BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 11-2A/OA-10, VOLUME 1

11 FEBRUARY 2000

Flying Operations

A/OA-10--AIRCREW TRAINING

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: HQ ACC/XOFT
(Maj Scott E. Caine)
Supersedes AFI 11-2A/OA-10V1, 1 September 1998.

Certified by: HQ USAF/XOO
(Brig Gen Michael S. Kudlacz)
Pages: 110
Distribution: F

This instruction implements AFPD 11-2, *Aircraft Rules and Procedures*, AFPD 11-4, *Aviation Service*; and AFI 11-202V1, *Aircrew Training*. It applies to all A/OA-10 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. Copies of approved and published MAJCOM/DRU/FOA-level supplements will be provided by the issuing MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DOTO, and the user MAJCOM/DRU/FOA offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. See paragraph **1.3.** of this volume for guidance on submitting comments and suggesting improvements to this publication.

This instruction requires the collection or maintenance of information protected by the Privacy Act of 1974. The authority to collect and maintain the records prescribed in this instruction are 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; Air Force (AF) Instruction 11-401, Flight Management; and E.O. 9397. System of records notice F011 AF XO A, Air Force Operations Resource Management System (AFORMS) applies. 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.

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

Publication: ACCI 11-464

SUMMARY OF REVISIONS

This change incorporates interim change (IC) 2000-1. There are administrative changes and new ACC level office symbols throughout. Units are now required to submit CMR and BMC manning positions only on MAJCOM request (**1.2.4.3.**). Clarifies when shortfall reports are due (**1.2.4.5.**). Deletes PACAF CMR to BMC exception (**1.4.4.2.**). Deletes PACAF BMC to BAQ exception (**1.4.4.4.**). Clarifies that N-BMC pilots may not perform RAP training sorties without supervision until SQ/CC approved re-certification program is complete (**1.4.4.4. – 1.4.4.5.**). Deletes SQ supervisor involvement (**1.5.4.1.**). Adjusts new flying training period dates to 1 Oct – 30 Sep (**1.5.6.**). Aligns USAFWS with FTU since it is primarily PFT driven (**1.11.1.1.**, **1.11.1.4.**). Clarifies RPI 8 and Test Unit flying requirements (**1.11.4.**). Adds ANG/CG approval requirement for exception to senior officer local IQT (**2.6.3.**). Deletes requirement for BMC pilot to accomplish verification (**3.1.2. – 3.2.3.1.**). Deletes requirement of ICWT flight for pilots that accomplished an ICWT flight in a previous tour in a Fighter/Attack/FAC MDS (3.5.1.). Deletes Phase I and II from CWT (**3.5.2.**). Adds quarterly MRFCS discussion to SEPT (**4.2.5.1.1.4.**). Allows EP simulator as a substitute for monthly SEPT (**4.2.5.5.**). Updates ground training requirements and adds BMC effects to required training (**Table 4.1. - 4.2.12.**). Changes CRM currency to 24 months (**4.2.14.**). Clarifies BAQ guidance (**4.3.1.4.**). Deletes excess verbiage on waiver authority (**4.3.2.6. – 4.3.3.4.**). Clarifies that the sortie/event breakdown of the RAP tasking message doesn't apply to CB/TF coded units (**4.3.5.1.**). Deletes low altitude SSE Go-around training (**Table 4.2.**). Clarifies number of days before requiring formal training re-accomplishment (**4.6.4.1.3. – 4.6.4.1.4.**). Deletes requirement of re-certification program equaling one-half of 1-month's RAP sortie requirement (**4.7.1.2.**). Clarifies that a new CMR/BMC pilot's 1-month lookback starts the first full month of availability (**4.7.1.3.**). Adds COT leave for proration purposes and clarifies proration example (**4.9. – 4.9.3.**). Extends proration allowances in **Table 4.4.** Deletes reference to one-half of 1-month lookback for pilot re-certification program (**4.10.2.1. – 4.11.1.2.**, **Figure 4.1.**). Adds aerospace physiologist to AGSM review (4.14.1,5.). Clarifies full scale, live, and PGM requirements (**5.6.**). NVG qualification program re-written as a sortie based program opposed to an hours based program (**6.5.**). Combat Search and Rescue syllabus lengthened to 6 sorties to align with SANDY 1-4 qualification (**6.6.**). Anti-helicopter training program shortened to 2 sorties (6.8). Changes training shortfall report (**Attachment 5**). See the last attachment of the publication, IC 2000-1, for the complete IC. A bar (|) indicates revisions from the previous edition.

OPR: HQ ACC/XOFT (Maj Scott E. Caine).

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 A/OA-10. 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/XOFT, 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/XOFT, 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.

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Chapter 1

GENERAL GUIDANCE

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

1.2. Responsibilities:

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

1.2.1.1. Chair semiannual Realistic Training Review Boards (RTRB) to review ground and flying training requirements/programs for Combat Air Forces (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. Submit MAJCOM/FOA/DRU supplements to HQ USAF/XOOT, through HQ ACC/XOFT, for approval before publication. Provide HQ USAF/XOOT, HQ ACC/XOFT, and all applicable MAJCOM/DO/XOs a copy of their supplements after publication.

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/OV, and five copies to each CAF wing/ group.

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

1.2.3.3. Review subordinate unit training programs annually.

1.2.4. Wings/groups will:

1.2.4.1. Develop programs to ensure training objectives are met. Assist subordinate units in management of training programs, ensure programs meet unit needs, and provide necessary staff support. ACC wings/groups will also assist ANG and AFRC unit training programs as required/requested IAW the ARC unit advisory support program.

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

1.2.4.3. Except when otherwise mandated, designate the training level to which each RPI/API – 6 (ANG and AFRC: all flyers) will train. Upon request, provide MAJCOM/DO/XO (ANG: HQ ACC/XOG) with a list of Basic Mission Capable (BMC) and Combat Mission Ready (CMR) manning positions. Review programs and manning position designations annually.

1.2.4.4. If applicable, forward supplements to 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. Units are required to submit anticipated shortfall reports each quarter to MAJCOM/DOT/XOF (info copy to NAF/DO) (due 31 Jan, 30 Apr, 31 Jul) and a summary shortfall report at the end of the training cycle (due 31 Oct). Prior to submitting the annual report, units are reminded to prorate incomplete training. For training report format; see Attachment 5, Training Shortfall report. Negative reports are required. **NOTE**: For ACC units, this report may be submitted on the HQ ACC/XOFT homepage.

1.2.4.6. (ANG: Any reference to OG/CC or SQ/CC may be substituted with the Air Operation Officer (AOO)).

1.2.5. SQ/supervision (ANG, AFRC: Appropriate unit 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. Ensure review of 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 flight surgeons and determine appropriate flight restrictions if applicable.

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 volume to MAJCOM DO/XO on AF Form 847, **Recommendation for Change of Publication**.

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

1.3.3. HQ ACC/XO will:

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

1.3.3.2. Forward recommendations for changes to this volume to HQ USAF/XOOT for HQ USAF/XO approval.

1.3.3.3. Address time sensitive changes by immediate action message

1.3.3.4. Deleted.

1.3.4. MAJCOM/DO/XO (ANG: HQ ACC/CG) will determine training requirements for their subordinate units. This includes making changes, additions, or deletions to this volume at any time. These changes may be via supplement or RAP tasking message. HQ ACC/XO will be an info addressee on all changes. HQ ACC/XO 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) (Basic course (B) or Transition/Re-Qualification Training (TX)), then to Mission Qualification Training (MQT), and finally to Continuation Training (CT).

1.4.1. IQT provides the training necessary to initially qualify pilots in a basic position and flying duties without regard to 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 the wing level, BAQ is not a long-term qualification status. Waiver authority for any pilot, other than general officers above the wing level, to remain BAQ for longer than 6 months is MAJCOM DO/XO (ANG: HQ ACC/CG).

1.4.2. MQT provides the training necessary to initially qualify or re-qualify pilots in flying duties to perform the missions assigned to a specific unit. Pilots maintain BAQ status until they have completed MQT. Completion of MQT or an FTU instructor course is a pre-requisite for BMC and CMR.

1.4.3. CT. There are two aspects of CT. The first consists of 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.

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.

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

1.4.4.4. All 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, or are FTU instructors, Weapons School instructors, or operational test pilots. However, these pilots are required to provide additional sortie generation capability, either in lieu of or in addition to, the personnel assigned to the flying squadrons. 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 RAP training sorties without supervision (per para. 1.5.4) until SQ/CC approved re-certification program is complete.

1.4.4.5. N-CMR/N-BMC. Pilots that regress to N-CMR/N-BMC status will accomplish the requirements in accordance with paragraph 4.7.1.2.

1.4.4.6. 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 Flight Lead Upgrade (FLUG), Instructor Pilot Upgrade (IPUG), Combat Search and Rescue (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 (ACC TRSS) will develop and validate training programs when/where tasked by the HQ ACC/XO. Other MAJCOMs may submit requests for training program support to the HQ ACC/XO. 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 instructor pilot (IP) may be required.

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

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

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

1.5.6. The pilot training cycle is 12 months: 1 Oct through 30 Sep. AFRC and ANG training cycle is: 1 Jul through 30 Jun. Units will complete training requirements during the appropriate training cycle unless specifically excepted.

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 are authorized. Variations in sortie/mission types may be used as a basis for regression by the SQ/CC. Qualification in a mission is determined by the SQ/CC considering the MAJCOM guidance and the individual's capabilities

1.6.3. 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 pilot 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 pilots 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 initial operational capability (IOC).

1.7. TRAINING SORTIE PROGRAM DEVELOPMENT:

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

1.7.2. Non-RAP requirements (Instrument/Aircraft Handling Characteristics (AHC)) are in addition to RAP requirements. These sorties ensure basic pilot skills are maintained (See **Table 4.2.**). 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 instructor sorties, 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.

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. A/OA-10 Annual Sortie Requirements (Inexperienced/Experienced).

MAJCOM	Cycle	BMC	CMR
ACC USAFE PACAF	RAP Total	72/60	102/90
	3-Month Lookback	18/15	25/22
	1-Month Lookback	6/5	9/8
ANG AFRC (Annual)	RAP Total	72/60	ANG: 90/72 AFRC: 90/76
	3-Month Lookback	18/15	ANG: 23/18 AFRC: 23/19
	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 11-202V1, *Aircrew Training.*

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

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

1.8.1.4. AFMAN 37-139, *Records Disposition Schedule*, table 36-44.

1.8.1.5. ACCI 11-464, *Training Records and Performance Evaluation in Formal Flying Training Programs*. (FTUs only)

1.8.1.6. AFM 171-190V2, *Air Force Operations Resource Management Systems (AFORMS): Users Manual*, Sections A through K.

1.8.1.7. Appropriate MAJCOM directives.

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

1.8.2.1. Ground training.

1.8.2.2. Requirements and accomplishment of individual sorties, RAP sortie types, and events cumulative 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 may fill in AFORMS "NO DATE" with either the date of the last FTU or United States Air Force Weapons School (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 Air Combat Maneuvering Range (Instrumented) (ACMI), Aircraft Video Tape Recorder (AVTR) tapes, radar and Head-Up Display (HUD) 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, fragmentation clearance, identification procedures, adherence to Training Rules (TR), communications procedures and discipline, flight discipline, proper Anti-G Straining Maneuver IAW paragraph **4.14.**, tactical employment, and instrument approaches.

1.10. Pilot Utilization Policy:

1.10.1. Commanders will ensure 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 (ROM, RCO, etc.). 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 and USAFWS. Formal syllabus training, Instructor Upgrade, Instructor CT, authorized staff personnel not performing Instructor or SEFE duties (to include RPI-5 pilot physicians not on instructor 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 and Test Evaluation Squadron (TES) Units. Requirements directed by MAJCOM, training required to prepare for assigned projects/tasking, BMC training requirements that cannot be accomplished on primary missions, 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 wings consisting of both FTU and operational units, at least one of the following aircrew will maintain formal instructor status: WG/CC, WG/CV, OG/CC, OG/CD.

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

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

Table 1.2. A/OA-10 Annual Sortie Requirements for Other Than RPI-1 Pilots.

RPI Level	CT Status (Minimum Sortie Requirement)	Unit's Aircraft Code	Organization Level	Maximum Sortie Allowance (Inexperienced/ Experienced)
6	CMR	CC	Any	As required by qualifications
6	BMC	CC	Wing	96/84
6	BMC	TF	Any	As required by PFT
6	BMC	CB	Wing	As determined by test program requirements
8	BMC	CB	Wing	96/84
8	BMC	CC, TF, or CB	Above Wing	96/84
5	BMC	CC, TF, or CB	All	If qualified and current in unit aircraft--96/84. 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, waiver authority for all requirements of the RAP Tasking Message and for all provisions in **Chapter 4**, **Chapter 5**, and **Chapter 6** of this volume is the OG/CC. For all other provisions of this volume, the waiver authority is MAJCOM/DO/XO (ANG: HQ ACC/XOG).

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

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

Chapter 2

FORMAL TRAINING

2.1. General. This chapter outlines Initial Qualification Training (IQT) of pilots into unit aircraft. IQT includes Pilot Initial Qualification (PLTIQ course) and Transition/Re-Qualification/Senior Officer (TX) 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 Re-qualification 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 Local IQT:

2.2.1. MAJCOM/DO/XO (ANG: HQ ACC/XOG) is approval authority to conduct local IQT, and is waiver authority to change the formal requirements of locally conducted IQT. Info HQ ACC/XOF.

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 11-2A/OA-10V2).

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 to peculiar local conditions. However, available and current reference materials such as AFTTP 3-3, instructor guides, and audiovisual programs should be used as supporting materials to the maximum extent possible.

2.5. Flying Training:

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

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/XO (ANG: HQ ACC/XOG) 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 (chased) until completing the qualification evaluation.

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

2.6. IQT for Senior Officers:

2.6.1. All formal training courses for senior officers (colonel selectees and above) will be conducted at FTUs unless waived IAW paragraph **2.2.** (N/A: AFRC)

2.6.2. Senior officers must meet course entry prerequisites and will complete all syllabus requirements unless waived IAW syllabus 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: ANG/CG).

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 program. The SQ/CC is responsible for developing the unit specific MQT program, and the OG/CC will approve it. SQ/CCs are allowed to further tailor their program for all pilots, based on current qualification, experience, currency, documented performance, and formal training. Applicable portions of MQT may be used to create a re-qualification 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 AFRC/DO and NAF/DO if training exceeds 120 calendar days.

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

3.1.1.3. For ACC, notify HQ ACC/XO if training exceeds 90 calendar days.

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

3.1.1.5. For USAFE, notify the HQ USAFE/DO and AOG/CC if training exceeds 90 calendar days.

3.1.2. Air/Air refueling (AAR) and initial Chemical Warfare (CW) flight training will be completed NLT 90 days (ANG, AFRC: 180 days) 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, or Weapons System Evaluation Program (WSEP).

3.1.4. The night training in 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 during MQT as long as it is subsequently accomplished prior to night CT training. All night training requires demonstrated proficiency and currency in similar day events, unless accomplished with an instructor.

3.1.5. The MQT BSA-(NT) sortie may be flown with NVGs if the upgrading pilot has already accomplished NVG-1 and NVG-2 IAW paragraph **6.5.**. At the SQ/CC's discretion, NVG-2 may be substituted for the MQT BSA-(NT) if the upgrading pilot has already accomplished NVG-1. The MQT SAT-(NT) or ASC sortie may be flown with NVGs if the upgrading pilot is already NVG qualified. At the SQ/CC's discretion, NVG-3 may be substituted for the MQT SAT-(NT) or ASC if the upgrading pilot meets the requirements for NVG-3 IAW paragraph **6.5.**

3.1.6. 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.

3.1.7. A/OA-10 pilots must complete the Joint Firepower Control Course (JFCC) prior to FAC(A) certification IAW AFI 13-102.

3.1.8. During academic and flying training, special emphasis should be placed on AHC, BFM, transition to instruments, spatial disorientation, effects of task saturation, G onset, and conditions leading to and the effects of GLOC.

3.2. Ground Training:

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

3.2.2. 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 Local Area Orientation (LAO) mission may satisfy this requirement.

3.2.2.1. (USAFE) Theater Indoctrination (TI). All pilots will complete 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. (USAFE) Instrument Training. 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. (USAFE) Video Presentation. Jeppesen approach charts.

3.2.2.1.3. (USAFE) 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:

3.2.3.1. Pilots will initially accomplish a formal verification for their first CMR certification in the A/OA-10 (i.e. a previously qualified OA-10 pilot now seeking CMR certification in the A-10 need not initially verify). Initial verification will be completed within 90 days (ANG, AFRC: 180 days) after completing MQT. Failure to comply will result in regression to N-CMR until qualification is complete. Suggested briefing guides are at **Attachment 3**. Each pilot (not required for BMC) will demonstrate to a formal board a satisfactory knowledge of the squadron's assigned mission. Board composition will be established by the SQ. Desired composition is SQ/CC or OPS Officer (chairman), weapons, electronic combat, intelligence, and plans representatives.

3.2.3.2. 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.

3.3. Simulator Training. N/A.

3.4. Flying Training. The appropriate missions from those listed below will be used to upgrade to BMC and CMR. Separate programs are outlined for attack (A-10) and FAC(A) (OA-10) upgrade. Dual mission upgrade training should be tailored to the individual pilot, based on the factors in paragraph **3.1.** 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 instructor in the element is required unless specified otherwise. The SQ/CC will determine the proper flight position of the supervisor/instructor 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 procedures scenario, to include airborne coordination with the SOF.

3.4.4. (USAFE) (TI) 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 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.

3.4.5. Air-to-Air Upgrade. The following program provides guidelines for pilots who require further upgrade following IQT to complete qualification in Air Combat Training (ACBT), or who lose ACBT currency. (See**Table 4.3.** and paragraph **4.6.6.** ACBT Recurrency). Air-to-Air (A/A) upgrade programs will be conducted IAW AFI 11-214 (USAFE: Plan 46-36, Fighting Edge) and applicable flying directive publications. The A/A qualification program outlined in paragraph **3.4.5.1.** below may be accomplished as part of MQT. Air-to-Air upgrade programs will train all pilots in offensive and defensive Basic Fighter Maneuvers (BFM) in preparation for defensive fixed wing ACBT and offensive/defensive anti-helicopter ACBT continuation training. All units will train for successful self-defense, as a minimum. Further A/A training will be based on unit tasking. As a goal, at least 50 percent of ACBT requirements should be against helicopters or dissimilar aircraft.

3.4.5.1. ACBT Qualification. The following sorties (in sequence) will be used to achieve ACBT qualification (if not previously accomplished in IQT). 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. These sorties may be integrated with complementary programs (IQT, MQT). If more than 14 days elapse between sorties, an additional review sortie will be flown before continuing.

