilots with an operational requirement to carry cameras on active air defense alert missions will complete this training. Training will be coordinated through the squadron training officer, unit intelligence section, and photo lab personnel, and is required prior to being scheduled for alert duty requiring use of the photographic equipment.

6.14.1. Ground training will cover camera and attachment operation, intelligence gathering, photographic techniques, MAJCOM/local restrictions on the use of cameras by assigned pilots and/or in assigned aircraft, and hands-on cockpit training.

6.14.2. Flying training will be conducted IAW unit-developed mission profiles which allow this training in conjunction with other approved training.

6.14.2.1. During training, photo aircraft will approach no closer than 100 feet to aircraft being photographed.

6.14.2.2. The preferred photographic products for debrief/critique with unit intelligence personnel are 35mm black-and-white film and 5"x7" black-and-white prints.

6.14.2.3. Film will remain the property of the unit and not the pilot.

6.15. Air Defense Augmentation. This program applies to all pilots tasked to perform the air defense mission in an augmentation role under NORAD ConPlan 3310. The ground training requirements of this section are for planning purposes and may be modified to meet unique unit requirements.

6.15.1. MQT/Recertification. Pilots who have never been CMR/BMC in the Air Defense/Superiority mission or who have not performed this mission in over 180 days will accomplish the following:

6.15.1.1. Academic training covering NORAD/ACC mission and organization, authentication procedures, applicable plans, facilities locations, call signs, ADA corridor procedures, safe passage procedures, alert procedures, ROE (NORAD Regulation 55-6), AFI 11-214 procedures, and applicable sections of MCM 3-1.

6.15.1.2. Two simulator missions dedicated to an Air Defense scenario including a SOCC scramble, handover, voice authentication and controller-directed VID profiles, low altitude intercepts

below 1,000 feet AGL, CAP procedures/employment, ECCM intercepts, and command and control procedures.

6.15.2. CT. Air Defense augmentees will accomplish the following annual training requirements:

6.15.2.1. A minimum of 2 hours academic training covering appropriate areas as listed in paragraph **6.15.1.** above.

6.15.2.2. ADF tasked units should include ADF elements within their tactical simulator missions.

6.15.2.3. Air Defense-qualified pilots will maintain LOWAT currency IAW **Table 4.3.**

6.15.3. Failure to satisfy annual requirements requires decertification and retraining IAW the MQT requirements of this section. Requirements may be prorated IAW paragraph **4.9.**

6.15.4. The wing, group or squadron will develop an Air defense spin-up training based on unit taskings. The spin-up program will be implemented at ConPlan execution (actual) and will be accomplished prior to deployment day. The training program will include as a minimum: Refresher academics, one OFT/UTD mission, one day sortie, and one night sortie.

6.15.5. Exceptions. 57 FW and AETC will complete MQT and CT ground training as listed above. Completion of the F-16 WIC IPUG or FTU IPUG syllabus will fulfill MQT requirements.

6.16. Counterdrug (CD) Operations. This training will be conducted prior to participating in CD operations. The objective of CD training is to enhance the pilot's ability to conduct day/night intercepts on slow/low flying aircraft for target identification (ID) and shadowing. Training will be conducted IAW MCM 3-1 and AFI 11-214. Night Vision Devices (NVD) should be used to the maximum extent possible, based on B/D model and NVD availability. NVDs may only be used in F-16A/C models for those certified pilots in tasked units.

6.16.1. Initial Counterdrug Training (ICDT) is designed to introduce the assembly, system checks, and use of NVDs during night operations, and to familiarize pilots with tactics and procedures required to support CD operations.

6.16.1.1. Ground Training. Pilots will complete ground training prior to the first CD training flight. Simulator profiles are required for OFT-equipped units. The following ground training elements will be accomplished:

6.16.1.2. Academics. Units will develop lesson plans covering the threat, night tactics (single- and 2-ship) for VID and shadowing, NVD operations, crew coordination, previous lessons learned, employment locations and alert operations. MAJCOM/IN will assist the unit's intelligence functions in the development of threat assessments and visual recognition training materials.

6.16.1.3. OFT CD-1--Mission Objectives. Practice night intercepts on slow/low non-maneuvering targets. Pilots will observe and practice the geometry/airspeed required to complete a stern conversion, and VID/shadowing procedures with and without radar locks, to include targets less than 200 knots. Other specific tasks should include scramble starts and procedures, trail departures, unusual attitude recoveries, out-of-control recovery, and TACAN/ILS approaches to a strange field.

6.16.1.4. OFT CD-2--Mission Objectives. Practice an advanced profile which includes maneuvering/multiple targets. Pilots will practice stern conversions, VID and shadowing procedures in

a more fluid scenario. Other specific tasks should include scramble starts, night trail formation procedures, out-of-control recovery, and PAR approaches to a strange field.

6.16.1.5. Flying Training. Initial flying training for CD operations will consist of three night sorties minimum. A minimum of one FCP and one RCP sortie (two sorties total) will be flown in an F-16B/D model. Required supervision is an IP qualified and current in CD operations. Use AWACS/GCI, when available, if applicable to anticipated tasking. CD upgrade training profiles are:

6.16.1.5.1. CD-1, Night Familiarization (A/C Model or FCP B/D Model)--Mission Objectives. Practice 1v1 intercepts on a slow/low target to include basic stern and front quarter mark/blow through intercepts. Target altitude will be below 5,000 feet AGL. Minimum target altitude is 1,000 feet. Target airspeed will be 200-300 knots. Specific Mission Tasks: Preflight, trail departure, trail formation, 1v1 intercepts to VID parameters, and instrument approaches.

6.16.1.5.2. CD-2, Night Proficiency and Tactics (Upgrading Pilot in the RCP of a B/D Model)--Mission Objectives. Practice 2v1 intercepts on a slow/low target to include basic stern conversions on a lights-out target, and NVD familiarization. The mission should be flown with at least one B/D model using NVDs in both cockpits. The FCP pilot will use NVDs only after the aircraft has been stabilized at the stern of the target. Specific Mission Tasks: NVD assembly and system checks, preflight, scramble start, trail departure, trail formation, two-ship shadow and intercept procedures, crew coordination, VID and overrun procedures using NVDs, and instrument approaches.

