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Flying Operations

F-15--AIRCREW TRAINING

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This volume implements AFPD 11-2, *Aircraft Rules and Procedures*; AFPD 11-4, *Aviation Service*; and AFI 11-202V1, *Aircrew Training*. It establishes the minimum Air Force standards for training and qualifying personnel performing duties in the F-15 A/B/C/D. Selected paragraphs of this publication do not apply to all Air Force units. When an exception exists to the requirements of a paragraph, the exception is indicated in a parenthetical within the paragraph, or by using subparagraphs directed at specific units. MAJCOMs/DRUs/FOAs are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ USAF/XOOT, through HQ ACC/DOTO, for approval prior to publication IAW AFPD 11-2, paragraph 4.2. Records Disposition. Ensure that all records created by this AFI are maintained and disposed of IAW AFMAN 37-139, "Records Disposition Schedule." Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DOTO, and the user MAJCOM/DRU/FOA and NGB offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. **NOTE:** The terms Direct Reporting Unit (DRU) and Field Operating Agency (FOA) as used in this paragraph refer only to those DRUs/FOAs that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360V1, paragraph 3.66 (periodic review). See paragraph **1.3.** for guidance on submitting comments and suggesting improvements to this publication.

This instruction requires the collection or maintenance of information protected by the Privacy Act of 1974. The authority to collect and maintain the records prescribed in this instruction are 37 USC 301a, Incentive Pay; Public Law 92-204 (Appropriations Act for 1973), Section 715; Public Law 93-570 (Appropriations Act for 1974); Public Law 93-294 (Aviation Career Incentive Act of 1974); DOD Directive 7730.57, *Aviation Career Incentive Act and Required Annual Report*; AFI 11-401, *Flight Management*; and E.O. 9397. **System of records notice F011 AF XO A, Aviation Resource Management System (ARMS), applies.** The reporting requirements in this instruction are exempt from licensing in accordance with paragraph 2.11.10 of AFI 37-124, *The Information Collections and Reports Management Program*; *Controlling Internal, Public, and Intra-Agency Air Force Information Collections.*

NOTE:

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

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

SUMMARY OF REVISIONS

This publication contains significant revision.MAJCOM-specific guidance is embedded within the text and prefaced with the MAJCOM acronym. This revision incorporates RTRB inputs from 99-2 to 02-1. There are administrative changes and new ACC level office symbols incorporated throughout. Paragraphs have been renumbered where necessary to accomodate updates. RPI has been replaced by API. All ground training date frequencies in **Table 4.1.** have been changed from annual/number of years to months to clarify and align with RAP training cycles. API-8 pilot non-RAP requirements have changed to allow for realistic accomplishment of API-8 assigned duties. All currencies still apply. Waiver authority for this regulation has been clarified. Combat edge training has been deleted. This training is accomplished at both the centrifuge and FTU prior to completion of IQT. JHMCS currencies have been added to **Chapter 4** and an upgrade syllabus has been added to **Chapter 6**. Units may combine MQT and NVG upgrades at the OG/CC discretion. OFT has been replaced by SIM. SEPT topic selection changed to allow SQ/DO involvement if SQ/CC not available due to split operations or full/part-time considerations in the Guard. NVG refresher academic requirements are listed. Landing/Sortie recurrency requirements (136-210 days) are clearly defined. RTRB approved NVG currency/recurrency requirments are defined. NVG demanding mission currency has been added IAW RTRB approved action. NVG upgrade syllabus – NVG-1 has been updated/expanded based on input from the NORB. G-Awareness Continuation training academic requirements have been clarified. Air Defense and Counterdrug syllabi have been updated to account for a separate NVG upgrade program and recent Operational Air Defense contingencies. The following abbreviations have been added: API, MTC, NCT-L, NVG, SIM. The following abbreviations have been deleted: NVG, OFT, RPI, SAAC, and all air to ground weapons delivery abbreviations. The LOWAT definintion has been changed. The OFT definition has been deleted. The Verification and Visual Identification definitions have been expanded to include the official DoD definition. The following Tactical events have been updated: ECCM Intercept is now EA A/A, EC Event A/A is now EP A/A, EC Event A/G and EC Range have been combined into EW Range Event. A "|" indicates a revision since the last edition.

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

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

1.2.1.2. Process all change requests.

1.2.2. All user major commands (MAJCOMs) will:

1.2.2.1. Determine training requirements to meet expected unit tasking.

1.2.2.2. Submit MAJCOM supplements to HQ USAF/XOOT, through HQ ACC/DOTO, for approval before publication. Provide HQ USAF/XOOT, HQ ACC/DOTO, and all applicable MAJCOM/DOs a copy of their supplements after publication. ANG units gained by AETC when flying student sorties will follow AETC supplemented data.

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

1.2.3. Direct reporting units (DRUs) will:

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

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

1.2.3.3. Review subordinate unit training programs annually.

1.2.4. Wings/groups will:

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

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

1.2.4.3. Except when otherwise mandated, designate the training level to which each API – 6 (ANG: all flyers) will train. Upon request provide MAJCOM/DO (AETC: N/A, ANG: HQ ACC/DOG) with a list of BMC and CMR manning positions. Review programs and manning position designations annually.

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

1.2.4.5. Identify training shortfalls that adversely impact combat capability. Units are required quarterly to submit anticipated shortfall reports to MAJCOM/DOT (info copy to NAF/DO or A3) (due the first day of the 2nd, 3rd, and 4th quarters) and an annual summary shortfall report due at the end of the training cycle (ref: paragraph **1.6.1.**) RCS: HAF-XOC(AR)9910. Prior to submitting the annual report, units are reminded to prorate incomplete training. These reports are designated emergency status code C3. Continue reporting during emergency conditions, delayed precedence. Submit data requirements as prescribed, but they may be delayed to allow the submission of higher precedence reports. For training report format, see **Attachment 4**, Training Shortfall report. Negative reports are only required on the annual report.

1.2.5. SQ/supervision (ANG: Appropriate operations supervisor) will:

1.2.5.1. Ensure adequate continuity and supervision of individual training needs, experience, and proficiencies of assigned/attached pilots.**1.2.5.2.** 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 volume have been met.

1.2.5.2. 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.

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

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

1.2.5.5. Determine utilization of BMC pilots.

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

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

1.2.5.8. Determine program for supervisory review of armament recordings.

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

1.2.5.10. Monitor individual assigned/attached pilot currencies and requirements.

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

1.2.6. Individual pilots will:

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

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

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

1.3. Processing Changes:

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

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

1.3.3. HQ ACC/DO will:

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

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

1.4. Training. Pilot training is designed to progress a pilot from Initial Qualification Training (IQT) (B Course 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 a unit's mission. Upon completion of IQT, the pilots attain 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 is MAJCOM DO (ANG: HQ ACC/CG).

1.4.2. MQT provides the training necessary to initially qualify or re-qualify pilots in a specific position and flying duties to perform the missions assigned to a specific unit. Pilots maintain BAQ status until they complete MQT. Completion of MQT or formal training unit (FTU) instructor course is a pre-requisite for BMC and completion of MQT is a pre-requisite for 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, pilots will have received training in all the basic missions of a specific unit, unless excepted in **Chapter 3**. Pilots will then be assigned to either a Combat Mission Ready (CMR) or Basic Mission Capable (BMC) position.

1.4.4.1. **Combat Mission Ready (CMR).** The minimum training required for pilot to be qualified and proficient in all of the primary missions tasked to their assigned unit and weapons system.

1.4.4.2. All designated combat aircraft (CC-coded) unit active duty API -1 positions, flying SQ/CC and SQ/DO positions are designated CMR positions. OG/CCs may designate other API -6

positions not assigned to the flying squadron as CMR. (EXCEPTION: If a unit is over-manned, the SQ/CC may elect to train the front line of their Unit Manning Document (UMD) API -1s to CMR and designate the overage BMC. In this case, priority should be given to inexperienced pilots with at least 50%, if available, designated CMR. [For ANG: Any pilot may be designated CMR or 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 exercises and contingencies) and events in which they are current and qualified at the discretion of the SQ/CC.

1.4.4.3. **Basic Mission Capable (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 active duty wing pilot positions that are not designated CMR positions, are 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, 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, SQ/CC will determine missions the pilots may perform and supervision required. **1.4.4.5. N-CMR/N-BMC.** Pilots that regress to N-CMR/N-BMC status will accomplish the requirements in accordance with paragraph **4.7.**

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

1.5.2. ACC Training Support Squadron (ACC TRSS) will develop and validate training programs when/where tasked by the HQ ACC/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 (CB-coded) 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 flight lead (FL)-qualified SQ supervisors may allow any pilot to lead limited portions of a mission if they are appropriately briefed. This provision will only be used to allow the 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.

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

1.6.1. The pilot training cycle is 12 months: 1 Oct through 30 Sep. AETC training cycle is : 1 Jan through 31 Dec. ANG training cycle is 1 Jul through 30 Jun. Each RAP qualification level is defined by a total number of RAP sorties, broken down into mission types, plus specific weapons qualifications and associated events as determined by the MAJCOM and unit commanders.

1.6.2. The total number of RAP sorties for a qualification level is the primary factor for maintaining an individual's qualification level. The breakout of sortie/mission types is provided as a guideline to be followed as closely as possible but minor variances (other than Red Air allocations) are authorized. Variations in 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 look back 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 pilot's experience level on the last day of the current training cycle.

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

1.7. Training Sortie Program Development:

1.7.1. RAP mission/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 BMC and CMR levels of training. The RAP tasking message takes precedence over this volume, and may contain an updated sortie requirement or missions/events not yet incorporated in **Attachment 2**

1.7.2. Non-RAP requirements (Inst/AHC) are in addition to RAP requirements. These sorties ensure basic pilot skills are maintained (see **Table 4.2.**). All active duty units are also allocated Navigation sorties for their API -1 pilots. These sorties ensure that pilots maintain their skills necessary to operate safely in the civil airspace environment.

1.7.3. Experiencing/Collateral sortie requirements must be considered when developing unit flying hour programs.

1.7.3.1. Experiencing sorties are additional training sorties necessary to achieve desired proficiency in optimum time. RAP sorties may not provide sufficient hours to experience pilots to achieve overall unit experience levels. The USAF sets a required number of hours to experience pilots and a percentage goal of the unit pilots that should meet these requirements.

1.7.3.2. Collateral sorties are not directly related to combat employment training but are necessary in day to day unit operations. These include but are not limited to functional check flights,

ferry flights, incentive/orientation flights, deployments, and air shows. For the annual training cycle, the MAJCOM allocates a block of sorties to the unit for these purposes.

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

Table 1.1. Annual F-15 RAP Sortie Requirements.

MAJCOM	Cycle	BMC Inexp/Experienced	CMR Inexp/Experienced
ACC,USAFE,PACAF, AETC	RAP Total	72/60	110/98
	3-Month Lookback	18/15	27/24
	1-Month Lookback	6/5	10/9
ANG	RAP Total	72/60	90/76
	3-Month Lookback	18/15	23/18
	1-Month Lookback	6/5	7/6

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*H1.8.1.3. AFMAN 37-139, Records Disposition Schedule.

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

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

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 sorties, sortie types, and events cumulatively for the training cycle.

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

1.8.3. Currencies:

1.8.3.1. Weapons employment records in sufficient detail to document all employment attempts.

1.8.4. Units may fill in ARMS with either the date of the last FTU or United States Air Force Weapons School (USAFWS) equivalent training accomplished, or the unit mission certification date.

1.9. Armament Recording:

1.9.1. Pilots will use and assess all available training documentation such as air combat maneuvering instrumentation (ACMI), aircraft video tape recorder (AVTR) tapes, radar and heads-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, identification procedures, adherence to Training Rules (TR), communications procedures and discipline, flight discipline, proper Anti-G Straining Maneuver IAW para **6.4.2.5.**, tactical employment, and instrument approaches.

1.10. Pilot Utilization Policy:

1.10.1. Commanders will ensure wing/group tactical pilots (API -1/6s) fill authorized positions IAW unit manning documents and that pilot status is properly designated. The overall objective is that pilots perform combat-related duties. Supervisors may assign pilots to valid, short-term tasks (escort officer, flight evaluation board (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 API -1 pilots are weapons and tactics officer, programmer, flying safety officer, supervisor of flying (SOF), mobility/ contingency plans, training (except ARMS documentation), SQ Standardization/Evaluation Liaison Officer (SELO), squadron life support officer, electronic combat officer, and other duties directly related to flying operations (runway operations monitor [ROM], range control officer [RCO], etc.). In some instances, such as squadron-assigned flying safety officers, API -1s may be attached to the wing. API -1s will not be attached to wing staffs or man wing staff positions unless total wing pilot API -1 manning is 100 percent or better. CCs will ensure wing staff pilots (API -6s) perform duties justified in MAJCOM manpower standards documents and authorized in UMDs.

1.11. Sortie Allocation Guidance:

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

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

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

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

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

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

1.11.3. API-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 API 6/8 flyers adequate resources to maintain minimum training requirements. However, API-6 flyer support will not come at the expense of the flying squadron's primary mission. API 6 flyers will accomplish non-RAP requirements with allotted BMC sorties. API-8 flyers will strive to accomplish non-RAP requirements with allotted BMC sorties. If attached units cannot meet attached flyer requirements, they must request relief IAW AFI 11-401, as supplemented. Units requiring flying hour adjustments for attached API-8 and applicable API-6 flyers must request program changes IAW MAJCOM directives.

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

Table 1.2. F-15 Annual Sortie Requirements for Other Than API -1 Pilots.

RPI/API Level	CT Status (Minimum Sortie Requirement)	Unit's Aircraft Code	Organization Level	Maximum Sortie Allowance (Inexperienced/Experienced)
6	CMR	CC	Any	
6	BMC	CC	Wing	96/84
6	BMC	TF	Wing	As required by PFT
6	BMC	CB	Wing	As determined by test program requirements
8	BMC	CB	Wing	86/74
8	BMC	CC, TF, or CB	Above Wing	90/78 or as required by PFT
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	72/60

1.12. Waiver Authority:

1.12.1. Unless specifically noted otherwise in the appropriate section, waiver authority for all requirements of the RAP Tasking Message and for all provisions in **Chapter 4**, **Chapter 5**, and **Chapter 6** of this volume is the OG/CC. This waiver is on a case-by-case basis considering the experience level of

an individual pilot. For all other provisions of this volume, the waiver authority is MAJCOM/DO/XO (ANG: HQ ACC/DOG; AETC: HQ AETC/DOF).

1.12.2. Units subordinate to a NAF will forward requests directly to MAJCOM/DOT/XOF and provide their NAF/AOG/CC/OV with an information copy. Waivers from other than MAJCOM/DO (ANG: HQ ACC/DOG; AETC: HQ AETC/DOF) will include their appropriate MAJCOM/DOT/DOF (ANG: HQ ACC/DOG; AETC: HQ AETC/DOF) as an information addressee. All waivers will include HQ ACC/DOT as an information addressee.

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

Chapter 2

INITIAL QUALIFICATION TRAINING

2.1. General. This chapter outlines Initial Qualification Training (IQT) of pilots into unit aircraft. IQT includes Basic (B course) and transition/re-qualification/senior officer (TX) training and normally will be conducted during formal syllabus courses at 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 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 selects and above to be conducted at the unit to which the officer is assigned.

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

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

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

2.2.3.3. Date training will begin and expected completion date.

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

2.2.4. Successful completion of IQT requires the upgrading pilot to complete an aircraft qualification and instrument evaluation IAW AFI 11-202V2 (AFI 11-2F-15V2, *F-15--Aircrew Evaluation Criteria*).

