COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

This publication implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations*, AFPD 11-4, *Aviation Service*, and references Air Force Instruction (AFI) 11-202, Volume 1 (V1), *Aircrew Training*. This publication establishes effective and safe operations of the F-15. This Air Force Manual (AFMAN) applies to all F-15 units in the regular Air Force, Air National Guard (ANG) and Air Force Reserve (AFR). Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. Air Combat Command (ACC)/A3 will coordinate all changes to the basic volume with all major command (MAJCOM)/A3s. This publication may be supplemented at any level, but route all direct supplements to Air Force Flight Standards Agency (AF/A3OF) and ACC Flight Operations and Training Branch (ACC/A3TO) for coordination prior to certification and approval. Field units below MAJCOM/direct reporting unit (DRU)/field operating agency (FOA) level forward copies of their supplements of this publication to their parent MAJCOM/ DRU/FOA OPR for post-publication review. Copies of MAJCOM/DRU/FOA-level supplements, after approval and publishing, will be made available on the e-Publishing website at **https://www.e-publishing.af.mil**. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following

the compliance statement. See AFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the requestors commander for non-tiered compliance items. Additional waiver authority to this publication is described in **paragraph 1.2**.

SUMMARY OF CHANGES

This document has been substantially revised and should be completely reviewed. Major changes include: established training minimums, standardized terminology, mission recording operations, numerous safety related inputs, multiple updated/streamlined waiver changes and deletions per headquarters Air Force review, and significant administrative changes to baseline procedures across all fighters. Tiered waiver authorities (T-levels) have been added per AFI 33-360.

Chapter 1

GENERAL GUIDANCE

1.1. Responsibilities. This manual establishes the minimum Air Force standards for training, qualifying, and certifying personnel performing aircrew duties in the F-15. **Note**: For the purposes of this manual, certification denotes a commander's action, whereas qualification denotes a formal evaluation. Reference AFI 11-202V2, *Aircrew Standardization / Evaluation Program*, for an explanation of qualifications versus certifications. ACC/A3 is designated the responsible agency for this volume in accordance with (IAW) AFPD 11-2.

1.1.1. ACC/A3 will:

1.1.1.1. Chair annual Combat Air Forces Realistic Training Review Board to review ground and flying training requirements/programs. Focused at the group commander and MAJCOM/A3T (or equivalent) level, board participation includes active and reserve component units/organizations. MAJCOM/A3s with major weapons systems for which ACC is lead command will be invited to send representatives and/or inputs.

1.1.1.2. Process all publication change requests.

1.1.1.3. Coordinate, publish and distribute the *Ready Aircrew Program (RAP) Tasking Memorandum (RTM)*, which describes annual training requirements for combat-coded units.

1.1.2. MAJCOM/A3s may elect to develop their own training requirements to fulfill designed operational capability (DOC) statement missions and documentation of aircrew certification via supplement or in their own MAJCOM RTM.

1.1.3. DRUs will:

1.1.3.1. Provide standard instructional texts to support operational weapons and tactics training **(T-2)**. Forward electronic copies to appropriate MAJCOM/A3 and Numbered Air Force/A3 **(T-2)**.

1.1.3.2. Review, update, and distribute changes to instructional texts **(T-2)**.

1.1.3.3. Review subordinate unit training programs **(T-2)**.

1.1.4. Wings/groups will:

1.1.4.1. Develop/approve/implement programs to ensure training objectives are met and assist subordinate units in management of training programs **(T-2)**.

1.1.4.2. Attach aircrew position indicator (API)-5/6/8 pilots (as defined in AFMAN 11-402, *Aviation and Parachutist Service*) to a flying squadron and designate the continuation training status for each, except when otherwise mandated **(T-2)**. All API 5/6/8 Air Reserve Component (ARC) pilots will have continuation training status designated **(T-2)**.

1.1.4.3. Review manning programs and position designations annually **(T-2)**.

1.1.4.4. Review unit training programs and syllabi annually and forward unit supplements to this publication to MAJCOM/A3T (or equivalent) for coordination prior to certification and approval (ANG to National Guard Bureau (NGB)/A2/3/6/10O; AFR to Air Force Reserve Command (AFRC)/A3D) **(T-2)**.

1.1.5. Squadrons/units will:

1.1.5.1. Combat-coded units will publish a letter of pilot qualifications/certifications monthly (example: Letter of X's) **(T-2)**. The letter provides a list of pilots that have special capabilities or qualifications for that month. The letter also provides utilization of basic mission capable (BMC) pilots (annotate missions/events that maintain qualification/certification).

1.1.5.2. Ensure adequate continuity and supervision of individual training needs, experience, and proficiencies of assigned/attached pilots **(T-3)**.

1.1.5.3. Monitor assigned/attached pilot currencies and requirements **(T-3)**.

1.1.5.4. Review training and evaluation records of newly assigned pilots and those completing formal training to determine the training required for them to achieve the appropriate qualification, certifications, and training status **(T-3)**. After review and evaluation, archive the previous flying assignment training folder.

1.1.5.5. Develop unit training programs using RTM guidance and this volume **(T-2)**. Consider attrition and collateral sorties (including associated training requirements) when developing unit training and flying hour programs.

1.1.5.6. Review qualifications and training requirements of non-pilots (flight surgeon, ground liaison officer, etc.) and determine appropriate flight restrictions **(T-3)**.

1.1.5.7. Ensure pilots only participate in missions, events, and tasks for which they are being trained or trained, current, and prepared for that purpose **(T-3)**.

1.1.5.8. Submit training reports as outlined in MAJCOM RTM guidance. See **paragraph 1.8.5**.

1.1.6. Individual pilots will:

1.1.6.1. Ensure their individual currencies and requirements are maintained by active coordination with the unit/squadron monitor and in accordance with standards established by this instruction **(T-3)**.

1.1.6.2. Only participate in ground and flying activities for which they are being trained, current, or prepared for that purpose **(T-3)**.

1.2. Waivers.   Forward waiver requests through appropriate channels to the applicable MAJCOM/A3 or equivalent, or Commander Air Force Forces (COMAFFOR) for those aircrew and assets under the COMAFFOR's oversight, for approval. The COMAFFOR or MAJCOM/A3 (or equivalent) will notify ACC/A3 of waivers within 72 hours of issuance. Wing commanders will notify the publication OPR within 72 hours of waiver approval **(T-2)**. IAW AFI 33-360, a copy of the approved waiver must follow within 30 days of issuance **(T-2)**. An email to the waived publication OPR that includes a completed AF Form 679, *Air Force Publication Compliance Item Waiver Request/Approval* or equivalent will suffice. Waiver authority for supplemental guidance will be as specified in the supplement and approved through higher level coordination authority.

1.3. Training Programs, Concepts, and Policies.

1.3.1. Units will design training programs to achieve the highest degree of mission readiness consistent with flight safety and resource availability **(T-2)**. Training programs are designed to

progress pilots from initial qualification training (IQT) (basic (B)-course or transition/requalification training (TX)), then to mission qualification training (MQT), continuation training (CT), and specialized training as required. The guidelines in this instruction should be balanced with operational procedures and Combatant Commander priorities.

1.3.2. ACC Training Support Squadron will assist Operations Group (OG)/CCs in development of training programs when/where tasked by the ACC/A3. Other MAJCOMs may submit requests for training program support to the ACC/A3. If validated, these requests will be prioritized and tasked to ACC Training Support Squadron. Test-coded units may develop syllabi to upgrade operational test pilots in support of specific test plans. These syllabi will be approved by the test group commander **(T-2)**.

1.4. Mission Recording.

1.4.1. Squadron commanders (SQ/CCs) will determine a program for supervisory review of mission recording(s) **(T-2)**.

1.4.2. Pilots will record from takeoff to landing to the max extent possible in order to maximize training value **(T-3)**.

1.5. In-flight Supervision. Unless specifically directed, the SQ/CC determines the level of supervision necessary to accomplish the required training (unaccomplished tasks, new tasks, corrections to previous discrepancies, etc.).