6.16.1.5.3. CD-3, Night VID (Upgrading Pilot in FCP B/D Model)--Mission Objec tives. Same as CD-2.

6.16.2. CT Training. Intercepts, VID events, and shadow events will be flown IAW annual RAP tasking.

6.16.3. Spin-Up Training. Pilots who have completed ICDT will accomplish spin-up training within 180 days prior to deploying to participate in CD operations. If required, CD spin-up will consist of elements of ICDT ground and flying training listed above. As a minimum, training will include academics on NVD operations, a simulator mission, one FCP sortie, and one RCP sortie.

6.17. (ANG) Armed Tactical Reconnaissance. Armed Tactical Reconnaissance is a RAP special capability to support unit DOC requirements. Units tasked to perform the armed reconnaissance mission will accomplish pilot upgrades IAW locally developed ANG-approved syllabus.

6.18. Combat Search and Rescue (CSAR). CSAR is a RAP special capability to support various types of operations for rescue of downed pilots in both peacetime and combat environments. This support includes on scene command, electronic and visual search, threat suppression, helicopter escort and protection, and communications relay. Once CSAR qualified, qualification is retained with aircraft qualification. The program below outlines the minimum requirements to upgrade pilots for CSAR operations. CSAR upgrade training will be accomplished under the supervision of a CSAR qualified IP. To upgrade to a CSAR wingman (position 2 or 4), the pilot must accomplish CSAR 1 and 2. To upgrade to a CSAR Lead (position 1 or 3), the pilot must be a Multi-ship flight lead and a qualified CSAR wingman. In this

case CSAR 3 and 4 will be accomplished. CSAR upgrade/refresher training will be included as part of the Pre-Deployment Spin-up Training for units tasked for CSAR during contingency operation deployments.

6.18.1. Initial academic training will include the following:

6.18.1.1. CSAR Procedures. Command and control, typical CSAR ordnance, tactics and techniques.

6.18.1.2. Search Patterns and Procedures. Electronic and visual.

6.18.1.3. Helicopter Escort. Rendezvous, escort, and hover cover.

6.18.1.4. Air Strike Control (ASC) Procedures. Target identification, ordnance selection, pre-strike preparation, target marking, strike control procedures, and bomb damage assessment.

6.18.2. Initial Flying Training. SQ/CCs will specify refresher training for previously qualified CSAR pilots, based on the pilots experience and currency. The mission profiles listed below may be modified as necessary to maximize training. **NOTE:** Actual on-ground personnel, acting as simulated survivor(s), are required on CSAR-1 and either CSAR-3, or CSAR-4.

6.18.2.1. CSAR-1 (Two to Four Aircraft and Helicopter)--Mission Objective. Introduce search techniques and helicopter escort. Specific Mission Tasks: IP introduces search procedures and helicopter escort. Ground personnel will demo ground marking techniques.

6.18.2.2. CSAR-2 (Two to Four Aircraft; Helicopter Desired)--Mission Objectives. Introduce coordination procedures and ASC. Review search techniques and helicopter escort if assets are available. Specific Mission Tasks: IP demonstrates on-scene command procedures using Number 2 as the communication focal point. Conduct search and suppression phases of a classic CSAR. Practice helicopter escort.

6.18.2.3. CSAR-3 (Two to Four Aircraft and Helicopter)--Mission Objective. Demonstrate procedures and tactics necessary to coordinate and control an unopposed CSAR. Specific Mission Tasks: Lead a CSAR to include search, on-scene command, helicopter escort, and survivor preparation and pick-up.

6.18.2.4. CSAR-4 (Two to Four Aircraft and Helicopter)--Mission Objective. Practice procedures and tactics necessary to coordinate and control an opposed CSAR. Specific Mission Tasks: Lead a CSAR to include search, on-scene command, threat suppression, helicopter escort, and survivor preparation and pick-up. The CSAR scenario should include as many outside assets as possible. These may include ground aggressors, strike fighters, FAC(A)s, etc.

6.18.3. Upon completion of CSAR-1 and CSAR-2, pilots may fly as a CSAR wingman. Upon completion of CSAR-3 and CSAR-4, flight leads may lead CSAR missions. Either CSAR-3 or CSAR-4 should be briefed and flown as a four-ship before pilots lead multi-ship CSAR missions.

6.19. Local Conversion Training:

6.19.1. To convert to the F-16C, F-16A pilots must have flown the A-model within the previous 225 days, and at some point must have completed an F-16C formal training course. To convert to the F-16A, F-16C pilots must have flown the C-model within the previous 225 days, but need not have completed a formal training course in the F-16A.

6.19.2. Conversion training minimum requirements are:

6.19.2.1. Academics. Academic instruction should be tailored to the pilot's previous experience and should concentrate on the differences between the F-16 A and C models. Instruction should address avionics system, electrical systems, engine differences (as applicable), EPs, both A/A and A/G radar mapping modes, and cockpit layouts to include possible pitfalls associated with increased heads-down tasks.

6.19.2.2. Device Training. Pilots should receive at least one CFT dedicated to systems EPs, one OFT to practice instrument procedures and EPs, one OFT to review radar and intercept procedures, and one OFT to review air-to-ground systems, radar navigation and interpretation, and low altitude engine failure EPs. Pilots assigned/attached to units without OFTs will substitute two SEPTs and one "in-the-cockpit" CFT for the OFT/CFT profiles above.

6.19.2.3. Flying Training. Conversion training may be conducted with MQT. Pilots who do not require MQT should receive a minimum of three supervised aircraft sorties, one transition/intercept profile, one BFM profile, and one surface attack profile. Flight briefings should stress cockpit procedures and employment techniques.

6.19.3. The provisions of paragraph **6.19.2.** above also apply for current F-16C pilots who are converting from one F-16C model block to another.

6.20. Pre-Deployment Spin-Up Training. This training will be conducted prior to deploying in support of contingency operations (if time permits) or exercises. The objective of this training is to ensure the pilots' ability to conduct all missions in support of expected tasking. For contingency operations, tasked units are responsible for contacting appropriate gaining command/operations to determine expected mission taskings. For exercises, units are responsible for referring to appropriate EXPLANS and contacting appropriate exercise POCs prior to deployment to determine expected mission taskings. 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 responding 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 conducted IAW all applicable instructions.

6.20.1. 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.

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

6.20.2.1. Academics. Units will brief SPINS, ROE/Training Rules, command and control, engagement authority and procedures, and visual identification. MAJCOM/IN will assist the unit's intelligence functions in the development of threat assessments and visual recognition training materials.