3.4.5.1.1. AHC. Mission Objectives: Practice basic aircraft handling skills. Specific Mission Tasks: Turn rate/radius exercise, vertical maneuvering exercise, confidence maneuver, slow flight, and dive recovery exercise. The dive recovery exercise will be accomplished three times using identical entry parameters, but with different recovery procedures to show the differences in altitude lost. The three recoveries will consist of one on the steady tone, one on the

chopped tone, and one alternating between the chopped and steady tone. The dive recovery exercise will be flown so the aircraft remains at or above 5,000 feet AGL throughout the maneuver.

3.4.5.1.2. BFM-1 (Defensive BFM [1 v 1]). Mission Objectives: Practice single-ship defense against a single adversary. Specific Mission Tasks: Practice early detection of the threat using appropriate visual and radar warning systems search techniques, appropriate maneuvering to maintain sight or to deny adversary weapons parameters, counter offensive maneuvering to negate the immediate threat, and separation using ECM, ECCM, and IRCM techniques as appropriate. The intent is to allow A/OA-10 pilots under attack to maneuver sufficiently for survival. In this case, weapons may be employed to defeat an attacker when unable to separate.

3.4.5.1.3. BFM-2 (Offensive BFM [1 v 1]). Mission Objective: Practice single ship offensive BFM skills from perch setups to achieve weapons parameters against a maneuvering adversary. Specific Missions Tasks: Hi/Lo Yo-Yos, Hi Aspect Gun pass exercise, gun tracking exercise, AIM-9 employment, rejoin maneuvers (e.g., lead turn exercise, roll slides, snatchbacks), and perch set up attacks from 3,000, 6,000, and 9,000 feet. Emphasis will be on maintaining maneuver energy, recognizing relative positioning and weapons parameters, and understanding relative aircraft performance and its impact on offensive and defensive tactics.

3.4.5.1.4. ACM-1 (Defensive ACM [2 v 1]). Mission Objective: Practice two-ship defense against a single adversary. Specific Mission Tasks: Practice element early detection of the threat using appropriate visual and radar warning systems search techniques, element coordination, radio discipline, appropriate turns to maintain sight and avoid engagement or to deny adversary weapons parameters, maintenance of maneuver potential and mutual support, counter offensive maneuvering to negate the immediate threat, and separation if possible using ECM, ECCM, and IRCM techniques as necessary. The intent is to allow A/OA-10 pilots under attack to maneuver sufficiently for survival. In this case, weapons may be employed to defeat an attacker when unable to separate. If flown similar, only pilots having completed ACBT qualification will perform the attacker role. When LOWAT is conducted, only pilots specifically designated by the SQ/CC will perform the attacker role.

3.4.6. Attack Mission (A-10) Sortie Requirements. The LAO/AHC/Instrument mission is mandatory unless the pilot has been flying in the local area. The Mission Evaluation, flown IAW AFI 11-202V2 (AFI 11-2A/OA-10V2), is also mandatory if not previously accomplished in the MQT portion of formal training. However, a commander certification (similar to the commander's certification in FLUG) flown by the SQ/CC or designated representative may be substituted for the mission qualification evaluation provided the individual has a current OA-10 mission qualification evaluation. If a commander's certification is substituted, and the pilot will be dual qualified, then subsequent mission evaluation profiles (A-10 vs. OA-10) will be IAW AFI 11-202V2 (AFI 11-2A/OA-10V2). The remaining sorties are suggested profiles that the SQ/CC may use to develop the unit's MQT program based on unit tasking. Upgradee will lead (IP chase) the LAO/AHC/Instrument mission. MQT night sorties, if required, may be delayed until after BMC/CMR is achieved. If not completed during MQT, they will be accomplished prior to night CT training.

3.4.6.1. 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) orientation, manual reversion exercise (if not accomplished in IQT), AHC, VFR patterns, normal and simulated emergency patterns/landing.

3.4.6.2. Instrument/BFM. Mission Objectives: Practice instrument procedures and practice/review BFM. Specific Mission Tasks: Trail departure, weapons systems checks, basic formation, lost wingman procedures, penetrations and approaches at primary and/or divert fields, practice/review selected BFM.

3.4.6.3. (D)BFM. Mission Objectives: Practice Similar or Dissimilar BFM. Specific Mission Tasks: Formation takeoff (wing), weapons system checks, tactical formation, fence checks, BFM, formation approach/landing (wing), armament recording and assessment procedures.

3.4.6.4. BSA/SAT-(Day). Mission Objectives: Develop proficiency in close and tactical formation, weapons delivery, LATN and VR. Specific Mission Tasks: Formation takeoff, VFR formation departure, formation maneuvering (close, route, tactical), bomb delivery, strafe, battle damage check, LATN, 1:50 VR, and formation approach and landing.

3.4.6.5. SAT-(Day). Mission Objectives: Practice mission employment. Specific Mission Tasks: Route/threat planning, weapons system checks, medium/low altitude ingress, conventional weapons delivery, weapons deliveries simulating combat munitions, threat reactions, lookout, battle damage checks, in-flight report, authentication procedures.

3.4.6.6. MAV (E/O and IR Mavericks Required). Mission Objectives: Demonstrate proficiency in track and launch for both the EO and IR Mavericks; practice attack procedures and tactics. Specific Mission Tasks: Demonstrate proficiency in preflight; system warm-up; operating limitations; switchology; option selections; boresight check; acquisition, track and launch techniques; maximum standoff range launches.

3.4.6.7. CAS-(Day). Mission Objectives: Demonstrate proficiency in tactical mission employment based on unit tasking. Specific Mission Tasks: Mission planning; threat detection and reactions (adversary desired); first-look attacks using simulated combat munitions, egress, battle damage checks, safe recovery procedures, in-flight report, authentication procedures, use of a forward air controller (FAC).

3.4.6.8. BSA-(NT) (IP Required). Mission Objectives: Introduce/practice night weapons employment. Specific Mission Tasks (Night): Formation takeoff; DB, LALD, and HAS; practice approach to emergency airfield serving range; night instrument approach and landing.

3.4.6.9. SAT-(NT) (IP Required). Mission Objectives: Introduce/practice night tactical mission employment based on unit tasking. Specific Mission Tasks: Route/threat planning, weapons system checks, medium altitude ingress, weapons deliveries simulating combat munitions, threat reactions, lookout, in-flight report, authentication procedures.

3.4.6.10. Mission Evaluation/Certification. This sortie will be flown IAW AFI 11-202V2 (AFI 11-2A/OA-10V2)and local standardization/ evaluation criteria on a mission representing the unit's primary attack mission tasking.

3.4.7. FAC(A) Mission (OA-10) Sortie Requirements. The LAO/AHC/Instrument mission is mandatory unless the pilot has been flying in the local area. The Mission Evaluation, flown IAW AFI 11-202V2 (AFI 11-2A/OA-10V2) is also mandatory if not previously accomplished in the MQT portion of formal training or if the upgrade is accomplished for dual qualification. A commander certification (similar to the commander's certification in FLUG) flown by the SQ/CC or designated

representative may be substituted for the mission qualification evaluation provided the individual has a current A-10 mission qualification evaluation. If a commander's certification is substituted, and the pilot will be dual qualified, then subsequent mission evaluation profiles (A-10 vs. OA-10) will be IAW AFI 11-202V2 (AFI 11-2A/OA-10V2). The remaining sorties are suggested profiles that the SQ/CC may use to develop the unit's MQT program based on unit tasking. Upgradee will lead (IP chase) each mission except SA and ACBT missions. MQT night sorties, if required, may be delayed until after BMC/CMR is achieved. If not completed during MQT, they will be accomplished prior to night CT training.

3.4.7.1. LAO/AHC/Instrument (IP Required). Mission Objectives: Practice advance handling characteristics, local area orientation, local instrument procedures. Specific Mission Tasks: Local area familiarization, emergency airfield(s) orientation, manual reversion exercise (if not accomplished in IQT), AHC, VFR patterns, normal and simulated emergency patterns/landing.

3.4.7.2. Instrument/Navigation. Mission Objectives: Practice instrument procedures and pre-planned medium altitude navigation/visual reconnaissance. Specific Mission Tasks: Single ship takeoff, VFR departure, weapons systems checks, 1:250 navigation, range/LATN area orientation, basic formation, lost wingman procedures, penetrations and approaches at primary and/or divert fields.

3.4.7.3. (D)BFM. Mission Objectives: Practice Similar or Dissimilar BFM, emphasizing single-ship defensive maneuvering. Specific Mission Tasks: Trail departure, weapons system checks, fence checks, BFM, armament recording and assessment procedures.

3.4.7.4. BSA-(Day). Mission Objectives: Develop proficiency in close and tactical formation, weapons delivery, LATN and VR. Specific Mission Tasks: Formation takeoff, VFR formation departure, formation maneuvering (close, route, tactical), rocket delivery, bomb delivery, strafe, battle damage check, LATN, 1:50 VR, and formation approach and landing.

3.4.7.5. ASC-Reduced Threat. Mission Objectives: Develop proficiency in reduced threat air strike control. Specific Mission Tasks: VFR departure, VR, TACS coordination, weapons systems checks, target plotting and marking, fighter rendezvous, medium to high altitude ASC, encoding and decoding coordinates, battle damage assessment, threat reactions, in-flight reports, use of comm. jam and countermeasures equipment, immediate combat rescue familiarization.

3.4.7.6. ASC-Increased Threat. Mission Objectives: Introduce increased threat, low altitude ASC. Specific Mission Tasks: VFR departure, LATN, VR, TACS coordination, weapons systems checks, target plotting and marking, fighter rendezvous, ASC, battle damage assessment, threat reactions, in-flight reports, use of comm. jam and countermeasures equipment.

3.4.7.7. Night ASC. Mission Objectives: Familiarization with night tactical range procedures and night air strike control. Specific Mission Tasks: Night medium altitude navigation, weapons systems checks, target plotting and marking, night flare drop, aircraft deconfliction, ASC, battle damage assessment, in-flight reports.

3.4.7.8. Mission Evaluation/Certification. This sortie will be flown IAW AFI 11-202V2 (AFI 11-2A/OA-10V2) and local standardization/evaluation criteria on a mission representing the unit's primary airborne forward air control mission tasking.

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

3.4.8.1. 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 (LOWAT) 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.

3.4.8.2. 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 instructor/FL assessment of pilot performance, TR compliance, and judgment. LASDT missions will be supervised by an IP or squadron supervisor who has completed LASDT training.

Table 3.1. LOWAT Categories.

Category	Altitude Block	Upgrade Sorties To Certify
I	1,000-500	1, 2, 3
II	500-300	4, 5, 6
III	300-100	7, 8, 9

NOTE:

For the purposes of LASDT training, USAFE substitutes 250 foot for the listed 300 foot restrictions due to national requirements.

3.4.8.3. 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 Cat I LOWAT qualification from other units. Category I qualification is a minimum requirement for CMR status. Category II training may not be conducted during MQT.

3.4.8.4. Entry into LASDT 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.

3.4.8.5. 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 training are met. LASDT training will not be accomplished 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.

3.4.8.6. Training rules will be IAW AFI 11-214 and AFI 11-2A/OA-10V3. During LASDT, KIO's will include a climb to above 1000 feet AGL.

3.4.8.7. All sorties will be supervised by an IP or squadron supervisor in the element.

3.4.8.8. 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 AFTTPs 3-1 and 3-3. All academic training will be completed prior to flight training/ briefing.

3.4.8.8.1. AHC. 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), 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 clearance 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?"

3.4.8.8.2. 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.

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

3.4.8.8.4. Low Altitude Tactical Navigation (LATN). Discuss system use and dead reckoning, pilotage, INS use/techniques, etc.

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

3.4.8.8.6. 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 de-confliction.

3.4.8.8.7. 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.

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

3.4.8.8.9. Low Altitude Air-to-Air Employment. Discuss level engagements (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-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).

3.4.8.9. Flying Training:

3.4.8.9.1. LASDT-1 (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 (low altitude handling/flying qualities, vertical awareness exercise, climb/dive/slice maneuvers, nose low recoveries, attitude awareness maneuvers); 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; and defensive reactions.

3.4.8.9.2. LASDT-2 (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 (low altitude handling/flying qualities, vertical awareness exercise, climb/dive/slice maneuvers; nose low recoveries; attitude awareness maneuvers; 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; and defensive reactions.

3.4.8.9.3. LASDT-3 (2-Ship). Mission Objectives: Demonstrate proficiency in 2-ship maneuvering in the low altitude environment down to a minimum altitude of 500 feet AGL. Specific Mission Tasks: AHC (low altitude handling/flying qualities, vertical awareness exercise, climb/dive/slice maneuvers, nose low recoveries, attitude awareness maneuvers); 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; and weather route abort. Upon satisfactory completion of this mission, the SQ/CC can certify the pilot to LOWAT Category I.

3.4.8.9.4. LASDT-4 (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 (low altitude handling/flying qualities, vertical awareness exercise, climb/dive/slice maneuvers, nose low recoveries, attitude awareness maneuvers); 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; and defensive reactions.

3.4.8.9.5. LASDT-5 (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 (low altitude handling/flying qualities, vertical awareness exercise, climb/dive/slice maneuvers; nose low recoveries; attitude awareness maneuvers; 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; and defensive reactions.

3.4.8.9.6. LASDT-6 (2-Ship). Mission Objectives: Demonstrate proficiency in 2-ship maneuvering in the low altitude environment down to a minimum altitude of 300 feet AGL. Specific Mission Tasks: AHC (low altitude handling/flying qualities, vertical awareness exer-

cise, climb/dive/slice maneuvers, nose low recoveries, attitude awareness maneuvers); 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; and weather route abort. Upon satisfactory completion of this mission, the SQ/CC can certify the pilot to LOWAT Category II.

3.4.8.9.7. LASDT-7 (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 (low altitude handling/flying qualities, vertical awareness exercise, climb/dive/slice maneuvers, nose low recoveries, attitude awareness maneuvers); 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; and defensive reactions.

3.4.8.9.8. LASDT-8 (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 (low altitude handling/flying qualities, vertical awareness exercise, climb/dive/slice maneuvers; nose low recoveries; attitude awareness maneuvers; 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; and defensive reactions.

3.4.8.9.9. LASDT-9 (2-Ship). Mission Objectives: Demonstrate proficiency in 2-ship maneuvering in the low altitude environment down to a minimum altitude of 100 feet AGL. Specific Mission Tasks: AHC (low altitude handling/flying qualities, vertical awareness exercise, climb/dive/slice maneuvers, nose low recoveries, attitude awareness maneuvers); 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.

3.5. Chemical Warfare. Accomplish IAW AFI 32-4001 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). 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 (ANC: 120 days) from MQT completion. Pilots who achieved ICWT in previous tours in a Fighter/Attack/FAC MDS are not required the ICWT Flight.

3.5.2. Ground Training. All pilots will complete CWT IAW AFI 32-4001 and MAJCOM supplements. The following training will be accomplished prior to 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 flying ensemble.

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

3.5.3. CFT 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. If CFT is not available, perform in the aircraft cockpit.

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 in-flight will be AERPS or mask and 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. Operations will be supervised by a CW qualified FL. Formations are limited to 2-ship and only one pilot in the formation will be in CW gear.

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 AFI 32-4001.

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

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

3.6. AIM-9 Orientation. This section outlines the requirements for initial AIM-9 qualification training (if not previously accomplished in IQT). This program may be conducted with any other upgrade program, commensurate with pilot proficiency. Pilots who have previous experience with the AIM-9 will train in those items that are different in the A/OA-10.

3.6.1. Ground training will consist of:

3.6.1.1. General system description, capabilities, preflight

3.6.1.2. Ground checks

3.6.1.3. Airborne systems checks

3.6.1.4. Employment considerations. Background clutter, aspect, employment envelope, and HUD displays.

3.6.2. Flying training will consist of:

3.6.2.1. Preflight, ground checks.

3.6.2.2. Systems check. From a trail formation at the same airspeed and altitude, practice AIM-9 switchology.

3.6.2.3. Employment Exercise. Starting from a trail formation position, examine the AIM-9 employment envelope while the lead aircraft maneuvers to present various backgrounds to the missile seeker head. Maneuvering will include an examination of inner and outer limits, aspect limits, and line-of-sight crossing rate problems.

3.7. Maverick (EO and IR):

3.7.1. MQT ground training will include instruction that covers types of MAV missiles (EO, IR, or both) at 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.

3.7.2. MQT flying training for EO/IR maverick will consist of the MAV mission outlined in paragraph **3.4.6.6.** (MQT Flying Training).

3.8. Pave Penny:

3.8.1. General. Pave Penny (PP) qualification is normally accomplished during IQT. In cases where it is not, initial PP qualification can be achieved by satisfactorily accomplishing the following PP upgrade program. Once initially qualified, PP qualification is retained with aircraft qualification.

3.8.2. Ground Training. Will consist of a squadron designed program covering, as a minimum, pilot procedures, switchology, symbology, system limitations, and employment considerations.

3.8.3. Flying Training. Consists of one sortie, supervised by an IP or squadron supervisor qualified in the event. Mission Objectives: Practice low/medium altitude basic and tactical PP lock-ons, using laser operational terminology and procedures. Mission Tasks: PP preflight; PP ground BITE Check; Conventional PP box pattern lock ons, using all three operational modes (DIVE, LVL NAR, LVL WIDE) at various altitudes and slant ranges; PP lock ons using laser RT procedures in various SAT-(Day) scenarios.

3.8.4. Pave Penny Categories. Once initially certified in PP, events will be RAP-tasked according to the categories listed below. Individual certification for each category is not required. A higher category event may be logged as a lower category requirement.

3.8.4.1. CAT I. A basic lock on a simulated LASER for target ID using LASER operational terminology and procedures.

3.8.4.2. CAT II. A lock on an actual LASER (from ground or airborne source) using LASER operational terminology and procedures.

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 11-202V2 and AFI 11-2A/OA-10V2. Additionally, they must complete: IQT to fly in BAQ status; MQT or FTU instructor upgrade to fly in BMC or MQT to fly in CMR status.

4.2. Ground Training. Ground training 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 AFI 11-202V2; AFMAN 11-210, *Instrument Refresher Course (IRC) Program*; and MAJCOM supplements.

4.2.3. Life Support. Includes egress, ejection, hanging harness, wet drill, personal survival equipment, pilot chemical warfare ensemble training, and local/deployment survival IAW AFI 11-301 and MAJCOM life support directives.

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

4.2.3.2. Survival, Evasion, Resistance, and Escape (SERE) Code of Conduct Continuation Training (CoCCT). SERE CoCCT will be conducted IAW AFI 36-2209, Survival and Code of Conduct Training, and MAJCOM supplements thereto, AFI 11-301, Life Support Programs. SERE CoCCT will be a coordinated Intelligence, Life Support, and SERE Specialist effort.