1.5.1. **Flight Lead (FL).** Instructor Pilots (IP) and FL-certified SQ supervisors may allow any pilot to lead portions of a mission if appropriately briefed. The IP or FL-certified SQ supervisor always retains responsibility for the flight.

1.5.2. **Tactical Lead** . FLs may pass the tactical lead to their wingman for specific tasks. As the tactical lead, the wingman may make tactical decisions for the flight, but the FL retains overall authority and responsibility for the flight.

1.6. Experienced (Exp) Pilot Criteria. An experienced pilot consistently demonstrates the skills (airmanship, situational awareness, and tactical leadership) required to effectively employ fighter aircraft in combat. Designation as an experienced pilot requires SQ/CC approval and one of the following:

1.6.1. Formal training unit (FTU) B-course graduate and both of the following:

1.6.1.1. 4-Ship FL certification

1.6.1.2. 250 F-15C/D flying sorties

1.6.2. FTU TX-course graduate (including the senior officer course) and one of the following:

1.6.2.1. Previous F-15C/D pilot

1.6.2.1.1. If previously Exp, no additional criteria

1.6.2.1.2. If not previously Exp, follow B-course criteria

1.6.2.2. Different fighter mission design series (MDS) background (F-16/F-15E/A-10, etc.)

1.6.2.2.1. Previously fighter Exp requires both of the following:

1.6.2.2.1.1. 4-Ship FL certification

1.6.2.2.1.2. 50 F-15C/D flying sorties

1.6.2.2.2. Previously fighter inexperienced (Inexp) requires both of the following:

1.6.2.2.2.1. 4-Ship FL certification

1.6.2.2.2.2. 100 F-15C/D flying sorties

1.7. RAP Policy and Management.

1.7.1. RAP defines the minimum training required to maintain the assigned training status.

1.7.2. The RAP training cycle is 12 months, aligned with the fiscal year and executed as outlined in the RTM (**Exception**: Air Education and Training Command training cycle is 12 months, determined by the MAJCOM). RAP training is designed to focus on skills needed to accomplish DOC-tasked missions following completion of IQT and MQT.

1.7.3. All combat-coded unit regular Air Force API-1 positions, flying SQ/CC and operations officer (DO) positions are designated combat mission ready (CMR). OG/fighter group (FG)/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 will train the unit manning document API-1s to CMR and designate the overage no lower than BMC **(T-2)**. In this case, priority should be given to inexperienced pilots. **Exception**: In the ANG/AFR at the OG/FG/CC discretion, any pilot may be designated CMR/BMC.

1.7.4. Active duty API-6 positions above squadron level are normally designated BMC. These BMC pilots are typically assigned to pilot positions whose primary job lies within wing supervision or a staff function that directly supports the flying operation.

1.7.5. All test/training-coded unit regular Air Force pilot positions are designated MR (and fly at a BMC rate as a minimum).

1.7.6. An effective RAP training sortie requires accomplishing a complete primary, secondary, or basic skills mission. Effective sorties include a sufficient number of events applicable to that mission type, as determined by the SQ/CC. Pilots are not required to log effective RAP sorties when minimal training occurs. Only one RAP sortie may be logged per sortie (day or night) unless separated by air-to-air refueling (AAR) or hot pit refueling **(T-2)**.

1.7.6.1. Each mission on either side of the AAR/hot pit refueling must stand alone as an effective RAP training sortie.

1.7.6.2. A maximum of three RAP training sorties will be logged per 24 hour period under these rules **(T-3)** (**Exception**: This limit does not apply to combat operations). Apply mission complexity guidance contained in AFMAN 11-2F-15V3, *F-15 Operations Procedures*, **paragraph 2.4** (e.g., prioritize flying upgrade missions and the most complex/demanding events to the first sortie).

1.7.7. Units converting from another MDS may fly pilots in CMR positions at the BMC rate if CMR sortie rates cannot be supported (e.g., due to lack of trained maintenance personnel or available aircraft). In this case, CMR pilots maintain CMR status while flying the BMC rate. SQ/CCs will determine when pilots become non-combat mission ready (N-CMR) due to lack

of resources or training, and ensures CMR designated pilots fly at the CMR sortie rate no later than one month prior to the scheduled operationally ready date **(T-3)**.

1.8. Training Records and Reports.

1.8.1. SQ/CC maintain pilot records for individual training and flight evaluations as applicable, IAW:

1.8.1.1. AFI 11-202V1.

1.8.1.2. AFI 11-202V2.

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

1.8.2. SQ/CC track the following information for all pilots, as appropriate:

1.8.2.1. **Ground training.**

1.8.2.2. Requirements and accomplishment of individual mission types and events cumulatively for the training cycle.

1.8.2.3. One and three-month RAP lookback as outlined in the RTM.

1.8.2.4. Training requirements and accomplishment of individual currencies.

1.8.2.5. Weapons employment records in sufficient detail to document all employment attempts and hit percentages.

1.8.3. Units update aviation resource management system (ARMS) "No Date" 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.

1.8.4. Units will maintain a training folder (electronic folder is acceptable) for each assigned and attached pilot **(T-1)**. Training folders include information on pilot qualifications/certifications and current assignment training documentation (upgrades, regression, waivers, special qualifications, etc.)

1.8.5. **Periodic and End of Cycle (EOC) Training Reports (Operational Units and FTUs).**

1.8.5.1. **Operational Unit Reporting.** Operational squadrons (including those deployed) will submit periodic and EOC RAP training reports as outlined in the RTM **(T-2)**. Squadrons may submit an out of cycle report at any time if higher headquarters assistance is required to prepare for DOC or deployment tasking. Reference current RTM for detailed instructions and report templates.

1.8.5.2. **FTU Reporting.** FTUs will report on their own training health as directed by their parent MAJCOM **(T-2)**.

1.9. Pilot Utilization Policy.

1.9.1. In general, Inexp API-1 should receive sortie allocation priority over Exp pilots. Priorities for sortie allocation are as follows:

1.9.1.1. **Combat-coded Units.** CMR API-1, MQT API-1, CMR API-6, MQT API-6, BMC (API- All), API-5 pilot-physicians.

1.9.1.2. **Training-coded Units.** Formal syllabus training, MQT, instructor CT, authorized staff personnel not performing instructor or flight examiner duties (to include API-5 pilot-physicians not on instructor orders).

1.9.1.3. **Test-coded 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.

1.9.2. While API-1 pilots may perform additional duties outside of their flying squadron on a temporary basis, their primary responsibility is with the squadron to fill unit-assigned missions. Commanders will not prioritize workload outside of the squadron over squadron mission requirements for the employment of squadron API-1 pilots **(T-3)**.

1.9.3. Commanders will ensure Inexp pilots in the first year of their initial operational assignment are given scheduling priority and only perform non-flying duties related to operational/combat activities **(T-3)**.

1.9.4. Units should provide assigned/attached API-6/-8 pilots adequate resources to maintain minimum training requirements; however, support for API-6/-8 pilots should not come at the expense of the flying squadron's primary mission.

1.10. Unit Manpower.

1.10.1. Commanders will ensure that pilots only fill authorized API-1/-5/-6 positions IAW the unit manning document **(T-2)**.

1.10.2. Wings with a formal training mission should strive to maximize instructor qualification (T-prefix) for API-6 pilots. At least one of the following pilots will maintain formal IP status: wing commander (WG/CC) or vice (WG/CV), OG/CC or deputy (OG/CD) **(T-3)**.

1.10.3. API-8 pilot authorizations and test-coded authorizations are IAW AFI 11-401 and MAJCOM guidance. If units cannot meet attached flyer requirements, they must request relief IAW AFI 11-401, as supplemented. Units requiring flight hour adjustments for attached API-8 and applicable API-6 pilots must request program changes IAW MAJCOM directives.