6.20.2.2. Visual Recognition. 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 navel vessels for the tasked AOR/exercise.

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

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

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Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

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AFPD 11-2, *Aircraft Rules and Procedures*

AFI 11-202V1, *Aircrew Training*

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

AFI 11-202V3, *General Flight Rules*

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

AFI 11-214, *Aircrew and Weapons Director Procedures for Air Operations*

AFMAN 11-217V1 (AFM 51-37), *Instrument Flight Procedures*

AFI 11-301, *Aircrew Life Support Program*

AFPD 11-4, *Aviation Service*

AFI 11-401, *Flight Management*

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

AFI 11-403, *Aerospace Physiological Training Program*

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

AFI 13-102, *Air Support Operations Center (ASOC) and Tactical Air Control Party (TACP) Training and Evaluation Procedures*

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AFI 36-2209, *Survival and Code of Conduct Training*

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AFI 91-202, *Air Force Operations Resource Management System*

AFI 91-301, *The US Air Force Mishap Prevention Program*

MCM 3-1, *Air Force Occupational and Environmental Safety, Fire Prevention and Health (AFOSH) Program*

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AFI 11-2F16V5 (Formally MCM 3-3), *Operational Procedures--F-16*

(MAJCOM) 11-301, *Combat Aircraft Fundamentals*

ACCR 50-31 (new number ACCI 11-464), *MAJCOM Aircrew Life Support Program*

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DODD 5500.7, *Standards of Conduct*

Abbreviations and Acronyms

A/A—Air-to-Air

A/S—Air-to-Surface

AAR—Air/Air Refueling

AAW—Anti-Air Warfare (US Navy)

AB—Afterburner

ACBT—Air Combat Training

ACC—AirCombat 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

ADS—Air Demonstration Squadron

AF—Air Force

AFORMS—Air Force Operations Resource Management System

AFRC—Air Force Reserve Command

AFSC—Air Force Specialty Code

AGL—Above Ground Level

AGM—Air-to-Ground Missile

AGSM—Anti-G Straining Maneuver

AGTS—Aerial Gunnery Target System

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

AOS—Air Operations Squadron

ARA—Airborne Radar Approach

ARC—Air Reserve Components

ARM—Anti-Radiation Missile

ARP—Armament Recording Program

ASC—Air Strike Control

ASD—Average Sortie Duration

ASLAR—Aircraft Surge Launch and Recovery

ASUW—Anti-surface Warfare (US Navy)

ATD—Aircrew Training Device

AVTR—Aircraft Video Tape Recorder

AWACS—Airborne Warning and Control System

BAI—Backup Aircraft Inventory

BDA—Battle Damage Assessment

BFM—Basic Fighter Maneuvers/Maneuvering

BMC—Basic Mission Capable

BSA—Basic Surface Attack

BSAN—Basic Surface Attack Night

BAQ—Basic Aircraft Qualification

BS—Bomb Squadron

BVR—Beyond Visual Range

C3—Command, Control, and Communications

C3I—Command, Control, Communications, and Intelligence

C&R—Collection and Reporting

CAF—Combat Air Forces

CALF—Chart Amendment Low Flying

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—Constantly Computed Impact Point

CCRP—Continuously Computed Release Point

CD—Counterdrug

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

CRT—Cathode Ray Tube

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

DART—Deployable Aerial Reflective Target

DB—Dive Bomb

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

DTOS—Dive Toss

E&R—Escape and Recovery

EC—Electronic Combat

ECCM—Electronic Counter Countermeasures

ECM—Electronic Countermeasures

ECO—Electronic Combat Officer

ECR—Electronic Combat Range

EEI—Essential Elements of Information

EM—Energy Maneuverability

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

FCP—Front Cockpit

FEB—Flying Evaluation Board

FEF—Flying Evaluation Folder

FL—Flight Lead

FLIR—Forward Looking Infrared

FLUG—Flight Lead Upgrade

FMT—Full Mission Trainer

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

HVAA—High Value Airborne Asset

IAGTS—Improved AGTS

IAW—In Accordance With

ICDT—Initial Counterdrug Training

ICWT—Initial Chemical Warfare Training

ID—Identify/Identification

IEWO—Instructor EWO

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

IOS—Instructor Operator Station

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

ISOPREP—Isolated Personnel Report

ITFR—IMC (or night) Terrain Following Radar

IWSIM—Instructor WSO Simulator

IWSO—Instructor WSO

IWUG—Instructor WSO Upgrade

JAAT—Joint Air Attack Team

JFT—Joint Force Training

JMO (AIR)—Joint Maritime Operations (Air)

JVID—Joint Visual Identification

KCAS—Knots Calibrated Airspeed

KIAS—Knots Indicated Airspeed

KIO—Knock It Off

KS—Killer Scout

KTAS—Knots True Airspeed

LADD—Low Angle Drogue Delivery

LAHD—Low Angle High Drag

LAI—Low Altitude Intercept

LALD—Low Angle Low Drag

LAO—Local Area Orientation

LADT—Low Altitude Dive Toss

LAHD—Low Angle High Drag

LALD—Low Angle Low Drag

LANTIRN—Low Altitude Navigation and Targeting Infrared for Night

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

LLLD—Low Level Low Drag

LLS—Low Level Strike

LOC—Limited Operational Capability or Lines of Communication

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

LSO—Life Support Officer

LTDSS—Laser Target Designator Scoring System

MADT—Medium Altitude Dive Toss

MAJCOM—Major Command

MAV—Maverick

MCC—Mission Commander

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

MRM—Medium Range Missile

MS—Mission Support

MSA—Minimum Safe Altitude

MTT—Mutli Tactics Trainer

MW—Mission WSO

N/A—Not Applicable

NAAR—Night Air Refueling

NAF—Numbered Air Force

NAV—Navigation

NCO—Non-Commissioned Officer

NGB—National Guard Bureau

NLT—Not Later Than

NT—Night

NVD—Night Vision Device

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 (Includes aircraft assigned to Aggressor units)

POAI—Primary Other Aircraft Inventory

PPB—Positive Pressure Breathing

PPG—Positive Pressure Breathing for G

PTAI—Primary Training Aircraft Inventory

PTT—Partial Task Trainer

PUP—Pull Up Point

QUAL—Qualification

RBS—Radar Bomb Score

RCO—Range Control Officer

RCP—Rear Cockpit

RCS—Radar Cross Section

RECCE—Reconnaissance

RF—Radio Frequency

RFMDS—Red Flag Mission Debriefing System

RMU—Runway Monitoring Unit

ROE—Rules of Engagement (Combat only)