4.2.4. Pilot Training Device--Operational Flight Trainer (OFT). N/A.

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. BOLDFACE procedures and squadron special interest items should be emphasized.

4.2.5.1.1. (ACC/USAFE) Incorporate the following elements into squadron SEPT training programs:

4.2.5.1.1.1. (ACC/USAFE) SQ/CC involvement in the selection of a monthly SEPT topic.

4.2.5.1.1.2. (ACC/USAFE) Develop SEPT scenarios using A/OA-10 mishaps/incidents as baseline cases.

4.2.5.1.1.3. (ACC/USAFE) Discuss at least two EPs for each phase of flight during the SEPT session.

4.2.5.1.1.4. (ACC) Thoroughly discuss the Manual Reversion Flight Control System (MRFCS) quarterly. As a minimum, discussion should include systems knowledge, emergency indications, flight envelope, and inadvertent entry into MRFCS flight

4.2.5.2. SEPT training will be accomplished each calendar month or as specified by MAJCOM guidance. 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 if all members participate to the full extent and share equal time responding to emergency situations.

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

4.2.5.5. Completion of a simulator EP profile satisfies the monthly SEPT requirement. For IP/SEFE administering the SEPT/EP Sim will satisfy their SEPT requirement.

4.2.6. Ground training will be IAW **Table 4.1.**. Waiver authority for the ground training is IAW the referenced directive. This list is intended to be a single source reference. Where discrepancies exist, reference directive takes precedence.

Table 4.1. Ground Training.

MOBILITY TRAINING These items required for mobility units or units that generate in place.				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUND-ING**	**AFFECT CMR/BMC**
Chemical Warfare Defense Training--Ground Crew Ensemble (N/A CB and TF coded units)	Initial and Annual	AFPD 32-40, AFI 32-4001, AFI 32-4002	No	No
Handgun Training	Initial and Qualify with Requal every 2 yrs (ANG: Requal every 3 yrs)	AFI 36-2226 (ANG: AFI 36–2226/ANG Sup 1)	No	Yes
ISOPREP Review	Semiannual	AFI 14-105	No	Yes
Intelligence Training	Annual	AFI 11-2A/OA-10V1, AFI 14-105 and AFI 14-105 Sup 1	No	Yes
Anti-Hijacking Training	Biennial	AFI 13-207 (FOUO)	No	No
PILOT TRAINING				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUND-ING**	**AFFECT CMR/BMC**
Physiological Training (Altitude Chamber)	Every 3 or 5 years as applicable	AFI 11-403	Yes	No
Instrument Refresher	PERIODIC	AFMAN 11-210 and AFI 11-202V2, as sup-plemented	No	No
Life Support Training		AFI11-301 as supple-mented		
a. Egress/Ejection Train-ing	180 Days		Yes	No
b. Hanging Harness	180 Days		Yes	No
c. Life Support Equip Training	Annually		No	No
d. Combat Survival Train-ing (CST) (N/A CB, and TF coded units)	2 yrs (ANG: 3 yrs)		No	Yes
e. Water Survival Training	2 yrs (ANG: 3 yrs)		No	No
f. Local area Survival Training	Initial		Yes	No
Initial Chemical Warfare Defense Training—Pilot Ensemble (N/A CB and TF coded units)	Prior to 1st CW Flight	AFI 11-2A/OA-10V1, **Chapter 3**	No	Yes
Annual Chemical Warfare Defense CT Pilot Ensem-ble (N/A CB and TF coded units)	Annually	AFI 11-2A/OA-10V1, **Chapter 4**	No	Yes
Situational Emergency Procedures Training (SEPT)	Monthly	AFI 11-2A/OA-10V1, **Chapter 4**	Yes	No
Verification	18 Months (ARC: 3 Years)	AFI 11-2A/Oa-10V1, **Chapter 4**	No	Yes (no BMC)
Weapons/Tactics Academ-ics	Annual	AFI 11-2A/OA-10V1, **Chapter 4**	No	Yes
Marshaling Exam	Initial and after a PCS	AFI 11-218	No	No
Flying Safety Training	Once per quarter	AFI 91-202	No	No
Supervisor Safety Training	Initial Only	AFI 91-301	No	No

VR Training	Semi-Annually (ARC: Annual)	AFI 11-2A/OA-10, **Chapter 4**	No	No
CRM	24 months	AFI 11-2A/OA-10V1, **Chapter 4**	Yes (waiverable by OG/CC)	No
NVG Academics	Annually	AFI 11-202 V1	No	No
AIR FORCE AWARENESS PROGRAM TRAINING				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUNDING**	**AFFECT CMR/BMC**
Protection of the President and Others	After PCS	AFI 71-101 V2	No	No
US/Russia Prevention of Dangerous Military Activities	Initial/Annual and Pre-deployment	CJCS 2311.01	No	No
Fire Extinguisher	Initial upon PCS	AFOSHSTD 91-56	No	No
Code of Conduct	Biennial	AFI 36-2209	No	No
Law of Armed Conflict	Annual	AFPD 51-4, AFI 51-401	No	No
Substance Abuse Education	After PCS	AFI 44-121	No	No
Military Equal Opportunity Newcomers' Orientation	After PCS	AFI 36-2706	No	No

4.2.7. 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 on the test may be given training credit in lieu of ground CT, where authorized by the governing publication.

4.2.7.1. Academic instructors should be USAF/WS graduates or have attended the applicable academic portion(s) of school, if possible.

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

4.2.7.2.1. Conventional air-to-surface and/or air-to-air weapons (concentrating on UCML), description, operation, parameters, fusing, limitations, preflight, tactics, normal and emergency procedures/techniques.

4.2.7.2.2. ACBT. Principles of aerodynamics, maneuver-ability, AHC, formations, Visual Look-out, RT, and enemy capabilities.

4.2.7.2.3. Electronic combat equipment, capabilities, operation, checks, procedures, AAMD (All -Aspect Missile Defense), and hostile ECM/friendly ECCM tactics.

4.2.7.2.4. Specialized training to support specific weapons, tactics (to include threat VID tactics), mission capabilities, authentication, all levels of ROE, and safe passage.

4.2.7.2.5. Low altitude flying academics review IAW the outline in paragraph **3.4.8.8.**, LASDT Ground Training.

4.2.7.2.6. NVG academic review taught by an NVG qualified IP IAW the academics outline in paragraph 6.5.1 for all NVG qualified pilots.

4.2.8. Verification:

4.2.8.1. 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 will receive credit for continuation verification.

4.2.9. Certification. N/A.

4.2.10. Intelligence. 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:

4.2.10.1. 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 most up-to-date VR training program. Completion of VR training is required IAW local VR directives.

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

4.2.10.3. 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.

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

4.2.10.5. (ACC) Use guidance contained in AFI 14-105 to develop and manage unit intelligence training programs. The OG/CC will determine pilot testing requirements for intelligence and EC training.

4.2.11. Nuclear Surety. N/A.

4.2.12. 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 CJCS 2311.01. The procedures for the Prevention of Dangerous Military Activities between the U.S. and Russia are located in the Flight Information Handbook

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

4.2.14. Anti-G Straining Maneuver assessment IAW paragraph **4.14.**.

4.2.15. Electronic Combat. The objective of EC training is to enhance pilot ability to conduct offensive and defensive operations in an electronic environment.

4.2.15.1. Units will design ground training programs. Academic sessions should be conducted during weapons and tactics training and maximum use of EC-capable PTTs is encouraged.

4.2.15.2. Flying training missions should typically include EC-oriented operations and considerations. Available assets include ground-based threat simulators, unit-equipped ECM pods (configured with training settings), airborne ECCM devices, and dissimilar adversaries. Creation of an electronic environment to stimulate the aircraft electronic and avionics suite is essential to the conduct of realistic EC training. Units must make every effort to maximize effective use of limited assets as well as instill awareness and actions appropriate to the EC environment.

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

4.3.1. Basic Aircraft Qualification (BAQ) Requirements:

4.3.1.1. Qualification Evaluation IAW AFI 11-202V2 (AFI 11-2A/OA-10V2).

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

4.3.1.3. BAQ pilots will fly a supervised sortie with a squadron supervisor or an 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 instructor.

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

4.3.2. Basic Mission Capable (BMC) Requirements:

4.3.2.1. Mission Evaluation IAW AFI 11-202V2 (AFI 11-2A/OA-10V2).

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

4.3.2.3. BMC pilots will accomplish ground training requirements related to applicable RAP sorties/events.

4.3.2.4. Sortie rate (lookback) IAW **Table 1.1.**and paragraph **4.7.1.1.** (N/A RPI-8s.)

4.3.2.5. LASDT Category I certification.

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

4.3.3. Combat Mission Ready (CMR) Requirements:

4.3.3.1. SQ/CC certification.

4.3.3.2. Mission Evaluation IAW AFI 11-202V2 (AFI 11-2A/OA-10V2).

4.3.3.3. Sortie rate (lookback) IAW **Table 1.1.** and paragraph **4.7.1.1.**

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

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

4.3.3.6. LASDT Category I certification.

4.3.3.7. Battalion Air Liaison Officer (BALO) MR requirements IAW AFI 13-102 (tasked pilots). RPI-1 BALOs will maintain CMR status.

4.3.3.8. Ground Training IAW **Table 4.1.**

4.3.4. Special Capabilities/Qualification Requirements:

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

4.3.4.2. Sortie requirements IAW the RAP tasking message.

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

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

4.3.5. Designated Training (TF-Coded)/ Designated Test (CB-Coded) Aircraft Unit Requirements:

4.3.5.1. Pilots assigned/attached to TF or CB coded units will fly at the BMC rate and accomplish the non-RAP BMC requirements as shown on Table 4.2, as applicable. For instructors, failure to accomplish these requirements will not affect instructor status, but will require additional training as determined by the SQ/CC prior to performing instructor duties in the delinquent events.

4.3.5.1.1. (ACC) Pilots assigned/attached to CB-coded units and the 475 WEG need not maintain IP status.

4.3.5.2. Weapons Events. Instructors must be initially qualified in the weapons events they plan to instruct.

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

4.3.5.3.1. (ACC) (For United States Air Force Air Warfare Center (USAFAWC) and United States Air Force Weapons Test Center (USAFWTC) pilots). Night flying and AAR requirements are waived unless required for syllabus requirements or to meet program objectives.

4.3.5.4. Mission/Instructor Evaluation, as applicable, IAW AFI 11-202V2 (AFI 11-2A/OA-10V2).

4.3.5.5. (ACC) Pilots assigned to USAFAWC and USAFWTC only require annual mission ground training as determined by the unit CC.

Table 4.2. Non-RAP Annual Requirements.

REQUIREMENT	BAQ	BMC	CMR	REMARKS
AHC SORTIE	2	2	2	ANG, AFRC – N/A
Instrument Sortie	4	4	4	ANG, AFRC – N/A
AHC/Instrument Sortie	4	4	4	ANG only
Instrument Trail Departure	0	8	8	
Night Sortie	4	4	4	See definition at **Attachment 2**
Penetration	12	12	12	IAW AFM 11-217
Precision Approach	16	16	16	ANG, AFRC - 12
Non-Precision Approach	16	16	16	ANG, AFRC - 12
SSE Approach	6	6	6	
SSE Go-Around	4	4	4	Accomplished above 5,000 feet AGL
No Flap Approach	6	6	6	
Minimum Total Sorties	48	See **Table 1.1.**	See **Table 1.1.**	
CW CFT Sorties	0	1	1	ANG, TF and CB Coded: N/A

4.4. Special Categories:

4.4.1. Flight Surgeon (FS):

4.4.1.1. FS may fly selected missions to enhance understanding of tactical missions with which they are directly associated.

4.4.1.2. FS flying rates and requirements will be IAW AFI 11-202V1 and AFI 11-202V2.

4.4.2. (USAFE - N/A) MAJCOM and NAF RPI-8 Pilots (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. RPI-8 personnel who fly with only one unit may receive this from their attached unit commander.

4.4.2.2. HHQ flying personnel maintaining BMC status are exempt from academic ground training, Night Air-to-Air Refueling (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 and/or 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. (USAFE - N/A) Active Duty Pilots Flying with ANG and AFRC Units:

4.4.3.1. Wing/group air advisor rated personnel on duty with operational training units can maintain CMR and may be qualified as an IP and 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: HQ 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 DO/XO (ANG: HQ ACC XOG). 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: HQ ACC/CG).

4.5.2. Multiple qualification is authorized as follows and do not require a multiple qualification authorized:

4.5.2.1. Pilots and instructor pilots participating in the Companion Trainer Program (CTP) or maintaining tactical aircraft qualification in the applicable companion trainer/chase aircraft. A-10 and OA-10 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 Supervisor Familiarization Flights.)

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

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

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

4.6. Currencies/Recurrencies/Re-qualification:

4.6.1. Currency. **Table 4.3.** defines currency requirements for all A/OA-10 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. Re-currency 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 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, *Flight Delivery of Fighter Aircraft*, for additional currencies required for the flight delivery of aircraft coordinated through MAJCOM/AOS.

4.6.4. Landing/Sortie Recurrency:

4.6.4.1. Loss of landing/sortie currency requires the following action (timing starts from the 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 above, plus instructor supervised CFT (tactics, normal and emergency procedures for CMR pilots; normal, instrument, and emergency procedures for BMC pilots).

4.6.4.1.3. 136-210 Days. Same as 91-135 days above, plus qualification and tactical written examinations and EP evaluation.

4.6.4.1.4. 211 or More Days. IQT, landing recurrency, and appropriate weapons event initial qualification.

4.6.5. Loss of/Re-qualification to Instructor Status. Instructors will be decertified if:

4.6.5.1. They fail a flight check. To regain instructor status, they must successfully complete a flight check IAW AFI 11-202V2. (AFI 11-2A/OA-10V2).

4.6.5.2. They fail a qualification, instrument, or tactical examination. To regain instructor status, the instructor must successfully re-accomplish the written exam.

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

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

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

4.6.6.1. 61-90 Days (91-120 Experienced). BFM-1.

4.6.6.2. 91-180 Days (121-180 Experienced). AHC, and BFM-1.

4.6.6.3. Over 180 Days. Accomplish a tailored program as directed by the SQ/CC.

Table 4.3. A/OA-10 Pilot Currencies.

EVENT	To update fly:	INEXP	EXP	Affects CMR	To regain currency:	NOTES
DEMANDING SORTIE	Sortie	21	30	No	Non-demanding	1
LANDING	Landing	30	45	No	Landing	2
NIGHT LANDING	Day or night Landing	21	30	No	Day landing	
ACBT	ACBT	60	90	Yes	ACBT	3,4
LOW ALT	LOW ALT Event	60	90	No	LOW ALT Event	3,6,8
LOW A/A	LOW A/A Event	60	90	No	LOW A/A Event	3,8,11
WEAPONS DELIVERY	Event	60	90	Yes	Event	3
NIGHT WEAPONS DELIVERY	Day or Night WD	30	60	No	Day Event	
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	7
INSTRUCTOR	Event	N/A	60	No	Event	9
NVG	Event	90	120	No	Event	3,10

Notes:

1. See **Attachment 1** for demanding/non-demanding sortie definitions. In addition, BAQ pilots will fly in a supervised status (with a SQ supervisor or IP) any time a non-demanding sortie is required.

2. Recurrency supervision level is IP chase, qualified and current in event.

3. Supervision will be SQ supervisor or instructor, qualified and current in the event.

4. Performance or instruction will update CT ACBT currency. For formal course IPs: 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 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.

7. Supervision will be on the wing/chase. If day VFR, the supervision level is a pilot, current and qualified in the event; all other times update IAW AFI 11-202V3, *General Flight Rules*, MAJCOM Supplement.

8. 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.

9. 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. WIC student sorties count as instructor sorties for currency.

10. 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.

11. An event defined as performing realistic, mission-oriented air-to-air operations while in a LOWAT certified low altitude block. The event includes skills necessary to search for, and engage offensively or defensively, an aerial target at low altitude.

4.7. Regression:

4.7.1. BMC/CMR Regression for Failure to Meet Lookback. Only RAP training and Contingency Operations sorties may be used for lookback. If a pilot does not meet lookback requirements throughout the training cycle, SQ/CCs can either: regress the pilot to N-CMR/N-BMC level, as applicable; remove the pilot from an 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 status. Failure to meet the 3-month lookback will result in regression to N-CMR/N-BMC as appropriate, or the pilot may be placed in probation status for 1 month at the SQ/CC's discretion. If probation is chosen, the only way to remove a 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/BMC pilots regressed to N-CMR/N-BMC for lookback, must complete a SQ/CC approved re-certification program to return the pilot to CMR/BMC standards. Upon completion of the re-certification program, the CMR/BMC pilots must also meet the subsequent 1-month lookback requirement prior to reclaiming CMR/BMC status. The sorties and events accomplished during the re-certification program may be credited towards their total/type sortie and event requirements for the training cycle as well as for their monthly sortie requirement.

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

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

4.7.2.1. For events tasked as Qual at CMR/BMC: Regression to N-CMR/N-BMC. 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. Events accomplished for this initial qualification may count toward the cumulative CT event qualification required at the end of the next training cycle.

4.7.3. Pilots who fail an aircraft qualification, mission, or instrument evaluation will be handled IAW AFI 11-202V2 (AFI 11-2A/OA-10V2). Pilots will regress to N-CMR/N-BMC as applicable. These pilots will remain N-CMR/N-BMC until successfully completing required corrective action, a re-evaluation, and are re-certified 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 may be prorated. In all cases, report training shortfalls IAW para **1.2.4.5.**

4.8.1. Pilots who fail to meet the 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 who fail 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. Failure to meet to RAP Sortie Type Requirements will result in:

4.8.3.1. Regression to N-CMR/N-BMC if the SQ/CC determines that the sortie type deficiency is significant. To regain CMR/BMC, the pilot will complete all deficient sortie types. These sorties may be counted against the total requirements for the new training cycle.

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

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

4.9. Proration of End-of-Cycle Requirements. At the end of the training cycle, the SQ/CC may prorate all training requirements when DNIF's, emergency leaves, COT leaves, non-flying TDY/exercises (ANG, AFRC: and/or mandatory training required by civilian employment), combat/contingency deployments, preclude training for a portion of the training period. Normal annual leave will not be considered as non-availability. Extended bad weather, which precludes the unit from flying for more than 15 consecutive days maybe considered as non-availability (ANC: Individuals unable to fly during their monthly availability period due to poor weather may prorate a one month's portion of RAP sorties and events). The following guidelines apply:

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

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

4.9.3. If IQT or MQT is re-accomplished, a pilot's training cycle will start over at a prorated share following completion of IQT/MQT training. 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 three months proration from his training cycle (1 month for emergency leave and 2 months for SOS).

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 two months proration from his training cycle (two months for the 73 cumulative days of non-availability for flying).