Chapter 2

INITIAL QUALIFICATION TRAINING (IQT)

2.1. General. This chapter outlines IQT requirements for all pilots. IQT provides the training necessary to 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 wing level, BAQ is not a long term qualification status. Waiver authority for pilots, other than general officers above the wing level, to remain BAQ is MAJCOM/A3 (ANG to NGB/A2/3/6/10O; AFR to AFRC/A3D).

2.1.1. **Formal Training.** IQT includes B-course, TX and senior officer course training normally conducted during formal syllabus courses at FTU squadrons. Formal course graduates are proficient in mission tasks as indicated by the course training standards and required proficiency levels of the FTU syllabi.

2.1.2. **Local Training.** In exceptional circumstances when FTU training is not available within a reasonable time period, local training may be conducted IAW the provisions in this chapter. When local training is approved, the gaining MAJCOM assumes responsibility for the burden of providing this training. Local training is developed and conducted using the appropriate formal course syllabi.

2.2. Approval and Waiver for Local IQT.

2.2.1. Gaining MAJCOM/A3 (ANG to NGB/A2/3/6/10O; AFR to AFRC/A3D) is the approval authority to conduct local IQT and is the waiver authority to change the requirements of the formal course syllabus. Inform ACC/A3T of approved waivers prior to commencing local IQT.

2.2.2. Gaining MAJCOM/CC (ANG to NGB/A2/3/6/10O; AFR to AFRC/A3D) is the approval authority for local IQT for colonel-selects and above to be conducted at the unit to which the officer is assigned. Inform ACC/A3T of approved waivers prior to commencing local IQT.

2.2.3. Requests to conduct local IQT include the following:

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

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

2.2.3.3. Date training will begin and expected completion date, and

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

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

2.4. Ground Training. OG/FG/CCs may tailor ground training to the individual's background and experience or peculiar local conditions.

2.5. Flying Training.

2.5.1. Training should be completed within the time specified by the syllabus or expected completion date for local IQT. Failure to complete within the specified time limit requires notification IAW syllabus or, in the case of local IQT, the gaining MAJCOM/A3 (ANG to

NGB/A2/3/6/10O; AFR to AFRC/A3D) with pilot's name, rank, reason for delay, planned actions, and estimated completion date **(T-2)**.

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

2.5.3. UPs fly under IP supervision until completing the INSTM/QUAL evaluation.

2.5.4. Formal course syllabus mission objectives and tasks are minimum requirements. The SQ/CC may authorize additional training events based on UP proficiency and background. Additional training due to UP non-progression is incorporated within the constraints of the formal course syllabus.

2.6. Senior Officer Course.

2.6.1. All formal training courses for senior officers (colonel-selects and above) will be conducted at FTUs unless waived IAW **paragraph 2.2.2**.

2.6.2. Senior officers must meet course entry prerequisites outlined in the AETC F-15 syllabus and complete all requirements unless waived IAW syllabus directives or **paragraph 2.2.1**.

2.6.3. If a senior officer must be trained at the base to which assigned, the officer will be in formal training status **(T-2)**. Unit duties will be turned over to appropriate deputies or vice commanders until training is completed **(T-2)**. Exceptions to this policy must be approved by the gaining MAJCOM/CC (ANG: ACC/CG) submitted through MAJCOM/A3.

Chapter 3

MISSION QUALIFICATION TRAINING (MQT)

3.1. General. MQT is an OG/CC-approved, unit-developed, training program that upgrades IQT-complete (BAQ) pilots to accomplish the unit specific missions. The SQ/CC will develop and maintain responsibility for the local MQT programs **(T-3)**. Guidance in this chapter, which represents the minimum, is provided to assist SQ/CCs in developing their MQT program. Units are expected to further tailor programs based on an individual's current qualifications, experience, currency, documented performance, and formal training. Applicable portions of MQT may be used to create a requalification program for pilots who have regressed from BMC/CMR to specifically address the deficiencies, which caused the regression. For test/training-coded units, see **paragraph 3.3**.

3.2. Combat-coded Unit MQT. The SQ/CC will ensure a pilot completes MQT within 90 calendar days (ARC: 120 calendar days) **(T-3)**. Timing starts at the pilot's first duty day at the gaining operational unit. If a pilot elects to take leave prior to entering MQT, the timing begins after the termination of the pilot's leave. MQT is considered complete with the SQ/CC certifying the pilot as CMR/BMC. Notify MAJCOM/A3T (or equivalent) (ANG to NGB/A2/3/6/10O; AFR to AFRC/A3D) if there is a delay beginning MQT that exceeds 30 days or training exceeds the 90-day time period (ARC: 120 calendar days).

3.2.1. MQT Syllabus Minimum Requirements. At a minimum, SQ/CCs will include the following events within the individualized MQT program **(T-2)**:

3.2.1.1. Ground training (see **paragraph 3.2.3**).

3.2.1.2. Local area orientation (LAO) simulator (SIM) (if not previously accomplished within 24 months),

3.2.1.3. LAO sortie (if not previously accomplished within 24 months),

3.2.1.4. Tactical sortie (may be combined with LAO sortie),

3.2.1.5. Air combat training (ACBT) (see **paragraph 3.2.6**),

3.2.1.6. Initial weapons employment certification IAW **Chapter 5** and as outlined in the RTM, and

3.2.1.7. Current INSTM/QUAL and mission (MSN) evaluations IAW AFIs 11-202V2 and 11-2F-15V2.

3.2.2. **Restrictions.**

3.2.2.1. SQ/CCs will not fly MQT pilots in Large Force Employment (LFE)-level exercises or weapons system evaluation program **(T-3)**.

3.2.2.2. There is a 90 day grace period (ARC: 180 days) granted for completion of the following training items after the SQ/CC certification to CMR/BMC: AAR, night training, aircrew chemical, biological, radiological, nuclear (ACBRN) flight (see **paragraph 3.2.7**), and initial verification (not required for BMC). SQ/CCs will regress pilots who fail to accomplish these tasks within the grace period to N-CMR/N-BMC **(T-3)**.

3.2.2.3. Proficiency and currency in day events will be demonstrated prior to training in similar events at night **(T-2)** (unless accomplished dual with an IP within a multi seat Fighter).

3.2.3. **Ground Training.** Units develop blocks of instruction covering areas pertinent to the unit's mission as determined by the SQ/CC. Training accomplished during IQT may be credited towards this requirement.

3.2.3.1. Newly assigned pilots require theater indoctrination academics IAW AFI 11-202V1 prior to the first flight. Theater indoctrination academics may be accomplished during MQT academics or as part of the MQT LAO briefing.

3.2.3.2. **Initial Verification.** Verification is a formal process where pilots demonstrate to a formal board satisfactory knowledge of the squadron's assigned mission(s) (see **Attachment 3**). The SQ/CC establishes the board composition. Desired composition is SQ/CC or SQ/DO, weapons, electronic combat, intelligence, and plans representatives. Initial verification will be completed within 90 days (ARC: 180 days) after completing MQT **(T-3)**. As part of the verification process, a simulator mission may be included at the SQ/CC discretion. Exp pilots who accomplished initial verification or nuclear certification in a previous assignment may, at SQ/CC discretion, complete either an initial or a continuation verification to meet the requirements of this section.

3.2.4. **SIM Training.** The best available training device will be used for all MQT SIM events. In addition to the LAO SIM (IAW **paragraph 3.2.1**), MQT may include: day/night tactical SIMs. SQ/CCs will include the following events in simulator training **(T-2)**:

3.2.4.1. Selected emergency procedures (EPs).

3.2.4.2. Spin Recoveries

3.2.4.3. Unusual attitude recovery (UAR).

3.2.4.4. Inadvertent weather entry procedures.

3.2.4.5. Lost wingman.

3.2.4.6. Emergency divert.

3.2.4.7. Local procedures and approaches.

3.2.5. **Flying Training.** MQT progression and performance are documented within Unit developed Gradebooks. The MQT program culminates with an AF Form-8, *Certificate of Aircrew Qualification*, checkride if required. MQT programs designed to regain CMR/BMC status do not require a AF Form-8 unless dictated by other regulations or SQ/CC. Maximum use of mission recording and captive missiles is encouraged on all MQT missions.