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

2.4. Ground Training. Ground training may be tailored to the individual background and experience or peculiar local conditions. However, available and current reference materials such as AFTTP 3-3, *Combat Aircraft Fundamentals*, instructor guides, and audiovisual programs should be used as supporting materials to the maximum extent possible. Simulator missions may be accomplished in a weapons and tactics trainer (WTT), cockpit familiarization trainer (CFT) or cockpit procedures trainer (CPT) if an operational flight trainer (), Mission Training Center (MTC), Full Mission Trainer (FMT) is not available.

2.5. Flying Training:

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

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

(ANG: HQ ACC/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 (dual or chased) until completing the qualification checkride.

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

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

2.6. IQT for Senior Officers:

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

2.6.2. Senior officers must meet course entry prerequisites and will complete all syllabus requirements unless waived IAW syllabus and paragraph **2.2.**

2.6.3. If senior officers must be trained at the installation 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 (For ANG: ANG/ DO. For AETC: 19AF/DO).

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 SQ/CCs in developing their MQT program. The SQ/CC is responsible for developing the unit specific MQT program and the OG/CC will approve for use. Units 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 ACC, notify the HQ ACC/XO if training exceeds 90 calendar days.

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

3.1.1.3. For USAFE, notify the HQ USAFE/DO and NAF/A3 if training exceeds 90 calendar days.

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

3.1.2. Air/Air refueling (AAR) and initial chemical warfare (CW) flight training will be completed NLT 90 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. (ANG: Chemical warfare training is N/A for air defense (ADF) units.)

3.1.3. Pilots in MQT will not fly in Flag, Air Warrior, Cope Thunder exercises, or WSEP. The OG/CC will determine MQT participation in other exercises. (For AETC: FTU SQ/CC may authorize upgrading IPs with a current mission check to fly syllabus direct support sorties and in exercises where a BMC pilot is required.)

3.1.4. 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 MQT as long as it is subsequently accomplished prior to night training. Night MQT may be flown with NVGs if the upgrading pilot is already NVG qualified. Night MQT may be combined with the NVG upgrade. All night training requires demonstrated proficiency and currency in similar day events, unless accomplished with an instructor in the aircraft.

3.1.5. Prior to CMR certification, if not accomplished during FTU training, pilots must complete low altitude step-down training (LASDT) category (CAT) I training and initially qualify in all weapons delivery/employment events required QUAL at CMR/BMC.

3.2. Ground Training:

3.2.1. Units will develop blocks of instruction covering areas pertinent to their mission 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 instrument refresher course (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.

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, SIR training, command special interest items, USAFE local area exercise procedures.

3.2.3. **Initial Verification:** Initial verification will be completed within 90 days (ANG: 180 days) after completing MQT. Suggested briefing guide is 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/CC (OG/CC for composite wings). Desired composition is SQ/CC or SQ/DO (chairman), weapons, electronic combat.

3.3. Simulator Training:

3.3.1. MTC or FMT will be used on SIM MQT-1 and -4 if available. If an MTC or FMT is unavailable, SIM MQT-1, -2, and -3 may be combined into one or more CFT//WTTStatic aircraft missions to accomplish appropriate switchology and emergency procedures training. SIM MQT-2 and -3 may be flown in the WTT. MQT pilots should fly the missions outlined below (ANG: locally developed SIM profiles). Each training device mission will include selected emergency procedures and unusual attitude/inadvertent weather entry procedures. During emergency procedure (EP) SIM missions, departure recognition and recovery procedures will be accomplished to include both autoroll and spin recoveries. SIM MQT-1 is a prerequisite for the first MQT flight.

3.3.2. **MQT SIM Profiles:**

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

3.3.2.2. **SIM MQT-2--Tactical Intercepts.** Alert scramble and launch procedures; fence check; radar search techniques; AAI procedures; horizontal/slice/chandelle conversions; GCI/SOCC procedures; MRM and SRM employment; attacks against low altitude/high speed targets; emergency procedures; instrument recovery and approach.

3.3.2.3. **SIM MQT-3--Multiple Target/ECM Intercepts.** Scramble start and launch; Max climb; fence check; GCI/SOCC procedures; wartime ROE procedures; radar search/sort techniques; MRM/SRM employment against multiple target formations and targets with ECM capability; no-lock intercepts; electronic identification; comm jamming procedures; TEWS interpretation; EWWS employment; emergency procedures; instrument recovery and approach.

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

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

3.4.1. **Supervision.** A FL-qualified SQ supervisor or IP in the element is required unless specified otherwise. On some sorties, more specific guidance is provided. The SQ/CC will determine the proper flight position of the supervisor/IP unless specified otherwise.

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

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

3.4.4. **Sortie Requirements.** The LAO/AHC/Instrument mission is mandatory. The Mission Evaluation Checkride, flown IAW AFI 11-202V2, (AFI 11-2F-15V2) is also mandatory, if not previously accomplished in the MQT portion of IQT. The sorties listed in paragraphs **3.4.5.**, Air-to-Air, and **3.4.6.**, Low Altitude Step-Down Training, are suggested mission profiles that SQ/CCs may use to develop the unit's MQT program based on unit tasking.

3.4.4.1. (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 local area orientation (LAO). Individual TI events may be accomplished during MQT, however all TI events will be accomplished prior to CMR/BMC or theater certification. Pilots will demonstrate proficiency in the following minimum events:

3.4.4.1.1. (USAFE) Trail departure

3.4.4.1.2. (USAFE) Lost wingman

3.4.4.1.3. (USAFE) Route abort

3.4.4.1.4. (USAFE) Instrument approach (precision and non-precision):

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

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

3.4.4.1.7. (USAFE) Radar Trail Arrival.

3.4.5. **Air-to-Air:**

3.4.5.1. **LAO/AHC/Instruments (IP Required). Mission Objectives:** Local area orientation, practice aircraft handling characteristics (AHC) and local instrument procedures. **Specific Mission Tasks:** Ground operations; departure; local area familiarization; emergency and/or alternate airfield(s) overflight/approach(es); G warm-up exercise; AHC, recovery; VFR pattern procedures; normal and simulated emergency patterns/landings. **NOTE:** F-15B/D model is desired for this sortie.

3.4.5.2. **Offensive BFM. Mission Objectives:** Practice offensive BFM and weapons employment. **Specific Mission Tasks:** Formation takeoff (wing); weapons system check; tactical formation; fence check; ranging/tracking exercise; offensive BFM; weapons employment; BD check; recovery; formation approach and landing (wing).

3.4.5.3. **Defensive BFM. Mission Objectives:** Practice defensive BFM. **Specific Mission Tasks:** Formation takeoff (wing); weapons system check; tactical formation; fence check; defensive BFM; weapons employment (if applicable), BD check; formation approach and landing (wing).

3.4.5.4. **High Aspect BFM/Intercepts. Mission Objectives:** Practice tactical intercepts to high aspect BFM. **Specific Mission Tasks:** Trail departure; weapons system check; tactical formation; fence check; fighter/GCI controlled horizontal/slice/chandelle conversions; high aspect BFM; front hemisphere missile defenses; weapons employment; BD check; trail recovery and landing.

3.4.5.5. **Air Sovereignty ACM (2 V 1) (Strategic Defense Units Only). Mission Objectives:** Practice trail departure and basic intercepts. **Specific Mission Tasks:** Single ship takeoff; trail departure; weapons system check; tactical formation; fence check; SOCC procedures; air sovereignty tasking; horizontal/slice/ chandelle intercepts against medium/low altitude targets maneuvering at or above fighter Vmin; VID procedures; peacetime ROE procedures; BD check; recovery and landing.

3.4.5.6. **Night Intercepts. Mission Objectives:** Practice night intercepts, air refueling, and approaches. **Specific Mission Tasks:** Trail departure; weapons system check; join-up; close/ route formation; night AAR as required (IP required if day AAR not previously accomplished in MQT); fence check; fighter/GCI controlled intercepts; weapons employment; instrument recovery and approach(es); landing.

3.4.5.7. **ACM. Mission Objectives:** Practice 2 V 1 offensive and defensive maneuvering. **Specific Mission Tasks:** Departure; weapons system check; tactical formation; fence check; 2 v 1 ACM (emphasis placed on engaged/support fighter responsibilities, lookout responsibilities, radio discipline, and mutual support); weapons employment; separations; BD check; instrument approach and landing.

3.4.5.8. **ACM, High Aspect (2 V 1). Mission Objectives:** Practice element tactical intercepts on a maneuvering target. **Specific Mission Tasks:** Departure; weapons system check; tactical formation; fence check; tactical intercepts using separate frequencies and AWACS/GCI if available (emphasis placed on radar/visual search, radio discipline, mutual support, quick kills and/or separations); element maneuvering; weapons employment; front hemisphere missile defenses; BD check; recovery and landing.

3.4.5.9. **ACT, Defensive Counter Air (2 V 2). Mission Objectives:** Practice area/lane/point defense procedures and techniques relative to a defined threat axis. (Adversaries fly current threat tactics; 25 NM set-ups minimum; AWACS/GCI desired for both elements). **Specific Mission**

Tasks: Departure; weapons system check; tactical formation; fence check; CAP procedures; AWACS/GCI procedures; radar search/sort procedures (emphasis on detecting/sorting/targeting separate adversaries); visual lookout; element maneuvering; weapons employment; mutual support; radio discipline; separations; BD check; recovery and landing. (ANG: ADF units will incorporate specific unit tasking to the maximum extent possible during this sortie, e.g., SOCC procedures, air sovereignty tasking (peacetime ROE), VID procedures, intercepts against targets using ECM, evasion, and/or comm jamming element tactics against hostile targets, etc.)

3.4.5.10. **ACT, Offensive Counter Air (2 V 2 min) (Air Superiority Units). Mission Objectives:** Practice crossing a FEBA and using sweep/roving cap tactics to sterilize a pre-determined area of enemy aircraft. **Specific Mission Tasks:** Departure; weapons system check; tactical formation; fence check; low level navigation (if available); FEBA crossing; radar search/sort/targeting; radio discipline; element maneuvering versus hostile targets; mutual support; weapons employment; separation/egress; BD check; recovery and landing.

3.4.5.11. **ACT, Air Sovereignty (2 v 1 minimum) (Strategic Defense Units). Mission Objectives:** Demonstrate proficiency in mission related events. **Specific Mission Tasks:** Takeoff; weapons system checks; tactical formation; fence check; SOCC procedures; air sovereignty tasking (peacetime ROE); VID procedures; intercepts against targets using ECM, evasion, and/or comm jamming; element tactics against hostile targets; mutual support; weapons employment; BD check; recovery and landing.

3.4.5.12. **Mission Evaluation Checkride.** This sortie will be flown IAW AFI 11-202V2, AFI 11-2F-15V2, and local standardization/evaluation criteria on a mission representing the unit's primary mission tasking.

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

3.4.6.1. To conduct low altitude operations safely, pilots need to be knowledgeable of aircraft handling and performance characteristics, tactical formation, intercept, offensive maneuvering and defensive reactions, 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. LOWAT block/category certification is required in a low altitude block prior to performing unsupervised operations in that low altitude block.

3.4.6.2. To provide a structured 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/Squadron supervisor assessment of pilot performance, TR compliance, and judgment. LASDT missions will be supervised by an IP or s FL-qualified squadron supervisor who has completed LASDT training and is current.

Table 3.1. LOWAT Categories.

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

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

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

3.4.6.5. LASDT will be scheduled and briefed as a primary portion of the mission. Compatible RAP CT sorties and events may be accomplished in conjunction with LASDT as long as the objectives of LASDT training are met. LASDT training will not be accomplished on 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. Develop training profiles to avoid over-tasking the upgrading pilot, and upgrade sortie continuity should be emphasized.

3.4.6.6. TR will be IAW AFI 11-214, *Aircrew and Weapons Director Procedures for Air Operations*; and AFI 11-2F-15V3, *F-15--Operations Procedures*. During LASDT, KIOs will include a climb to above 1000 feet AGL.

3.4.6.7. An IP or squadron supervisor, in the element, will supervise all sorties.

3.4.6.8. **Ground Training.** LASDT training. Coverage should support the mission and concept of operations of the squadron, incorporating appropriate portions of AFTTP 3-1, and AFFTP 3-3. Complete all academic training prior to flight training/briefing.

3.4.6.8.1. **AHC.** Discuss aircraft performance as it applies to the low altitude environment, to include: control response (low/high speed, over-G potential, speed brake use, stores effects); afterburner (fuel considerations, selection techniques), acceleration/ deceleration, level turns, vertical maneuvering, climb/dive/slice, recoveries, effects of gross weight/ CFT, power settings, density altitude, G-loading, and bank angles; terrain avoidance (ridge crossings), HUD use, terrain clearance versus turning room, dangers inherent in over-banking during turns, importance of frequent cross check of aircraft attitude relative to horizon; and the videotape "How Low Can You Go?"

3.4.6.8.2. **Environmental Factors.** Discuss out-of-cockpit visibility and FOV restrictions, sun angle, terrain and G-excess illusions/perceptions, WX considerations and the importance of relaying WX information to the weather flight, and use of the HUD.

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

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

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

3.4.6.8.6. **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.

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

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

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

3.4.6.9. **Flying Training:**

3.4.6.9.1. **LASDT-1 (Dual or Single-Ship w/Chase). Mission Objectives:** Demonstrate proficiency in single-ship maneuvering in the low altitude environment between 5,000 and 1,000 feet AGL. Introduce LOWAT Category I operations. **Specific Mission Tasks:** AHC IAW LOWAT exercises from AFTTP 3-3 (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; defensive reactions; and single-ship low altitude tactical intercepts.

3.4.6.9.2. **LASDT-2 (Dual or Single-Ship w/Chase). Mission Objectives:** Demonstrate proficiency in single-ship LOWAT Category I operations **Specific Mission Tasks:** AHC IAW

LOWAT exercises from AFTTP 3-3 (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; defensive reactions; single-ship low altitude tactical intercepts.

3.4.6.9.3. **LASDT-3 (2-Ship). Mission Objectives:** Demonstrate proficiency in 2-ship LOWAT Category I operations **Specific Mission Tasks:** AHC IAW LOWAT exercises from AFTTP 3-3 (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; 2-ship low altitude tactical intercepts and low altitude weapons employment considerations. Upon satisfactory completion of this mission, the SQ/CC can certify the pilot to LOWAT Category I.

3.4.6.9.4. **LASDT-4 (2-Ship). Mission Objectives:** To introduce LOWAT Category I 2-ship maneuvering against a low/slow targets. **Specific Mission Tasks:** G-awareness exercise; low level navigation; fuel management; low level turns; LATF; visual lookout; altitude awareness/control; attack maneuvering; practice KIOs; 2-ship low altitude tactical intercepts; low altitude weapons employment considerations; and EID/VID procedures against a low/slow target (dissimilar asset is required/helicopter if available) with emphasis placed on threat VID procedures IAW AFTTP 3-1. This ride is not required for LOWAT Category I, but should be accomplished as part of pre-deployment spin-up training in support of contingency operations or exercises.

3.4.6.9.5. **LASDT-5 (Dual or Single-Ship w/Chase). Mission Objectives:** Introduce single ship LOWAT Category II operations. **Specific Mission Tasks:** AHC IAW LOWAT exercises from AFTTP 3-3 (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; defensive reactions; and single-ship low altitude tactical intercepts.