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

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

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

4.9.8. CMR pilots who attend USAF/WS 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.**).

4.9.9. Contingency Operations. Contingency operations can have a positive or negative impact on a unit's CT program, as emphasis is on supporting the actual contingency. A potential lack of training

opportunities while deployed can place a burden on the unit, forcing it to accomplish the majority of its' CT program in a reduced period of time at home station. The following proration procedures are intended to provide flexibility in accomplishing the unit's CT program.

4.9.9.1. Normally, all sorties flown during contingency operations will be logged as contingency operations sorties. These sorties do not count toward annual RAP requirements, but may be used for lookback purposes. 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. In addition, proration is authorized for the deployment preparation and deployment recovery time where home station flying is reduced by the MAJCOM.

4.9.9.1.1. For ANG and AFRC units, individuals deployed for more than a seven day period may prorate a one-month portion of RAP sorties and events.

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

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

Table 4.4. Proration Allowance.

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
226 – 255	8
256 – 285	9
286 - 315	10
315 - 345	11
Over 345	12

4.10. Regaining CMR/BMC Status:

4.10.1. If CMR/BMC status is lost due to failure to meet the end of cycle weapons qualifications and/or event requirements, re-qualification is IAW paragraph **4.7.**

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

4.10.2.2. **91-180 Days.** Same as above, plus Stan/Eval generated qualification and tactical check written examinations.

4.10.2.3. 181 Days and Beyond. Re-accomplish MQT.

4.11. Example of the Lookback, Regression, Proration, and Re-qualification Process:

4.11.1. Capt Smith is an experienced CMR pilot in ACC with a 1 and 3 month lookback requirement of 8 and 23 RAP sorties respectively. On Feb 3, he flew an ACBT sortie prior to departing for a non-flying TDY staff tour for 2 months. He reported back for flight duty on 6 Apr. What is his status throughout his TDY and on his return?

4.11.1.1. The SQ/CC wanted to list Capt Smith as a countable CMR pilot for reporting purposes throughout the TDY. Therefore, on 1 Mar, his Flt/CC performed the mandatory 1 month lookback (Feb) on Capt Smith. He only flew 1 RAP sortie, failing the 1 month lookback. The Flt/CC then performed a 3 month lookback (Dec, Jan, Feb). This showed that he flew only 20 sorties for this period. Had he flown three more sorties, his SQ/CC could continue Capt Smith at CMR. However, with 20 sorties, Capt Smith did not meet the 3 month lookback for a CMR pilot.

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

4.11.1.3. If he had returned on 22 Mar, and had last landed the jet 48 days ago, he could fly a non-demanding sortie to regain demanding sortie and landing currency. For CMR purposes, Capt Smith would need to fly 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 in order to regain his landing, AAR, LOWAT, and Formation T/O and Landing currencies.

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

4.12. Chemical Warfare Continuation Training:

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

4.12.2. CFT. A CFT 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. If CFT is not available, perform in the aircraft cockpit.

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

4.12.4. CW CT flight requirements are IAW MAJCOM-specific editions. Restrictions include:

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

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

4.12.4.3. ACBT and night AAR are unauthorized.

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

4.12.4.5. Only one pilot in an element will be in CW gear.

4.12.4.6. CW AERPS or mask and filter pack, and gloves are required for CW CT flight credit.

4.12.4.7. 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, *Disaster Preparedness*; AFI 32-4001, *Disaster Preparedness Planning and Operations*; and AFI 11-4002, *Hazardous Material Emergency Planning and Response Program*.

4.12.4.8. A CW CT flight fulfills the annual CW CT CFT requirement.

4.13. Instruments:

4.13.1. An instrument training program will be developed IAW AFM 11-210.

4.13.2. 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.

4.13.3. 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.

4.13.4. 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.

4.14. 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.

4.14.1. The basis of this program is to give each FL, SQ supervisor, flight surgeon and, if available, aerospace physiologist the skills needed to evaluate a flight member's AVTR to ensure a proper 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.

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

4.14.2.1. AGSM technique and assessment will be incorporated into FLUG, IPUG, and the squadron CT program. Emphasis will be placed on briefing, debriefing, and assessing the 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," will be made an integral part of FL and IP upgrade ground training. The video 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.

4.14.2.2. Units will include "AGSM effectiveness" on MQT and "AGSM assessment" on FLUG and IPUG grade sheets. These areas will be evaluated on upgrade sorties where more than five Gs are pulled.

4.14.2.3. The tactical portion of all basic missions (BFM, SA, 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.

4.14.2.4. G-awareness exercises will be filmed in HUD (if so equipped) and in hot mic. G-awareness exercises will be accomplished IAW AFTTP 3-3V3 (formerly MCH 11-A/OA-10V5).

4.14.2.5. During the flight briefing, FLs will emphasize G-awareness when appropriate.

4.14.2.6. 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.

4.14.3. 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.

4.14.4. 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.

4.14.5. The squadron will develop a program to ensure an A/A mission tape for each pilot is reviewed each training cycle by the flight surgeon, aerospace physiologist, and/or (ANG: or) a squadron supervisor. It is highly encouraged that both a flight surgeon and a supervisor participate. The review will be documented.

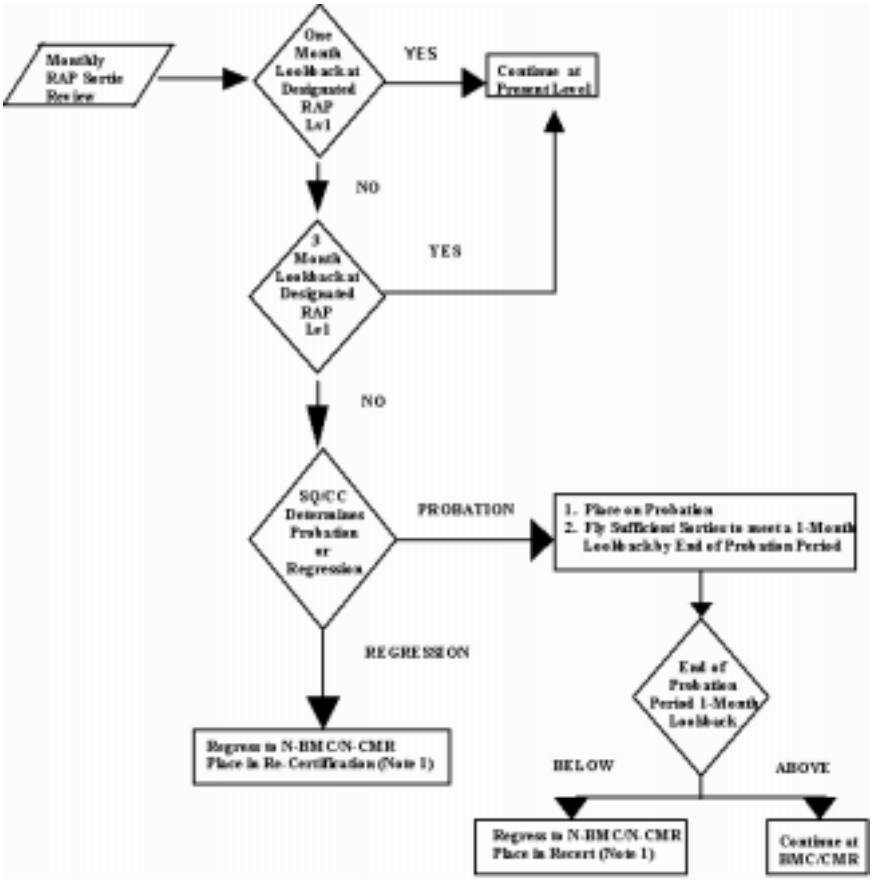
4.15. Low/Slow Speed VID Procedures:

4.15.1. If required for specific tasking, the objective of this low/slow speed VID training is to expose pilots to problems associated with intercepting low/slow flying aircraft (rotary and fixed-wing) for visual identification practice in a threat environment. Emphasis should be placed on dissimilar adversaries below 5,000 feet AGL and 250 KIAS (helicopters are desired). Training will be conducted IAW AFTTP 3-1, AFI 11-2A/OA-10V3, and AFI 11-214.

4.15.1.1. 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.

4.15.1.2. 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 simulate the aircraft 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.

Figure 4.1. Regression Flow Chart.



Note 1. Deleted.

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. 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 A/OA-10.

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

5.2.2. 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.

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

5.2.4. Initial A/A missile employment is achieved by meeting the QUAL criteria for weapons employment IAW AFI 11-202V2 (AFI 11-2A/OA-10V2). Qualification in one missile category is assumed for other missile categories in such cases where only one type of missile was employed.

5.3. CT Qualification. These criteria establish the minimum standards for a pilot to maintain qualification in the appropriate RAP-tasked 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. CT weapons deliveries will be tactical deliveries simulating realistic employment of UCML munitions, considering such factors as fusing, safe separation/escape, recovery using published T.O. 1A-10A-34-1-1 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.

5.3.2. 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.

5.3.3. 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.

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

5.3.4.1. 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.

5.3.4.2. Maverick. If a unit is equipped with both EO and IR mavericks, 24 hits are required and should be equitably divided between types based on unit equipage and expected tasking.

5.3.4.3. AIM-9. Requires a 75% hit rate.

5.4. Failure to Qualify. 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 re-certification until re-qualification is accomplished.

5.5. 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. Pattern descriptions, procedures, training rules, and foul criteria are contained in AFI 11-2A/OA-10V3 and AFI 11-214.

5.5.1. Strafe Events. Aircraft rounds limiter will normally be set to 100 rounds for strafe events (150 for A-10 TTS). A minimum of 50 rounds per strafe event must be set/expended to satisfy RAP strafe requirements. Maximum number of passes for each event is three.

5.5.1.1. Low Angle Strafe (LAS). Dive angle of 15 degrees or less. Foul line is 2,000 feet. Minimum recovery altitude is 75 feet AGL. Hit Criteria: 25 percent (total hits divided by actual rounds fired). Each valid hole or acousticscore count is a hit. If acousticscore is not available, number of hits will be adjusted by percentage of surface area when target size is other than 625 square feet or independently observed impacts (suitable targets) on all three passes.

5.5.1.2. Long Range Strafe (LRS). Dive angle of 15 degrees or less. Foul line is 2,000 feet. Minimum recovery altitude is 75 feet AGL. Open fire range is IAW range restrictions. Cease fire range is 5,000 feet for LASTE delivery; 4000 feet for manual delivery. Hit Criteria: 5 acoustically scored impacts or independently observed impacts (suitable target) on any pass.

5.5.1.3. Two Target Strafe (TTS). Dive angle of 15 degrees or less. Foul line is 2,000 feet. Minimum recovery altitude is 75 feet AGL. Hit Criteria: 4 separate impacts out of a maximum of six total attempts (3 long/3 short) on two targets. Impacts may be acoustically scored or independently observed (suitable targets).

5.5.1.4. 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. Hit Criteria: On any pass, bullet dispersion within 75 feet of point target with independently observed impacts on the target.

5.5.2. Free Fall Ordnance Events:

5.5.2.1. Visual Level Delivery (VLD) 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 run-in/recovery altitude is safe separation/safe escape/fuze arm for ordnance being delivered/simulated, pilot minimum low-altitude qualification, or range/target area restrictions, whichever is higher. Hit Criteria: 125 feet (38m) for LASTE delivery; 250 feet (76m) for manual delivery.

5.5.2.2. 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 LASTE delivery; 105 feet (32m) for manual delivery.

5.5.2.3. 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 800 feet AGL, whichever is higher. Hit Criteria: 100 feet (31m) for LASTE delivery; 175 feet (53m) for manual delivery.

5.5.2.4. 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 1,000 feet AGL, whichever is higher. Hit Criteria: 85 feet (26m) for LASTE delivery; 145 feet (44m) for manual delivery.

5.5.2.5. 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 LASTE delivery; 250 feet (76m) for manual delivery.

5.5.2.6. 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 LASTE delivery; 510 feet (136m) for manual delivery.

5.5.2.7. Low Altitude Toss (LAT). An event using LASTE expanded mode or CCIP for target designation and weapon release. This is a level, pop-up, or diving delivery with less than a 10,000 feet AGL base/apex. Minimum recovery is safe escape for the ordnance being simulated/delivered. Hit Criteria: 175 feet (53m).

5.5.2.8. Medium Altitude Toss (MAT). An event using LASTE expanded mode or CCIP for target designation and weapon release. This is a level or diving delivery with a base altitude greater than 10,000 feet AGL. Minimum recovery is safe escape for the ordnance being simulated/delivered. Hit Criteria: 300 feet (91m).

5.5.3. Precision Guided Munitions Events:

5.5.3.1. 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.

5.5.3.2. IIR Maverick Search. An event using maverick IIR imagery to locate a tactical target and control fighter(s) against it.

5.5.3.3. Laser Guided Bomb. An event using aircraft systems to determine pull up/release point and Pave Penny to confirm actual laser designation on the target. Delivery of ordnance, actual or training, is not required. Minimum recovery is safe escape for the ordnance being simulated/delivered. Hit criteria for all LGB delivery profiles:

5.5.3.3.1. Simulated Delivery. Within T.O. 1A-10-34-1-1 parameters determined by VTR film review and confirmation of laser designation on the target until simulated/actual weapons impact. Delivery must allow a minimum of 8 seconds guidance time (11 seconds time of fall).

5.5.3.3.2. Actual LGB Ordnance. 33 feet (10m)

5.5.4. 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:

5.5.4.1. 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: 75 feet (23m) for LASTE delivery; 100 feet (30m) for manual delivery.

5.5.4.2. High Angle Rocket (HAR). Dive angle of 30 degrees or greater; slant range as required; minimum recovery altitude 1,000 feet AGL. Hit Criteria: 75 feet (23m) for LASTE delivery; 100 feet (30m) for manual delivery

5.5.4.3. Low Altitude Tactical Rocket (LATR). A tactical delivery from a dive angle of 20 degrees or less; slant range at release of 10,000 feet or greater from the target; minimum recovery altitude 1,000 feet AGL. Hit Criteria: 500 feet (152m) for LASTE delivery; 1,000 feet (300m) for manual delivery.

5.5.4.4. High Altitude Tactical Rocket (HATR). A tactical delivery from a slant range at release of 10,000 feet or greater from the target. Minimum recovery altitude is 4,500 feet AGL. Hit Criteria: 250 feet (76m) for LASTE delivery; 500 feet (152m) for manual delivery.

5.5.4.5. High Altitude Release Rocket (HARR). Minimum recovery altitude is 10,000 feet AGL. Hit Criteria: 500 feet (152m) for LASTE delivery; 1000 feet (300m) for manual delivery.

5.5.4.6. Loft Rocket (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: 1,650 feet (500m).

5.5.5. Air-to-Air Weapons Events (AIM-9 and Gun). A hit is IAW AFTTP 3-1 shot criteria, determined by VTR review or actual delivery.

5.6. Full Scale/Live Ordnance: Full Scale/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, pilots should expend the following ordnance (AFI 36-2217):

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

5.6.2. One FSWD sortie with the delivery of one PGM per year.

5.6.3. Deleted.

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

6.2.1. Initial entry may be as a 2-ship/element FL until experience and proficiency warrant further progression, in which case, responsibilities for employment will not exceed two aircraft until certified as a 4-ship FL. The squadron CC will determine when a 2-ship FL may train toward larger, more complex formations (3- or 4-ship, mission commander, etc.). FL training should place appropriate emphasis on 4-ship tactical employment.

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

6.2.2.1. 300 hours PAI, or

6.2.2.2. 400 hours IP/FP/MP in a 11Fxx, 11K3C, or 11K3D AFSC, of which 200 hours are PAI, or

6.2.2.3. 50 hours PAI, if previously qualified as an 11Fxx AFSC flight lead or other US/foreign military equivalent.

6.2.2.4. (ANG: 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).

6.2.3. Ground training will consist of locally developed instruction in the following areas:

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

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

6.2.3.3. 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.

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

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

6.2.3.6. Review of appropriate Joint/MAJCOM Instructions, Air Force Instructions, and local guidance.

6.2.3.7. IFEs and Emergency Diverts.

6.2.4. Flight Training:

6.2.4.1. The program outlined below provides a basic starting point and may be modified by SQ/CCs 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., AAR, etc.). The following guidelines apply:

6.2.4.1.1. Missions may be flown in any order, provided day training precedes night training.

6.2.4.1.2. A certification sortie is required.

6.2.4.1.3. A day and night aerial refueling and two formation takeoffs and landings will be accomplished as a flight lead during the program.

6.2.4.1.4. FLUG-4 should be flown with NVGs if the upgrading pilot is NVG qualified. NVG-4 is not required if FLUG-4 is flown with NVGs.

6.2.4.1.5. All FLUG training will be under the supervision of an IP or flight lead-qualified squadron supervisor.

6.2.4.1.6. Dissimilar adversaries should be used to the maximum extent practical during FLUG ACBT and ASC training.

6.2.4.1.7. A-10 pilots should normally fly FLUG-1, -2, -3, -4, -6, and FLUG-8.

6.2.4.1.8. OA-10 pilots should normally fly FLUG-1, -2, -5, -7, and FLUG-8. FLUG-3 will be accomplished if pilot is not a previous A-10 flight lead.

6.2.4.1.9. FLUG-9 and -10 are only required for 4-ship FL upgrade.

6.2.4.1.10. Failure to complete scheduled training events (e.g., AAR, etc.) need not delay certification. The new flight lead will be restricted from leading un-accomplished events until successfully accomplished in a FLUG status.

6.2.4.2. FLUG Sorties:

6.2.4.2.1. FLUG-1, BFM (1v1). Mission Objectives: Practice leading and controlling an offensive and defensive BFM mission. Specific Mission Tasks: Briefing, weapons system checks, perch setups, formation landing (lead), mission reconstruction and debriefing, AVTR tape review/assessment.

6.2.4.2.2. FLUG-2, BSA. Mission Objectives: Practice leading and controlling 2-ship weapons delivery mission to a controlled range. Specific Mission Tasks: Briefing, formation takeoff, LATN, LATF, controlled range procedures, conventional weapons deliveries, hung ordnance recovery, landing, mission reconstruction and debriefing, AVTR tape review/assessment.

6.2.4.2.3. FLUG-3, CAS. Mission Objectives: Practice leading and controlling 2-ship tactics mission to a tactical range in a reduced threat scenario. Specific Mission Tasks: Briefing, LATN, LATF, tactical ingress/egress, reduced and high threat target area tactics, Maverick tactics, comm./jam procedures, formation landing, debriefing and AVTR tape review/assessment.

6.2.4.2.4. FLUG-4, CAS. Mission Objective: Practice leading and controlling 2-ship tactics mission to a tactical range in a high threat scenario. Specific Mission Tasks: Briefing, LATN, LATF, tactical ingress/egress, reduced and high threat target area tactics, Maverick tactics, comm./jam procedures, formation landing, debriefing and AVTR tape review/assessment.