3.2.5.1. **Supervision.** FTU graduates in MQT require an IP. All other MQT pilots require an IP or FL-certified SQ supervisor.

3.2.5.2. **Breaks-in-training.** If more than 14 calendar days elapse between sorties, the UP requires an additional review sortie before continuing in the program. The SQ/CC may substitute a mission training center (MTC) mission (with an IP) for a required review sortie.

3.2.5.3. **Practice EPs.** Accomplish practice airborne EP training during at least one MQT sortie. As a minimum, the training consists of briefing, flying, and debriefing a simulated EP scenario.

3.2.6. **ACBT Program.** The following sorties (in sequence) are used for initial ACBT certification or to regain ACBT certification. Units may expand this program to achieve desired proficiency or capability.

3.2.6.1. **Aircraft Handling Characteristics (AHC).** Demonstrate proficiency with aircraft maneuvering capabilities and limitations by practicing advanced handling maneuvers (IAW Air Force Tactics Techniques and Procedures (AFTTP) 3-3.F-15, *Combat Aircraft Fundamentals—F-15*).

3.2.6.2. **Basic Fighter Maneuvers (BFM) (1v1).** Demonstrate proficiency in defensive, offensive or high aspect BFM skills.

3.2.6.3. **Air Combat Maneuvering (ACM).** Demonstrate proficiency in element Air-to-Air (A/A) maneuvering and employment.

3.2.6.4. **Air Combat Tactics (ACT).** Demonstrate proficiency in element A/A employment primarily in the beyond visual range arena.

3.2.7. **Initial Aircrew Chemical, Biological, Radiological, Nuclear (ACBRN) Training.** ACBRN training integrates pilot training with other functional areas (maintenance, intelligence, security, etc.) required to conduct combat operations in a chemical environment and applies to all CMR/BMC pilots. Pilots demonstrate a basic proficiency of flight and mission tasks while wearing the ACBRN equipment. Accomplish ACBRN training IAW AFI 11-301V1, *Aircrew Flight Equipment (AFE) Program*, AFI 16-1301, *SERE Program*, and the RTM. Pilots who accomplished initial ACBRN training in previous fighter MDS are not required to reaccomplish the ACBRN flight.

3.2.7.1. **ACBRN Ground Training.** Ground training is accomplished IAW AFIs 11-301V1 and 16-1301.

3.2.7.2. **ACBRN MTC.** Introduce operations in full ACBRN gear (anti-exposure suit not required), harness, and gravitational load factor (G)-suit. An ACBRN-MTC may use existing mission profiles and count toward MTC training cycle requirements. Units use MTC (primary) or actual aircraft cockpit (secondary) for ACBRN-MTC training. The ACBRN-MTC is accomplished once in a career (per MDS), and should be conducted as close as possible (but not more than 30 days prior) to the ACBRN flight.

3.2.7.3. **ACBRN Flight Training.** Flight training highlights the limitations of operating while wearing ACBRN equipment. Practice full ACBRN equipment donning and doffing procedures/sequence in conjunction with the ACBRN flight. Adhere to the following ACBRN flight restrictions:

3.2.7.3.1. Wear only Aircrew Eye and Respiratory Protection (AERP) (or mask with filter pack) and gloves **(T-2)**.

3.2.7.3.2. Only one pilot in the element wears ACBRN equipment, supervised by an ACBRN certified FL **(T-2)**. Formations larger than a 2-ship require SQ/CC approval **(T-3)**.

3.2.7.3.3. Accomplish events in which the pilot is current and certified **(T-2)**.

3.2.7.3.4. Only conduct preflight operations in Fighter Index of Thermal Stress (FITS) normal (refer to AFI 48-151, *Thermal Injury Prevention Program*) conditions, as adjusted for the partial ACBRN gear **(T-2)**. Include full walk around, AERP ingress, cockpit interior check and AERP egress. If other than FITS normal, another qualified pilot may conduct the walk around.

3.2.7.3.5. Minimum planned formation spacing is "Route." "Close" formation is allowed only if required for safe mission accomplishment. Refer to AFTTP 3-3.F-15 for descriptions of formation spacing.

3.2.7.3.6. Minimum altitude is 500 feet above ground level (AGL) except takeoffs, approaches and landings **(T-2)**.

3.2.7.3.7. Minimum weather is 1,500 feet ceiling and 3 miles visibility **(T-2)**.

3.2.7.3.8. No night sorties **(T-2)**.

3.2.7.3.9. AAR requires an IP **(T-2)**.

3.3. Test/Training-coded Unit MQT.

3.3.1. MQT is a unit-developed training program that upgrades pilots to MR status in order to accomplish the unit's specific missions. The FTU instructor course is equivalent to a unit MQT program. If applicable, training accomplished during IQT may be credited towards this requirement. MQT is considered complete with the SQ/CC certifying the pilot as MR.

3.3.2. MQT Syllabus Minimum Requirements. At a minimum, SQ/CCs will include the following events within the individualized MQT program **(T-2)**:

3.3.2.1. LAO sortie (if not previously accomplished within 24 months).

3.3.2.2. Unit mission sortie (may be combined with LAO sortie).

3.4. Flight Surgeon Training.

3.4.1. **Ground Training.** Units train/document assigned flight surgeons. The following events establish the minimum items to be accomplished prior to the initial flight briefing: aircraft general review, hanging harness training (as applicable), egress training, protective equipment training, anti-G straining maneuver (AGSM) training, and an INST/EP simulator (optional) with a qualified pilot.

3.4.2. **Flight Training.** As applicable, 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 stick/throttle interference avoidance, communications and equipment, tactical display interpretation, and the aircraft's performance envelope **(T-3)**.

Chapter 4

CONTINUATION TRAINING (CT)

4.1. General. This chapter and the current F-15 RTM outline ground and flying training requirements for BAQ, BMC/CMR, and MR pilots in test/training-coded units. Pilots must be qualified IAW AFIs 11-401, 11-202V1/2, and 11-2F-15V2. SQ/CCs will ensure assigned pilots complete an IQT to fly in a BAQ status and a MQT or FTU IP upgrade to fly in a BMC/CMR or MR status **(T-2)**. For test/training-coded units, see **paragraph 4.5**.

4.2. CT. CT consists of two aspects. The first involves training in the basic flight skills necessary to ensure the safe operation of the aircraft. The second consists of specific mission-related training required to accomplish the unit's assigned missions.

4.3. Currencies, Recurrency and Recurrency/Requalification Programs.

4.3.1. **Currencies. Table 4.1** , as supplemented by the most current RTM, defines currency requirements for all pilots. If a pilot loses a particular currency, that sortie/event may not be performed except for the purpose of regaining currency as noted.

4.3.2. **Recurrency.** Pilots accomplish overdue training requirements as specified by the SQ/CC before they are considered recertified to perform the task. Pilots overdue on training annotated in **Table 4.1** as affecting CMR/BMC status requires regression to N-CMR/N-BMC. 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.

4.3.3. **Noncurrent Versus Unqualified.**

4.3.3.1. **Noncurrent.** A pilot becomes noncurrent in a particular currency if they exceed the specified timeframe listed in **Table 4.1** (e.g., an Inexp pilot becomes noncurrent for landing after 30 days from last landing).

4.3.3.2. **Unqualified.** For criteria specified in **paragraph 4.3.4**, a pilot can become "unqualified" for landing and instructor currencies.

4.3.4. **Currencies Requiring Recurrency/Requalification Program.**

4.3.4.1. **Landing Recurrency/Requalification.** Pilots become unqualified after loss of landing currency plus 180 days (e.g., an inexperienced pilot who has not landed for 211 days). Loss of landing currency requires the following action (timing starts from date of last landing):

4.3.4.1.1. 31/46 (Inexp/Exp) to 90 days (e.g., an Inexp pilot who has not landed for 31 to 90 days). Regain landing currency IAW **Table 4.1**.