ROM—Runway Operations Monitor

RPI—Rated Position Indicator

RT—Radio Terminology

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

SAT-N—Surface Attack Tactics Night

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

STR—Strategic Training Range

TA—Terrain Avoidance

TACAN—Tactical Air Navigation

TACS—Theater Air Control System

TAI—Total Active Inventory

TD—Tactical Deception (AFI 10-704)

TDY—Temporary Duty

TES—Tactics Eval Sq/Test &Evaluation Squadron

TEWS—Tactical Early Warning System

TF—Terrain Following

TF-Coded—Designated Training Aircraft

TFR—Terrain Following Radar

TGM—Training Guided Munitions

TGT—Target

TO—Technical Order

TOD—Time of Detonation or 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

USAFE—United States Air Forces in Europe

USAFWS—UnitedStates Air Force Weapons School

USI—Upgrading Simulator Instructor

UTE—Utilization Rate

UTD—Unit Training Device

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

WSO—Weapon Systems Officer

WST—Weapon System Trainer

WSTO—Weapons System Training Officer

WTT—Weapons and Tactics Trainer

WVR—Within Visual Range

WW—Wild Weasel

WX—Weather

Terms

Air Combat Training (ACBT)—A general term which includes (D)BFM, (D)ACM, and (D)ACT (AFI 11-214).

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

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

Basic Aircraft Qualification (BAQ)—A status of an aircrew member 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 aircrew until completion of MQT. BAQ is not a permanent qualification except for General Officers above the wing level, and any other crew members specifically authorized by MAJCOM DO/XO. Aircrews are not authorized to perform RAP-tasked combat event/ sorties without instructor aircrew or SQ supervisor supervision. Flight duties will be limited to those identified in paragraph **4.3.**

Certification—The process of certifying aircrew 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)).

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 (CE)—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 aircrew 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 an aircrew member 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 RPI-1/2's, Squadron Commander, Operations Officers, and OG/CC designated RPI-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 aircrew selected for CMR must be inexperienced (refer to paragraph **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.

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

Counterdrug (CD) Training—Training to maintain proficiency in day/night intercepts on slow/ low-flying aircraft, with emphasis on target identification and shadowing procedures.

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 aircrew 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).

ECCM Intercept—An intercept performed against a target using active and/or passive ECM against attacker's radar, causing the attacker to employ ECCM techniques or tactics. Does not include co-channel interference.

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

Experienced Aircrew (EXP)—For pilots: hours are FP/IP/MP and fighter time is defined as FP/IP/MP hours logged in aircraft with an assigned an AFSC of 11FX. OA-10 and AT-38 are considered fighter time. For WSOs, fighter time is hours logged in aircraft assigned an AFSC of 12F3x or 12F4X. An experienced aircrew 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 Mission Trainer—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)).

Full Scale Weapons Delivery—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 aircrew 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 under the control of an Army JAAT leader.

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

Joint Maritime Operations - Air (JMO(A))—Scenario that involves flying a DOC mission (AI, DCA, OCA, SEAD, CAS, etc.) in support of naval objectives. In all cases, units will employ their weapon system IAW established tactics and procedures found in applicable MCM 3-1, MCH 11-F16V5, and -1 manuals. The JMO (AIR) training program is intended to expose pilots to the challenges of employing their weapon system in a joint maritime environment. Additionally, JMO (AIR) training exposes pilots to unique problems associated with operating in a maritime setting such as target identification, threat avoidance, and overwater operations. Common problems identified in joint exercises are associated with command, control, and communication. JMO (AIR) considerations should be included in unit tactics and intelligence training programs which emphasize the inherent differences and peculiar problems associated with combat operations in the maritime environment (i.e., command, control, and communications, target location, detection, and identification, political and territorial considerations, electronic warfare, weaponeering, force requirements, and attack tactics and options).

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 Battle Damage Assessment (BDA).

Limited-Threat VID—Visual identification of a bogey in a limited threat environment (i.e. counter-drug operations, NORAD procedures, etc.) IAW MCM 3-1.

Low Altitude Navigation and Targeting Infrared for Night (LAN—TIRN)--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 3.1.** 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.

Low Altitude Tactical Navigation (LATN)—A low altitude training event using onboard systems, dead reckoning and point-to-point low altitude navigation, with or without prior route planning.

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.

Medium Altitude Tactics—Day or night tactical formation (if appropriate for night mission profiles) above 5000 feet AGL, ingressing to a target area, employing actual or simulated ordnance, and egressing with mutual support (if appropriate for night mission profiles).

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 aircrew 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 nondemanding 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 instruction, proficiency also requires currency in the event, if applicable.

Qualification (QUAL)—Aircrew 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 (ANG and AFRC only, as designated by the OG/CC).

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 (RBS), EC range training and special training (also called radar bomb scoring).

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

Unit Training Device (UTD)—A squadron-level trainer designed for pilot refresher and continuation training for emergency and instrument procedures and air-to-air and air-to-ground weapons employment.

Major components include a high-fidelity cockpit replica for pilot interactions, an out-the-window visual scene, and an Instructor Operator Station (IOS).

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.

Visual Identification (VID)—Often required to positively identify an aircraft using visual means.

Weapons and Tactics Trainer—A part task training device used primarily for warfighting tasks, and skill integration training (see AFP 50-11 (AFPAM 36-2211)).

Attachment 2

GLOSSARY OF MISSION/SORTIE AND EVENT DEFINITIONS

A2.1. Mission/Sortie Definitions:

A2.1.1. Air Strike Control (ASC). Mission sortie designed to develop proficiency in airborne forward air control of armed attack fighters in support of actual or simulated ground forces. Mission elements include: Intel scenario and mission planning, actual or simulated interface with Theater Air Control System/Army Air-to-Ground System (TACS/AAGS) C2 network, target acquisition and identification, FAC-to-fighter brief, target marking, positive control of ground attack fighters employing simulated or actual ordinance against designated targets, integration of ground and heliborne fire support elements (if available), identification and neutralization of enemy air defenses, Battle Damage Assessment (BDA), and in-flight report.

A2.1.2. Aircraft Handling Characteristics (AHC) Sortie. 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.