6.2.4.2.5. FLUG-5, BSA-(NT). Mission Objectives: Practice leading and controlling 2-ship night weapons delivery mission to a controlled range and 2-ship night SAT/ASC (as applicable) to a tactical range/working area. Specific Mission Tasks: Briefing, trail departure, join-up, night range operations, weapons delivery, ingress/egress, reduced threat target area tactics, formation instrument approach, flight split-up.

6.2.4.2.6. FLUG-6, CAS (Element Lead). Mission Objectives: Practice leading and controlling an element as number three of a 4-ship in a tactics mission to a tactical range in a reduced or high threat scenario. Specific Missions Tasks: Trail departure, ingress/egress, 4-ship SAT-(Day), coordinated 2-ship SAT-(Day), simulated live free fall ordnance deliveries, comm./jam procedures, battle damage assessment, in-flight reports, formation landing, AVTR tape review/assessment.

6.2.4.2.7. FLUG-7, ASC. Mission Objectives: Practice air strike control of fighters. Specific Mission Tasks: Mission planning, briefing, ground operations, LATN, lead tactical range/air strike control events, comm. jam procedures, debriefing and AVTR tape review and assessment.

6.2.4.2.8. FLUG-8, Commander's Certification, 2-ship FL. Mission Objectives: Evaluation (by SQ/CC or designated representative) of flight lead abilities in a tactical mission scenario based on unit tasking. Specific Mission Tasks: Briefing; mission accomplishment; flight management and control; mission reconstruction, assessment, and critique.

6.2.4.2.9. FLUG-9, CAS. Mission Objectives: Practice leading and controlling 4-ship tactics mission, to include low altitude tactics while working with a FAC. Specific Mission Tasks: Briefing, LATN, LATF, threat reaction(s) to air and surface threats, element attacks, tactical ingress/egress, mission reconstruction and debriefing, AVTR tape review/assessment.

6.2.4.2.10. FLUG-10, Commander's Certification, 4-Ship FL. Mission Objectives: Evaluation (by SQ/CC or designated representative) of flight lead abilities in a tactical mission scenario based on unit tasking. Specific Mission Tasks: Briefing, mission accomplishment, flight management and control, mission reconstruction, assessment, and critique.

6.2.5. Following successful completion of FLUG-8 and/or -10, the SQ/CC will personally interview the upgrading pilot and review flight lead responsibilities, scope of duties, authority, and philosophy.

6.2.6. The SQ/CC will certify the new flight lead's status, including any restrictions, in appropriate written format (letter, gradesheet, AFORMS, etc.).

6.3. Instructor Pilot (IP) Upgrade. This program establishes the minimum guidelines for those pilots identified by the SQ/CC for 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.

6.3.1. Pilots selected for IP upgrade must be 4-Ship FLs with either:

6.3.1.1. 1000 IP/MP/FP hours time of which 300 hours are A/OA-10 PAI, or

6.3.1.2. 700 IP/MP/FP hours in a 11Fxx AFSC of which 100 hours are A/OA-10 PAI, or

6.3.1.3. 600 IP/MP/FP hours in an 11Fxx AFSC of which 200 hours are A/OA-10 PAI, or

6.3.1.4. 500 IP/MP/FP hours in an 11Fxx AFSC of which 300 hours are A/OA-10 PAI.

6.3.1.5. (ANG: For converting units, pilots may be designated by the OG/CC for IP upgrade regardless of time in the new PAA 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).

NOTE:

OA-10 flying time may be applied toward A-10 time (and vice versa) at the discretion of the OG/CC.

6.3.2. Ground Training. Upgrading pilots must satisfactorily complete the following unit-developed blocks of instruction prior to certification as IPs.

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

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

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

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

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

6.3.2.6. Upgrading Pilot Evaluations. Grading systems and preparation/use of gradesheets.

6.3.3. Flight Training:

6.3.3.1. Training will be conducted according to mission outlines listed below. IPUG programs for pilots with previous fighter instructor experience may be individually tailored, based on experience, currency, and documented performance. IPUG is dual tracked to provide instructor upgrade in either the A-10 or OA-10. The SQ/CC can combine the programs as necessary for dual IP certification. The following guidelines apply:

6.3.3.1.1. IPUG sorties may be flown in any order, as aircraft configurations and sortie scheduling permit.

6.3.3.1.2. Unit programs should specify which tasks the UIP will practice demonstrating, which tasks the UIP will practice evaluating the "student's" performance, and which tasks he will do both.

6.3.3.1.3. AAR may be completed on any mission.

6.3.3.1.4. IPUG-4 and/or IPFAC-4 should be flown with NVGs if the upgrading pilot is NVG qualified. NVG-4 is not required if IPUG-4 and/or IPFAC-4 is flown with NVGs.

6.3.3.1.5. Failure to complete scheduled training events (e.g., AAR, etc.) need not delay certification. The new IP will be restricted from instructing un-accomplished events until successfully accomplished in an IPUG status.

6.3.3.2. A-10 IPUG Missions. UIPs will be current, qualified and experienced in the A-10 prior to beginning upgrade. Pilots currently qualified as an OA-10 IP need not accomplish IPUG-1,-2, and -3.

6.3.3.2.1. IPUG-1, Day Transition. Mission Objectives: Introduce UIP to selected transition/instrument demonstrations, maneuvers, and procedures. Specific Mission Tasks: Briefing, join-up, tanker rendezvous, AAR, basic and tactical formation, pitchouts and rejoins. Perform confidence maneuvers, aircraft handling maneuvers (to include manual reversion), aerobatics, instrument approach, VFR pattern, full stop landing.

6.3.3.2.2. **IPUG-2, BFM. Mission Objectives:** Introduce UIP to instructing offensive and defensive BFM. **Specific Mission Tasks:** Briefing , formation takeoff, enroute formations, weapons system checks, offensive and defensive BFM, recovery, chase in traffic pattern and landing.

6.3.3.2.3. IPUG-3, BSA. Mission Objectives: Introduce UIP to instructing in surface attack missions on a controlled range. Specific Mission Tasks: Briefing, LATN, LATF, conventional deliveries using basic and tactical patterns, basic Maverick, recovery, and landing.

6.3.3.2.4. IPUG-4, Night Transition/BSA-(NT). Mission Objectives: Introduce UIP to instructing night transition and controlling night range operations. Specific Mission Tasks: Briefing, trail departure, join-up, night formation, tanker rendezvous, NAAR, night weapons delivery, rejoin, formation approach.

6.3.3.2.5. IPUG-5, Reduced Threat CAS. Mission Objectives: Introduce UIP to instructing and controlling reduced threat tactics mission. Specific Mission Tasks: Briefing, LATN, low and medium threat deliveries, Maverick, threat reactions.

6.3.3.2.6. IPUG-6, High Threat CAS. Mission Objectives: Introduce UIP to instructing and controlling a tactics mission in a high threat environment. Specific Mission Tasks: Briefing, LATN, LATF, tactical entry to unmanned range, Maverick, formation attacks, tactical ingress/egress, EC procedures, threat reactions.

6.3.3.2.7. IPUG-7, IP Flight Evaluation IAW AFI 11-202V2 (AFI 11-2A/OA-10V2). The UIP will demonstrate proficiency in briefing, executing, and debriefing a typical MQT or CT sortie.

6.3.3.3. OA-10 IPUG Missions. UIPs will be current, qualified and experienced in the OA-10 prior to beginning upgrade. Pilots not currently qualified as an A-10 IP must also accomplish IPUG-1, -2, -3, and -5 in addition to the mission outlines listed below.

6.3.3.3.1. IPFAC-1, ASC. Mission Objectives: Introduce UIP to instructing low-to-medium threat ASC, FAC(A) tactics, 1:50 map reading and VR. Specific Mission Tasks: Briefing, single ship takeoff, VFR departure, LATN, TACS coordination, fighter rendezvous, ASC, encoding and decoding threat, target and friendly position coordinates, target plotting and marking, low-to-medium threat tactics, battle damage assessment, in-flight instruction, debriefing.

6.3.3.3.2. IPFAC-2, ASC. Mission Objectives: Introduce UIP to instructing high threat, low altitude ASC and FAC(A) tactics. Specific Mission Tasks: Briefing, VFR departure, LATN, TACS coordination, fighter rendezvous, ASC, encoding and decoding, target plotting and marking, high threat tactics, BDA, in-flight instruction, debriefing.

6.3.3.3.3. IPFAC-3, CAS. Mission Objectives: Introduce UIP to instructing and controlling a tactics mission in a reduced and high threat environment. Specific Mission Tasks: Briefing, LATN/LATF, tactical ingress/egress, reduced and high threat tactics and weapons deliveries. The intent of this mission is to prepare OA-10 UIPs to instruct 2-ship fighter support missions in support of other FAC(A) training. This mission is not required for pilots who are currently qualified as an A-10 IP.

6.3.3.3.4. IPFAC-4, Night ASC. Mission Objectives: Introduce UIP to instructing night tactical range procedures and NASC procedures. Specific Mission Tasks: Briefing, night navigation, weapons systems checks, target plotting and marking, night flare drop, aircraft deconfliction, NASC, BDA, in-flight reports, debriefing.

6.3.3.3.5. IPFAC-5, IP Upgrade Flight Evaluation IAW AFI 11-202V2 (AFI 11-2A/OA-10V2). The UIP will demonstrate proficiency in briefing, executing, and debriefing a typical MQT or CT sortie.

6.3.4. The SQ/CC will certify the new IP's status, including any restrictions, in appropriate written format (letter, gradesheet, AFORMS, etc.).

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

6.4.1. Responsibilities:

6.4.1.1. 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.

6.4.1.2. 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.

6.4.2. MCC Prerequisites. Squadron commanders will consider ability, judgment, technical expertise, skill, and experience when selecting pilots for mission commander upgrade. Minimum qualifications are 4-ship FL.

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

6.4.3.1. Mission Planning Considerations. Range space and availability, ATC restrictions/considerations/flight plans, air refueling operations, inter-unit coordination, air-to-air and air-to-surface force integration, IADS penetration/avoidance, on-range controlling agencies coordination, GCI coordination.

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

6.4.4. 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. Unit tasking should drive force composition, adversaries, and minimum flight size. The MCC will determine overall upgrade mission effectiveness in case of fallout.

6.4.5. 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 the Letter of Xs.

6.5. Night Vision Goggle (NVG) Qualification:

6.5.1. Academic Training:

6.5.1.1. FTU students will normally receive initial NVG academics, to include the terrain board, at the FTU. Initial academic training for operational pilots may be accomplished at either the FTU or locally at the unit. Units will designate highly experienced NVG IPs to conduct local academic training, and will use MAJCOM approved courseware (AFRC: NVG academic instructors must have completed AFRL NVG academic instructor training). For local academics, NVG instructional videos will be used to demonstrate NVG visual illusions in place of the terrain board.

6.5.1.2. Initial academic training will include instruction on the human visual system, night vision devices, the NVG environment, misperceptions and illusions, night operations, NVG adjustment and assessment, and A/OA-10 specific NVG considerations.

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

6.5.2. **Device Training.** One supervised Cockpit Familiarization Trainer (CFT) or Unit Training Device (UTD) will be accomplished within 60 days prior to NVG-1. As a minimum, the CFT/UTD will cover: cockpit and lighting set-up, donning/doffing and stowing procedures, systems operation, in-flight and weapons systems checks, HUD/instrument cross-check, in-flight scan techniques, battery change / battery failure procedures, emergency procedures, and ejection considerations.

6.5.3. **Flight Training:** One non-NVG night sortie will be flown within 30/45 (Inexp/Exp) days prior to NVG-1. NVG mission planning, eye lane procedures, donning/doffing and stowage procedures, cockpit lighting setup, and instrument cross-check will be briefed on all upgrade missions. Medium altitude navigation and map interpretation should be accomplished on all upgrade sorties. All upgrade sorties will be flown under the supervision of an NVG IP with both the UP and IP wearing night vision goggles. The only upgrade training that may be accomplished in conjunction with this syllabus is FL, IP, or AFAC training for NVG qualified pilots entering FLUG, IPUG, FAC(A) or IPFAC.

6.5.3.1. After completion of NVG-1 and 2, pilots are authorized to fly NVG familiarization sorties/events and basic weapons delivery sorties/events. Events are limited to non-tactical events such as those flown on NVG-1 and -2. Sorties may be flown in MOA's, class A/B/C ranges, or in other airspace suitable for the event being flown. Actual weapons deliveries will be accomplished on class A controlled ranges to the maximum extent possible. NVG-1 upgrade sorties may count

towards the RAP air-to-surface night sortie requirement for upgrading pilots. Suggested profiles are listed below:

6.5.3.1.1. **NVG-1, Transition. Mission Objectives:** Introduce flight with NVGs**. Specific Mission Tasks:** Route/tactical formation, aircraft lighting demo, pitchouts and rejoins, transition to instruments exercise, lost wingman exercise, and illumination level (high/low) assessment techniques. **Note:** The transition to instruments exercise is intended to prepare pilots to transition to instruments in the event outside visual references are lost. It will not be an "unusual attitude" recovery exercise. The transition to instruments exercise will be flown with the IP in the chase position.

NOTE:

Deleted.

6.5.3.1.2. **NVG-2, BSA. Mission Objectives:** Introduce basic/conventional night weapons delivery with NVGs. **Specific Mission Tasks:** Illumination level assessment, target identification, LUU-2 flare employment (desired), conventional weapons deliveries, and basic TGM-65 employment. Weapons delivery will normally include LALD, DB, HADB, HARX, and HAS. As a minimum, one bomb or RX event and HAS must be accomplished. Weapons delivery will be accomplished on a class A controlled range to the maximum extent possible.

6.5.3.2. Pilots must have at least five sorties on NVGs prior to NVG-3. NVG tactical qualification occurs after completion of NVG-3. Flight leads are not authorized to lead tactical NVG sorties until completion of NVG-4. IPs must complete NVG-4 and have at least ten sorties on NVGs (fight/tank/fight sorties count as one), of which a minimum of 5 must be tactical NVG sorties, prior to being certified as NVG IPs. Pilots who are currently flight leads or IPs may lead/instruct NVG-3, and not fly NVG-4, at the discretion of the SQ/CC. NVG qualified pilots are authorized to fly tactical NVG sorties/events.

6.5.3.2.1. **NVG-3, CAS or ASC. Mission Objectives:** Introduce reduced threat CAS or ASC scenario with NVGs. **Specific Mission Tasks (as appropriate):** Illumination level assessment, ASC coordination, fighter/FAC rendezvous/deconfliction, plot target locations, IR TGM-65 target search, target identification, target marking, fighter control, medium altitude attacks, and self protection chaff/flare (desired).

6.5.3.2.2. **NVG-4: CAS or ASC (N/A for wingmen) Mission Objectives:** Lead/instruct (as appropriate) a reduced threat CAS or ASC scenario with NVGs. **Specific mission tasks:** Repeat NVG-3 tasks.

6.5.3.3. **Breaks in training.** In the event an upgrading pilot experiences an extended period (in excess of 14 calendar days) without flying with NVGs, the SQ/CC may authorize an additional training sortie prior to the next upgrade sortie. For breaks between NVG-1 and 2, repeat the previous sortie under the supervision of an NVG IP.

6.5.3.4. NVG qualified pilots entered in the FLUG, IPUG, or IPFAC upgrade are not required to fly NVG-4 in addition to the night FLUG, IPUG, or IPFAC upgrades sorties as long as these sorties are flown with NVGs. IAW paragraph 3.1.5., NVG-3 may be flown as an ASC mission and be substituted for ASC-(NT) if the upgrading pilot meets the requirements for NVG-3.

6.6. Combat Search and Rescue (CSAR). This section outlines the minimum requirements to upgrade pilots for CSAR operations. CSAR qualified pilots are trained 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. CSAR upgrade training is extremely demanding and will be accomplished under the supervision of a Sandy 1 qualified IP. Squadron commanders should select only the most qualified pilots for CSAR Upgrade training. FAC experience is highly desirable. Helicopters are mandatory for CSAR-1, CSAR-2, and either CSAR-5 or CSAR-6 as a minimum. CSAR-3 may be waived for qualified FAC(A)s.

6.6.1. Initial academic training will include the following:

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

6.6.1.2. Search Patterns and Procedures. Electronic and visual.

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

6.6.1.4. ASC Procedures. Target identification, ordnance selection, pre-strike preparation, target marking, strike control procedures, and bomb damage assessment.

6.6.2. Initial flying training. SQ/CCs will specify refresher training for previously qualified CSAR pilots, based on the pilot's 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 or CSAR-2 and either CSAR-5 or CSAR-6.

6.6.2.1. **CSAR-1 (2 to 4 aircraft, helicopter, ground personnel). Prerequisite:** CSAR academic training. **Mission Objective:** Introduce search techniques, route reconnaissance and helicopter escort. **Specific Mission Tasks:** IP introduces search procedures, route reconnaissance and helicopter escort. Ground personnel will demo ground marking techniques. If ground personnel are unavailable, associated tasks may be accomplished on CSAR-2

6.6.2.2. **CSAR-2 (2 to 4 aircraft; and helicopter). Prerequisite:** CSAR-1. **Mission Objectives:** Introduce coordination procedures, leading RESCORT and route reconnaissance. Review search techniques and helicopter escort if assets are available. **Specific Mission Tasks:** IP demonstrates coordination procedures that SANDY 3 may need to accomplish. Practice helicopter escort and route reconnaissance.

6.6.2.3. **CSAR-3 (2 to 4 aircraft, helicopter desired). Prerequisite:** CSAR-1. **Mission Objective:** Introduce ASC concepts and control suppression phase. **Specific Mission Tasks:** IP demonstrates ASC techniques and controls suppression strike. Upgrading pilot controls suppression strikes. Practice search techniques and coordination procedures. Emphasis on this sortie should be placed on ASC procedures. This sortie may be waived for qualified FAC(A)s.

6.6.2.4. **CSAR-4 (2 to 4 aircraft, helicopter desired). Prerequisite:** CSAR-3. **Mission Objective:** Demonstrate skills necessary to act as a CSAR Wingman (SANDY 2). **Specific Mission Tasks:** Coordination and control of SAR assets as required by SANDY 1. Practice search techniques. Control strike assets during the suppression phase. Assume On Scene Command if required.

6.6.2.5. **CSAR-5 (2 to 4 aircraft, helicopter, ground personnel). Prerequisite:** CSAR-4. **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.

6.6.2.6. **CSAR-6 (2 to 4 aircraft, helicopter, ground personnel). Prerequisite:** CSAR-5. **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. Opposition may include an air threat, ground threat, and/or ground threat to the survivor.