4.3.4.1.2. 91 to 135 days. Requirements in **paragraph 4.3.4.1.1**, plus IP-supervised EP SIM.

4.3.4.1.3. 136 to 210/225 days (Inexp/Exp) (e.g., an Inexp pilot who has not landed for 136 to 210 days). Requirements in **paragraph 4.3.4.1.2**, plus open and closed book instrument examinations.

4.3.4.1.4. 211/226 days (Inexp/Exp) to 12 months. (e.g., an Inexp pilot who has not landed for 211 to 365 days). Requalification program IAW AFI 11-202V1. OG/FG/CC is the approval authority to conduct this training locally.

4.3.4.1.5. Greater than 12 months. Accomplish applicable formal TX course. Reference **paragraph 2.2** for local IQT waivers.

4.3.4.2. **Instructor Recurrency/Requalification.** Pilots become unqualified after loss of instructor currency plus 180 days (e.g., an IP who has not instructed for 271 days).

4.3.4.2.1. Timing for loss of instructor currency starts from the last instructor event and requires the following action:

4.3.4.2.1.1. 91 to 180 days. Regain instructor currency with an IP.

4.3.4.2.1.2. 181 to 270 days. Regain IP currency IAW SQ/CC directed program that may result in a flight evaluation.

4.3.4.2.1.3. Greater than 270 days. Accomplish an AF Form 8 requalification checkride IAW AFIs 11-202V2 and 11-2F-15V2.

4.3.4.2.2. IPs instruct airborne events in which they are current and qualified. With SQ/CC approval, IPs who become N-CMR/N-BMC may still instruct in events they are current and qualified.

4.3.4.3. **ACBT Recurrency.** Loss of ACBT currency requires the following action (timing starts from date of last event):

4.3.4.3.1. 61/91 (inexp/exp) to 180 days. Dedicated sortie(s) including AHC and BFM.

4.3.4.3.2. Greater than 180 days. SQ/CC tailored ACBT program IAW **Chapter 3** and documented in gradebook.

4.3.4.4. **Night Sortie Recurrency.** Pilots losing night sortie currency accomplish the following events (under night vision devices (NVDs)) prior to unrestricted night operations:

4.3.4.4.1. Pilots who have had more than 120/180 (inexp/exp) days elapse since logging last night sortie require a NVD academic review prior to the recurrency sortie (see **paragraph 4.4.4.6**).

4.3.4.4.2. 2-ship basic formation work / light drills and unit specific mission elements.

4.3.4.4.3. Tactical turns and maneuvers.

4.3.4.4.4. Minimum of the following night profile/sortie: Tactical intercepts (TI) profile not to exceed 2v2, above 5,000 feet AGL or minimum safe altitude, whichever is higher.

4.3.5. ACC Air Operations Squadron Currency Requirements. Units will comply with AFI 11-207, *Combat Aircraft Delivery*, for additional currencies required for the flight delivery of aircraft coordinated through the ACC Air Operations Squadron **(T-2)**.

Table 4.1. F-15 Currencies.

Event	To update, accomplish in:	*Inexp	*Exp	Affects CMR/BMC	To regain currency:	Notes
Demanding Mission	Any mission	21	30	No	Non-demanding day mission	1
Night Sortie	Any night sortie	120	180	No	Night sortie/profile	2, 3
Landing	Day or night landing	30	45	No	Day landing	2, 4
Rear Cockpit (RCP) Landing	RCP Landing	N/A	90	No	RCP Landing	2
Precision Approach	Flight/SIM	30	45	No	Flight or SIM	5
Form Approach	Flight	120	180	No	Flight	2, 6
Instructor	Flight/SIM	N/A	90	No	Flight or SIM	7
AAR	Flight	180	180	Yes	Flight	2
ACBT	Flight	60	90	Yes	Flight	2, 8, 9
FCF	Flight/SIM	N/A	180	No	Flight or SIM	10
Weapons Delivery	Flight (actual or simulated)	60	90	Yes	Flight (actual or simulated)	2
Low Altitude Air-to-Air (LOW A/A)	LOW A/A Flight	60	90	No	LOW A/A Flight	2, 9, 11

Notes:

* denotes number of days between events after which the pilot goes non-current.

1 – Recurrency for pilots is one of the dedicated non-demanding sorties as defined in Attachment 2. In addition, BAQ pilots fly in a supervised status (FL-certified SQ supervisor or IP) any time a non-demanding mission is required.

2 – Recurrency supervision is an IP or FL-certified SQ supervisor, current in the event.

3 – Recurrency IAW **paragraph 4.3.4.4**.

4 – Loss of landing currency and recurrency/requalification IAW **paragraph 4.3.4.1**.

5 – Pilots require currency in order to fly an approach through actual weather down to pilot weather category minimums **(T-3)**. Loss of currency results in regression to the next higher category. Recurrency supervision during day visual flight rules conditions may be any pilot in chase or from the wingman position, current in the event (or SIM IP if accomplishing recurrency in the SIM). All other times regain currency IAW AFI 11-202V3, *General Flight Rules*, as supplemented.

6 – FLs may update currency from either lead or wing position. Wingmen may only update currency from the wing position.

7 – Loss of Instructor currency and recurrency/requalification IAW **paragraph 4.3.4.2**. USAFWS upgrade missions count as instructor missions for currency. Updating or regaining currency in the SIM requires IPs to instruct while flying the SIM.

8 – Recurrency IAW **paragraph 4.3.4.3**.

9 – For formal course IPs (weapons instructor course and FTU), CT and exercise participation require above currencies; formal syllabus training missions require 180 days currency.

10 – Supervision for flight or simulator is a current FCF pilot.

11 – Currency is required to perform the flight at or below 1,000 feet AGL in the pilot's low altitude training (LOWAT) category I. See Chapter 6 for low altitude step down training (LASDT) and LOWAT category. Loss of currency requires regression to the next higher category (above 1,000 feet AGL). Recurrency requires satisfactory performance in the following events: vertical awareness training, hard turns, tactical formation, and offensive/defensive maneuvering.

4.4. Combat-Coded Units.

4.4.1. **BAQ.** Pilots achieve BAQ status after successfully completing IQT and remain in BAQ status until the completion of MQT IAW **Chapter 3**. BAQ is not a permanent status except for general officers above the wing level (reference AFI 11-202V1 for restrictions), and any other pilots specifically authorized by MAJCOM/A3 (ANG to NGB/A2/3/6/10O; AFR to AFRC/A3D). SQ/CCs will ground pilots who are in BAQ status for more than six months unless the pilots are enrolled in a program to achieve CMR/BMC **(T-2)**. BAQ Requirements:

4.4.1.1. INSTM/QUAL evaluation IAW AFIs 11-202V2 and 11-2F-15V2,

4.4.1.2. Currencies (as applicable) IAW **paragraph 4.3**, and

4.4.1.3. Fly a supervised sortie with an IP or FL-certified SQ supervisor at least once every 60 calendar days. If a BAQ pilot does not fly for 21 days (inexperienced) or 30 days (experienced), the next sortie must be flown with an IP or FL-certified SQ supervisor **(T-3)**.

4.4.2. **BMC.** BMC establishes the minimum training required for pilots to be familiar with all (and may be certified, current, and proficient in some) of the primary DOC statement mission requirements of their assigned or attached unit and weapon system. Designate and maintain BMC pilots IAW **paragraph 1.7.3**.

4.4.2.1. BMC pilots at a minimum maintain familiarization with all unit primary missions. BMC pilots accomplish all mission-related ground training designated by their attached SQ/CC, and may deploy and participate in any mission as determined by the SQ/CC. Failure to complete required training IAW with this volume and as outlined in the RTM (both flying and ground) results in regression to N-BMC status. While N-BMC, the SQ/CC determines which missions the pilots may perform and the supervision required.