3.4.6.9.6. **LASDT-6 (Dual or Single-Ship w/Chase). Mission Objectives:** Demonstrate proficiency in LOWAT Category II operations. **Specific Mission Tasks:** AHC IAW LOWAT exercises from AFTTP 3-3 (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; defensive reactions; single-ship low altitude tactical intercepts.

3.4.6.9.7. **LASDT-7 (2-Ship). Mission Objectives:** Demonstrate proficiency in 2-ship LOWAT Category II operations. **Specific Mission Tasks:** AHC IAW LOWAT exercises from AFTTP 3-3 (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; 2-ship low altitude tactical intercepts and low altitude weapons employment considerations. Upon satisfactory completion of this mission, the SQ/CC can certify the pilot to LOWAT Category II.

3.4.6.9.8. **LASDT-8 (Dual or Single-Ship w/Chase). Mission Objectives:** Introduce LOWAT Category III operations. **Specific Mission Tasks:** AHC IAW LOWAT exercises from AFTTP 3-3 (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; defensive reactions.

3.4.6.9.9. **LASDT-9 (Dual or Single-Ship w/Chase). Mission Objectives:** Demonstrate proficiency in LOWAT Category III operations. **Specific Mission Tasks:** AHC IAW LOWAT exercises from AFTTP 3-3 (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; defensive reactions.

3.4.6.9.10. **LASDT-10 (2-Ship). Mission Objectives:** Demonstrate proficiency in 2-ship IAW LOWAT Category III operations. **Specific Mission Tasks:** AHC IAW LOWAT exercises from AFTTP 3-3 (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. (Does not apply to ANG ADF and AETC units.) This training is intended to integrate pilot training with other functional areas (maintenance, intelligence, security, etc.) required to conduct combat operations in a CW environment and is applicable to all CMR/BMC pilots assigned or deployable to chemical high threat areas.

3.5.1. **Initial CW Training (ICWT).** Is designed to ensure pilot proficiency in the overall use of CW protective ensemble and to familiarize pilots with combat capabilities while wearing CW equipment. Pilots must complete ICWT NLT 90 days (ANG: 120 days) from MQT completion. Pilots who achieved ICWT in previous tours in a Fighter/Attack/FAC MDS are not required to accomplish/complete the ICWT Flight.

3.5.2. **Ground Training.** All pilots will complete Phase I and Phase II training IAW AFPD 32-40, *Disaster Preparedness*; AFI 32-4001, *Disaster Preparedness Planning and Operations*; AFI 32-4002, *Hazardous Material Emergency Planning and Response Compliance*; and MAJCOM supplements. The following training will be accomplished prior to the first flight with CW gear:

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

3.5.2.2. Equipment orientation/fitting of full aircrew ensemble.

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

3.5.3. **SIM CW-1.** Conduct the mission 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 a SIM is not available, mission may be accomplished in the WTT.

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

3.5.5.4. ACBT restricted to BFM or day "limited maneuvering" training rules. No 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. Formations are limited to two-ship. Dual cockpit operations will be used to the maximum extent possible with a safety observer, qualified in the aircraft, without CW gear in the rear cockpit. Solo operations will be supervised by a CW qualified FL from a chase position. Only one pilot per aircraft and no more than one pilot in the element can wear CW gear unless both aircraft are dual with an experienced pilot in each RCP. Pilots wearing CW gear will not fly in dissimilar formations.

3.5.5.7. Operations supervision should not conduct flying CW training when, in their judgment, temperature/dew point conditions are not favorable to safe operations.

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

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

3.5.5.10. Due to physical incompatibility between the JHMCS visor and the pilot's CW mask, ICWT will not be conducted with the JHMCS display unit (DU) attached to the helmet until an alternative to the current visor fitting process is developed.

3.6. Flight Surgeon:

3.6.1. **Ground Training.** Flight surgeons who are assigned to units and who have not previously flown the unit-assigned aircraft will accomplish the following before the initial flight briefing: Air-

craft general review; hanging harness training (as applicable); egress training, protective equipment training; applicable testing, AGSM training (to include the review of "Anti-G Strain Technique Reinforcement and Assessment"), and an instrument/EP simulator (if available) with an instructor (1 hour minimum). CRM is a one time per MDS requirement for FS that will be accomplished prior to first flight.

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

Chapter 4

CONTINUATION TRAINING

4.1. General. This chapter outlines ground and flying training requirements for CMR, BMC, and BAQ pilots. Pilots must be qualified IAW AFI 11-11-202V1 and AFI 11-11-202V2. Additionally, they must complete IQT to fly in BAQ status, and MQT or FTU IP upgrade to fly in BMC status or MQT to fly in CMR status. Chemical warfare training requirements do not apply to ANG ADF units.

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, *Aerospace Physiological Training Program*; and MAJCOM supplements.

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

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

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

4.2.4. **Simulator (SIM):** Mission Training Center (MTC), Full Mission Trainer (FMT), Weapons and Tactics Trainer (WTT).

4.2.4.1. **Table 4.2.** , as applicable, depicts the minimum SIM training requirements. SC/CC will determine the minimum number/type of training device continuation training (CT) missions that require supervision. Units should determine additional CT training device supervision requirements based on expected employment tasking, training device capabilities, and mission training objectives.

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

4.2.4.3. Unusual attitude and inadvertent weather entry procedures training and low altitude unusual attitude recovery training will be accomplished during all ATD training. Unusual attitude training will include recognition of HUD limitations, and non-HUD recoveries.

4.2.4.3.1. During EP FMT/WTT missions, departure recognition and recovery procedures will be accomplished to include both autoroll and spin recoveries.

4.2.4.4. Pilots may receive credit for training accomplished in special devices such as the Advanced Simulator for Aircrew Training (ASAT), Networked Training Center-Luke (NTC-L), or HHQ-directed simulator test support, etc., if approved by the SQ/CC.

4.2.4.5. Chemical Warfare (CW)/Full Mission Trainer **(**FMT)/Mission Training Center (MTC)**.** An FMT/MTC in full CW gear (anti-exposure suit liner may be substituted for charcoal undergarment), harness, and G-suit will be accomplished once each training cycle by tasked units. Within the mission profile, practice doffing simulated contaminated equipment. CW FMT/MTC missions are intended to complement existing FMT/MTC mission profiles. CW missions are not additive to FMT/MTC requirements. Units without access to an FMT/MTC will use a WTT or CFT, egress trainer, or aircraft cockpit for CW training.

4.2.4.6. Tactical missions may be accomplished in either the FMT/MTC or WTT. EP missions will be accomplished in the FMT/MTC. If a unit does not have access to an FMT/MTC, EP missions will be accomplished in the WTT or CFT.

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 discusses actions necessary to cope with the malfunction and carry it to a logical conclusion. Critical action/Boldface procedures (if applicable) and squadron special interest items should be emphasized. Incorporate the following elements into squadron SEPT training programs:

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

4.2.5.1.2. Develop SEPT scenarios using F-l5 mishaps/incidents as baseline cases.

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

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

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

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

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

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

4.2.6. Ground training will be IAW **Table 4.1.**. Waiver authority for the ground training specified is IAW the reference directive. This list is intended to be a single source reference. Where discrepancies exist, the 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**	**GROUNDING**	**AFFECT CMR/BMC**
Chemical Warfare Defense TrainingGround Crew Ensemble (N/A CB, TF, and ADF coded units)	Initial and Refresher 12 months	AFPD 32-40, AFI 32-4001, AFI 32-4002	No	No
Handgun Training (N/A AETC)	Initial and Requal every 24 months (ANG: Requal every 36 months)	AFI 36-2226 (ANG: AFI 36-2226/ ANG Sup 1)	No	Yes
ISOPREP Review (N/A AETC)	6 months	AFI 14-105	No	Yes
Intelligence Training	12 months	AFI 11-2F-15V1, AFI 14-105 and AFI 14-105 Sup 1	No	Yes
Air Force Anti-terrorism/Force Protection	12 months	AFI 31-210	No	No

AIRCREW TRAINING				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUNDING**	**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 11-202 V2, as supplemented	No	No
Life Support Training		AFI 11-301 as sup plemented		
a. Egress/Ejection Train ing	180 Days		Yes	No
b. Hanging Harness	180 Days		Yes	No
c. Life Support Equip Training	12 months		No	No
d. Combat Survival Training (CST) (N/A CB, TF, and ADF coded units)	24 months		No	Yes
e. Water Survival Train ing	24 months		No	No
f. Local area Survival Training	Initial/PCS		Yes	No
Initial Chemical Warfare Defense TrainingPilot Ensemble (N/A CB, TF, and ADF coded units)	Prior to 1st CW Flight	AFI 11-2F-15, Chap ter 3	No	Yes
Annual Chemical Warfare Defense CT Pilot Ensem ble (N/A CB, TF, and ADF coded units)	12 months	AFI 11-2F-15V1, Chapter 4	No	Yes
Simulator (MTC/ FMT/ WTT) Training	IAW **Table 4.2.**, this volume	AFI 11-2F-15V1, Chapter 4	No	Yes

AIRCREW TRAINING				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUNDING**	**AFFECT CMR/ BMC**
Situational Emergency Procedures Training (SEPT)	1 month	AFI 11-2F-15V1, Chapter 4	Yes	No
Verification	18 Months	AFI 11-2F-15V1	No	Yes (no BMC)
Weapons/Tactics Aca demics	12 months	AFI112F15V1	No	Yes
Marshaling Exam	Initial or after PCS, if required	AFI 11-218	No	No
Flying Safety Training	3 months	AFI 91-202	No	No
Supervisor Safety Train ing	Initial Only	AFI 91-301	No	No
VR Training	6 months ANG 12 months	AFI 11-2F-15V1, Chapter 4	No	No
CRM	24 months	AFI 112F15V1, Chapter 4 AFI 11-290	Yes (waiverable by OG/CC)	No
NVG Academics (Equipped units)	12 months	AFI 11-202 V1	No	No

AIR FORCE AWARENESS PROGRAM TRAINING				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUNDING**	**AFFECT CMR**
Protection of the President and Others	PCS	AFI 71-101 V2	No	No
US/Russia Prevention of Dangerous Military Activities	Initial/12 months and Pre-deployment	Flight Information Handbook CJCS 2311.01	No	No
Fire Extinguisher	Initial PCS	AFOSHSTD 9156	No	No
Code of Conduct	24 months	AFI 36-2209	No	No
Law of Armed Con flict	12 months	AFPD 51-4, AFI 51-401	No	No
Substance Abuse Education	PCS	AFI 44-121	No	No

AIR FORCE AWARENESS PROGRAM TRAINING				
SUBJECT	**FREQUENCY**	**REFERENCE DIRECTIVE**	**GROUNDING**	**AFFECT CMR**
Military Equal Opportunity New comers' Orientation	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. Audio-visual programs may be used in place of academic instruction. The program will require successful completion of an examination (85 percent minimum to pass). Use testing to validate qualification to the maximum extent possible throughout the training program. Pilots successfully scoring 85 percent or greater may be given training credit in lieu of ground CT, where authorized by the governing publication.

4.2.7.1. Academic instructors should be USAFWS 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. 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, VLC, RT, tactical intercept principles, alert procedures and scrambles, use of GCI/AWACS, and enemy capabilities.

4.2.7.2.3. Electronic combat equipment, capabilities, operation, checks, procedures, IRMD/ RMD, 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, wartime ROE, and safe passage. (ANG: ADF units will include Air Sovereignty and Counter Narcotics tasking.)

4.2.7.2.5. Low altitude flying academics review IAW the outline in paragraph **3.4.5.8.**, LASDT Ground Training.

4.2.7.2.6. An NVG academic review (as applicable), taught by an NVG qualified instructor, IAW the academic outline in paragraph **6.10.**

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 may receive credit for continuation verification.

4.2.8.1.1. BMC pilots should accomplish an initial verification and/or participate in continuation verifications to facilitate future upgrade to CMR status, at the discretion of the SQ/CC.

4.2.9. **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:

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

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

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

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

4.2.9.5. (ACC, ANG) Use guidance contained in AFI 14-105ACC1, *Unit Intelligence Mission and Responsibilities* (formerly ACCR 200-1); to develop and manage unit intelligence training programs. The OG/CC will determine pilot testing requirements for intelligence and EC training.

4.2.10. **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 section of the Flight Information Handbook

4.2.11. **Crew Resource Management (CRM).** Units will participate in MAJCOM established CRM CT. Training builds upon the basic cockpit management skills taught in SUPT/SUNT and FTUs. Each pilot is required to participate in one session every 24 months. Training should be tracked in ARMS. Failure to attend CRM training results in grounding (waiverable by OG/CC). Briefings and debriefings will include the core curriculum of CRM training IAW AFI 11-290 and the appropriate MAJCOM Supplement to AFI 11-290. The instructor CRM course may be used to satisfy the 24-month requirement.

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

4.2.13. **Night Vision Goggle Refresher Academics** . Refresher training as a minimum will consist of common NVG hazards, F-15 specific hazards, limitations, performing preflight adjustment procedures, and focusing on an eye chart or use of the Hoffman 20/20 tester. The use of a mock-up terrain display is encouraged for this training.

4.3. Flying Training. All pilots except API-8 will accomplish the requirements as shown on **Table 4.2.** API-8 flyers will strive to accomplish the requirements as shown on **Table 4.2.**. Failure to accomplish these requirements may 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 or CMR status (as specified in the RAP Tasking Message). In addition, the following are required:

4.3.1. **Basic Aircraft Qualification (BAQ) Requirements:**

4.3.1.1. Qualification Evaluation IAW AFI 11-202V2 (AFI 11-2F-15V2).

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

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

4.3.1.4. BAQ pilots that remain in BAQ status for more than 6 months will be grounded (except General Officers), unless waived by MAJCOM DO/XO.

4.3.2. **Basic Mission Capable (BMC) Requirements:**

4.3.2.1. Qualification and Mission Evaluations IAW AFI 11-202V2 (AFI 11-2F-15V2).

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

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

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

4.3.2.5. 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. Performance satisfactory to the SQ/CC.

4.3.3.2. Qualification and Mission Evaluations IAW AFI 11-202V2 (AFI 11-2F-15V2).

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

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

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

4.3.3.6. LASDT Category I certification.

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

4.3.4. **Special Capabilities/Qualification Requirements:**

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

4.3.4.2. Sortie/event requirements IAW the RAP tasking message.

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

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

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

4.3.5.1. API-1/6 pilots assigned/attached to TF or CB coded units will accomplish the non-RAP BMC requirements as shown on **Table 4.2.**, as applicable. For IP's failure to accomplish these requirements will not affect instructor status, but will require additional training as determined by the SQ/ CC prior to performing IP duties in the delinquent event.

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 USAFAWC and USAFWTC pilots) MTC/FMT requirements do not apply. 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 11-2F-15V2).

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

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

4.3.5.7. (ACC) Only qualified WIC IPs will be sent on weapons school visits/deployments. During these visits, WIC IPs may perform FL and IP duties during tactical missions if they fly in the aircraft in which they are qualified. When flying with student pilots in F-15B/D model aircraft during deployments to FTUs, WIC IPs will occupy the FCP.

Table 4.2. Non-RAP Annual Requirements for ACC, AETC, ANG, USAFE, and PACAF.