A2.1.3. 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.

A2.1.4. Basic Fighter Maneuvers/Air Combat Maneuvers (BFM/ACM) Sortie. Building block sorties. BFM (1 v 1) Training designed to apply aircraft handling skills to gain proficiency in recognizing and solving range, closure, aspect, angle off, and turning room problems in relation to another aircraft to either attain a position from which weapons may be launched, or defeat weapons employed by an adversary. ACM training is designed to achieve proficiency in element formation maneuvering and the coordinated application of BFM to achieve a simulated kill or effectively defend against one or more aircraft from a pre-planned starting position.

A2.1.5. Basic Surface Attack (Day) [BSA-(Day)] Sortie. Building block sortie. Training designed to achieve proficiency in day medium/low altitude tactical navigation and air-to-surface weapons delivery events.

A2.1.6. Basic Surface Attack (Night) [BSA-(NT)] Sortie. Building block sortie. Training designed to achieve proficiency in night medium/low altitude tactical navigation and air-to-surface weapons delivery events.

A2.1.7. Close Air Support (CAS) Sortie. Mission sortie flown in support of ground forces (actual or simulated) under the control of a Forward Air Controller (FAC), either air or ground, providing air strike control for the fighter attacks. Mission elements include: Intel scenario and tactical mission planning, execution against actual or simulated threats, simulated or actual weapons employment against designated targets while under positive control of an air or ground FAC interfacing (actual or simulated) with the Theater Air Control System/Army Air-to-Ground System (TACS/AAGS) C2 network, and in-flight report.

A2.1.8. Collateral Sortie. Sortie not directly related to combat employment or basic skills training but necessary for accomplishment of unit training programs, such as ferry flights, deployments, incentive flights, orientation flights, 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.

A2.1.9. Combat Search and Rescue (CSAR) Sortie. Special capability sortie. Sortie flown to provide airborne Combat Search and Rescue in support of actual or simulated downed aircrew in both peacetime and combat environments. Mission elements include: Intel scenario and mission planning, actual or simulated interface with Theater Air Control system (TACS) C2 network, electronic and visual search patterns and procedures, identification and authentication of survivor, target marking, ordnance selection, air strike control of fighters employing simulated or actual ordnance against threats to survivor and CASR forces, Battle Damage Assessment (BDA), and in-flight report.

A2.1.10. Commander Option Sortie. Sortie allocated by the unit commander to support individual training requirements and unit training objectives. BMC pilots may log any type mission listed in Section 1 or 2 of the RAP tasking message as a Commander Option Sortie. CMR pilots may log any type mission, with the exception of a Red Air Sortie, listed in Section 1 or 2 of the RAP tasking message as a Commander Option Sortie.

A2.1.11. 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 AFORMS. 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.

A2.1.12. Defensive Counter Air (Day) [DCA (Day)] Sortie. Mission sortie designed to develop proficiency in day Defensive Counter Air (DCA) mission tactics. Mission elements include: Intel scenario and mission planning, execution of tactics to detect, engage, and negate aircraft employing adversary tactics and weapons capabilities to penetrate protected airspace or attack a specific target area, and in-flight report.

A2.1.13. Defensive Counter Air (Night) [DCA (NT)] Sortie. Mission sortie designed to develop proficiency in night Defensive Counter Air (DCA) mission tactics. Mission elements include: Intel scenario and mission planning, execution of tactics to detect, engage, and negate aircraft employing adversary tactics and weapons capabilities to penetrate protected airspace or attack a specific target area, and in-flight report.

A2.1.14. Flight Lead 4-Ship (FL Four-Ship) Sortie. Special capability sortie. Sortie where FL lead a flight of four or more. May be logged in conjunction with baseline training requirements.

A2.1.15. Force Protection Sortie. Mission sortie designed to develop proficiency in force protection tactics. Mission elements include: Intel scenario and integrated mission planning to support force package objectives, execution of tactics to detect and negate threats employing adversary tactics and weapons capabilities to disrupt force package employment/destroy package assets, and in-flight report.

A2.1.16. Forward Air Control (Airborne) [FAC(A)] Sortie. Special capability sortie. Sortie flown to provide airborne forward air strike control of armed attack fighters in support of actual or simulated ground forces. Mission elements include: Intel scenario and mission planning, actual or simulated interface with Theater Air Control System/Army Air-to-Ground System (TACS/AAGS) C2

network, target acquisition and identification, FAC-to-fighter brief, target marking, positive control of ground attack fighters employing simulated or actual ordnance against designated targets, integration of ground and heliborne fire support elements (if available), identification and neutralization of enemy air defenses, Battle Damage Assessment (BDA), and in-flight report.

A2.1.17. Instructor Pilot (IP) Sortie. Special capability sortie. Sortie where IP acted in the capacity of an instructor. Instructors/supervisors will log an Instructor sortie when acting in that capacity on a building block MQT sortie (BFM, ACM, BSA), Instructor Upgrade missions, when occupying the rear cockpit when the rear cockpit is not the primary duty location, or on any sortie where instructor duties preclude effective combat missions training. On other sorties, instructors may log a RAP mission sortie if quality training was obtained for the instructor. IP sorties will not be dual-logged with other RAP mission or special capability sorties. (Does not apply to the ANG.)

A2.1.18. 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 aircrew to accomplish their minimum basic skill, Non-RAP, requirements.

A2.1.19. Killer Scout Sortie. Special capability sortie. Sortie flown to control, as a minimum, two independent attacks by fighters on or off range with actual or simulated ordnance against lucrative targets identified and validated in specified geographic locations. Mission elements include: Target area reconnaissance and target identification, C3I network interface, KS-to-fighter brief, target marking and fighter hand-off, neutralization of enemy air defenses, Battle Damage Assessment (BDA), and in-flight report.

A2.1.20. LANTIRN Low Altitude (CAT II) Sortie. Special capability sortie. Sortie includes tactical mission planning and weapons delivery IAW unit taskings, simulating UCML munitions, ingress to target area, attacks against tactical targets and egress from target area. Simulated attacks may be conducted against realistic targets IAW local restrictions. Sortie is flown at low altitude using integral LANTIRN Terrain Following Radar (TFR) equipment for navigation and terrain clearance. Mission elements include: Intel scenario and mission planning, low level route planning, TFR in flight checks, flight station keeping, actual or simulated threats, simulated or actual weapons delivery.