4.4.2.2. **Basic Mission Capable (BMC) Requirements** .

4.4.2.2.1. INSTM/QUAL and MSN evaluations IAW AFIs 11-202V2 and 11-2F-15V2.

4.4.2.2.2. RAP sorties, sortie rate (lookback), mission types, and events (including weapons certifications), and applicable mission/event ground training requirements IAW the procedures set forth in this volume and as outlined in the RTM. API-8 (e.g., Numbered Air Force/MAJCOM inspector general) pilots should fly the BMC mission rate; however, they are not required to complete BMC-specific missions/events or meet RTM lookback requirements. API-8 pilots (see **paragraph 4.6.2**) should strive to accomplish basic skills requirements with allotted BMC sorties.

4.4.2.2.3. Currencies (as applicable) IAW **table 4.1**.

4.4.2.2.4. LOWAT CAT I certification.

4.4.3. **CMR.** CMR establishes the minimum training required to remain proficient in all of the primary DOC statement missions tasked to their assigned or attached unit and weapon system. Designate and maintain CMR pilots IAW **paragraph 1.7.3**.

4.4.3.1. CMR pilots maintain proficiency in all primary missions of the flying unit to which they are assigned or attached. SQ/CCs will regress pilots who fail to complete required training to N-CMR status **(T-3)**. While N-CMR, pilots may participate in missions, including exercises and contingency operations, in which they are proficient at the discretion of the SQ/CC.

4.4.3.2. **CMR Requirements.**

4.4.3.2.1. INSTM/QUAL and MSN evaluations IAW AFIs 11-202V2 and AFMAN 11-2F-15V2.

4.4.3.2.2. RAP sorties, sortie rate (lookback), mission types, and events (including weapons certifications), and ground training IAW the procedures set forth in this volume and as outlined in the RTM.

4.4.3.2.3. Currencies (as applicable) IAW **paragraph 4.3**.

4.4.3.2.4. LOWAT CAT I certification.

4.4.3.2.5. Verification IAW **Chapter 3**.

4.4.4. **Ground Training.** Accomplish ground training IAW the parent directives and as outlined in the table in the RTM tables. Units may credit ground training accomplished during IQT/MQT toward CT requirements for the training cycle in which it was accomplished. Ensure ground training is tracked in ARMS to the maximum extent possible.

4.4.4.1. **Weapons and Tactics Academic Training.** Establish a weapons and tactics academic training program to satisfy MQT and CT requirements. FL upgrade (FLUG) and IP upgrade (IPUG) flows include weapons and tactics academic training commensurate with the level of upgrade being accomplished. SQ/CCs will provide guidance to the unit weapons shops on an annual CT weapons and tactics academics program that ensures pilots are informed/reminded of new/current F-15 weapons, systems, and mission-specific tactics techniques and procedures **(T-3)**. Academic instructors should be USAFWS graduates to the maximum extent practical.

4.4.4.2. **Intelligence Training.** SQ/CCs will develop the unit external intelligence training for pilots IAW AFI 14-1020, *Intelligence Mission Qualification and Readiness*, MAJCOM and local unit instructions **(T-3)**.

4.4.4.3. **Aircraft Servicing.** SQ/CCs will ensure pilots are trained and prepared to accomplish all aircraft servicing actions necessary to beddown/turn aircraft when off-station without maintenance support **(T-3)**.

4.4.4.4. **CT Verification.** CMR pilots participate in a verification as a briefer, board member, or seminar participant at the frequency referenced in the RTM. BMC pilots should participate in a verification to facilitate future upgrade to CMR status at the discretion of the SQ/CC. Pilots who participate in a unit deployment to a tasked AOR may receive credit for CT verification.

4.4.4.5. **Cockpit/Crew Resource Management (CRM).** Pilots participate in CT CRM training at the frequency referenced in the RTM (reference AFI 11-290, *Cockpit/Crew Resource Management Training Program*). Briefs and debriefs include the core curriculum of CRM training IAW AFI 11-290 and the appropriate MAJCOM supplements. The instructor CRM course may be used to satisfy the periodic requirement.

4.4.4.6. **Night Vision Device Refresher Academics.** Conduct refresher training IAW AFI 11-202V1 and as outlined in the RTM.

4.4.5. **Simulator Training.** Conduct RTM SIM in the best available SIM. SQ/CCs determine the required supervision for CT MTC missions based on SIM capabilities and mission training objectives. Units develop scenarios that cover RAP-event MTC missions based on unit tasking and emergency procedure/general systems knowledge requirements. Emphasis should be placed on skill-set training not attainable during live fly and SQ/CCs will review scenarios each training cycle **(T-3)**. Pilots may receive credit for training accomplished in other SIMs (e.g., industry SIMs) if approved by the SQ/CC.

4.4.5.1. Tactical SIM RAP training should emphasize the following areas: DOC-relevant simulated combat employment, threat recognition, threat reactions and counter tactics, weapons malfunctions, contested degraded and operationally limited operations (CDO), battle damage and wounded bird procedures, controllability and structural damage checklists.

4.4.5.2. EP SIM RAP training in the following areas will be accomplished at least once in each training cycle: spin recoveries, unusual attitude recoveries, spatial disorientation, inadvertent weather entry, controlled and uncontrolled ejection parameters, aircraft subsystem failure checklist procedures, relevant critical action procedures, and precision

instrument procedures **(T-3)**. All EP SIM missions must accomplish controlled flight departure recognition and recovery procedures **(T-3)**.

4.4.5.3. **Situational Emergency Procedure Trainer (SEPT).** This training is not an evaluation, but a review of EPs and aircraft systems operations/limitations during realistic scenarios. Units produce monthly SEPT scenarios, topics, and special interest items using actual mishaps and incidents as baseline cases. Pilots will take actions necessary to cope with the malfunction and carry it to a logical conclusion.

4.4.5.3.1. Units will incorporate the following elements into SEPT programs:

4.4.5.3.1.1. Emphasize EPs and special interest items to include any MAJCOM, OG, and SQ SIIs related to aircraft employment **(T-3)**.

4.4.5.3.1.2. Include two EPs per phase of flight and/or major aircraft subsystem during each session **(T-3)**.

4.4.5.3.2. Pilots accomplish a SEPT in each calendar month. Currency expires at the end of the calendar month following the month in which the SEPT was credited, regardless of which date the SEPT was completed (e.g., if a SEPT is accomplished on 1 May, the currency is good through 30 June). SQ/CCs will ground pilots for failure to maintain currency until subsequently completed **(T-3)**. SQ/CCs may waive unaccomplished SEPTs from previous months due to non-flying temporary duty (TDY) or special circumstances.

4.4.5.3.3. Pilots may satisfy their monthly SEPT requirement by accomplishing or administering an EP SIM, an EP evaluation, or formal course EP training.

4.4.5.3.4. Accomplish two SEPTs each training cycle with an IP or FL-certified SQ supervisor, to include minimum fuel and emergency divert procedures, and midair collision avoidance during all phases of flight.

4.4.5.3.5. Accomplish SEPTs in the best available device. If no device is available, SEPTs may be accomplished in a table-top one-on-one or in small flight-sized groups, as long as all members participate fully and share equal time responding to emergency situations.

4.4.6. **Flight Training.** Flying requirements are outlined in the current RTM.

4.4.7. **Regression.** See the RTM for live fly and SIM lookback requirements. Reference **Figure 4.1** for necessary decisions/actions to maintain/regain CMR/BMC status. If a pilot does not meet lookback requirements throughout the training cycle, the SQ/CC can either regress the pilot to N-CMR/N-BMC, remove the pilot from a CMR/BMC manning position, or initiate action to remove the pilot from active flying status.

4.4.7.1. **MQT Completion.** Lookback computation begins following completion of MQT. 1-month lookback starts the first full month of CMR/BMC status. Post-MQT sorties flown during the month of MQT completion may be used at the SQ/CC discretion for 3-month lookback.