REQUIREMENT	BAQ	BMC	CMR	REMARKS
AHC Sortie	2	2	2	(PACAF: 4 at BAQ, BMC, and CMR) (Does not apply to the ANG)
Instrument Sortie	4	4	4	(Does not apply to the ANG)
Instrument/AHC Sortie	4	4	4	ANG Only
Trail Departure	0	8	8	
Night Sortie Exp/Inexp	4/4	4/6	13/12	See definition at **Attachment 1**
Penetration	12	12	12	IAW AFMAN 11-217, 4 of 12 will be flown no HUD
Precision Approach (ANG)	16 (12)	16 (12)	16 (12)	Min of 6 no HUD (Min of 4 no HUD)
Non-Precision Approach (ANG)	16 (12)	16 (12)	16 (12)	Min of 6 no HUD (Min of 4 no HUD)
Trail Arrival	0	4	4	Does not apply to the ANG

REQUIREMENT	BAQ	BMC	CMR	REMARKS
Simulated Single Engine (SSE) Approach	6	6	6	
No Flap Approach	6	6	6	
Minimum Total Sorties	48	See **Table 1.1.**	See **Table 1.1.**	ANG: 60 Sorties for TF/CB-Coded Units
Total SIM Sorties Inexp/Exp (ANG)	12/8 (6/4)	12/8 (6/4)	12/8 (6/4)	50% of these SIMs must be accomplished with reference to night procedures.
Tactical SIM Inexp/Exp (ANG)	8/4 (4/2)	8/4 (4/2)	8/4 (4/2)	The MTC/FMT/WTT or NTC-L may be used to accomplish tactical SIM requirements
Chemical Warfare SIM	0	1	1	May be conducted in conjunction with other SIM requirements 0 for TF/CB Coded Units
Emergency Procedures SIM (ANG)	4 (2)	4 (2)	4 (2)	Units who do not have access to an MTC/ FMT/WTT should utilize the CFT. Sim Instructors and SEFEs may log two of these missions from the Instructor Operating Station (IOS) (ACC): Will be supervised by a Sim IP or IP

4.4. Special Categories.

4.4.1. **Flight Surgeon (FS):**

4.4.1.1. May fly selected missions to enhance understanding of tactical missions with which they are directly associated. Initial checkouts will be IAW paragraph **3.7.**

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

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

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

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

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

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

4.4.2.2. HHQ flying personnel maintaining BMC status are exempt from academic ground training, NAAR, CW training, and special training programs within authorized mission areas. Provide specific currencies to the host squadron and HHQ supervisors will determine pilot qualifications to participate in squadron scenarios for MDT.

4.4.2.3. 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/DO or authorized representative 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. IPs may perform instructor duties with the concurrence of the OG/ CC, if qualified and current for the applicable missions/events.

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

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

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 DOG). All requests must contain full justification. Approval for multiple qualification request must be provided to the appropriate host installation aviation management office; flight accomplishments are not authorized until aircraft assignment is updated into ARMS.

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

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

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. F-15A/B and F-15C/D 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 Wing/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 Supervision Fam Flights.)

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

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

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

4.6. Currencies/Re-currencies/Re-qualification:

4.6.1. **Currency. Table 4.3.** defines currency requirements for all F-15 A/B/C/D pilots. If a pilot loses a particular currency, that sortie/event may not be performed except for the purpose of regaining currency as noted.

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

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

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

4.6.3. **MAJCOM/AOS Currency Requirements.** Units will comply with AFI 11-207, *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 SIM (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 above, plus (CMR/BMC) closed and open qualification examinations and an EPE evaluation.

4.6.4.1.4. **211 or More Days.** QT, landing recurrency, LASDT re-qualification, and appropriate weapons event initial qualification.

4.6.5. **ACBT and JHMCS Recurrency:**

4.6.5.1. Pilots losing currency in ACBT and/or JHMCS must accomplish the following sorties:

4.6.5.1.1. **61-90 Days (91-120 Experienced).** BFM.

4.6.5.1.2. **91-180 Days (121-180 Experienced).** AHC, and BFM.

4.6.5.1.3. **Over 180 Days.** Re-accomplish a tailored program IAW **Chapter 3**.

4.6.6. **Loss of/Re-qualification to IP Status.** IPs will be decertified if:

4.6.6.1. Failure of a Flight Check. To regain IP status, the IP must successfully complete a flight check IAW AFI 11-202V2 (AFI 11-2F-15V2).

4.6.6.2. Failure of an INST/QUAL open book test. To regain IP status, the IP must successfully re-accomplish the written exam.

4.6.6.3. Expiration of instructor currency To regain status, see **Table 4.3.**

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

4.6.7. **NVG Demanding Mission Recurrency.** Pilots losing NVG demanding mission currency must accomplish the following events prior to unrestricted night operations:

4.6.7.1. 2-ship basic formation work / light drills and unit specific mission elements.

4.6.7.2. Tactical turns and maneuvers.

4.6.7.3. Minimum of one intercept IAW NVG-2 profile not to exceed 1v1.

Table 4.3. F-15 Pilot Currencies.

EVENT	To Update Fly:	INE XP	EXP	Affects CMR	To Regain Currency:	NOTES
DEMANDING SORTIE	Sortie	21	30	No	Non-demanding	1, 10
LANDING (Appropriate Cockpit)	Landing	30	45	No	Landing	2
NIGHT LANDING	Day or night Landing	21	30	No	Day landing	
ACBT	ACBT	60	90	Yes	ACBT	3,4,10
LOW A/A	LOW A/A Event	60	90	No	LOW A/A Event	3,4, 6,7,10
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	11
INSTRUCTOR	Event	N/A	60	No	Event	8
NVG DEMANDING MISSION	NVG Event	90	120	No	Non-demanding NVG event	
NVG	Event	120	180	No	Event	3, 9
JHMCS	ACBT w/ JHMCS	90	120	No	ACBT w/ JHMCS	3,4

NOTES:

1. See **Attachment 2** 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. Re-currency supervision level will be SQ supervisor or instructor, in the aircraft or chase, qualified and current in the event. To regain RCP IP landing currency, FCP must be occupied by a BMC/CMR pilot current and qualified in landing.
3. Supervision will be SQ supervisor or instructor, qualified and current in the event. For NVG currency, supervission will be an NVG current, qualified pilot in aircraft or current, qualified SQ supervisor or instructor.
4. Performance or instruction will update CT ACBT currency. Performance or instruction of LOWAT will update CT LOWAT currency.
5. Flight leaders may update currency from either lead or wing position. Recurrency will be accomplished from wing position. Wingmen may only update currency from wing position.
6. LOW A/A - Event is defined as performing realistic, mission oriented air-to-air operations while in a LOWAT certified low altitude block (at or below 1000 ft AGL). Event includes skills necessary to seek out, and engage offensively, an aerial target at low altitude. For the F-15A/ B/C/D, this event also includes low altitude navigation, tactical formation, defensive maneu vering to avoid or negate threats.
7. Currency is required in the pilots low altitude category for operations below 1000 feet (Cat egory I, II, III) Loss of currency requires regression to the next higher category in which cur rent. Operations in a lower block category will update the higher block categories. Re-currency requires satisfactory performance in the following events: vertical awareness training, hard turns, tactical formation and offensive/defensive maneuvering.
8. Instructor pilot currency is 60 days. Non-currency for 61-180 days requires an instructor re-currency flight with an IP; over 180 days requires a Stan/Eval flight check. IP rear cockpit landing currency is 45 days. F-15 FWIC student sorties count as instructor sorties for currency.
9. An NVG academic review is required prior to the recurrency sortie.
10. For IPs, accomplishing or instructing the event from either C/P will update currency.
11. If non-current in precision approaches, increase the pilot weather minimum by one category. If day VFR, the supervision level is a pilot, current and qualified in the event; all other times require an IP IAW AFI 11-202 V3. Pilots may regain their currency in an MTC on a case-by-case basis with SQ/CC approval.

4.7. Regression.

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

remove the pilot from an CMR 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, the pilot may, at SQ/CC discretion, remain CMR/BMC. Failure to meet the 3-month lookback will result in regression to N-CMR/N-BMC status as appropriate, or the pilot may be placed in probation status for 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 re-establish a 1-month lookback at the end of the probation period (see **Figure 4.1.**).

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

4.7.1.3. Lookback computations begin 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 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 11-2F-15V2). Pilots will regress to Non-CMR/Non-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 volume by the end of the training cycle may require additional training depending on the type and magnitude of the deficiency. Refer to paragraph **4.9.** to see if some of these requirements can be prorated. In all cases, report training shortfalls IAW paragraph **1.12.**

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

4.8.2. Pilots that 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 RAP Sortie Type Requirements will result in one of the following::

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 aircrew 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 DNIFs, emergency leaves, COT leaves, non-flying TDY/exercises (ANG: and or mandatory training required by civilian employment), combat/contingency deployments, or operations 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. (ANG: Proration is permitted for weather cancels and maintenance aborts that preclude individuals from flying at least 7 days during their scheduled availability period in any given month). 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 training non-availability in the training cycle. Use **Table 4.4.** to determine the number of months to be prorated based on the cumulative calendar days of training 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.

Table 4.4. Proration Allowance.

CUMULATIVE DAYS OF TRAINING NON-AVAILABILITY	MONTHS OF PRORATION ALLOWED
0 - 15	0
16 - 45	1
46 - 75	2
76 - 105	3
106 - 135	4
136 - 165	5
166 - 179	6
196 - 225	7
226 - 255	8

CUMULATIVE DAYS OF TRAINING NON-AVAILABILITY	MONTHS OF PRORATION ALLOWED
256 – 285	9
286 – 315	10
316 – 345	11
Over 345	12

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

4.9.6. Newly assigned/converted 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. Events and sorties for the remainder of the training cycle may be prorated. A prorated share of RAP sorties must be completed in CT.

4.9.7. Night, DART/AGTS/BANNER (as applicable), and AAR requirements accomplished during MQT may be credited toward prorated CT requirements if accomplished during the cycle in which the pilot was declared CMR/BMC, unless specified otherwise by MAJCOM.

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

4.9.9. CMR pilots who attend F-15 USAFWS in TDY-and-return status may be reported throughout the TDY as CMR. Upon return, those pilots will accomplish a prorated share of sortie/event requirements (see **Table 4.4.**).

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

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

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

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

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

4.10. Regaining CMR/BMC Status:

4.10.1. If CMR/BMC status is lost due to failure to meet the end of cycle weapons qualifications and/or event requirements, 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 qualification and tactical 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 9 and 24 RAP sorties respectively. On Feb 3, he flew an ACBT sortie prior to departing for a non-flying TDY staff tour for two months. He reported back for flight duty on 6 Apr. What is his status throughout his TDY and on his return?

4.11.1.1. The SQ/CC wanted to list Capt Smith as a countable CMR pilot for reporting purposes throughout the TDY. Therefore, on 1 Mar, his Flt/CC performed the mandatory 1-month lookback (Feb) on Capt Smith. He only flew 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 four 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-month probation. On 1 Apr, Capt Smith's 1 month-lookback (Mar) was 0 sorties. The SQ/CC must now regress Capt Smith to N-CMR. When Capt Smith returns, the SQ/CC will have to place him in a re-certification program. Upon completing this program, Capt Smith will need to re-establish his 1-month lookback by 1 May. Failing to do so would force him to be reported N-CMR for an additional 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 9 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 2 months off of Capt Smith's total requirements. In spite of this proration, Capt Smith was deficient in one RAP sortie category The SQ/CC could regress Capt Smith to Non-CMR, if deemed significant. After accomplishing the tailored re-certification 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.

4.12.1. **CW CT Flight/Exercise.** As determined by the unit.

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

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

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

4.12.2.3. Night AAR is not authorized. Air to air training is restricted to limited maneuvering ROE.

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

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

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

4.12.4. A CW CT flight fulfills the annual CW CT SIM requirements.

4.13. Instruments. Develop an instrument training program to ensure instrument proficiency including lost wingman training, briefings on how to recognize and deal with spatial disorientation, HUD-off unusual attitude recoveries, and transition from visual to instrument conditions. It will also stress the use of primary and standby cockpit flight instruments, rather than the HUD, during instrument recovery from unusual attitudes or spatial disorientation and proper integration of the HUD into the normal instrument cross-check.

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

4.13.2. Pilots transferring from another theater require the theater-specific portions of IRC before flying. MQT that include theater-specific portions of IRC academics and the MQT LAO mission may satisfy this requirement.

4.13.3. Pilots may accomplish RAP events on an instrument sortie provided accomplishment does not interfere with the primary goal of instrument training. Pilots should practice the transition from instruments to visual references 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, and flight surgeon the skills needed to evaluate a flight member's AVTR to ensure a proper L-1 AGSM is being performed. This program also makes assessment of the AGSM a normal debrief item after every flight. The 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. Incorporate AGSM technique and assessment into FLUG, (AETC: Squadron Upgrade), IPUG, and squadron CT program. Place emphasis on briefing, debriefing, and assessing the L-1 AGSM using the AVTR in the debrief on a daily basis. FLs, IPs, SQ supervisors, and flight surgeons should become adept at assessing and teaching the correct AGSM. The video, "Anti-G Strain Technique Reinforcement and Assessment," or Anti-G strain technique academics will be presented annually to all pilots as part of weapons academics. 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. Evaluate these areas during sorties where more than five Gs are pulled.

4.14.2.3. Fly the tactical portion of all basic missions (BFM, ACM, etc.) in hot mic to enable assessment of the AGSM. Set intercom volumes at a level which is comfortable for the pilot but still allows assessment of breathing and AGSM technique in the debrief For high task sorties (DACT, CFTR, 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. Film G-awareness exercises in HUD (if so equipped) and in hot mic. The second turn of the G-awareness exercise for A/A sorties will be a minimum of 180 degrees of turn.

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

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. Evaluate the AGSM after the pilot has had the time to fatigue, to get an accurate assessment of a pilot's AGSM during a tactically and G-demanding portion of flight. AGSM should also be evaluated under relatively low intensity G.

4.14.3. FLs or SQ supervisors will identify pilots having poor AGSM technique or low G-tolerance to the Flt/CC or appropriate operations supervisor. The SQ/DO 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. All SQ flight surgeons assigned to fighter/attack/FAC(A)/Recce/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 squadron flight surgeon, aerospace physiologist, or a squadron supervisor (ACC and USAFE: Tapes will be reviewed by both the squadron flight surgeon or aerospace physiologist and a squadron supervisor). It is highly encouraged that both a flight surgeon and a supervisor participate. The reviews will be documented. **Exception**: AETC students enrolled in a formal syllabus course are exempt from this requirement.