A2.1.21. Mission Commander (MCC) Sortie. Special capability 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.

A2.1.22. Night Sortie. Sortie on which either takeoff or landing and at least 50 percent of flight duration or 1 hour, whichever is less, occur between the period of official sunset to official sunrise.

A2.1.23. Red Air Sortie. A/A sortie where tactics, aircraft simulation, weapon systems, and/or maneuvering is limited to the extent that complete own MDS training is not accomplished. Restrictions which limit aircraft capabilities to some level which might be encountered in combat do not require logging the sortie as Red Air. Red Air sortie allocations in the tasking message are a maximum cap on degraded training. Unused Red Air allocations should be flown in one of the other A/A training mission categories.

A2.1.24. Sweep Sortie. Mission sortie designed to develop proficiency in OCA-A sweep tactics. Mission elements include: Intel scenario and tactical mission planning, execution of tactics designed

to detect, engage, and negate simulated adversary aircraft which are operating within specific commit criteria (i.e., range, airspace corridor, vul time, etc.), and in-flight report.

A2.1.25. Suppression of Enemy Air Defense (Day) [SEAD (Day)] Sortie. Mission sortie designed to develop proficiency in day SEAD-Antiradiation (SEAD-A) and SEAD-Conventional (SEAD-C) employment. Mission elements include: Intel scenario and tactical mission planning, execution against simulated surface-to-air threats (SAM or AAA) or early warning/acquisition radar systems during day, simulated or actual weapons delivery, and in-flight report. Simulated attacks may be conducted against EC range emitters or realistic targets IAW local restrictions. Four ship SEAD-A mission requires a 4-ship with a minimum of two operating HTS pods employing on an EC range against multiple, non-collocated, operating threat emitters.

A2.1.26. Suppression of Enemy Air Defense (Night) [SEAD (NT)] Sortie. Mission sortie designed to develop proficiency in night SEAD-Antiradiation (SEAD-A) and SEAD-Conventional (SEAD-C) employment. Mission elements include: Intel scenario and tactical mission planning, execution against simulated surface-to-air threats (SAM or AAA) or early warning/acquisition radar systems during night, actual or simulated weapons delivery, and in-flight report. Simulated attacks may be conducted against EC range emitters or realistic targets IAW local restrictions. Four ship SEAD-A mission requires a 4-ship with a minimum of two operating HTS pods employing on an EC range against multiple, non-collocated, operating threat emitters.

A2.1.27. Surface Attack Tactics (Day) [SAT-(Day)] Sortie. Mission sortie designed to develop proficiency in day Surface Attack Tactics (SAT). Missions types include Strategic Attack (SA), Air Interdiction (AI), Offensive Counterair Air-to-Surface (OCA-S), and Suppression of Enemy Air Defenses-Conventional (SEAD-C). Mission elements include: Intel scenario and tactical mission planning, execution against actual or simulated threats, simulated or actual weapons delivery against a tactical target during the day, and in-flight report. Simulated attacks may be conducted against realistic targets IAW local restrictions.

A2.1.28. Surface Attack Tactics (Night) [SAT-(NT)] Sortie. Mission sortie designed to develop proficiency in night Surface Attack Tactics (SAT). Missions types include Strategic Attack (SA), Air Interdiction (AI), Offensive Counterair Air-to-Surface (OCA-S), and Suppression of Enemy Air Defenses-Conventional (SEAD-C). Mission elements include: Intel scenario and tactical mission planning, execution against actual or simulated threats, simulated or actual weapons delivery against a tactical target at night, and in-flight report. Simulated attacks may be conducted against realistic targets IAW local restrictions.

A2.2. Weapons Delivery Events:

A2.2.1. Basic Delivery. A delivery using a conventional box pattern. It may be used as a record event only for initial qualification. There is no restriction on the number of dry passes made before or during basic deliveries in a record event for initial qualification, however, only the first two deliveries per event may be made for record.

A2.2.2. Delivery. Defined as a pass at a target on which ordnance is expended or meets the criteria defining a specific weapon delivery (Maverick, GBU-15, etc.) as defined in **Chapter 5**. There are two type of deliveries--Basic and Tactical. All deliveries will be recorded, but not necessarily as a "record" deliveries. 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).

A2.2.3. 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.

A2.2.4. FAM. Weapons events tasked at FAM may be basic/tactical record deliveries. Each single hot pass counts as one delivery. Unless otherwise specified in the RAP tasking message or formal course syllabi, FAM tasking normally requires a annual minimum of six weapons deliveries for PGMs and bombing events, four strafe passes, and one DART firing pass to be completed during the training cycle.

A2.2.5. Foul. A penalty directed to a specific aircraft and crew for actions inconsistent with established procedures or safety considerations. A foul will result in a gross error for that delivery (except non-accoustiscored strafe which will be penalized one-half the event score). 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.

A2.2.6. Full Scale Weapons Delivery (FSWD). Delivery of live or inert ordnance representing a typical combat configuration or SCL in a tactical scenario.

A2.2.7. 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.

A2.2.8. Hit. Any munitions impact within the weapons criteria established for that event.

A2.2.9. Inadvertent Release. Ordnance which has released without command by the pilot. Impact will not be scored.

A2.2.10. Intentional Release. The pilot must advise the range officer prior to delivery and designate which impact to be scored.

A2.2.11. Multiple Release. More than one weapon released against the same target on a single pass.

A2.2.12. Non-Record Delivery. Basic or Tactical weapons delivery accomplishment not credited toward weapons qualification provided the pilot declares non-record prior to beginning the event.

A2.2.13. No Spot. A weapons release during which no impact was observed. No score or error will be assigned.

A2.2.14. 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**

A2.2.15. Record Delivery. Conventional or nuclear delivery scored for individual weapons qualification. Scoring shall be accomplished by ground, air, or AVTR 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:

A2.2.15.1. Basic. Must be scored on a Class A range IAW AFI 13-212, Vol 1, 2, and 3.

A2.2.15.2. Tactical. A minimum of 50 percent 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.

A2.2.15.3. Strafe. Aircraft rounds limiter will normally be set to 100 rounds for strafe events. A minimum of 50 rounds per strafe event must be set/expended to satisfy RAP strafe requirements.

A2.2.15.4. 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 LTDSS.

A2.2.15.5. Maverick. May be scored by AVTR or TGM missile-mounted camera. A maximum of five events may be logged per sortie.