4.4.7.2. Pilots regressed to N-CMR/N-BMC accomplish the following events (documented in gradebook) in order to regain CMR/BMC status:

4.4.7.2.1. Up to 3 Months. The pilot completes a SQ/CC-approved recertification program. Additionally, the pilot regains all expired currencies affecting CMR/BMC, as outlined in sub **paragraphs 2.2.2**, and meets RTM lookback requirements.

4.4.7.2.2. 3 to 6 Months. Requirements in **paragraph 4.4.7.2.1**, plus standardization and evaluation office generated open and closed book written examinations.

4.4.7.2.3. Over 6 Months. Re-accomplish MQT program IAW **Chapter 3**.

4.4.7.3. Failure to Maintain Weapons Proficiency. Pilots who fail to maintain weapons RAP requirements at the end of the training cycle are required to regain proficiency in the deficient weapons event IAW **Chapter 5**. Events accomplished for regaining proficiency may count toward the cumulative CT event proficiency required at the end of the training cycle.

4.4.7.4. Flight Evaluation Failure. Pilots who fail a flight evaluation are handled IAW AFIs 11-202V2 and AFMAN 11-2F-15V2 and regress to N-CMR/N-BMC as applicable, until requalification is complete and recertified by the SQ/CC.

Figure 4.1. Regression Flow Chart.
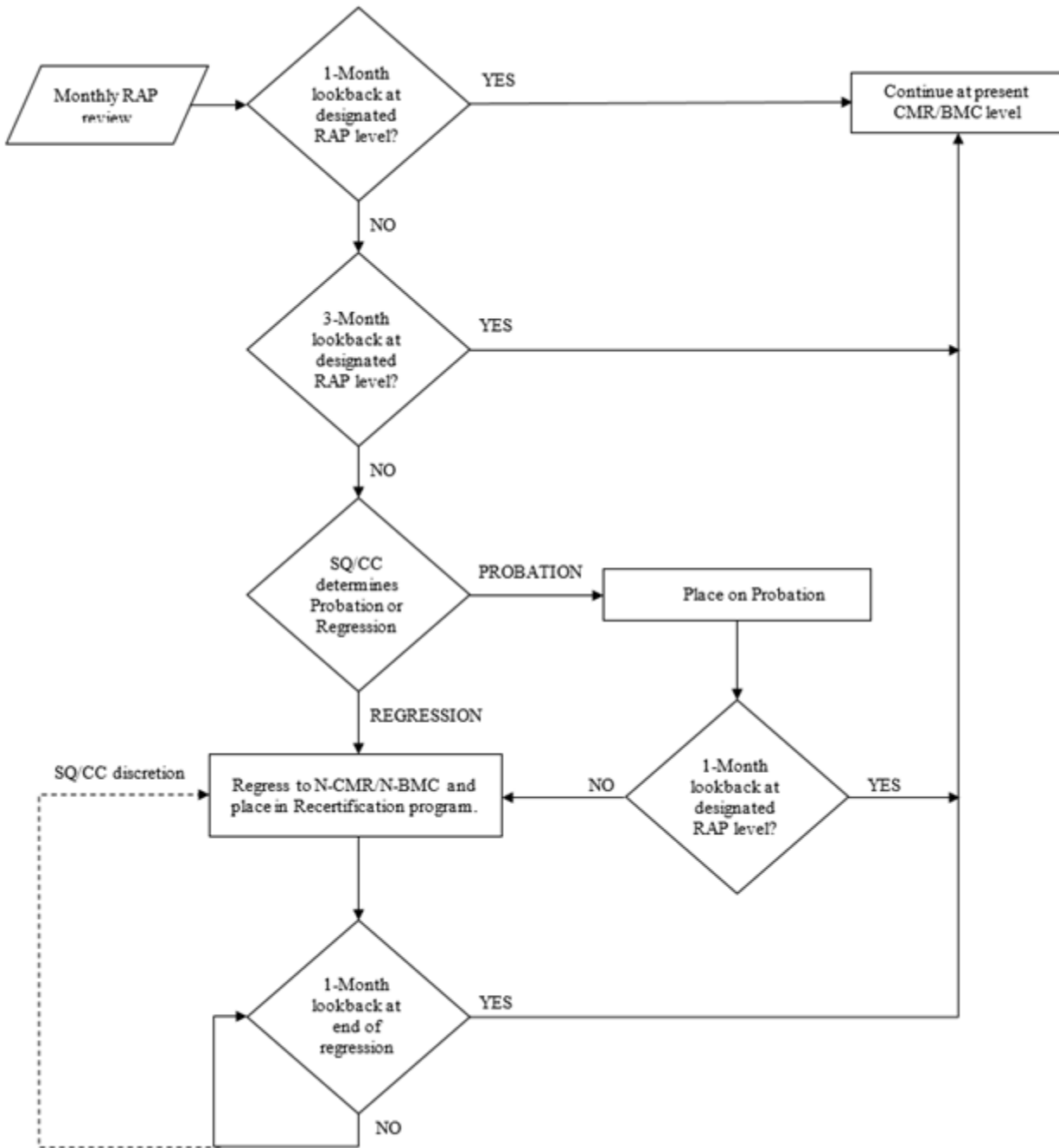
4.4.8. **EOC Requirements.** Pilots who fail to complete RAP mission or event requirements by the end of training cycle may require additional training depending on the type and magnitude of the deficiency. Refer to **paragraph 4.4.9** for proration guidance. In all cases, report training shortfalls as outlined in the RTM instructions.

4.4.8.1. Pilots who fail to meet EOC mission and/or event requirements may continue CT as CMR/BMC as determined by lookback. The SQ/CC determines if additional training is required.

4.4.8.2. Failure to accomplish missions/events required for special capabilities or certifications/qualifications IAW **Chapter 6** and as outlined in the RTM may result in the loss of that certification or qualification as determined by the SQ/CC. The SQ/CC determines if any additional training is required to address shortfalls.

4.4.9. **Proration of EOC Requirements.**

4.4.9.1. The SQ/CC may prorate training requirements when duty not including flight, emergency/consecutive overseas tour leave, non-flying TDYs/exercises, or non-flying combat/contingency deployments preclude training for a portion of the training cycle. Loss of training due to ordinary annual leave does not result in proration. SQ/CCs may consider proration due to poor weather that precludes the unit from flying for more than one-half of the monthly scheduled flying days. For ARC units, proration is allowed for mandatory training required by civilian employment. EOC proration is permitted for documented attrition, such as higher headquarters or weather cancels, maintenance non-delivery, ground aborts, in monthly increments when the total number of occurrences range from one-half to one times the pilot's normal monthly rate of flying.

4.4.9.2. SQ/CCs only prorate requirements to adjust for genuine circumstances of training non-availability – not to mask training or planning deficiencies.

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

4.4.9.4. Training requirements for newly assigned pilots achieving CMR/BMC after the 15th of the month start on the first day of the following month.

4.4.9.5. If MQT is re-accomplished, a pilot's training cycle starts over at a prorated share following completion of that training IAW **paragraph 4.4.9.4**.

4.4.9.6. Do not prorate any requirement below one. Prorated numbers resulting in fractions of less than 0.5 will be rounded to the next lower whole number (one or greater).

4.4.9.7. Night and AAR requirements accomplished during MQT may be credited toward prorated CT requirements if accomplished during the cycle in which the pilot was declared CMR/BMC.

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

4.4.9.9. CMR pilots who attend USAFWS in TDY-and-return status may be reported throughout the TDY as CMR. Upon return, those pilots accomplish a prorated share of mission and event requirements.

4.4.9.10. **Contingency Operations.** Commanders follow proration guidance as outlined in the RTM. For ARC units, individuals deployed for more than a seven-day period may be prorated a 1-month portion of RAP missions and events.