4.15. Low/Slow Speed EID/VID Procedures:

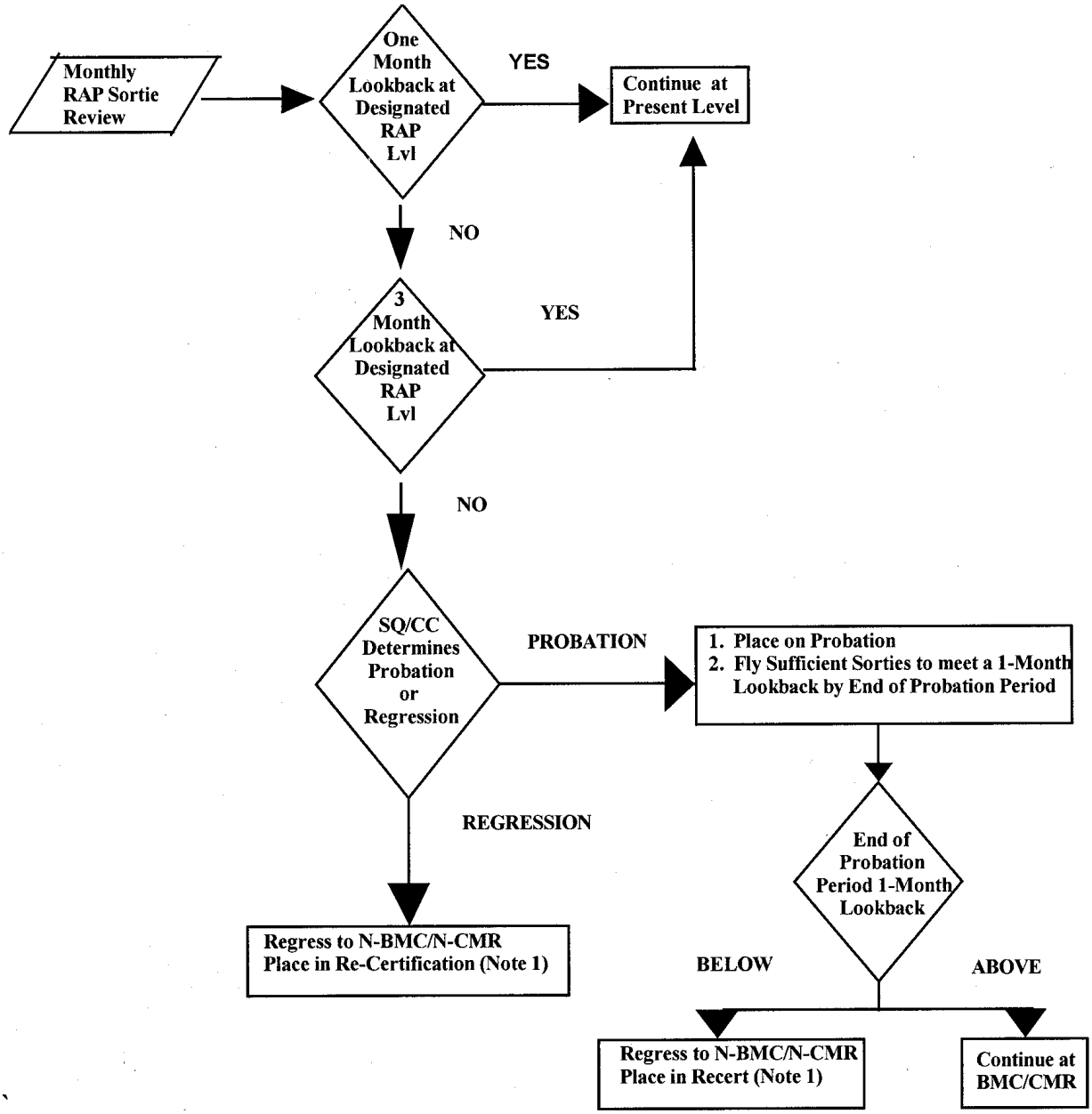
4.15.1. For Strategic Defense Units and units specifically tasked to perform the strategic defense mission or counter drug role, comply with current approved guidance.

4.15.2. For all other units, the objective of this low/slow EID/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 2000 feet AGL and 200 KIAS (helicopters are desired). Training will be conducted IAW AFTTP 3-1, AFI 11-2F-15V3, and AFI 11-214.

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

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

Figure 4.1. Regression Flow Chart.



Chapter 5

WEAPONS EMPLOYMENT QUALIFICATION

5.1. General. This chapter outlines requirements for the initial qualification to employ weapons (AIM-120, AIM-7, AIM-9 and GUN) and the requirements to maintain qualification in weapons employment during Continuation Training. Refer to **Attachment 2** for further guidance in weapons events.

5.2. Initial Qualification:

5.2.1. Initial missile employment qualification is evaluated on the mission qualification check ride and is achieved by meeting the "qualified" criteria for weapons employment IAW AFI 11-2F-15V2. Qualification in one missile category is assumed for other missile categories in such cases where only one type of missile was employed.

5.2.2. Initial gun employment qualification is achieved by scoring an individual (i.e., element/team hit is not applicable for initial qualification) hit during a live fire pass on a DART/AGTS/BANNER (as applicable) target. A hit is one bullet impact on the DART/AGTS/BANNER (as applicable). For initial qualification use any dart pattern as defined in (AFI 11-214). If DART/AGTS/BANNER (as applicable) are not available, gun qualification may be accomplished via video tape recorder (VTR) assessment.

5.2.3. The initial qualification satisfies weapons qualification requirements until the end of the current training period.

5.2.4. Pilots must accomplish initial qualification in any weapons requiring qualification at CMR/BMC except the gun.

5.3. CT Qualification:

5.3.1. During CT each pilot's weapons employment will be assessed for validity IAW AFTTP 3-1 criteria and the results in each category (AIM-120, AIM-7, AIM-9, and GUN) will be recorded for the current training period for RAP required tasks. Qualification in weapons employment is maintained by achieving a 75 percent valid at pickle rate for AIM-120/7/9 and 50 percent hit rate (valid RATR assessment) for gun. This qualification is valid throughout the next training period.

5.3.2. To maintain DART/AGTS/BANNER (as applicable) qualification, pilots will use basic or tactical patterns as defined in AFI 11-214 and must achieve a hit.

5.4. Failure to Qualify:

5.4.1. 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.

5.4.2. DART/AGTS/BANNER (as applicable) re-qualification requires an individual hit IAW hit criteria in paragraph **5.3.** above. Re-qualification may be accomplished using basic or tactical patterns. If DART/AGTS/BANNER (as applicable) are not available, gun re-qualification may be accomplished via VTR assessment.

5.4.3. SQ/CC will determine the corrective action required to re-qualify a pilot in those categories in which the pilot failed to meet standards.

5.5. Weapons Employment Parameters. The following employment parameters and requirements form the basic frame work for aircrew weapons employment training and all deliveries will conform to limits established for each specific event.

5.5.1. Missile employment parameters must be IAW AFTTP 3-1 criteria.

5.5.2. Gun employment parameters must be IAW AFTTP 3-1 criteria.

5.5.2.1. Gun pattern descriptions, procedures, training rules, and foul criteria are contained in AFI 11-2F-15V3 and AFI 11-214 as supplemented.

5.5.2.2. Aircraft rounds limiter will be set as desired.

5.5.2.3. Hit criteria:

5.5.2.3.1. **DART/AGTS/BANNER (as applicable).** One bullet impact is required.

5.5.2.3.2. During live-fire gun employment on an AGTS target with an inoperative scoring system a hit can be declared if VTR assessment shows that the firing parameters met AFTTP 3-1 hit criteria and the gun was fired. A hit may not be declared if the shot is non-assessable.

5.5.2.3.3. During live-fire gun employment failure to qualify during hot passes will not be reversed by VTR assessed hit on cold passes.

5.6. Live Ordnance. Live ordnance training is essential to pilot combat capability. Every attempt should be made to give each pilot the opportunity to employ as many types of weapons inventoried on the unit's UCML as possible. To provide this opportunity, as a goal, all CMR pilots should expend the following ordnance. (AFI 36-2217, *Munitions Requirements for Aircrew Training*)

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

Chapter 6

SPECIALIZED TRAINING

6.1. Specialized Training Programs. This chapter outlines upgrade training programs for special capabilities and qualifications. These programs are intended to provide a basic starting point and may be modified by the SQ/CC based on the unit's requirements and/or the upgradee's previous experience, qualifications, and documented performance. Unless governed by a formal syllabus, ground and device training for these programs will consist of unit-developed academics and scenarios. Flight training will be conducted in accordance with a program approved by the SQ/CC.

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

6.2.1. **Academic Training.** Prior to the first IOS mission, the upgrading simulator instructor (USI) will complete the following unit developed blocks of instruction:

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

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

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

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

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

6.2.2. **Mission Profiles (Based on Simulator Capabilities):**

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

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

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

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

6.3. Flight Lead Upgrade. SQ/CCs will select only highly qualified, motivated, and responsible pilots for this program. 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 2 aircraft until certified

as a 4-ship FL. The SQ/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.

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

6.3.1.1. 300 hours PAI, or

6.3.1.2. 400 hours IP/MP/FP in an 11Fxx/11K3C/11K3D AFSC of which 200 hours are PAI, or

6.3.1.3. 50 hours PAI, if previously qualified 11Fxx AFSC flight lead.

6.3.1.4. (ANG) For converting units, SQ/CCs may select prior qualified pilots to upgrade to flight lead concurrently with the MQT top-off program regardless of PAA hours.

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

6.3.2.1. **FL Responsibilities.** FL/wingman relationship, unit training objectives.

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

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

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

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. **IFEs and Emergency Diverts.**

6.3.3. **Flight training** will be conducted in accordance with a program approved by the SQ/CC. The following is a recommended baseline program which may be modified as necessary to meet unit and/or upgradee specific needs. Missions may be flown in any order provided day training precedes respective night training. 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.). An evaluation sortie is required. Two formation takeoffs and landings, a day and night aerial refueling, and a trail recovery will be accomplished as a flight lead during the program. Tape review/assessment, to include a review of AGSM, will be accomplished on every sortie. All FLUG training will be under the supervision of an IP or flight lead-qualified squadron supervisor. Dissimilar adversaries should be used to the maximum extent practical during FLUG training. FLUG-8 through 10 are only required for 4-ship FL upgrade. (**NOTE:** If 2- and 4-ship upgrade training are combined, only one evaluation sortie is required.)

6.3.3.1. **FLUG-1--BFM. Mission Objectives:** Practice leading and controlling 1v1 BFM mission. **Specific Mission Tasks:** Briefing (emphasis on pursuit curves, AHC, weapons employment zones, high AOA maneuvering, departure/loss of control prevention/recovery, and GLOC awareness); formation takeoff (lead); weapons system checks; tactical formation; offensive and defensive BFM from visual perch setups; weapons employment; BD check; recovery, single ship landing, mission reconstruction/ debriefing; tape review/ assessment (to include AGSM).

6.3.3.2. **FLUG-2--Intercepts. Mission Objectives:** Practice leading and controlling a 1 v 1 intercept mission. **Specific Mission Tasks:** Briefing; radar trail departure; weapons system check; tactical formation; fence check; GCI/AWACS/SOCC procedures (as applicable); air sovereignty task (air defense units); horizontal/slice/chandelle intercepts; low altitude intercepts (if possible); degraded system/ECCM considerations; BD check; recovery; formation approach and landing (lead); debriefing, mission reconstruction, tape review/ assessment (to include AGSM).

6.3.3.3. **FLUG-3--Night Intercepts. Mission Objectives:** Practice leading and controlling a night intercept and air refueling mission. **Specific Mission Tasks:** Briefing (including degraded systems considerations); radar trail departure; weapons system check; tanker rendezvous; AAR procedures; fence check; GCI/AWACS/SOCC procedures (as applicable); CAP procedures; night intercepts; recovery; instrument approach and landing; debriefing.

6.3.3.4. **FLUG-4--ACM. Mission Objectives:** Practice leading and controlling a 2 v 1 ACM mission. **Specific Mission Tasks:** Briefing (emphasis on engaged/support fighter responsibilities, attack options, radio procedures, radar/visual lookout techniques, element initial moves and offensive maneuvering); mutual support; weapons employment; element defensive maneuvering to negate an attack, bring ordnance to bear and/or separate; BD check; recovery; formation approach and landing (lead); debriefing, tape review/assessment (to include AGSM).

6.3.3.5. **FLUG-5--ACT. Mission Objectives:** Practice leading and controlling an ACT mission (2 v 2 min) in a counter-air scenario. **Specific Mission Tasks:** Briefing; weapons system check; tactical formation; fence check; GCI/AWACS/SOCC procedures (as applicable); fence check; BVR set-ups for sweep/lane/point defense scenarios (as appropriate); radar/visual lookout; tactical intercepts; element engaged maneuvering; radio discipline; mutual support; weapons employment; separations; BD check; recovery; debriefing, tape review/ assessment (to include AGSM).

6.3.3.6. **FLUG-6--DART/AGTS/BANNER (If Applicable). Mission Objectives:** Practice leading and controlling a gun employment mission. **Specific Mission Tasks:** Briefing (emphasis on gun preflight, BIT checks, systems check, pattern procedures, firing procedures/techniques, training rules and foul criteria, degraded system considerations and gun malfunction procedures); ground ops (arming/de-arming, etc.); departure; weapons system check; gun employment (preferably tactical intercept to combat pattern); BD check; hot gun recovery; de-arming; debriefing.

6.3.3.7. **FLUG-7--Commander's Evaluation (2-Ship). Mission Objectives:** Evaluation (by squadron commander 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; tape review/assessment (to include AGSM); critique.

6.3.3.8. **FLUG-8--D/ACT. Mission Objectives:** Practice leading and controlling a 4vX D/ACT mission in a defensive counter air scenario. Emphasis will be placed on unit specific DOC and OPlan tasking for scenario development. **Specific Mission Tasks:** Briefing; four-ship tactical formation; weapons system check; BVR set-ups from CAP/Lane/Point defense posture; GCI/ AWACS/ SOCC procedures (as applicable); element and flight control and employment tactics; weapons employment; radio discipline; mutual support; rejoin; BD check; recovery and landing; debriefing, tape review/assessment (to include AGSM).

6.3.3.9. **FLUG-9--D/ACT. Mission Objectives:** Practice leading and controlling a 4vX D/ACT mission in an offensive counter air scenario. Emphasis will be placed on unit-specific DOC and

OPlan tasking for scenario development. **Specific Mission Tasks:** Briefing; weapons system check; four-ship tactical formation; GCI/ AWACS/SOCC procedures (as applicable); element and flight control and employment tactics in a sweep or escort role (as applicable); FEBA crossing and behind-the-FEBA operations (air superiority units); radio discipline; weapons employment; mutual support; egress/ rejoin; BD check; recovery and landing; debriefing, tape review/assessment (to include AGSM).

6.3.3.10. **FLUG-10--Commander's Evaluation (4-Ship). Mission Objectives:** Evaluation (by squadron commander 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; tape review/assessment (to include AGSM); critique.

6.3.4. Following successful completion of FLUG-7 and/or FLUG-10, the SQ/CC will personally interview the upgrading pilot and review flight lead responsibilities, scope of duties, authority, and philosophy. Failure to complete scheduled training events (i.e., DART/AGTS/BANNER, AAR, etc.) need not delay certification. The SQ/CC will certify new flight lead's status, including any restrictions, in appropriate written format (letter, gradesheets, ARMS, etc.).

6.4. Instructor Pilot (IP) Upgrade. This program establishes the minimum guidelines for those pilots identified by the SQ/CC to upgrade to IP. OG/CCs may waive selected missions based on previous experience, currency, and documented performance. FTU instructors will complete a formal syllabus course as defined in the USAF Education and Training Course Announcements (ETCA)..

6.4.1. Pilots selected for IP upgrade must be 4-ship FLs with either:

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

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

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

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

6.4.1.5. (ANG) For converting units, pilots may be designated by the SQ/CC for IP upgrade regardless of time in the new PAA if they have at least 1,000 hours IP/MP/FP in an 11FXX AFSC and the IP upgrade will be conducted in a formal course at an FTU.

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

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

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

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

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

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

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

6.4.2.7. **Cockpit Resource Management (CRM): Tecniques for increasing Airmanship, methods to maximize mission effectivenes, task/risk management and prioritization, feedback/crosscheck loops.**

6.4.3. **Flying Training.** Training will be conducted according to mission outlines listed below in any order, as aircraft configurations and sortie scheduling permit. 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. AAR may be completed on any mission. Failure to complete specific training events (e.g., AAR, RCP transition) need not delay certification. In such cases, SQ/CCs will certify IPs with appropriate limitations to preclude performance of duties in which training is incomplete.