A2.2.16. System Malfunction. An undeclared multiple release caused by a verified system malfunction. Score is void after system malfunction verification, otherwise, unintentional rules apply.

A2.2.17. 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. Wings level time on final will be limited to 5 seconds or less when aircraft will descend below 4,500 feet AGL. Timing will be from completion of roll-out until initiation of recovery. Exceeding 5 seconds will result in gross error. Level, LGB, MAV, and climbing deliveries may exceed 5 seconds. All tactical deliveries will normally include recovery to egress parameters.

A2.2.18. Unintentional Release. Ordnance released due to pilot error. Will be scored as gross error regardless of impact point.

A2.2.19. 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.

NOTES:

1. 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:
2. A specific type of weapon delivery (defined by aircraft flight path, ordnance delivered, delivery method, or target struck) performed during a sortie.
3. Expending of ordnance against a target according to predetermined flight path parameters and delivery methods. A single delivery constitutes an event except for strafe and dart, which require satisfaction of additional criteria.
4. Accomplishment of a specific training element, function, or task (i.e., tactical formation, AAR, Maverick, etc.).

A2.3. 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.

A2.3.1. ACMI Event. An event which utilizes an ACMI range/facilities for flight and debrief. Only one event may be logged per sortie.

A2.3.2. Air Refueling (AAR). An AAR event requires tanker rendezvous, hook-up and transfer of fuel or 2 minutes of dry contact. More than one event may be credited if receivers accomplish another rendezvous, hook-up and fuel transfer/dry hook-up.

A2.3.3. Basic Intercept. A single/two-ship intercept performed with the express purpose of practicing fundamental radar acquisition and lock-on techniques, controlling intercept geometry against LIMITED maneuvering targets, recognizing weapons employment zones and taking valid shots, practicing proper switchology and radio commentary. Tasks are performed independent of actual or briefed threat capabilities and weapons, and environmental considerations. These intercepts will not update ACBT currency. One event may be logged per engagement.

A2.3.4. Chaff Event. Inflight dispensing of chaff during a tactical mission profile in response to an actual or simulated threat. Event requires actual release and is limited to logging of one event per engagement.

A2.3.5. Comm Jam Event. Inflight operations without use of active anti-jam radios in a comm 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.

A2.3.6. 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)

A2.3.7. Composite Wing Training (CWT). A mission scenario based on a Composite Wing's CONOPS involving an intelligence scenario and support, an Air Tasking Order (ATO), and a Mission Commander responsible for planning the mission. These missions must include participation from more than 50 percent of the wing's flying and air control squadrons. The mission will also have opposing forces, such as air-to-air adversaries, EC opposition, and/or surface-to-air threats. A CWT event may be logged with a Composite Force Training (CFTR) event.

A2.3.8. ECCM Intercept. An intercept performed against a target using active and/or passive ECM against attacker's radar, causing the attacker to employ ECCM techniques or tactics. Does not include co-channel interference. Only one event may be logged per target.

A2.3.9. EC Event A/A. The aircrew detects an airborne threat via electronic means and reacts with appropriate maneuvers, pod/internal ECM switchology, and expendables. Airborne threat training will be accomplished only with a dedicated adversary attacking from beyond visual range. Only one event may be logged per sortie.

A2.3.10. EC Event A/G. The aircrew detects a surface threat via electronic means and reacts with appropriate maneuvers, pod/internal ECM switchology and/or expendables. Only one event may be logged per sortie.

A2.3.11. EC Range Event. Inflight operations conducted on an EC range with fixed or mobile surface-to-air emitters operating and detection/threat reaction emphasized. Normally accomplished in conjunction with other EC-type events. Sorties flown against EW Aggressor or mobile threat emitters placed in a MOA, range, or along a low level route are acceptable. Only one EC range event may be logged per sortie (Active ECM must be used).

A2.3.12. Flare Event. Inflight release of self-protection flares during a tactical mission profile as a threat response. Event requires actual release and is limited to logging of one event per engagement.

A2.3.13. 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.

A2.3.14. 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.

A2.3.15. Joint Force Training (JFT). Scenarios employing integrated aerospace and land/naval forces. Examples include JAAT, CAS with FAC, airdrop escort, etc. Only one event may be logged per sortie (**Exception:** if an AAR separates events, a maximum of two events may be logged per sortie).

A2.3.16. Joint Maritime Operations (AIR) [(JMO (AIR)] Event. A JMO (AIR) event is flying a DOC mission (AI, DCA, OCA, SEAD, CAS, etc.) in support of naval objectives. A JMO (AIR) training event may be logged when the mission is flown in a maritime environment in conjunction with Navy/Marine forces or under Navy/Marine command and control. The maritime environment includes the oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these. DACT against Navy/Marine aircraft will be considered JMO (AIR) training when flown in a maritime environment and a Navy/Marine controlling agency is controlling the Air Force fighters or if there are other Navy/Marine aircraft on the same side as (and communicating with) Air Force fighters and have mission commander responsibilities. A JMO (AIR) training event may be logged when participating with (not against) Navy/Marine aircraft in Strike University exercises at Fallon NAS.

A2.3.17. Low Air-to-Air (LOW A/A). An event defined as performing realistic, mission-oriented air-to-air operations while in a LOWAT certified low altitude block (see **Table 3.1.**). The event includes skills necessary to search for, and engage offensively, an aerial target at low altitude. 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)

A2.3.18. Low Altitude (LOW ALT). An event defined as performing realistic, mission-oriented low altitude operations while in a certified LOWAT altitude block (see **Table 3.1.**). 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)

A2.3.19. Low Altitude Tactical Formation (LATF). Flying tactical formation while conducting LATN training. Only two events may be logged per sortie. (AFI 11-214)

A2.3.20. Low Altitude Tactical Navigation (LATN). Low altitude training using the fundamental aspects of dead reckoning and point-to-point low altitude navigation, with or without prior route planning. Only two events may be logged per sortie. (AFI 11-214)

A2.3.21. Maverick Event. Training designed to achieve proficiency in the employment of the Maverick. Includes tactical mission planning, execution, and simulated/actual weapons delivery.

A2.3.22. Medium Altitude Tactics. Day or night tactical formation (if appropriate for night mission profiles) above 5000 feet AGL, ingressing to a target area, employing actual or simulated ordnance, and egressing with mutual support (if appropriate for night mission profiles). A maximum of two medium altitude tactics events may be logged on any tactical sortie.