6.6.3. Upon completion of CSAR-1, a pilot may fly RESCORT as a SANDY 4 wingman. CSAR-2 allows a pilot to assume SANDY 3 duties. CSAR-3 and 4 qualifies a pilot to fly as a SANDY 2. Upon completion of CSAR-5 and CSAR-6 flight leads may lead CSAR missions as a SANDY 1. Either CSAR-5 or CSAR-6 should be briefed and flown as a 4-ship before pilots lead multi-ship CSAR missions. Elements and in some cases the sortie requirements may be accomplished with part task training outside of a CSAR scenario.

6.7. Joint Air Attack Team (JAAT):

6.7.1. Pilots will receive JAAT academics no more than 60 days prior to accomplishing the first JAAT sortie. The phase brief should include a review of lessons learned and any special operating instructions.

6.7.2. Pilots will fly their initial JAAT sortie with a JAAT qualified pilot.

6.8. Anti-Helicopter Upgrade Training Program:

6.8.1. The anti-helicopter training program qualifies CMR/BMC pilots to fly anti-helicopter sorties. Upon completion of the anti-helicopter upgrade training program and demonstrated proficiency, the SQ/CC may certify the upgrading pilot to fly anti-helicopter sorties down to 300 feet AGL or the pilot's LASDT certified block, whichever is higher. Anti-helicopter ACBT training rules can be found in AFI 11-214.

6.8.2. Ground Training. Ground training will include academics covering the helicopter threat, VID, aircraft handling (including low altitude flying), AIM- 9/LASTE employment, anti-helicopter tactics and techniques, and training rules.

6.8.3. **Flying Training.** Flying training consists of two sorties flown in sequence and is supervised by an anti-helicopter qualified IP or squadron supervisor. Upgrading pilots must complete all of the mission tasks in order to be certified to fly anti-helicopter sorties, regardless of the number of sorties required to perform all of the tasks. Pilot must be current in ACBT and LOW A/A.

6.8.3.1. **BFM-H, 1v1 Helicopter. Mission Objectives:** Practice proper switchology, weapons selection, and employment techniques to kill a slow speed target. Practice single ship BFM necessary to defend against and kill adversary threat helicopters. **Specific Mission Tasks: Weapons Orientation Tasks, 1 v 1:** Systems checks, switchology practice, demonstration of AIM-9 employment envelope at various closure velocities and aspect angles, and simulated gun employment with the LASTE HUD against slow speed target. Proficiency in proper switchology and

weapons selection must be demonstrated above 5,000 feet AGL prior to progressing to low altitude. **BFM Tasks, 1 v 1 Helicopter (upgrading pilot must demonstrate proficiency in weapons orientation tasks prior to progressing to BFM tasks):** Ranging exercises, aspect and angle off determination, maneuvering to gain and maintain the advantage, weapons selection and employment, defensive maneuvers, flare and ECM usage, re-attacks and separations. Proficiency will be demonstrated above 1000 feet AGL prior to progressing to lower altitudes.

6.8.3.2. **ACM-H, 2 v 1 Helicopter. Mission Objectives:** Develop a solid foundation in formation maneuvering against a slow speed target. Practice formation maneuvering necessary to defend against and kill adversary threat helicopters. **Specific Mission Tasks:** Visual search techniques, element coordination/radio calls, threat recognition and formation defensive maneuvering, flare and ECM usage, formation maneuvering to gain and maintain the advantage, weapons selection and employment while maintaining mutual support, re-attacks, and element separation techniques appropriate to a helicopter threat. Proficiency will be demonstrated above 1,000 feet AGL prior to progressing to lower altitudes.

6.8.3.3. Deleted.

6.8.3.4. Deleted.

6.9. 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, 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.

6.9.1. 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.

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

6.9.2.1. Academics. Units will brief exercise 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.

6.9.2.2. 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 naval vessels.

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

6.9.4. 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

DODD 5500-7, *Standards of Conduct*

AFI 10-704, *Military Deception Program*

AFPD 11-2, *Aircraft Rules and Procedures*

AFI 11-202V1, *Aircrew Training*

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

AFI 11-202V3, *General Flight Rules*

AFI 11-2A/OA-10V1, *A/OA-10--Aircrew Training*

AFI 11-2A/OA-10V2, *A/OA-10--Aircrew Evaluation Criteria*

AFI 11-2A/OA-10V3, *A/OA-10--Operations Procedures*

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

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

AFMAN 11-217V1, *Instrument Flight Procedures*

AFPD 11-4, *Aviation Service*

AFI 11-301, *Aircrew Life Support Program*

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*

AFI 13-212V1, *Weapons Ranges*

AFI 13-212V2, *Weapons Range Management*

AFI 13-212V3, *Hazard Methodology and Weapon Safety Footprints*

AFI 14-105 (w/MAJCOM Sup), *Unit Intelligence Mission and Responsibilities*

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

AFI 32-4001, *Disaster Preparedness Planning and Operations*

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

AFI 36-2201, *Developing, Managing, and Conducting Training*

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

AFPAM 36-2211, *Guide for Management of Air Force Training Systems*

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

AFCAT 36-2223, *USAF Formal Schools*

AFI 36-2226, *Combat Arms Training and Maintenance (CATM) Program*

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

AFI 36-2701, *Social Actions Program*

AFMAN 37-139, *Records Disposition Schedule*

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

AFI 71-101V2, *Criminal Investigations, Counterintelligence, and Protective Service Matters*

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

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

AFTTP 3-1, *Mission Employment Tactics*

AFTTP 3-3, *Combat Aircraft Fundamentals*

MAJCOM 11-301, *MAJCOM Aircrew Life Support Program*

ACCI 11-464 (formerly ACCR 50-31), *Training Records and Performance Evaluation in Formal Flying Training Programs*

Abbreviations and Acronyms

A/A—Air-to-Air

A/S—Air-to-Surface

AAR—Air/Air Refueling

AAW—Anti-Air Warfare (US Navy)

AB—Afterburner

ACBT—Air Combat Training

ACC—Air Combat Command

ACM—Air Combat Maneuvering

ACMI—Air Combat Maneuvering Instrumentation

ACT—Air Combat Tactics

ADA—Air Defense Alert, Air Defense Asset

ADL—Aircraft Data Link

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

BALO—Brigade Air Liason Officer

BAQ—Basic Aircraft Qualification

BDA—Battle Damage Assessment

BFM—Basic Fighter Maneuvers/Maneuvering

BMC—Basic Mission Capable

BSA—Basic Surface Attack

BSA-NT—Basic Surface Attack-Night

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

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—Multi-Tactics Trainer

MW—Mission WSO

N/A—Not Applicable

NAAR—Night Air Refueling

NAF—Numbered Air Force

NAV—Navigation

NCO—Noncommissioned 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

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-NT—Surface Attck 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, 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

USAFR—United States Air Force Reserve

USAFWS—United States Air Force Weapons School

USAFAWC—United States Air Force Air Warfare Center

USAFWTC—United States Air Force Weapons Test Center

USI—Upgrading Simulator Instructor

UTD—Unit Training Device

UTE—Utilization Rate

VID—Visual Identification

VFR—Visual Flight Rules

VLD—Visual Level Delivery

VMC—Visual Meteorological Conditions

VR—Visual Recognition

VRD—Vision Restricting Device

VTR—Video Tape Recorder

WD—Weapons Delivery

WDL—Weapon Data Link

WG—Wing

WIC—Weapons Instructor Course

WSEP—Weapons System Evaluation Program

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 (AFI 11-214).

Basic Aircraft Qualification (BAQ)—Refer to paragraph **4.3.**

Basic Mission Capable (BMC)—Refer to paragraphs **1.4.** and **4.3.**

Certification—The process of certifying pilot 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).

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).

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

Combat Mission Ready (CMR)—Refer to paragraphs **1.4.** and **4.3.**

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

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.

Dissimilar ACBT (DACBT)—ACBT in conjunction with another MDS aircraft as adversary. The connotation (D)ACBT refers to either similar or dissimilar ACBT. These connotations correspond to all

facets of ACBT (i.e., BFM, ACM, ACT).

Emergency Procedures Evaluation (EPE)—An evaluation of a pilots knowledge and responsiveness to critical and non-critical EPs conducted by a SEFE in an OFT, CPT, CFT 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 is considered fighter time. An experienced pilot has: 500 hrs PAI, or 1,000 hrs (FP/IP/MP), of which 300 are PAI, or 600 fighter hrs, of which 200 hrs are PAI, or previously fighter EXPERIENCED and 100 hrs PAI.

Flight Lead (FL)—As designated on flight orders, the individual responsible for overall conduct of mission from preflight preparation/briefing to post-flight 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 (FMT)—An F-15 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).

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

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

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

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 AFTTP 3-1.

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

Low Altitude Training (LOWAT)—Operations in a certified low altitude block as defined in **Table 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 or defensively, an aerial target at low altitude. LOW ALT events include low altitude navigation, tactical formation, defensive maneuvering to avoid or negate threats, and air-to-surface attacks.

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

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

Low 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 (AFI 11-214).

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.

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).

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.

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 AFTTP 3-1.

Unit Training Device (UTD)—A unit level 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).

Verification—Applies to procedure aimed at verifying and refreshing pilots 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 pilot knowledge. Continuation training is to reinforce, refresh, and update pilots 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 (WTT)—A part task training device used primarily for warfighting tasks, and skill integration training (see AFP 50-11).

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). 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 (AFI 11-214).

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). Building block sorties. BFM (1v1) 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 (2v1) Training 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 (AFI 11-214).

A2.1.5. Basic Surface Attack (Day) [BSA-{Day}]. 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}]. 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). Air action by fixed- and rotary-wing aircraft against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces.

A2.1.8. Collateral Sorties. Sorties not directly related to combat employment or basic skills training but necessary for accomplishment of unit training programs, such as ferry flights, deployments, 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). A specific task performed by rescue forces to effect the recovery of distressed personnel during war or military operations other than war. 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, positive control of ground attack fighters employing simulated or actual ordinance against designated threats to survivor, identification and neutralization of ingress and egress route enemy air defenses, rescue force protection (including rendezvous, escort, and hover cover), 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. Demanding Sortie. Sorties that task the pilot to the extent that flying frequency and continuity are most critical. Authorized sorties/events requiring demanding mission currency are: BFM (except for F-15 units), (D)ACM, (D)ACT, LOWAT (below 1,000 feet AGL), CAS, SAT (except dry level passes at or above 500 feet), CFTR, JFT, night missions, instructor duties, JAAT, aerial demonstrations, etc. SQ/CCs may add sorties/events to the demanding sortie list, depending on unit tasking and the individual's capabilities. Also see non-Demanding Sortie.

A2.1.13. Forward Air Control (Airborne) [FAC(A)]. Special capability sortie. Sortie flown to provide 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.

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

A2.1.15. Instructor Pilot (IP) Sortie. Special qualification sortie. Sortie where IP acted in the capacity of an instructor on a building block MQT sortie (BSA, BFM) IPUG sortie, or on any sortie where IP duties preclude effective combat mission training. May not be dual-logged with RAP sorties.

A2.1.16. Instrument Sortie. Basic skills sortie. Training designed to ensure instrument proficiency. RAP events may be accomplished on an instrument sortie provided accomplishment does not interfere with the primary goal of instrument training. Units are allocated sorties for every pilot to accomplish their minimum basic skill, Non-RAP, requirements.

A2.1.17. Maverick Sortie. Training designed to achieve proficiency in the employment of the Maverick. Includes tactical mission planning, execution, and simulated/actual weapons delivery.

A2.1.18. Mission Commander (MCC) Sortie. Special qualification sortie. Sortie where a pilot acts 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.

A2.1.19. 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.

A2.1.20. Non-demanding Sortie. A day sortie that provides the pilot with the opportunity to regain basic flying proficiency without excessively tasking those skills that have been under used during the non-flying period. Authorized events flown on a non-demanding sortie are: instruments, AHC, low level navigation at or above 500 feet AGL, basic weapons delivery, basic intercepts, etc. SQ/CCs may delete sorties/events from this non-demanding sortie list, depending on unit tasking and the individual's capabilities.

A2.1.21. Surface Attack Tactics (Day) [SAT-{Day}]. Mission sortie designed to develop proficiency in day Surface Attack Tactics (SAT). Mission elements include: mission planning, execution with actual or simulated threats, and weapons delivery IAW unit taskings, simulating UCML munitions, and SCLs against a tactical target during the day. Simulated attacks may be conducted against realistic targets IAW local restrictions. 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).

A2.1.22. Surface Attack Tactics (Night) [SAT-{NT}]. Mission sortie designed to develop proficiency in night Surface Attack Tactics (SAT). Mission elements include: mission planning, execution with actual or simulated threats, and weapons delivery IAW unit taskings, simulating UCML munitions, and SCLs against a tactical target during the night. Simulated attacks may be conducted against realistic targets IAW local restrictions. 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).

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

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

A2.2.2. Expending 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.

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

A2.3. Weapons Delivery Events:

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

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

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

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

A2.3.2.1. Record Keeping:

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

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

A2.3.2.1.2.1. Basic. Must be scored on a Class A range (IAW AFI 13-212, Volumes 1, 2, and 3).

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

A2.3.2.1.2.3. Strafe. Aircraft rounds limiter will normally be set to 100 rounds for LAS, LRS, HAS (150 rounds for TTS) strafe events. A minimum of 50 rounds per strafe event must be set/expended to satisfy RAP strafe requirements.

A2.3.2.1.2.4. 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.

A2.3.2.1.2.5. Maverick. May be scored by AVTR or TGM missile-mounted camera.

A2.3.2.2. RAP Tasking:

A2.3.2.2.1. FAM. Weapons events tasked at FAM may be basic/tactical record deliveries. Each single hot 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 6-month cycle.

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

A2.3.3. Miscellaneous Weapons Delivery Definitions to be Considered for Event Descriptions:

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

A2.3.3.2. Foul. A penalty directed to a specific aircraft and pilot for actions inconsistent with established procedures or safety considerations. A foul will result in a gross error for that delivery (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.

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

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

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

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

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

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

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

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

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

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

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

A2.4.1. ACMI Event. An event which utilizes an ACMI range/facilities for flight and debrief. Only one event may be logged per sortie.

A2.4.2. 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.

A2.4.3. 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.

A2.4.4. Comm. Jam Event. In-flight 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.

A2.4.5. Composite Force Training (CFTR). Scenarios employing multiple flights of the same or different types of aircraft, each under the direction of its own flight leader, performing the same or different roles. Only one event may be logged per sortie (exception: if an AAR separates events, a maximum of two events may be logged per sortie (AFI 11-214).

A2.4.6. 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% 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.

A2.4.7. 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.

A2.4.8. EC Event A/A. The pilot 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.

A2.4.9. EC Event A/G. The pilot 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.

A2.4.10. 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).

A2.4.11. 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.

A2.4.12. HAVE QUICK Event. The practice of loading the combat or MAJCOM HAVE QUICK training net WOD, world-wide TOD. Requires proper radio configuration for HAVE QUICK operation and successful utilization during tactical mission accomplishment. During extended missions, the TOD should be updated from a world-wide master clock if available. Only one event may be logged per sortie.

A2.4.13. Instructor Event. An event logged by an instructor when performing instructor duties during the sortie, or a portion thereof. The instructor qualification must be required and used for the mission itself or a mission element. Examples include upgrade sorties, updating lost currencies, etc. Evaluators will log this event on evaluation sorties. Logging this event updates instructor currency.

A2.4.14. 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).

A2.4.15. Joint Maritime Operations (AIR) [{JMO AIR}] Event. 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 AFTTP 3-1, AFTTP 3-3V3 (formerly MCH 11-A/OA-10V5), 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. Common problems identified in joint exercises are associated with command, control, and communication. 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.

A2.4.15.1. A JMO (AIR) training event may be logged when the mission is flown in a maritime environment and: when the mission is flown in conjunction with Navy/Marine forces or, when the mission is under Navy/Marine command and control. The maritime environment includes the oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these.

A2.4.15.2. DACT against Navy/Marine aircraft will be considered JMO (AIR) training when flown in a maritime environment and: If the Navy is controlling 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/package commander responsibilities.

A2.4.15.3. A JMO (AIR) training event may be logged when participating with (not against) Navy/Marine aircraft in Strike University exercises at Fallon NAS.

A2.4.15.4. JMO (AIR) considerations should be included in unit tactics and intelligence training programs that emphasize the inherent differences and peculiar problems associated with combat operations in the maritime environment (i.e., command, control, and communications, target detection, location, and identification, political and territorial considerations, electronic warfare, weaponeering, force requirements, and attack tactics and options).

A2.4.16. Killer Scout Event. The accomplishment of Killer Scout operations, controlling a minimum of two independent attacks as a Killer Scout, either on or off range with actual or simulated ordnance, to include BDA. Only one event may be logged per sortie (**EXCEPTION:** If an AAR separates events, a maximum of two events may be logged per sortie).

A2.4.17. 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 or defensively, an aerial target at low altitude. Only one event may be logged per sortie (**EXCEPTION:** If an AAR separates events, a maximum of 2 events may be logged per sortie) (AFI 11-214).

A2.4.18. 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).

A2.4.19. Low Altitude Intercept (LAI). An intercept conducted below 5,000 feet AGL. Only one event may be logged per target.

A2.4.20. Low Altitude Tactical Formation (LATF). Flying tactical formation while conducting LATN training. Only two events may be logged per sortie (AFI 11-214).

A2.4.21. 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).

A2.4.22. 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.

A2.4.23. Maverick Event. Event designed to achieve proficiency in the employment of the Maverick. Includes tactical mission planning, execution, and simulated/actual weapons delivery.

A2.4.24. 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 air-to-surface tactical sortie.

A2.4.25. SEAD-C. A tactical event employing simulated or actual conventional munitions against any portion of a simulated integrated air defense system, to include SAMs, AAA, and GCI.

A2.4.26. Secure Voice. Requires proper radio configuration for secure voice operation and successful utilization during tactical mission accomplishment. Only one event may be logged per sortie.

A2.4.27. Target Mark. A tactical weapon delivery used in conjunction with final air strike control. Only one event may be logged per target.

A2.4.28. 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 informa-

tion 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. Verification Briefing Outline. The following outline is provided as a guideline for the development of verification briefings:

1. **OVERVIEW:**

a. Introduction (participants and briefing classification).

b. Mission overview.

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

2. **AREA OF OPERATIONS:**

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

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

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

3. **STATUS OF ENEMY FORCES:**

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

b. Airborne forces (numbers, locations, capabilities and tactics).

4. **MISSION EMPLOYMENT BRIEFING:**

a. Ground operations.

b. Departure (WX contingencies, options).

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

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

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

f. Egress plan (route, mutual support agreements).

g. Re-attack plan/options.

h. Downed pilot/wounded bird plan.

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

5. **ESCAPE AND EVASION:**

a. SAFEs.

b. SAR procedures.