6.4.3.1. **IPUG-1--AHC/Transition (F-15B/D Required w/IP in FCP for RCP Landing Practice If Accomplished). Mission Objectives:** Practice dual cockpit instruction; advanced handling; instrument approach(es); chase procedures (if F-15B/D unavailable); and VFR overhead patterns and landings (normal and no-flap). **Specific Mission Tasks:** Briefing; takeoff; departure; confidence maneuvers; advanced handling; instrument recovery; SSE straight-in; normal, no-flap, and closed patterns; touch-and-go landings; full-stop landing; debriefing.

6.4.3.2. **IPUG-2--BFM. Mission Objectives:** Brief and instruct offensive/defensive/high aspect BFM. **Specific Mission Tasks:** Briefing; formation takeoff (lead); departure; weapons system check; tactical formation; offensive and defensive BFM from visual perch set-ups; high aspect set-ups; BD check; recovery; formation approach and landing (lead); debriefing (emphasis on accurate reconstruction and effective error analysis), tape review/assessment (to include AGSM).

6.4.3.3. **IPUG-3--ACM. Mission Objectives:** Brief and instruct offensive and defensive ACM (2 v 1) from visual and/or BVR set-ups (emphasis on positive flight control, visual/radar lookout, radio discipline, initial moves, element maneuvering, and mutual support). **Specific Mission Tasks:** Briefing; departure; weapons system check; tactical formation; positive flight control to ensure maximum number of set-ups; offensive and defensive engagements; BD check; recovery; debriefing, tape review/assessment (to include AGSM).

6.4.3.4. **IPUG-4--Night Intercepts/AAR. Mission Objectives:** Brief and instruct night AAR and intercepts (single/multiple targets, ECM capability desired). **Specific Mission Tasks:** Briefing; radar trail departure; tanker rendezvous; AAR procedures; weapons system check; fence check; GCI/AWACS/SOCC procedures (as applicable); radar search/sort procedures/techniques; horizontal/slice/chandelle conversions; VID procedures; recovery; instrument approach and landing; debriefing.

6.4.3.5. **IPUG-5--D/ACT. Mission Objectives:** Brief and instruct element tactics for detecting and engaging multiple targets (emphasis on realistic scenario based on unit's specific mission/tasking). **Specific Mission Tasks:** Briefing; departure; weapons system check; tactical formation; fence check; GCI/ AWACS/SOCC procedures (as applicable); CAP/ commit procedures; radar search/sort procedures; visual lookout; element tactics to destroy hostile targets or negate an attack and bring ordnance to bear or separate; mutual support; radio discipline; recovery; debriefing.

6.4.3.6. **IPUG-6--DART/AGTS/BANNER (as applicable). Mission Objectives:** Brief and instruct a gun employment mission. **Specific Mission Tasks:** Briefing (emphasis on gun preflight, ACS/PACS set-up, BIT checks, pattern procedures, training rules, normal/degraded system operations, fouls, and gun malfunction procedures); ground ops; departure; DART/AGTS/BANNER (as applicable) pattern procedures; gun employment; BD check; hot/hung gun recovery; debriefing.

6.4.3.7. **IPUG-7--IP Flight Evaluation.** Complete a successful IP evaluation IAW AFI 11-202V2 (AFI 11-2F-15V2). The UIP will demonstrate proficiency in briefing, executing, and debriefing a typical MQT or continuation training sortie.

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

6.5.1. **Responsibilities:**

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

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

6.5.2. **MCC Prerequisites.** Squadron commanders will consider ability, judgment, technical expertise, skill, and experience when selecting a pilot for mission commander upgrade.

6.5.2.1. Minimum qualification is 4-ship FL.

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

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

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

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

6.5.4.1. To qualify as a MCC sortie, the pilot must be acting as the Mission Commander 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. Unit tasking should drive force composition.

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

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

6.6. DART/AGTS/BANNER (as applicable) Tow.

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

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

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

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

6.7.2. Conduct flying training IAW unit-developed mission profiles which allow this training in conjunction with other approved training.

6.7.3. Photo aircraft will approach no closer than 100 feet to aircraft being photographed during training.

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

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

6.7.6. Currency for Photo Documentation is 3 years. Re-qualification will require ground and flying training as specified in paragraphs **6.7.1.** and **6.7.2.**

6.8. Air Defense Augmentation. This program is designed to augment CINCNORAD in the Air Defense role for Peacetime Alert, NORAD ConPlan 3310 implementation or similar CONUS air defense emergency. The ground training requirements of this section are for planning purposes and may be modified to meet unique unit requirements.

6.8.1. **MQT/Re-certification.** The following minimum training requirements should be incorporated into the MQT and Air Defense Certification programs for units identified to augment NORAD ConPlan 3310 or apportioned to CINCNORAD in the unit Designed Operational Capabilities (DOC) statement. Units who anticipate Air Defense tasking (i.e. AEF scheduling) during their normal training cycle will certify pilots using the minimum training requirements outlined below within 6 months of actual tasking:

6.8.1.1. Academic training covering: NORAD/ACC mission and organization, authentication procedures, applicable plans, facilities locations, call signs, ADA corridor procedures, safe pas-

sage procedures, alert procedures, ROE (NORAD Regulation 55-6), AFI 11-214 procedures, and applicable sections of AFTTP 3-1.

6.8.1.2. Two simulator missions dedicated to an Air Defense scenario including a SOCC scramble, handover, voice authentication and controller-directed VID profiles, low altitude intercepts below 1,000 feet AGL, CAP procedures/employment, ECCM intercepts, and command and control procedures.

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

6.8.2.1. Academic training covering appropriate areas as listed in paragraph **6.8.1.** above.

6.8.2.2. Pilots will maintain LOWAT currency IAW **Table 4.3.**

6.8.2.3. Tactical simulator missions should include various ADF elements as listed in paragraph **6.8.1.2.** above.

6.8.3. **Short Notice SpinUp.** Units with no "pre-planned" tasking under NORAD CONPLAN 3310 and/or not apportioned to CINCNORAD in their unit DOC statement, who are tasked to augment NORAD in the Air Defense role, should complete the training as outlined in paragraph **6.8.1.** at the unit's earliest convenience and the simulator missions, time permitting, listed in paragraph **6.8.1.2.**

6.8.4. **Air Defense Training Resources.** All necessary training materials listed in paragraph **6.8.1.1.**, NORAD/CONR/Sector guidance, and Air Defense mission "Smart Packs" can be obtained from the 1 AF/DO Classified Web page, **http://conr.tyndall.af.smil.mil**.

6.8.5. **Exceptions.** 57 FW and AETC will complete MQT and CT ground training as listed above. Completion of the F-15 WIC IPUG or FTU IPUG syllabus will fulfill MQT requirements.

6.9. Counterdrug (CD) Operations. Conduct this training prior to participating in CD operations. The objective of CD training is to enhance the pilot's ability to conduct day/night intercepts on slow/low flying aircraft for target identification (ID) and shadowing. Conduct training IAW AFTTP 3-1 and AFI 11-214. Use Night Vision Goggles (NVG) to the maximum extent possible, based on B/D model and NVG availability.

6.9.1. Initial Counterdrug Training (ICDT) is designed to familiarize pilots with tactics and procedures required to support CD operations.

6.9.1.1. **Ground Training.** Pilots will complete ground training prior to the first CD training flight. The following ground training elements will be accomplished:

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

6.9.1.1.2. **SIM CD-1. Mission Objectives:** Practice night intercepts on slow/low non-maneuvering and maneuvering targets. Pilots will observe and practice the geometry/airspeed required to complete a stern conversion, and VID/shadowing procedures with and without radar locks, to include targets less than 200 knots. Other specific tasks should include scramble starts and procedures, trail departures, and unusual attitude recoveries.

6.9.1.2. **Flying Training.** Initial flying training for CD operations will consist of two night sorties minimum. Required supervision is an IP qualified and current in CD operations. Use AWACS/GCI, when available, if applicable to anticipated tasking. CD upgrade training profiles are:

6.9.1.2.1. **CD-1, Night Familiarization. Mission Objectives:** Practice 1 v 1 intercepts on a slow/low target to include basic stern and front quarter mark/blow through intercepts. Target altitude will be below 5,000 feet AGL. Minimum target altitude is 1,000 feet. Target airspeed will be 200-300 knots. **Specific Mission Tasks:** Preflight, trail departure, trail formation, 1 v 1 intercepts to VID parameters.

6.9.1.2.2. **CD-2, Night Proficiency and Tactics (Upgrading Pilots in the RCP of a B/D Model). Mission Objectives:** Practice 2 v 1 intercepts on a slow/low target to include basic stern conversions on a lights-out target. **Specific Mission Tasks:** NVG assembly and system checks, preflight, scramble start, trail departure, trail formation, 2-ship shadow and intercept procedures, crew coordination, VID and overrun procedures using NVGs, and instrument approaches.

6.9.2. **CT Training.** Intercepts, VID events, and shadow events will be flown IAW RAP tasking.

6.9.3. **Spin-up Training.** Pilots who have completed ICDT will accomplish spin-up training within 6 months of actual tasking to participate in CD operations. If required, CD spin-up will consist of elements of ICDT ground and flying training listed above with a minimum of a simulator mission and one night sortie.

6.10. Night Vision Goggle (NVG) Qualification Program. The intent of this program is to produce fully qualified wingmen, flight leads, and instructor pilots. Completion of the qualification training allows the pilot to perform missions under NVGs at or above minimum safe altitude (MSA) or IAW AFI 11-214, whichever is greater. Operation below MSA will require additional training as determined by OG/CC.

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

6.10.1.1. **Academics.**

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

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

6.10.1.1.3. 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.

6.10.1.2. **Simulator.**

6.10.1.2.1. **NCT (Night Cockpit Trainer, FMT, WTT)-1--Mission Objectives.** Introduce NVG Cockpit Set-up, NVG procedures, and emergency situations. Specific Tasks: NVG

ground operations, use of interior and exterior aircraft lighting, Taxi/Take-off, enroute formations, NVG procedures, blindfold cockpit check, and emergency/egress procedures. Special attention should be focused on recognition/prevention of spatial disorientation, unusual attitude recoveries, night/NVG instrument crosscheck that uses NVGs as a secondary means of maintaining SA, task saturation/prioritization, and potential FOD hazards associated with NVG use.

6.10.2. **General Instructions.**

6.10.2.1. UP must fly at least 1 low illumination sortie.

6.10.2.2. NVG FLUG/IPUG sorties can be flown in conjunction with unit FLUG/IPUG programs.

6.10.2.3. NVG sorties will be flown in prescribed order.

6.10.2.4. NVG IP must complete a total of 10 NVG sorties, including upgrade sorties, before performing NVG IP duties.

6.10.2.5. NVG-1 will be flown dual.

6.10.2.6. Multiple upgrades may be accomplished on an NVG sortie, or in conjunction with other NVG upgrades, at SQ/CC discretion.

6.10.2.7. NVG-4 may be flown as a four-ship Flight Lead Certification. UP must be current and qualified four-ship Flight Lead.

6.10.2.8. Controlled Maneuvering may be introduced after completion of initial wingman qualification. IP must document satisfactory completion of this event on gradesheet.

6.10.3. **Flying Training.** All NVG syllabus sorties will be under the supervision of a qualified NVG IP. Suggested profiles are listed below:

6.10.3.1. **NVG-1, Basic NVG Familiarization. Mission Objectives** . Primary emphasis of NVG 1 is to introduce the capabilities and limitations of NVGs and the night environment to the student. Introduce and practice NVG adjustment procedures, cockpit preparation, confidence maneuvers, basic formation, contact maneuvering, and AAMD. Demonstrate proficiency in various administrative and tactical 2-ship formation positions with a mixture of external lighting options including reduced lighting and lights out. Introduce in NVG front aspect RADAR intercepts to visual stern conversions versus both high and low-speed targets. **Specific Mission Tasks:** Trail Departure, Systems check, Ranging exercise, NVG G-awareness exercise, aircraft lighting demonstration, Administrative and tactical NVG formations, Chaff/Flare demonstration, tactical formation turns, lost wingman/blind exercise, rejoins, 1 v 1 intercepts to include: a) Low to high conversion, b) High to low conversion (Low speed target), c) AAMD (RMD), d) BVR launch and leave with short range recommit to stern conversions, NVG battle damage check, trail recovery, NVG de-goggle/stowing procedures.

6.10.3.2. **NVG-2, 2 v 2 Tactical intercepts. Mission Objectives**: Practice NVG adjustment procedures, cockpit preparation, basic formation flying skills with an increased emphasis on air-to-air employment. Must demonstrate proficiency in 1 v 1 intercepts prior to beginning 2 v 2 tactical intercepts, if they were not accomplished on NVG-1. Practice flying NVG four-ship administrative formations. **Specific Mission Tasks**: Trail Departure, Systems check, Ranging exercise, NVG G-awareness exercise, Administrative and tactical NVG formations, tactical formation turns, NVG battle damage check, trail recovery, 2 v 2 intercepts to include: a) BVR Launch and Leave,

b) Low to high conversion, c) High to low conversion (Low speed target), d) AAMD (RMD), e) BVR launch and leave with short range recommit, NVG de-goggle/stowing procedures.

6.10.3.3. **NVG-3, Wingman Certification. Mission Objectives:** Demonstrate proficiency in 2 v 2 tactical intercepts using NVGs as an additional sensor. Practice flying NVG four-ship administrative and tactical formations. **Specific Mission Tasks:** Trail Departure, Systems check, NVG G-awareness exercise, NVG battle damage check, trail recovery, 2 v 2 intercepts.

6.10.3.4. **NVG-4, Flight lead Certification. Mission Objectives:** Demonstrate proficiency in briefing, leading, and debriefing as a 2-ship FL in 2 v 2 tactical intercepts using NVGs. **Specific Tasks:** Brief, lead, and debrief an NVG 2 v 2 tactical intercepts.

6.10.3.5. **NVG-5, IP Certification. Mission Objectives:** Demonstrate proficiency as an IP in various administrative and tactical 2-ship formation positions with a mixture of external lighting options, including lights out. **Specific Mission Tasks:** Brief, lead, and debrief an NVG 1-3 type sortie to an IP level. Complete tasks for NVG 1-3 sorties, as appropriate.

6.10.4. 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.

6.11. 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 pilot's ability to conduct all missions in support of expected tasking. For contingency operations, units are responsible for contacting appropriate gaining command/operations to determine expected 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.

6.11.1. 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 pilot 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.

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

6.11.2.1. **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.

6.11.2.2. **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.

6.11.3. **Flying Training.** Tailor spin-up training to ensure all deploying pilots are proficient, current, and qualified in all expected mission taskings.

6.12. Joint Helmet Mounted Cueing System (JHMCS) Qualification Training . The purpose of this program is to train IPs, flight leads, and wingmen in JHMCS high off-boresight system (HOBS) operation and employment. JHMCS will significantly enhance the pilot's situational awareness and combat effectiveness, particularly in the within-visual-range (WVR) arena. When employed with the AIM-9X IR missile, F-15 warfighters will have a distinct advantage during near-BVR and WVR engagements. JHMCS projects vital weapons information directly to the visor through a monocular display in front of the pilot's right eye. JHMCS also enables the pilot to visually cue radar auto acquisition modes to off-boresight targets without having to point the aircraft directly at the threat. The qualification program outlined below is the minimum training required to qualify pilots in JHMCS employment. Past experience with JHMCS indicates as many as fifteen sorties may be needed before a pilot feels proficient with this system. Entry into JHMCS qualification training requires SQ/CC approval.