A2.3.23. SEAD. A tactical event employing simulated or actual munitions against any portion of a simulated integrated air defense system, to include SAMs, AAA, and GCI. Categories of SEAD events include: SEAD-Antiradiation (SEAD-A) which involves the employment of Antiradiation missiles (ARM); SEAD-Conventional (SEAD-C) which involves the employment of conventional munitions; and SEAD-electronic (SEAD-E) which involves the employment of electronic measures.

A2.3.24. Secure Voice. Requires proper radio configuration during tactical mission accomplishment. Only one event may be logged per sortie.

A2.3.25. Tactical Intercept. A single/multi-ship intercept performed to accomplish the tactical objective (ID or kill the threat) in a realistic threat scenario. Fighter should counter threat maneuvers and weapons engagement zones, consider environmental factors, attain turning room and energy at end game, practice ID/ROE procedures, take valid shots if presented, and terminate when briefed objectives or training rule stops are reached. One event may be logged per engagement.

A2.3.26. Target Mark. A tactical weapon delivery used in conjunction with final air strike control. Only one event may be logged per target.

A2.3.27. Terrain Following Radar (TFR) Event. A low level event using integral aircraft TFR equipment or LANTIRN TFR for navigation and terrain clearance. At least two legs of a planned low level route, or 10 minutes at low altitudes (below the MSA) will be flown. Only two events may be logged per sortie.

A2.3.28. Visual Reconnaissance. An event using basic navigational techniques during which surveillance of an area or lines of communication is conducted, leading to the timely acquisition of information or enemy activities. It encompasses map reading, recognition of terrain features, pilotage, and DR. Only two events may be logged per sortie.

Attachment 3

VERIFICATION GUIDE FOR AIR-TO-SURFACE

A3.1. Outlines for Briefings. The following outlines are provided as guidelines for the development of verification briefings:

A3.2. Overview:

A3.2.1. Introduction (participants and briefing classification).

A3.2.2. Status of friendly forces (ground, air and support).

A3.3. Area of Operations:

A3.3.1. Geography (topography, population centers, lines of communications, chokepoints and natural obstacles, major visual and radar significant identification points).

A3.3.2. Climatology (effects on unit operations, ground troop movements, and in- flight operations).

A3.3.3. Operating base (location, facilities, procedural constraints, strengths and limitations).

A3.4. Status of Enemy Forces:

A3.4.1. Ground forces and accompanying air defense threats (SAMs, AAA, EC, and MIJI), capabilities, strengths and weaknesses.

A3.4.2. Airborne forces (numbers, locations, capabilities and tactics).

A3.5. Mission Employment Briefing:

A3.5.1. Ground operations.

A3.5.2. Departure (WX contingencies, options).

A3.5.3. Route of flight (threat analysis, alternatives, fuel requirements, decision points).

A3.5.4. Target ingress (IP-to-target specifics, (WW: EOB), tactics).

A3.5.5. Weapons employment (target data, DMPI, attack parameters, load, fusing, suitability, delivery modes/backups).

A3.5.6. Egress plan (route, mutual support agreements).

A3.5.7. Reattack plan/options.

A3.5.8. Downed pilot/wounded bird plan.

A3.5.9. Recovery (safe corridor procedures, IFF procedures, ASLAR, alternate and emergency airfields).

A3.6. Escape and Evasion:

A3.6.1. SAFEs.

A3.6.2. SAR procedures.

A3.7. Essential Elements of Information/Reports:

A3.7.1. EEIs.

A3.7.2. Required reports and reporting procedures.

Attachment 4

VERIFICATION GUIDE FOR AIR-TO-AIR

A4.1. Outlines for Briefings. The following outlines are provided as guidelines for the development of verification briefings:

A4.2. Overview:

A4.2.1. Introduction (participants and briefing classification).

A4.2.2. Mission overview.

A4.2.3. Status of friendly forces (ground, air and support).

A4.3. Area of Oprations:

A4.3.1. Geography (topography, population centers, lines of communications, chokepoints and natural obstacles, major visual and radar significant identification points).

A4.3.2. Climatology (effects on unit operations, ground troop movements, and in- flight operations).

A4.3.3. Operating base (location, facilities, procedural constraints, strengths and limitations).

A4.4. Status of Enemy Forces:

A4.4.1. Ground forces and accompanying air defense threats (SAMs, AAA, EC, and MIJI), capabilities, strengths and weaknesses.

A4.4.2. Airborne forces (numbers, locations, capabilities and tactics).

A4.5. Mission Employment Briefing:

A4.5.1. Ground operations.

A4.5.2. Departure (WX contingencies, options).

A4.5.3. Enroute (Go/No-go considerations, comm procedures, GCI/AWACS/autonomous control procedures, friendly defenses, ROE).

A4.5.4. Engagement tactics (target data, acquisitions/validations, tactics, weapons parameters, disengagement).

A4.5.5. Egress plan (route, mutual support agreements).

A4.5.6. Downed pilot/wounded bird plan.

A4.5.7. Recovery (safe corridor procedures, IFF procedures, ASLAR, alternate and emergency airfields).

A4.6. Escape and Evasion:

A4.6.1. SAFEs.

A4.6.2. SAR procedures.

A4.7. Essential Elements of Information/Reports:

A4.7.1. EEIs.

A4.7.2. Required reports and reporting procedures.

Attachment 5

TRAINING SHORTFALL REPORT FORMAT

MEMORANDUM FOR (Respective MAJCOM/DOT)

FROM:

SUBJECT: xx SQ Training Year Shortfalls

1. **Training Shortfalls.** (Training events not accomplished or locally waived.)

(For an individual)

NAME - CREW POSITION - SHORTFALL(S)
- SPECIFIC REASON FOR SHORTFALL
- CORRECTIVE ACTION (IF ANY)

(For a mass shortfall)

EVENT - NAMES WITH CREW POSITIONS
- SPECIFIC REASON FOR SHORTFALL
- CORRECTIVE ACTION (IF ANY)

2. **LIMFACS.**(Training that is accomplished but is degraded or limited for some reason.)

TRAINING EVENT	LIMFAC	SOLUTION/ SOLUTIONS/RECOMMENDATIONS

3. **Commander's Comments.** (Open forum for comments to improve the training and reporting system.)

1ST Ind, OG/CC

TO: MAJCOM/DOT