6. **ESSENTIAL ELEMENTS OF INFORMATION/REPORTS.**

a. EEIs.

b. Required reports and reporting procedures.

Attachment 4

AIR-TO-AIR CONTINUATION TRAINING PROFILES (ACC SPECIFIC)

A4.1. General:

A4.1.1. Pilots must have a strong foundation in the basics of air-to-air employment. The objective of A/OA-10 air-to-air training is for the pilot to learn how to acquire, avoid, or if necessary, kill his primary air-to-air threat. In the low altitude environment the predominant air-to-air threat is the armed attack helicopter. When faced with a fixed wing air threat in the medium to high altitude environment, the A/OA-10 should attempt to avoid being drawn into an air-to-air engagement. If unable to transition to the low altitude environment due to weather, threats, etc., pilots must be able to defend against fixed wing aircraft and survive to perform their primary mission.

A4.1.2. The A/OA-10 air-to-air training program includes a building block approach starting with Aircraft Handling Characteristics (AHC) and then progressing through Basic Fighter Maneuvers (BFM), and Air Combat Maneuvers (ACM), to Air Combat Tactics (ACT). BFM and ACM training against fixed wing adversaries should serve as a foundation in preparing pilots to fly the more demanding missions against helicopters. Proficiency at each level is required before progressing to the next. Additionally, a periodic return to the preceding steps to update or regain proficiency is required and expected.

A4.1.3. Within the A/A training spectrum, ACBT includes the last three missions: BFM, ACM, and ACT. Each of these missions may be flown against helicopters and dissimilar fixed wing adversaries (as discussed below) and, when accomplished, are designated dissimilar missions (DBFM, DACM, DACT). Once basic skills are acquired, the objective is to fly against helicopters to the maximum extent possible. There are other missions which are integral to and complement overall air-to-air training skills, proficiency, and capability. They are low altitude training (LOWAT), live missile firing, and gun firing.

A4.2. Objectives. All missions will be planned with clearly defined learning objectives for each engagement which must be tailored to meet the needs, proficiency levels, experience, and capabilities of each participant. Engagements will be terminated when learning objectives have been met, pre-briefed parameters cannot be achieved, and/or Training Rules cannot be followed. Flight leaders must ensure engagements do not deteriorate to the extent that safety is jeopardized or Training Rules (TR) are exceeded. The A/OA-10 air-to-air training program should focus on the helicopter threat with the objective of providing the pilot a solid foundation that will enable him to defend against it and, if necessary, kill it so that he can continue with and accomplish his primary mission. Experience clearly indicates that unfortunate and needless mishaps have occurred when the building block approach has not been understood and followed by participating pilots. Good judgment and maturity play a major role, and for every situation there should be a teacher and student, a leader and follower, an offender and defender (within the context of specific objectives). Additionally, a balance of risk and reward will produce a productive and safe training environment. Lastly, the leader should plan and tailor the majority of the training to the median threat (not, for example, the most demanding threat which may be in the very top percentile of difficulty).

A4.3. Mission Descriptions:

A4.3.1. Aircraft Handling Characteristics (AHC). The objective of AHC is to attain proficiency in the proper handling of the aircraft throughout its flight envelope. This foundation is an important requirement before progressing to ACBT training events. It should be noted that almost all out of control mishaps that occur during ACBT are attributable to poor or ineffective AHC.

A4.3.2. Basic Fighter Maneuvers (BFM). The objective of BFM is to gain proficiency in determining an adversary's range, closure, angle off, and aspect so that an effective defense can be executed and the mission continued. It is conducted in a one versus one scenario against an adversary within the context of the mission objectives stated above.

A4.3.3. Air Combat Maneuvering (ACM). The objective of ACM is for the basic fighting element to learn how to maneuver and fight as a team while applying sound BFM. It is conducted in a two versus one scenario against an adversary within the context of the mission objectives stated above.

A4.3.4. Air Combat Tactics (ACT). The objective of ACT is for the basic fighting element to effectively fly in a tactical scenario against a realistic air threat and achieve stated objectives. It is usually conducted in twos (or multiples thereof) against twos (or multiples thereof) within the context of the mission objectives stated above.

A4.3.5. Low Altitude Training (LOW A/A). This is training in the ACBT continuum (BFM, ACM, and/or ACT) below 5000 ft AGL. The difference is that specific training rules and employment limitations apply because of safety considerations. The lower altitude limits of the LOWAT environment depend on assigned aircraft mission, capabilities, and expected threat. For the A/OA-10, maneuvering against an air-to-air threat may be performed down to a minimum altitude of 300 ft AGL, if qualified. Pilots will be qualified IAW this instruction's Low Altitude Step Down Training (LASDT) program before flying LOW A/A sorties.

A4.3.6. Anti-helicopter Training. Anti-helicopter training has specific training rules and employment limitations due to helicopter capabilities and safety considerations. Pilots will be qualified IAW this instruction's LASDT and anti-helicopter upgrade training programs before flying anti-helicopter continuation training sorties. If qualified, the minimum altitude for anti-helicopter training is 300 ft AGL or the pilot's LASDT certified altitude, whichever is higher.

A4.4. Authorized Scenarios:

A4.4.1. (D)BFM-1--Similar or Dissimilar BFM (1 v 1). Single-ship BFM against a single adversary. Objectives are: early detection of the threat using appropriate visual and electronic search techniques, appropriate maneuvering to maintain sight or to deny adversary weapons parameters, and separation using ECM, ECCM, and IRCM techniques as appropriate. Counter offensive maneuvering for other than self-protection to negate the immediate threat is not authorized. The intent is to allow A/OA-10 pilots under attack to maneuver sufficiently for survival; it is not intended for pilots to pursue pure offensive engagements. Defensive weapons may be employed to defeat an attacker when unable to separate. Engagements will be terminated immediately upon desired learning objective achievement or weapons employment. When flown in the LOWAT environment, the attacker will not descend below 1,000 ft AGL.

A4.4.2. DBFM-2--Anti-helicopter (1 v 1). The pilot will practice visual search techniques, maneuvers to negate helicopter attacks, aspect and range determination, and weapons selection and employment to kill the threat. Proficiency will be demonstrated above 1,000 ft AGL prior to progressing to

lower altitudes. The minimum altitude for anti-helicopter training is 300 ft AGL, or the pilot's LASDT certified altitude, whichever is higher.

A4.4.3. (D)ACM-1--Similar or Dissimilar ACM (2 v 1). Two-ship defense against a single adversary. Element objectives are: early detection of the threat using appropriate visual and electronic search techniques, element coordination, radio discipline, appropriate turns to maintain sight and avoid engagement or to deny adversary weapons parameters, maintenance of maneuver potential and mutual support, and separation, if possible, using ECM, ECCM, and IRCM techniques as necessary. Counter offensive maneuvering for other than self protection to negate the immediate threat is not authorized. The intent is to allow pilots under attack to maneuver sufficiently for survival; it is not intended for A/OA-10 pilots to pursue pure offensive engagements. Defensive weapons may be employed to defeat an attacker when unable to separate. Engagements will be terminated immediately upon DLO achievement or weapons employment. When flown in the LOWAT environment, the attacker will not descend below 1000 ft AGL.

A4.4.4. (D)ACM-2--Anti-helicopter (2 v 1). The element will maneuver as a team to practice visual search techniques, maneuvers to negate helicopter attacks, aspect and range determination, weapons selection and maneuvers to kill the threat while maintaining mutual support. Proficiency will be demonstrated above 1000 ft AGL prior to progressing to lower altitudes. The minimum altitude for anti-helicopter training is 300 ft AGL, or the pilot's LASDT certified altitude, whichever is higher.

A4.4.5. (D)ACT-1--Defensive Tactics (2/x v x Helicopter/Dissimilar). Elements perform their mission in a tactical scenario that includes a helicopter or fixed wing air threat. The objectives are: to detect the threat early and avoid it if possible; or, if not possible, to perform appropriate reactions, while maintaining mutual support and continuing the mission towards successful accomplishment. Offensive maneuvering against helicopters is authorized. Counter offensive maneuvering against fixed wing aircraft for other than self-protection to negate the immediate threat is not authorized. The intent is to allow pilots under attack by fixed wing aircraft to maneuver sufficiently for survival; it is not intended for A/OA-10 pilots to pursue pure offensive engagements. Defensive weapons may be employed to defeat an attacker when unable to separate. In this case, weapons may be employed only as necessary to force the adversary to disengage. Engagements with fixed wing aircraft will be terminated immediately upon DLO achievement or weapons employment.

A4.4.5.1. If conducted with similar attackers, there will only be one engaged attacker at a time. Prior to a new attacker entering the fight, that pilot must have a tally on both defenders, and visual on the separating (new entries). Only pilots designated by the SQ/CC or SQ/DO will be ACT attackers.

Attachment 5

TRAINING SHORTFALL REPORT

MEMORANDUM FOR MAJCOM/DOT/XOF

FROM:

SUBJECT: XX SQ Training Shortfalls

1 TRAINING SHORTFALLS (Training events/sorties not accomplished or locally waived. Only report those shortfalls that the unit commander feels will have a major impact on training. Generally report only those events/sorties that affect 15% or greater of the crew force).

EVENT/SORTIE--PERCENT OF CMR/BMC PILOTS AFFECTED

--SPECIFIC REASON FOR SHORTFALL

--CORRECTIVE ACTION (IF ANY)

--LIMFACS

2 COMMANDER'S COMMENTS (Open forum for comments to improve the training reporting system).

1st Ind, OG/CC

TO: HQ MAJCOM/DOT/XOF

CC: NAF DO

Attachment 6

TEXT OF IC 2000-1

IC 2000-1 TO AFI 11-2A/OA-10 VOLUME 1, A/OA-10 AIRCREW TRAINING

11 FEBRUARY 2000

SUMMARY OF REVISIONS

This change incorporates interim change (IC) 2000-1. There are administrative changes and new ACC level office symbols throughout. Units are now required to submit CMR and BMC manning positions only on MAJCOM request (1.2.4.3.). Clarifies when shortfall reports are due (1.2.4.5.). Deletes PACAF CMR to BMC exception (1.4.4.2.). Deletes PACAF BMC to BAQ exception (1.4.4.4.). Clarifies that N-BMC pilots may not perform RAP training sorties without supervision until SQ/CC approved re-certification program is complete (1.4.4.4. – 5.). Deletes SQ supervisor involvement (1.5.4.1.). Adjusts new flying training period dates to 1 Oct – 30 Sep (1.5.6.). Aligns USAFWS with FTU since it is primarily PFT driven (1.11.1.1., 1.11.1.4.). Clarifies RPI 8 and Test Unit flying requirements (1.11.4.). Adds ANG/CG approval requirement for exception to senior officer local IQT (2.6.3.). Deletes requirement for BMC pilot to accomplish verification (3.1.2. – 3.2.3.1.). Deletes requirement of ICWT flight for pilots that accomplished an ICWT flight in a previous tour in a Fighter/Attack/FAC MDS (3.5.1.). Deletes Phase I and II from CWT (3.5.2.). Adds quarterly MRFCS discussion to SEPT (4.2.5.1.1.4.). Allows EP simulator as a substitute for monthly SEPT (4.2.5.5.). Updates ground training requirements and adds BMC effects to required training (Table 4.1. - 4.2.12.). Changes CRM currency to 24 months (4.2.14.). Clarifies BAQ guidance (4.3.1.4.). Deletes excess verbiage on waiver authority (4.3.2.6. – 4.3.3.4.). Clarifies that the sortie/event breakdown of the RAP tasking message doesn't apply to CB/TF coded units (4.3.5.1.). Deletes low altitude SSE Go-around training (Table 4.2). Clarifies number of days before requiring formal training re-accomplishment (4.6.4.1.3. – 4.6.4.1.4.). Deletes requirement of re-certification program equaling one-half of 1-month's RAP sortie requirement (4.7.1.2.). Clarifies that a new CMR/BMC pilot's 1-month lookback starts the first full month of availability (4.7.1.3.). Adds COT leave for proration purposes and clarifies proration example (4.9. – 4.9.3.). Extends proration allowances in Table 4.4. Deletes reference to one-half of 1-month lookback for pilot re-certification program (4.10.2.1. – 4.11.1.2., Figure 4.1.). Adds aerospace physiologist to AGSM review (4.14.1,5.). Clarifies full scale, live, and PGM requirements (5.6). NVG qualification program re-written as a sortie based program opposed to an hours based program (6.5). Combat Search and Rescue syllabus lengthened to 6 sorties to align with SANDY 1-4 qualification (6.6). Anti-helicopter training program shortened to 2 sorties (6.8). Changes training shortfall report (Atch 5). See the last attachment of the publication, IC 2000-1, for the complete IC. A (H) indicates revisions from the previous edition.

OPR: HQ ACC/XOFT (Maj Scott E. Caine)

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 A/OA-10. 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/XOFT, 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 pro-

vided by the issuing MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/XOFT, 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.

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

1.2.2.2. Submit MAJCOM/FOA/DRU supplements to HQ USAF/XOOT, through HQ ACC/XOFT, for approval before publication. Provide HQ USAF/XOOT, HQ ACC/XOFT, and all applicable MAJCOM/DO/XOs a copy of their supplements after publication.

1.2.4.3. Except when otherwise mandated, designate the training level to which each RPI/API – 6 (ANG and AFRC: all flyers) will train. Upon request, provide MAJCOM/DO/XO (ANG: HQ ACC/XOG) with a list of Basic Mission Capable (BMC) and Combat Mission Ready (CMR) manning positions. Review programs and manning position designations annually.

1.2.4.5. Identify training shortfalls that adversely impact combat capability. Units are required to submit anticipated shortfall reports each quarter to MAJCOM/DOT/XOF (info copy to NAF/DO) (due 31 Jan, 30 Apr, 31 Jul) and a summary shortfall report at the end of the training cycle (due 31 Oct). Prior to submitting the annual report, units are reminded to prorate incomplete training. For training report format; see Attachment 5, Training Shortfall report. Negative reports are required. NOTE: For ACC units, this report may be submitted on the HQ ACC/XOFT homepage.

1.3.1. Forward recommendations for change to this volume to MAJCOM DO/XO on AF Form 847, Recommendation for Change of Publication.

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

1.3.3. HQ ACC/XO will:

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

1.3.3.2. Forward recommendations for changes to this volume to HQ USAF/XOOT for HQ USAF/XO approval.

1.3.3.3. Address time sensitive changes by immediate action message.

1.3.3.4. DELETED

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

1.4.1. IQT provides the training necessary to initially qualify pilots 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 the wing level, BAQ is

not a long-term qualification status. Waiver authority for any pilot, other than general officers above the wing level, to remain BAQ for longer than 6 months is MAJCOM DO/XO (ANG: HQ ACC/CG).

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.

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

1.4.4.4. All 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, or are FTU instructors, Weapons School instructors, or operational test pilots. However, these pilots are required to provide additional sortie generation capability, either in lieu of or in addition to, the personnel assigned to the flying squadrons. 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 RAP training sorties without supervision (per para. 1.5.4) until SQ/CC approved re-certification program is complete.

1.4.4.5. N-CMR/N-BMC. Pilots that regress to N-CMR/N-BMC status will accomplish the requirements in accordance with paragraph 4.7.1.2.

1.5.2. ACC Training Support Squadron (ACC TRSS) will develop and validate training programs when/where tasked by the HQ ACC/XO. Other MAJCOMs may submit requests for training program support to the HQ ACC/XO. 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.

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

1.5.6. The pilot training cycle is 12 months: 1 Oct through 30 Sep. AFRC and ANG training cycle is: 1 Jul through 30 Jun. Units will complete training requirements during the appropriate training cycle unless specifically excepted.

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 are authorized. Variations in sortie/mission types may be used as a basis for regression by the SQ/CC. Qualification in a mission is determined by the SQ/CC considering the MAJCOM guidance and the individual's capabilities.

1.7. TRAINING SORTIE PROGRAM DEVELOPMENT:

1.8.1.4. AFMAN 37-139, *Records Disposition Schedule*, table 36-44.

1.8.1.6. AFM 171-190V2, *Air Force Operations Resource Management Systems (AFORMS): Users Manual*, Sections A through K.

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

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

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

1.12.1. Unless specifically noted otherwise in the appropriate section, waiver authority for all requirements of the RAP Tasking Message and for all provisions in Chapter 4, Chapter 5, and Chapter 6 of this volume is the OG/CC. For all other provisions of this volume, the waiver authority is MAJCOM/DO/XO (ANG: HQ ACC/XOG).

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

2.2.1. MAJCOM/DO/XO (ANG: HQ ACC/XOG) is approval authority to conduct local IQT, and is waiver authority to change the formal requirements of locally conducted IQT. Info HQ ACC/XOF.

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

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: ANG/CG).

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

3.1.1.3. For ACC, notify HQ ACC/XO if training exceeds 90 calendar days.

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

3.1.1.5. For USAFE, notify the HQ USAFE/DO and AOG/CC if training exceeds 90 calendar days.

3.1.2. Air/Air refueling (AAR) and initial Chemical Warfare (CW) flight training will be completed NLT 90 days (ANG, AFRC: 180 days) 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.

3.1.7. A/OA-10 pilots must complete the Joint Firepower Control Course (JFCC) prior to FAC(A) certification IAW AFI 13-102.

3.2.3.1 Pilots will initially accomplish a formal verification for their first CMR certification in the A/OA-10 (i.e. a previously qualified OA-10 pilot now seeking CMR certification in the A-10 need not initially verify). Initial verification will be completed within 90 days (ANG, AFRC: 180 days) after completing MQT. Failure to comply will result in regression to N-CMR until qualification is complete. Suggested briefing guides are at Attachment 3. Each pilot (not required for BMC) will demonstrate to a formal board a satisfactory knowledge of the squadron's assigned mission. Board composition will be established by the SQ. Desired composition is SQ/CC or OPS Officer (chairman), weapons, electronic combat, intelligence, and plans representatives.

3.5. Chemical Warfare. Accomplish IAW AFI 32-4001 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). 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 (ANC: 120 days) from MQT completion. Pilots who achieved ICWT in previous tours in a Fighter/Attack/FAC MDS are not required the ICWT Flight.

3.5.2. Ground Training. All pilots will complete CWT IAW AFI 32-4001 and MAJCOM supplements. The following training will be accomplished prior to first flight with CW gear:

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 AFI 32-4001.

4.2.5.1.1.4 (ACC) Thoroughly discuss the Manual Reversion Flight Control System (MRFCS) quarterly. As a minimum, discussion should include systems knowledge, emergency indications, flight envelope, and inadvertent entry into MRFCS flight.

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 if all members participate to the full extent and share equal time responding to emergency situations.

4.2.5.5. Completion of a simulator EP profile satisfies the monthly SEPT requirement. For IP/SEFE administering the SEPT/EP Sim will satisfy their SEPT requirement.