6.12.1. **Ground Training.** Pilots upgrading to JHMCS must complete the following requirements prior to their first sortie:

6.12.1.1. **JHMCS Academics**

6.12.1.1.1. Initial academics will be accomplished locally or during simulator orientation (if available).

6.12.1.1.2. Academic courseware will be approved by MAJCOM.

6.12.1.1.3. Academics will be accomplished within 60 days prior to the first JHMCS qualification sortie. If more than 60 days elapse between academics and the first sortie, pilots will reaccomplish academics.

6.12.1.2. **JHMCS Simulator Orientation Training**

6.12.1.2.1. Although AIM-9X capability should be incorporated into unit FMTs/WTTs with Suite-4 OFP, JHMCS-modified SIMs may not be available for initial orientation training. If a SIM with JHMCS is available, pilots will complete JHMCS SIM-1 prior to flight.

6.12.1.2.2. **JHMCS SIM-1 Mission Objectives** . Introduce JHMCS preflight, ground operations, radar/missile cueing and employment, JHMCS degraded and failure modes, system limitations, emergency egress, ejection, and human factors implications (display fixation, fatigue, etc.). Specific Tasks: JHMCS preflight, strap-in, boresight, switchology/HOTAS functions, ground operations, JHMCS and AIM-9X Built-in Test (BIT) and indications, fence check, weapons/radar/navigation display orientation, helmet mounted display (HMD)auto acquisition modes, radar and missile (AIM-9M/X) cueing and employment, AIM-9X Fighter Data Link cueing, "uplook" cueing orientation, declutter modes, and after landing checks. Special subjects to be emphasized during all JHMCS training include the potential for display fixation and ejection risks.

6.12.2. **General Instructions**

6.12.2.1. Entry into JHMCS qualification training requires SQ/CC approval. Pilots are eligible to enter JHMCS training after completing MQT.

6.12.2.2. Except for JHMCS-4, qualification training will be flown in order.

6.12.2.3. JHMCS-4 may be flown at any time after JHMCS-3 and is not required prior to JHMCS-5 qualification. However, pilots may employ JHMCS IAW their LOWAT category only after completing JHMCS-5.

6.12.2.4. JHMCS-5 and -6 can be flown in conjunction with unit FLUG/IPUG programs.

6.12.2.5. Applicable JHMCS Special Subjects will be briefed on all sorties where JHMCS will be worn.

6.12.3. Flying Training. Experienced pilots will fly JHMCS-3/4/5/6. Inexperienced pilots will fly JHMCS-1/2/4/5/6. IPs must also complete JHMCS-7 before they can be designated an JHMCS IP by SQ/CC.

6.12.3.1. **JHMCS-1, 1v1 Offensive/Defensive BFM.** Configuration: JHMCS IP / P; 2xF-15C/D; 2xAIM-9X CATM (if available). Mission Objectives: Practice JHMCS ground procedures, HOTAS operation, display interpretation, radar and missile cueing, airborne uplook alignment and HMD re-alignment, and gain familiarity with JHMCS/HOBS employment during offensive and defensive BFM . Specific Mission Tasks: G-awareness exercise; JHMCS display orientation; fence check; off-boresight radar/missile cueing exercise; uplook cueing; 1 v 1 offensive and defensive BFM.

6.12.3.2. **JHMCS-2, 1v1 Offensive/Defensive/High Aspect BFM** . Configuration: JHMCS IP / P; 2xF-15C/D; 2xAIM-9X CATM (if available). Mission Objectives: Practice JHMCS/HOBS employment and all-aspect missile defense to defeat the threat and achieve valid weapons parameters. Specific Mission Tasks: Cueing exercises; G-awareness exercise; WVR offensive/defensive BFM (as required) and WVR/BVR 1 v 1 high aspect BFM vs. an all-aspect threat; all-aspect missile defense.

6.12.3.3. **JHMCS-3, 2v1(+1, if available) ACM** . Configuration: JHMCS IP / P, or FL / JHMCS IP; 2xF-15C/D; 2xAIM-9X CATM (if available); 1 (+1) adversaries (dissimilar desired). Mission Objectives: Employ JHMCS/radar/missile HOBS capability to kill and survive vs. an all-aspect threat. Specific Mission Tasks: G-awareness exercise; fence check; 2 v 1(+1) WVR and BVR engagements (emphasize HOBS capability, front hemisphere missile defense, and mutual support.

6.12.3.4. **JHMCS-4, 2-Ship LASDT.** Configuration: JHMCS IP / P, or FL / JHMCS IP; 2xF-15C/D; AIM-9X CATM (if available). Mission Objectives: Demonstrate proficiency in 2-ship maneuvering and JHMCS/HOBS employment in the low altitude environment. 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; low level turns; LATF; terrain masking maneuvering techniques for level/rough/rolling terrain; ridge crossings; visual lookout; altitude awareness/control; attack maneuvering; defensive reactions; 2-ship low altitude tactical intercepts and low altitude JHMCS/HOBS weapons employment considerations.

6.12.3.5. **JHMCS-5, 2/4vX DACT** . Configuration: 2/4xF-15C/D; AIM-9X CATM (if available); Dissimilar adversaries. Mission Objectives: JHMCS evaluation (by SQ/CC or designated representative) of the upgrading pilot's ability to employ JHMCS/HOBS weapons in a tactical mission scenario. The pilot being evaluated may fly any position within the flight, depending on qualification. Specific Mission Tasks: Tactical formation; BVR set-ups and tactical scenario based on unit tasking; element/flight control (if applicable); situational awareness and mutual support; HOBS tactical employment versus an all-aspect threat (numerically superior threat desired.

6.12.3.6. **JHMCS-6, 1v1 JHMCS IPUG** . Configuration: IP / SQ Supervisor or designated representative; 2xF-15C/D; AIM-9X CATM (if available). Mission Objectives: Evaluation of the IP's ability to brief, lead, and debrief a BFM JHMCS qualification mission. The IP will demonstrate the ability to instruct JHMCS/HOBS employment and to manage the scenario to achieve the desired learning outcomes. Specific Mission Tasks: Weapons system checks; G-awareness exercise; JHMCS display orientation; fence check; off-boresight radar/missile cueing exercise; 1v1 offensive/defensive/high aspect BFM; front hemisphere missile defense.

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Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

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 11-207, *Flight Delivery of Fighter Aircraft*

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

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

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

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

AFI 11-2F-15V1, *F-15--Aircrew Training*

AFI 11-2F-15V2, *F-15--Aircrew Evaluation Criteria*

AFI 11-2F-15V3, *F-15--Operations 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 14-105ACC1 (formerly ACCR 200-1), *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 (AFP 50-11), *Guide for Management of Air Force Training Systems*

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

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

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

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

AFMAN 37-139, *Records Disposition Schedule*

AFI 51-401 (formerly AFR 110-32), *Training and Reporting to Ensure Compliance with the Law of Armed Conflict*

AFI 71-101V2 (formerly AFR 124-16), *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 (formerly MAJCOM 55-2), *MAJCOM Aircrew Life Support Program*

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

DODD 5500-7, *Standards of Conduct*

Abbreviations and Acronyms

A/A—Air-to-Air

A/S —Air-to-Surface

AAMD—All Aspect Missile Defense

AAR—Air to Air Refueling

AAW—Antiair Warfare (US Navy)

AB—Afterburner

(D)ACBT (Dissimilar)—Air Combat Training

ACC —Air Combat Command

(D)ACM (Dissimilar)—Air Combat Maneuvering

ACMI —Air Combat Maneuvering Instrumentation

(D)ACT (Dissimilar)—Air Combat Tactics

ADA —Air Defense Alert, Air Defense Asset

ADL —Aircraft Data Link

ADS—Air Demonstration Squadron

AF —Air Force

ARMS—Air Force Operations Resource Management System

AFRC —Air Force Reserve Command

AFSC —United States Air Force Specialty Code

AGL —Above Ground Level

AGSM —Anti-G Straining Maneuver

AGTS —Aerial Gunnery Target System

AHC—Aircraft Handling Characteristics

AI —Airborne Interceptor (Joint Publication 1-02) [Air Intercept, Air Interdiction] {USAF only}

AILA —Airborne Instrument Low Approach

ANG —Air National Guard

AOA —Angle of Attack

AOC —Air Operations Center

AOS —Air Operations Squadron

API —Aircrew Position Indicator

ARA —Airborne Radar Approach

ARC —Air Reserve Components

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

BAQ—Basic Aircraft Qualification

BDA —Battle Damage Assessment

(D)BFM (Dissimilar)—Basic Fighter Maneuvers/Maneuvering

BIT—Built in Test

BMC—Basic Mission Capable

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

CATM—Captive Air Training Missile

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

CF —Checkered Flag

CFT—Cockpit Familiarization Trainer, Conformal Fuel Tank

CFTR —Composite Force Training

CHUM —Chart Update Manual

CIRVIS —Communications Instructions for Reporting Vital Intelligence Sighting

CM —Countermeasures

CMR —Combat Mission Ready

CMS —Combat Mission Section

COMM JAM —Communications Jamming

COMSEC —Communications Security

COT—Continuous Overseas Tour

CPT —Cockpit Procedures Trainer

CRM —Crew 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

DACT —Dissimilar Air Combat Tactics

DART—Deployable Aerial Reflective Target

DBFM —Dissimilar Basic Fighter Maneuvers/Maneuvering

DCA —Defensive Counter Air

DNIF —Duties Not Involving Flying

DOC —Designed Operational Capability

DR —Dead Reckoning

DRU —Direct Reporting Unit

DU—Display Unit

E&R —Evasion 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

ETCA—Education and Training Course Announcements

EWWS —Electronic Warfare Warning Set

EXP—Experienced

FAM —Familiarization

FCP —Front Cockpit

FE—Flight Examiner

FEB —Flying Evaluation Board

FEF —Flying Evaluation Folder

FL —Flight Lead

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

FTR —Fighter

FTU —Field Training Unit

FW—Fighter Wing

G —Gravitational Load Factor

GCI —Ground Control Intercept

GLOC —G-induced Loss of Consciousness

GS —Ground Speed

HHQ —Higher Headquarters

HOBS—High Off-Boresight Seeker/System

HUD —Heads-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

IFF —Identification Friend or Foe

IFR —Instrument Flight Rules

ILS —Instrument Landing System

IMC —Instrument Meteorological Conditions

INFLTREP —In-flight Report (voice only)

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

JFT —Joint Force Training

JHMCS—Joint Helmet Mounted Cueing System

JMO (A) —Joint Maritime Operations (Air)

JVID —Joint Visual Identification

KCAS —Knots Calibrated Airspeed

KIAS —Knots Indicated Airspeed

KIO —Knock It Off

KTAS —Knots True Airspeed

LAI —Low Altitude Intercept

LALD —Low Angle Low Drag

LAO —Local Area Orientation

LASDT—Low Altitude Step-Down Training

LASTE —Low Altitude Safety and Targeting Enhancement

LATF—Low Altitude Tactical Formation

LATN—Low Altitude Tactical Navigation

LOC—Limited Operational Capability (USAF only)

LOS —Line of Sight

LOW A/A —Low Altitude Air-to-Air

LOW ALT —Low Altitude

LOWAT —Low Altitude Training

LSO —Life Support Officer

MAJCOM —Major Command

MAV —Maverick

MCC —Mission Commander

MDS —Mission Design Series

MDT —Mission Directed Training

MEA —Minimum Enroute Altitude

MIJI —Meaconing, Interference, Jamming and Intrusion

Mil —Milliradian

MIL —Military Power

MISREP —Joint Tactical Air Reconnaissance/Surveillance Mission Report (Joint Publication 1-02)

MISREP —Mission Report (USAF only)

ML —Mission Lead

MOA —Military Operating Area

MP —Mission Pilot

MQF —Master Question File

MQT—Mission Qualification Training

MRM —Medium Range Missile

MS —Mission Support

MSA —Minimum Safe Altitude

MTT —Multi Tactics Trainer

MTC—Mission Training Center

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

NTC-L—Networked Training Center-Luke

NVG —Night Vision Goggle

OCA —Offensive Counterair

OCA-A —Offensive Counterair Air-to-Air

OCA-S —Offensive Counterair Air-to-Surface

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

POAI —Primary Other Aircraft Inventory

PPB —Positive Pressure Breathing

PPG —Positive Pressure Breathing for G

PTT—Partial Task Trainer

QUAL —Qualification

RCO —Range Control Officer

RCP —Rear Cockpit

RCS —Radar Cross Section

RF —Radio Frequency

RFMDS —Red Flag Mission Debriefing System

RMU —Runway Monitoring Unit

ROE —Rules of Engagement (Combat only)

ROM —Runway Operations Monitor

RT —Radio Terminology

RWR —Radar Warning Receiver

SA —Situational Awareness, Strategic Attack

SAFE —Selected Area For Evasion

SAR —Search and Rescue

SCL —Standard Conventional Load

SCP —Set Clearance Plane

SELO —Stan/Eval Liaison Officer

SEPT —Situational Emergency Procedure Training

SFO—Simulated Flameout

SI—Simulator Instructor

SIF —Selective Identification Feature

SIM—Simulator (MTC, FMT, WTT, UTD)

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-Coded —Designated Training Aircraft

TGT —Target

TI—Theater Indoctrination, Tactical Intercept

TO —Technical Order

TOD —Time of Day

TOT —Time on Target

TR —Training Rules

TX —Transition

UCML—Unit Committed Munitions List

UE —Unit Equipment

UIP —Upgrading Instructor Pilot

UMD —Unit Manning Document

UNITREP —Unit Status and Identity Report

USAF—United States Air Force

USAFE —United States Air Forces in Europe

USAFWS —United States Air Force Weapons School

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

WOD —Word-of-Day

WS —Weapons School

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. The prefix (D) refers to dissimilar assets. When present, dissimilar is optional. When the prefix is missing, similar is assumed as flown/required. When present without parenthesis, dissimilar is assumed flown or required. This convention corresponds to all facets of ACBT (i.e., BFM, ACM, ACT).

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

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

Basic Aircraft Qualification (BAQ)—A status of an aircrew member who has satisfactorily completed training prescribed to maintain the skills necessary to fly the unit aircraft. The member must perform at the minimum frequency necessary to meet the most recent sortie and flight standards set for the weapons system. BAQ will only be carried by aircrew until completion of MQT. BAQ is not a permanent qualification except for General Officers above the wing level, and any other crew members specifically authorized by MAJCOM DO. Aircrews are not authorized to perform RAP-tasked combat event/sorties without instructor aircrew or SQ supervisor supervision. Flight duties will be limited to those identified in paragraph **4.3.**

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

Cockpit Familiarization Trainer (CFT)—A training device in which the controls, switches, and instruments do not have to respond to trainee inputs. Used for checklist use, normal procedures, and emergency procedures (see AFP 50-11 [AFPAM 36-2211]).

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

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

Combat Mission Ready (CMR)—A status of an aircrew member who has satisfactorily completed training (MQT) prescribed to be fully qualified to perform the basic unit operational missions, and

maintains qualification and proficiency in these missions. All active duty API -1/2's, Squadron Commander, Operations Officers, and OG/CC designated API -6 manning positions are required to maintain this qualification level. **EXCEPTION:** If a unit is over-manned, they may elect to train the front line of their UMD to CMR with the overage designated as BMC. Approximately 50% of the aircrew selected for CMR must be inexperienced. (Refer to paragraph **4.3.**)

Composite Force Training (CFTR)—Scenarios employing multiple flights of the same or different types of aircraft, each under the direction of its own flight leader, performing the same or different roles. (AFI 11-214)

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.

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

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

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

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

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

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

Experienced Aircrew (EXP)—For pilots: hours are FP/IP/MP and fighter time is defined as FP/IP/MP hours logged in aircraft with an assigned an AFSC of 11FX. OA-10 and AT-38 are considered fighter time. For WSOs, fighter time is hours logged in aircraft assigned an AFSC of 12F3x or 12F4X. An experienced aircrew has: 500 hrs PAI, or 1,000 hrs (FP/IP/MP), of which 300 are PAI, or 600 fighter hrs, of which 200 hrs are PAI, or previously fighter EXPERIENCED and 100 hrs PAI.

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

Full Mission Trainer (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 [AFPAM 36-2211]).

Initial Qualification Training (IQT)—Training to qualify the aircrew in basic aircraft flying duties

without specific regard to the unit's operational mission. The minimum requirement for Basic Qualification status. Refer to paragraph **1.4.**

Joint Maritime Operations-Air (JMO[A])—(USAFE) NATO and Non-NATO Navy/Marine Forces are included. 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 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. 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. 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. A JMO (AIR) training event may be logged when participating with (not against) Navy/Marine aircraft in Strike University exercises at Fallon NAS. 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).

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 Training (LOWAT)—Operations in a certified low altitude block as defined in **Table 3.1.** LOWAT includes low altitude navigation, tactical formation, defensive maneuvering to avoid or negate threats, skills necessary to search for and offensively engage an aerial target at low altitude, and air-to-surface attacks.

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.

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

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

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

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

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

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

Squadron Supervisor—SQ/CC, SQ/DO, SQ/ADO, Flight CCs. (ANG: 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).

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 [AFPAM 36-2211]).

Verification—Applies to procedure aimed at verifying and refreshing aircrew tactical employment knowledge, emphasizing conventional operations and mobile targets. Verification is conducted in both initial and follow-on phases. Initial verification phase is a formal board proceeding convened to verify individual aircrew knowledge. Continuation training is to reinforce, refresh, and update aircrews on unit wartime mission/tasking, tactics, and procedures.

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

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

Attachment 2

GLOSSARY OF MISSION/SORTIE AND EVENT DEFINITIONS

A2.1. Mission/Sortie Definitions.

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

A2.1.2. **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 as non-effective. 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.

A2.1.3. **Basic Fighter Maneuvers/Air Combat Maneuvers (BFM/ACM).** Building block sorties. BFM (1 v 1) Training designed to apply aircraft handling skills to gain proficiency in recognizing and solving range, closure, aspect, angle off, and turning room problems in relation to another aircraft to either attain a position from which weapons may be launched, or defeat weapons employed by an adversary. ACM (2 v 1 or 2 v 1+1) 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.

A2.1.4. **Collateral Sorties.** Sorties not directly related to combat employment or basic skills training but necessary for accomplishment of unit missions. These include ferry flights, deployments, FCF flights, incentive flights, orientation flights, airshows, etc. These sorties are not required for RAP training purposes.

A2.1.5. **Commander Option Sortie.** A sortie that may be used to provide individualized training based on proficiency and demonstrated performance. This sortie may be allocated above the guidelines in the RAP tasking message for all mission types (Except CMR Red Air). The intent is to use these missions as necessary throughout the training cycle, rather than allocating them at the beginning of the training cycle.

A2.1.6. **Contingency Sortie.** A mission tasked and flown while deployed for a contingency operation in which training is limited. These sorties are logged as Contingency Operations Sortie (SC13) in ARMS. These sorties and events accomplished on the sorties do not count towards annual RAP requirements however, the sorties may be used for lookback and the events to update currencies.

A2.1.7. **Defensive Counter Air (DCA).** Mission sortie designed to develop proficiency in DCA mission tactics. Mission elements include: Intel scenario and mission planning, execution of tactics to detect, engage, and negate aircraft employing adversary tactics and weapons capabilities to penetrate protected airspace or attack a specific target area, and in-flight report.

A2.1.8. **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: , (D)ACM, (D)ACT, LOWAT (below 1,000 feet AGL), 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.

A2.1.9. **4-Ship Flight Lead (4FL) Sortie.** Special qualification sortie. Sortie where FL lead a flight of 4 or more. May be logged in conjunction with baseline training requirements. Aircraft attrition to 3 ship employment may count.

A2.1.10. **Force Protection.** Mission sortie designed to develop proficiency in force protection tactics. Mission elements include: Intel scenario and integrated mission planning to support force package objectives, execution of tactics to detect and negate threats employing adversary tactics and weapons capabilities to disrupt force package employment/destroy package assets, and in-flight report.

A2.1.11. **HVAA Protection.** Mission sortie designed to develop proficiency in protecting a high value airborne asset. Mission elements include: Intel scenario and integrated mission planning to HVAA objectives, execution of tactics to detect and negate threats employing adversary tactics and weapons capabilities to disrupt/destroy employment or the asset, and in-flight report.

A2.1.12. **Instructor Pilot (IP) Sortie.** Special qualification sortie. Sortie where IP acted in the capacity of an instructor. IPs/supervisors will log an IP sortie when acting in that capacity on a building block MQT sortie (BFM, ACM, BSA), IPUG missions, when occupying the rear cockpit when the rear cockpit is not the primary duty location, or on any sortie where IP duties preclude effective combat mission training. On other sorties, IPs may log a rap mission sortie if quality training was obtained for the instructor. May be logged by evaluators on check rides if the above conditions apply. Will not be dual-logged with other RAP sorties.

A2.1.13. **Instrument Sortie.** Basic skills sortie. Training designed to ensure instrument proficiency. RAP events may be accomplished on an instrument sortie provided accomplishment does not interfere with the primary goal of instrument training. Units are allocated sorties for every aircrew to accomplish their minimum basic skill, Non-RAP, requirements.

A2.1.14. **Mission Commander (MCC) Sortie.** Special qualification sortie. Sortie where aircrew acted in the capacity of a MCC for a joint/composite mission responsible for two or more types of aircraft with four or more total aircraft, or more than four own MDS aircraft versus a minimum of two pre-planned adversary aircraft. May be logged in conjunction with baseline training requirements.

A2.1.15. **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.

A2.1.16. **Non-demanding Sortie.** A day sortie that provides the aircrew with the opportunity to regain basic flying proficiency without excessively tasking those skills that have been under used during the non-flying period. Authorized sorties/events flown for/on a non-demanding sortie are: instruments, AHC, BFM, 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.

A2.1.17. **Red Air Sortie.** A/A sortie where tactics, aircraft simulation, weapon systems, and/or maneuvering is limited to the extent that complete own MDS training is not accomplished. Restrictions which limit aircraft capabilities to some level which might be encountered in combat do not require logging the sortie as Red Air. Red Air sortie allocations in the tasking message are a maximum cap on degraded training. Unused Red Air allocations should be flown in one of the other A/A training mission categories.

A2.1.18. **Sweep.** Mission sortie designed to develop proficiency in OCA-A sweep tactics. Mission elements include: Intel scenario and tactical mission planning, execution of tactics designed to detect, engage, and negate simulated adversary aircraft which are operating within specific commit criteria (i.e. range, airspace corridor, vul time, etc), and in-flight report.

A2.2. Event Definitions:

A2.2.1. Unless otherwise specified in these event descriptions, units will determine the necessary parameters for fulfilling and/or logging tasked events. Event is defined in one of the following manners:

A2.2.2. A specific type of weapon delivery (defined by aircraft flight path, ordnance delivered, delivery method, or target struck) performed during a sortie.

A2.2.3. Expending of ordnance against a target according to predetermined flight path parameters and delivery methods. A single delivery constitutes an event except for strafe and dart, which require satisfaction of additional criteria.

A2.2.4. Accomplishment of a specific training element, function, or task (i.e., tactical formation, AAR, Maverick, etc.)

A2.3. Weapons Delivery Events.

A2.3.1. **RAP Tasking:**

A2.3.1.1. **Familiarization FAM.** Denotes a level of practice in a particular event not requiring a qualification level. Unless otherwise specified in the RAP tasking message or formal course syllabi, FAM tasking normally requires two DART/AGTS/BANNER (as applicable) firing pass to be completed during the 12-month cycle.

A2.3.1.2. **Qualification QUAL.** 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**.

A2.3.2. **Miscellaneous Weapons Delivery Definitions to be Considered for Event Descriptions:**

A2.3.2.1. **Dry Pass.** Weapons delivery pass during which no ordnance is expended.

A2.3.2.2. **Foul.** A penalty directed to a specific aircraft and crew for actions inconsistent with established procedures or safety considerations. A second foul or any dangerous pass will result in mandatory expulsion from any further deliveries during that mission. A foul will be charged IAW flying directive publications.

A2.3.2.3. **Hit.** Any munitions impact within the weapons criteria established for that event. Missile and gun parameters are IAW **Chapter 5**.

A2.3.2.4. **Multiple Release.** More than one weapon released against the same target on a single pass.

A2.3.2.5. **Unintentional Release.** Ordnance released due to pilot error. Will be scored as gross error regardless of impact point.

A2.3.2.6. **Inadvertent Release.** Ordnance which has released without command by the pilot. Impact will not be scored.

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

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

A2.4.2. **Aerial Gunnery.** A live weapons delivery event firing the gun at an airborne target (AGTS/DART/BANNER).

A2.4.3. **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.

A2.4.4. **Alert Scramble.** Launching on a scramble order in an Air Defense/DCA role from an alert posture.

A2.4.5. **Basic Intercept.** A single/two-ship intercept performed with the express purpose of practicing fundamental radar acquisition and lock-on techniques, controlling intercept geometry against LIMITED maneuvering targets, recognizing weapons employment zones and taking valid shots, practicing proper switchology and radio commentary. Tasks are performed independent of actual or briefed threat capabilities and weapons, and environmental considerations. Does not update ACBT currency. One event may be logged per engagement.

A2.4.6. **Chaff.** 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.

A2.4.7. **Comm Jam.** Inflight operations without use of active anti-jam radios in a comm jamming environment that provide realistic intervals and duration (completion of one attack profile desired) to counter jamming and/or effective chattermark procedures. Limited to logging of one event per sortie.

A2.4.8. **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).

A2.4.9. **Composite Wing Training (CWT).** A mission scenario based on a Composite Wing's CONOPS involving an intelligence scenario and support, an ATO, and a MCC 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.

A2.4.10. **EA A/A.** An intercept performed against a target using active and/or passive EP against attacker's radar, causing the attacker to employ EA techniques or tactics. Does not include co-channel interference. Only one event may be logged per target.

A2.4.11. **EPA/A.** The aircrew detects an airborne threat via electronic means and reacts with appropriate maneuvers, pod/internal ECM switchology, and/or expendables. Airborne threat training will be accomplished only with a dedicated adversary attacking from BVR. Only one event may be logged per sortie.

A2.4.12. **EPA/G.** The aircrew detects a surface threat via electronic means and reacts with appropriate maneuvers, pod/internal EP switchology (EP pods must be carried when flown in conjunction with an EC Range event) and/or expendables. Only one event may be logged per sortie.

A2.4.13. **EW Range.** Inflight operations conducted on an EW range with fixed or mobile surface-to-air emitters operating and detection/threat reaction emphasized. Normally accomplished in conjunction with other EW-type events. The pilot detects a surface threat via electronic means and reacts with appropriate maneuvers, pod/internal EP switchology and/or expendables. Sorties flown against EW Aggressor or mobile threat emitters placed in a MOA, range, or along a low level route are acceptable. Only one EW range event may be logged per sortie (active EA must be used).

A2.4.14. **Flare.** 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.

A2.4.15. **Four Ship Employment.** Tactical employment of the weapons system in a formation of four aircraft using appropriate tactics for the mission.

A2.4.16. **HAVE QUICK.** 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.

A2.4.17. **Instructor.** 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."

A2.4.18. **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).

A2.4.19. **Joint Maritime Operations (AIR) [(JMO (A)] Event.** A JMO (A) mission is flying a DOC tasked mission (AI, DCA, OCA, SEAD, CAS, etc.) in support of naval objectives. A JMO (A) 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. DACT against Navy/Marine aircraft will be considered HJMO (A) 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 commander responsibilities. A JMO (A) training event may be logged when participating with (not against) navy/marine aircraft in Strike University exercises at Fallon NAS.

A2.4.20. **Low Air-to-Air (LOW A/A).** An event defined as performing realistic, mission-oriented A/A operations while in a LOWAT certified low altitude block (see **Table 3.1.**). The event includes skills necessary to search for, and engage offensively, an aerial target at low altitude. Only one event may be logged per sortie (**EXCEPTION:** If an AAR separates events, a maximum of two events may be logged per sortie). (AFI 11-214)

A2.4.21. **Low Altitude Intercept (LAI).** An intercept conducted below 5,000 feet AGL. Only one event may be logged per target.

A2.4.22. **Low Altitude Tactical Navigation (LATN).** Training conducted below 5,000 feet AGL using onboard systems and 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)

A2.4.23. **Low/Slow VID.** Intercepting low/slow flying aircraft (rotary and fixed wing) for visual identification purposes in a threat environment.

A2.4.24. **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.

A2.4.25. **Secure Voice.** Requires proper radio configuration during tactical mission accomplishment. Only one event may be logged per sortie.

A2.4.26. **Slow Shadow.** Intercepting slow flying aircraft (rotary or fixed wing) and maintaining surveillance without being detected.

A2.4.27. **Tactical Intercept.** A single-ship or multi-ship intercept performed to accomplish the tactical objective (ID or kill the threat) in a realistic threat scenario. Fighter should counter threat maneuvers and weapons engagement zones, consider environmental factors, attain end game turning room and energy, practice ID/ROE procedures, take valid shots if presented, and terminate when briefed objectives or training rule stops are reached. One event may be logged per engagement.

A2.4.28. **VID Day.** Intercepting aircraft during the day for visual identification in a threat environment.

A2.4.29. **VID Night.** Intercepting aircraft during the night for visual identification in a threat environment.

Attachment 3

VERIFICATION GUIDE FOR AIR-TO-AIR

A3.1. Development Guidelines. The following outlines are provided as guidelines for the development of verification briefings.

A3.2. OVERVIEW:

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

A3.2.2. Mission overview.

A3.2.3. Status of friendly forces (ground, air and support).

A3.3. AREA OF OPERATIONS:

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

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

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

A3.4. STATUS OF ENEMY FORCES:

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

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

A3.5. MISSION EMPLOYMENT BRIEFING:

A3.5.1. Ground operations.

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

A3.5.3. Enroute (Go/No-go considerations, comm procedures, GCI/AWACS/autonomous control procedures, friendly defenses, ROE).

A3.5.4. Engagement tactics (target data, acquisitions/validations, tactics, weapons parameters, disengagement).

A3.5.5. Egress plan (route, mutual support agreements).

A3.5.6. Downed pilot/wounded bird plan.

A3.5.7. Recovery (safe corridor procedures, IFF procedures, ASLAR, alternate and emergency airfields).

A3.6. ESCAPE AND EVASION:

A3.6.1. SAFEs.

A3.6.2. SAR procedures.

A3.7. ESSENTIAL ELEMENTS OF INFORMATION/REPORTS:

A3.7.1. EEIs.

A3.7.2. Required reports and reporting procedures.

Attachment 4

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 fells 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 AOG/CC