Table 4.1. Ground Training.

MOBILITY TRAINING **These items required for mobility units or units that generate in place.**				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUND-ING**	**AFFECT CMR/ BMC**
Chemical Warfare Defense Training--Ground Crew Ensemble (N/A CB and TF coded units)	Initial and Annual	AFPD 32-40, AFI 32-4001, AFI 32-4002	No	No
Handgun Training	Initial and Qualify with Requal every 2 yrs (ANG: Requal every 3 yrs)	AFI 36-2226 (ANG: AFI 36–2226/ANG Sup 1)	No	Yes
ISOPREP Review	Semiannual	AFI 14-105	No	Yes
Intelligence Training	Annual	AFI 11-2A/ OA-10V1, AFI 14-105 and AFI 14-105 Sup 1	No	Yes
Anti-Hijacking Training	Biennial	AFI 13-207 (FOUO)	No	No
PILOT TRAINING				
SUBJECT	FREQUENCY	REFERENCE DIRECTIVE	GROUND-ING	AFFECT CMR/BMC
Physiological Training (Altitude Chamber)	Every 3 or 5 years as applicable	AFI 11-403	Yes	No
Instrument Refresher	PERIODIC	AFMAN 11-210 and AFI 11-202V2, as supplemented	No	No
Life Support Training		AFI11-301 as supplemented		
a. Egress/Ejection Training	180 Days		Yes	No
b. Hanging Harness	180 Days		Yes	No
c. Life Support Equip Training	Annually		No	No
d. Combat Survival Training (CST) (N/A CB, and TF coded units)	2 yrs (ANG: 3 yrs)		No	Yes
e. Water Survival Training	2 yrs (ANG: 3 yrs)		No	No

f. Local area Survival Training	Initial		Yes	No
Initial Chemical Warfare Defense Training—Pilot Ensemble (N/A CB and TF coded units)	Prior to 1st CW Flight	AFI 11-2A/ OA-10V1, **Chapter 3**	No	Yes
Annual Chemical Warfare Defense CT Pilot Ensemble (N/A CB and TF coded units)	Annually	AFI 11-2A/ OA-10V1, **Chapter 4**	No	Yes
Situational Emergency Procedures Training (SEPT)	Monthly	AFI 11-2A/ OA-10V1, **Chapter 4**	Yes	No
Verification	18 Months (ARC: 3 Years)	AFI 11-2A/ Oa-10V1, **Chapter 4**	No	Yes (no BMC)
Weapons/Tactics Academics	Annual	AFI 11-2A/ OA-10V1, **Chapter 4**	No	Yes
Marshaling Exam	Initial and after a PCS	AFI 11-218	No	No
Flying Safety Training	Once per quarter	AFI 91-202	No	No
Supervisor Safety Training	Initial Only	AFI 91-301	No	No
VR Training	Semi-Annually (ARC: Annual)	AFI 11-2A/OA-10, **Chapter 4**	No	No
CRM	24 months	AFI 11-2A/ OA-10V1, **Chapter 4**	Yes (waiverable by OG/ CC)	No
NVG Academics	Annually	AFI 11-202 V1	No	No
AIR FORCE AWARENESS PROGRAM TRAINING				
SUBJECT	FREQUENCY	REFERENCE DIRECTIVE	GROUNDING	AFFECT CMR/BMC
Protection of the President and Others	After PCS	AFI 71-101 V2	No	No
US/Russia Prevention of Dangerous Military Activities	Initial/Annual and Pre-deployment	CJCS 2311.01	No	No
Fire Extinguisher	Initial upon PCS	AFOSHSTD 91-56	No	No
Code of Conduct	Biennial	AFI 36-2209	No	No
Law of Armed Conflict	Annual	AFPD 51-4, AFI 51-401	No	No
Substance Abuse Education	After PCS	AFI 44-121	No	No

Military Equal Opportunity Newcomers' Orientation	After PCS	AFI 36-2706	No	No

4.2.7.2.6. NVG academic review taught by an NVG qualified IP IAW the academics outline in paragraph 6.5.1 for all NVG qualified pilots.

4.2.10.1. 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 most up-to-date VR training program. Completion of VR training is required IAW local VR directives.

4.2.12. 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 CJCS 2311.01. The procedures for the Prevention of Dangerous Military Activities between the U.S. and Russia are located in the Flight Information Handbook.

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

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

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

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

4.3.3.7. Battalion Air Liaison Officer (BALO) MR requirements IAW AFI 13-102 (tasked pilots). RPI-1 BALOs will maintain CMR status.

4.3.5.1. Pilots assigned/attached to TF or CB coded units will fly at the BMC rate and accomplish the non-RAP BMC requirements as shown on Table 4.2, as applicable. For instructors, failure to accomplish these requirements will not affect instructor status, but will require additional training as determined by the SQ/CC prior to performing instructor duties in the delinquent events.

Table 4.2. Non-RAP Annual Requirements.

REQUIREMENT	BAQ	BMC	CMR	REMARKS
AHC SORTIE	2	2	2	ANG, AFRC – N/A
Instrument Sortie	4	4	4	ANG, AFRC – N/A
AHC/Instrument Sortie	4	4	4	ANG only
Instrument Trail Departure	0	8	8	
Night Sortie	4	4	4	See definition at **Attachment 2**
Penetration	12	12	12	IAW AFM 11-217
Precision Approach	16	16	16	ANG, AFRC - 12
Non-Precision Approach	16	16	16	ANG, AFRC - 12
SSE Approach	6	6	6	
SSE Go-Around	4	4	4	Accomplished above 5,000 feet AGL
No Flap Approach	6	6	6	
Minimum Total Sorties	48	See **Table 1.1.**	See **Table 1.1.**	
CW CFT Sorties	0	1	1	ANG, TF and CB Coded: N/A

4.5.1.1. Submit multiple qualification requests through command channels to MAJCOM DO/XO (ANG: HQ ACC XOG). 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.

4.6.4.1.3. 136-210 Days. Same as 91-135 days above, plus qualification and tactical written examinations and EP evaluation.

4.6.4.1.4. 211 or More Days. IQT, landing recurrency, and appropriate weapons event initial qualification.

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

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

4.9. Proration of End-of-Cycle Requirements. At the end of the training cycle, the SQ/CC may prorate all training requirements when DNIF's, emergency leaves, COT leaves, non-flying TDY/exercises (ANG, AFRC: and/or mandatory training required by civilian employment), combat/contingency deployments, preclude training for a portion of the training period. Normal annual leave will not be considered as non-availability. Extended bad weather, which precludes the unit from flying for more than 15 consecutive days maybe considered as non-availability (ANC: Individuals unable to fly during their monthly availability period due to poor weather may prorate a one month's portion of RAP sorties and events). The following guidelines apply:

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 two months proration from his training cycle (two months for the 73 cumulative days of non-availability for flying).

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
226 – 255	8
256 – 285	9
286 - 315	10
315 - 345	11
Over 345	12

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

4.10.2.2. 91-180 Days. Same as above, plus Stan/Eval generated qualification and tactical check written examinations.

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

4.14.1. The basis of this program is to give each FL, SQ supervisor, flight surgeon and, if available, aerospace physiologist the skills needed to evaluate a flight member's AVTR to ensure a proper 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.

4.14.2.1. AGSM technique and assessment will be incorporated into FLUG, IPUG, and the squadron CT program. Emphasis will be placed on briefing, debriefing, and assessing the 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," will be made an integral part of FL and IP upgrade ground training. The video 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.

4.14.5. The squadron will develop a program to ensure an A/A mission tape for each pilot is reviewed each training cycle by the flight surgeon, aerospace physiologist, and/or (ANG: or) a squadron supervisor. It is highly encouraged that both a flight surgeon and a supervisor participate. The review will be documented.

(Figure 4.1 Regression Flow Chart: Delete Note)

5.6. Full Scale/Live Ordnance: Full Scale/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, pilots should expend the following ordnance (AFI 36-2217):

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

5.6.2. One FSWD sortie with the delivery of one PGM per year.

5.6.3. DELETED

6.3.3.2.2. IPUG-2, BFM. Mission Objectives: Introduce UIP to instructing offensive and defensive BFM. Specific Mission Tasks: Briefing , formation takeoff, enroute formations, weapons system checks, offensive and defensive BFM, recovery, chase in traffic pattern and landing.

6.5. Night Vision Goggle (NVG) Qualification:

6.5.1.1. FTU students will normally receive initial NVG academics, to include the terrain board, at the FTU. Initial academic training for operational pilots may be accomplished at either the FTU or locally at the unit. Units will designate highly experienced NVG IPs to conduct local academic training, and will use MAJCOM approved courseware (AFRC: NVG academic instructors must have completed AFRL NVG academic instructor training). For local academics, NVG instructional videos will be used to demonstrate NVG visual illusions in place of the terrain board.

6.5.2. Device Training. One supervised Cockpit Familiarization Trainer (CFT) or Unit Training Device (UTD) will be accomplished within 60 days prior to NVG-1. As a minimum, the CFT/UTD will cover: cockpit and lighting set-up, donning/doffing and stowing procedures, systems operation, in-flight and weapons systems checks, HUD/instrument cross-check, in-flight scan techniques, battery change / battery failure procedures, emergency procedures, and ejection considerations.

6.5.3. Flight Training: One non-NVG night sortie will be flown within 30/45 (Inexp/Exp) days prior to NVG-1. NVG mission planning, eye lane procedures, donning/doffing and stowage procedures, cockpit lighting setup, and instrument cross-check will be briefed on all upgrade missions. Medium altitude navigation and map interpretation should be accomplished on all upgrade sorties. All upgrade sorties will be flown under the supervision of an NVG IP with both the UP and IP wearing night vision goggles. The only upgrade training that may be accomplished in conjunction with this syllabus is FL, IP, or AFAC training for NVG qualified pilots entering FLUG, IPUG, FAC(A) or IPFAC.

6.5.3.1.1. NVG-1, Transition. Mission Objectives: Introduce flight with NVGs. Specific Mission Tasks: Route/tactical formation, aircraft lighting demo, pitchouts and rejoins, transition to instruments exercise, lost wingman exercise, and illumination level (high/low) assessment techniques. Note: The transition to instruments exercise is intended to prepare pilots to transition to instruments in the event outside visual references are lost. It will not be an "unusual attitude" recovery exercise. The transition to instruments exercise will be flown with the IP in the chase position.

NOTE: DELETED

6.5.3.1.2. NVG-2, BSA. Mission Objectives: Introduce basic/conventional night weapons delivery with NVGs. Specific Mission Tasks: Illumination level assessment, target identification, LUU-2 flare employment (desired), conventional weapons deliveries, and basic TGM-65 employment. Weapons delivery will normally include LALD, DB, HADB, HARX, and HAS. As a minimum, one bomb or RX event and HAS must be accomplished. Weapons delivery will be accomplished on a class A controlled range to the maximum extent possible.

6.5.3.2. Pilots must have at least five sorties on NVGs prior to NVG-3. NVG tactical qualification occurs after completion of NVG-3. Flight leads are not authorized to lead tactical NVG sorties until completion of NVG-4. IPs must complete NVG-4 and have at least ten sorties on NVGs (fight/tank/fight sorties count as one), of which a minimum of 5 must be tactical NVG sorties, prior to being certified as NVG IPs. Pilots who are currently flight leads or IPs may lead/instruct NVG-3, and not fly NVG-4, at the discretion of the SQ/CC. NVG qualified pilots are authorized to fly tactical NVG sorties/events.

6.5.3.2.1. NVG-3, CAS or ASC. Mission Objectives: Introduce reduced threat CAS or ASC scenario with NVGs. Specific Mission Tasks (as appropriate): Illumination level assessment, ASC coordination, fighter/FAC rendezvous/deconfliction, plot target locations, IR TGM-65 target search, target identification, target marking, fighter control, medium altitude attacks, and self protection chaff/flare (desired).

6.5.3.2.2. NVG-4: CAS or ASC (N/A for wingmen) Mission Objectives: Lead/instruct (as appropriate) a reduced threat CAS or ASC scenario with NVGs. Specific mission tasks: Repeat NVG-3 tasks.

6.5.3.3. Breaks in training. In the event an upgrading pilot experiences an extended period (in excess of 14 calendar days) without flying with NVGs, the SQ/CC may authorize an additional training sortie prior to the next upgrade sortie. For breaks between NVG-1 and 2, repeat the previous sortie under the supervision of an NVG IP.

6.5.3.4. NVG qualified pilots entered in the FLUG, IPUG, or IPFAC upgrade are not required to fly NVG-4 in addition to the night FLUG, IPUG, or IPFAC upgrades sorties as long as these sorties are flown with NVGs. IAW paragraph 3.1.5., NVG-3 may be flown as an ASC mission and be substituted for ASC-(NT) if the upgrading pilot meets the requirements for NVG-3.

6.6. Combat Search and Rescue (CSAR). This section outlines the minimum requirements to upgrade pilots for CSAR operations. CSAR qualified pilots are trained 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. CSAR upgrade training is extremely demanding and will be accomplished under the supervision of a Sandy 1 qualified IP. Squadron commanders should select only the most qualified pilots for CSAR Upgrade training. FAC experience is highly desirable. Helicopters are mandatory for CSAR-1, CSAR-2, and either CSAR-5 or CSAR-6 as a minimum. CSAR-3 may be waived for qualified FAC(A)s.

6.6.2. Initial flying training. SQ/CCs will specify refresher training for previously qualified CSAR pilots, based on the pilot's 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 or CSAR-2 and either CSAR-5 or CSAR-6.

6.6.2.1. <u>CSAR-1</u> (2 to 4 aircraft, helicopter, ground personnel). Prerequisite: CSAR academic training. Mission Objective: Introduce search techniques, route reconnaissance and helicopter escort. Specific Mission Tasks: IP introduces search procedures, route reconnaissance and helicopter escort. Ground per-

sonnel will demo ground marking techniques. If ground personnel are unavailable, associated tasks may be accomplished on CSAR-2.

6.6.2.2. CSAR-2 (2 to 4 aircraft; and helicopter). Prerequisite: CSAR-1. Mission Objectives: Introduce coordination procedures, leading RESCORT and route reconnaissance. Review search techniques and helicopter escort if assets are available. Specific Mission Tasks: IP demonstrates coordination procedures that SANDY 3 may need to accomplish. Practice helicopter escort and route reconnaissance.

6.6.2.3. CSAR-3 (2 to 4 aircraft, helicopter desired). Prerequisite: CSAR-1. Mission Objective: Introduce ASC concepts and control suppression phase. Specific Mission Tasks: IP demonstrates ASC techniques and controls suppression strike. Upgrading pilot controls suppression strikes. Practice search techniques and coordination procedures. Emphasis on this sortie should be placed on ASC procedures. This sortie may be waived for qualified FAC(A)s.

6.6.2.4. CSAR-4 (2 to 4 aircraft, helicopter desired). Prerequisite: CSAR-3. Mission Objective: Demonstrate skills necessary to act as a CSAR Wingman (SANDY 2). Specific Mission Tasks: Coordination and control of SAR assets as required by SANDY 1. Practice search techniques. Control strike assets during the suppression phase. Assume On Scene Command if required.

6.6.2.5. CSAR-5 (2 to 4 aircraft, helicopter, ground personnel). Prerequisite: CSAR-4. 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.

6.6.2.6. CSAR-6 (2 to 4 aircraft, helicopter, ground personnel). Prerequisite: CSAR-5. 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. Opposition may include an air threat, ground threat, and/or ground threat to the survivor.

6.6.3. Upon completion of CSAR-1, a pilot may fly RESCORT as a SANDY 4 wingman. CSAR-2 allows a pilot to assume SANDY 3 duties. CSAR-3 and 4 qualifies a pilot to fly as a SANDY 2. Upon completion of CSAR-5 and CSAR-6 flight leads may lead CSAR missions as a SANDY 1. Either CSAR-5 or CSAR-6 should be briefed and flown as a 4-ship before pilots lead multi-ship CSAR missions. Elements and in some cases the sortie requirements may be accomplished with part task training outside of a CSAR scenario.

6.8.3. Flying Training. Flying training consists of two sorties flown in sequence and is supervised by an anti-helicopter qualified IP or squadron supervisor. Upgrading pilots must complete all of the mission tasks in order to be certified to fly anti-helicopter sorties, regardless of the number of sorties required to perform all of the tasks. Pilot must be current in ACBT and LOW A/A.

6.8.3.1. BFM-H, 1v1 Helicopter. Mission Objectives: Practice proper switchology, weapons selection, and employment techniques to kill a slow speed target. Practice single ship BFM necessary to defend against and kill adversary threat helicopters. Specific Mission Tasks: Weapons Orientation Tasks, 1 v 1: Systems checks, switchology practice, demonstration of AIM-9 employment envelope at various closure velocities and aspect angles, and simulated gun employment with the LASTE HUD against slow speed target. Proficiency in proper switchology and weapons selection must be demonstrated above 5,000 feet AGL prior to progressing to low altitude. BFM Tasks, 1 v 1 Helicopter (upgrading pilot must demonstrate proficiency in weapons orientation tasks prior to progressing to BFM tasks): Ranging exercises,

aspect and angle off determination, maneuvering to gain and maintain the advantage, weapons selection and employment, defensive maneuvers, flare and ECM usage, re-attacks and separations. Proficiency will be demonstrated above 1000 feet AGL prior to progressing to lower altitudes.

6.8.3.2. ACM-H, 2 v 1 Helicopter. Mission Objectives: Develop a solid foundation in formation maneuvering against a slow speed target. Practice formation maneuvering necessary to defend against and kill adversary threat helicopters. Specific Mission Tasks: Visual search techniques, element coordination/ radio calls, threat recognition and formation defensive maneuvering, flare and ECM usage, formation maneuvering to gain and maintain the advantage, weapons selection and employment while maintaining mutual support, re-attacks, and element separation techniques appropriate to a helicopter threat. Proficiency will be demonstrated above 1,000 feet AGL prior to progressing to lower altitudes.

6.8.3.3. DELETED

6.8.3.4. DELETED

Attachment 5

TRAINING SHORTFALL REPORT

MEMORANDUM FOR MAJCOM/DOT/XOF

FROM:

SUBJECT: XX SQ Training Shortfalls

1 TRAINING SHORTFALLS (Training events/sorties not accomplished or locally waived. Only report those shortfalls that the unit commander feels will have a major impact on training. Generally report only those events/sorties that affect 15% or greater of the crew force).

EVENT/SORTIE--PERCENT OF CMR/BMC PILOTS AFFECTED

--SPECIFIC REASON FOR SHORTFALL

--CORRECTIVE ACTION (IF ANY)

--LIMFACS

2 COMMANDER'S COMMENTS (Open forum for comments to improve the training reporting system).

1st Ind, OG/CC

TO: HQ MAJCOM/DOT/XOF

CC: NAF DO