4.4.9.11. SQ/CCs may prorate unit training requirements when a pilot is assigned to the unit following completion of a formal course (IQ, TX, or senior officer course) IAW **paragraph 4.4.9.4** and halfway or more through the training cycle. The intent is to provide a realistic assessment of unit training requirements for the remainder of the training cycle and a prediction of potential RAP training shortfalls. SQ/CCs also prorate unit training requirements at the end of the training cycle to accurately report EOC training shortfalls and assign additional training if required.

4.4.9.12. **Proration example.** A pilot was granted 17 days of emergency leave in January and attended professional military education in residence from March through April for 56 consecutive calendar days. The SQ/CC authorized a total of two months proration from his training cycle (17 days of emergency leave plus 56 days for non-flying TDY = 73 cumulative days of non-availability for flying).

Table 4.2. Proration Allowance.

Cumulative Days of Non-flying	Months of Proration Allowed
0 - 15	0
16 - 45	1
46 - 75	2
76 - 105	3
106 - 135	4
136 - 165	5
166 - 195	6
196 - 225	7
226 - 255	8
266 - 285	9
286 - 315	10
316 - 345	11
346 - 365	12

4.5. Test/Training-coded Units.

4.5.1. Pilots assigned or attached to test/training-coded units will fly at the BMC rate (see RTM table) at a minimum and should meet monthly flying-lookback **(T-3)**. Sorties should be IAW the unit's mission as determined by the SQ/CC but also fulfill RTM AHC/instruments requirements, which is applied toward lookback. Any RAP mission listed in the RTM also counts towards lookback. SQ/CCs will ensure IPs are current and qualified in all events they instruct **(T-3)**. Failure to maintain an individual currency does not affect IP status but requires additional training as determined by the SQ/CC prior to instructing that event. For test-coded units, SQ/CCs may designate IPs as initial cadre to instruct new events under an approved test plan.

4.5.2. **Ground Training.** SQ/CCs may reference the RTM Ground Training table to develop their ground training plan.

4.5.3. **SIM Training.** MTC RAP requirements do not apply, with the following exception: each pilot must accomplish one graded or evaluated (IAW AFIs 11-202V2 and 11-2F-15V2) EP simulator per year **(T-2)**. Part task training devices and cockpit mock-ups are not acceptable. All pilots accomplish SEPTs IAW **paragraph 4.4.5.3**.

4.5.4. **Flight Training.** SQ/CC directed.

4.5.5. **Weapons Events.** Maintain appropriate weapons delivery certifications as outlined in the RTM Flight Training - Weapons Certifications Requirements table.

4.5.6. MSN and INSTM/QUAL (initial and requalification) evaluations are conducted as applicable, IAW AFIs 11-202V2 and 11-2F-15V2.

4.5.7. 83rd Fighter Weapons Squadron pilots will maintain ACBT currency and may fly in the RCP of aircraft participating in the weapons system evaluation program at the discretion of the commander **(T-2)**.

4.5.8. **Visits/Deployments.** Only qualified USAFWS instructors are sent on weapons school visits/deployments. During visits, USAFWS instructors may perform FL and instructor duties during tactical missions. When flying with students during deployments to FTUs, USAFWS IPs will occupy the front cockpit.

4.6. Special Categories.

4.6.1. **Flight Surgeons.** Flight surgeon flight rates and requirements are IAW AFIs 11-202V1/2.

4.6.2. **API-8 Pilots.** API-8 pilots designated as BMC strive to fly at the BMC rate; however, they are exempt from non-grounding academic ground training, night AAR, combat survival training, and ACBRN training. Additionally, API-8 pilots designated as BMC are not required to complete BMC-specific missions/events or meet RTM lookback requirements. Submit qualification and/or authorization documentation to the supporting SQ/CC or authorized representative prior to flying with that squadron. IPs may perform instructor duties with the concurrence of the OG/FG/CC, if current and qualified in the applicable mission and events.

4.7. Multiple Qualification/Currency.

4.7.1. See AFIs 11-202V1/2 for guidance on authorization to obtain multiple qualifications. This does not apply to variants of the F-15 which are considered the same MDS. Submit multiple qualification requests through command channels to MAJCOM/A3 (ANG to

NGB/A2/3/6/10O; AFR to AFRC/A3D). All requests must contain full justification **(T-2)**. Approval for multiple qualification requests must be provided to the appropriate host aviation resource management office; flights are not authorized until aircraft assignment is updated in ARMS **(T-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/A3 (ANG to NGB/A2/3/6/10O; AFR to AFRC/A3D).

4.7.2. Multiple qualifications are not appropriate for senior wing supervisors of units with different types of aircraft. WG/CCs will qualify in only one of their wing's aircraft **(T-2)**. Either the WG/CV or OG/CC should qualify in another of the wing's aircraft (not the same aircraft selected by the WG/CC).

4.7.3. **Multiple Requirements.** Pilots will satisfy at least 50 percent of the sortie requirements in their primary aircraft **(T-2)**. If CMR, they will meet all RAP mission and event requirements of the primary aircraft **(T-3)**. In addition, pilots will fly an equitable distribution of emergency patterns, instrument sorties, penetrations, non-precision approaches, and precision approaches in each MDS to fulfill their basic skills requirements.

4.7.4. **Multiple Currencies.** Pilots will comply with currency requirements for each MDS **(T-2)**.

4.8. Instruments. Instrument proficiency training includes but is not limited to: lost wingman training, briefings on how to recognize and deal with spatial disorientation, head-up display-off unusual attitude recoveries, and transition from visual to instrument conditions. It will also stress the use of primary flight reference and standby flight instruments during instrument recovery from unusual attitudes or spatial disorientation **(T-3)**.

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

4.8.2. Pilots transferring from another MAJCOM require the theater-specific portions of the instrument refresher course before flying without a theater-experienced pilot in the formation. MQT academics and the LAO mission may satisfy this requirement.

4.8.3. RAP events may be accomplished on an instrument mission provided accomplishment does not interfere with the primary goal of instrument training. The transition from instruments to visual references should be practiced on all instrument approaches. An instrument sortie is a basic skills requirement and may be credited toward monthly RAP lookback as outlined in the RTM.

4.9. Gravitational Load Factor (G)-Awareness CT. Units will develop a CT program that provides feedback to pilots and ingrains a proper anti-G straining maneuver (AGSM) so that it becomes an integral part of pulling Gs **(T-2)**. This program's intent is to make assessment of the AGSM a normal debrief item after every flight. The assessment should be done as a normal part of mission recording review while debriefing other tactical portions of the mission.

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

4.9.1.1. Develop a program to ensure at least one tactical mission recording for each pilot is reviewed and documented for each training cycle. This will be by an aeromedical specialist (i.e., flight surgeon), aerospace operational physiologist, and/or pilot-physician

for AGSM and human factors required IAW AFI 11-403, *Aerospace Physiological Training Program*, and AFPAM 11-419, *G Awareness for Aircrew* **(T-3)**. Only as a last resort, SQ/CC or SQ/DO may accomplish the review.

4.9.1.2. Focus ground training/academics on technique and assessment, including a discussion of the limitations imposed on aircraft/pilot performance as a result of an ineffective AGSM. Emphasize briefing, debriefing, G-suit/aircrew flight equipment differences, and assessing the proper AGSM during flight debriefs.

4.9.1.3. Include "AGSM effectiveness" on MQT and "AGSM assessment" on FLUG and IPUG grade sheets **(T-3)**. IPs should evaluate these areas on upgrade missions that involve tactical maneuvering.

4.9.1.4. FLs emphasize G-awareness during appropriate portions of the flight brief. FLs will also assess the AGSM effectiveness of flight members during mission debriefings **(T-3)**. 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 will also be evaluated under relatively low intensity sorties **(T-3)**.

4.9.2. During the mission recording review, FLs assess and debrief the pilot's AGSM. Notify the flight CC or appropriate operations supervisor of aircrew who display poor AGSM technique or low G-tolerance. The SQ/DO or appropriate supervisor determines what action is required to improve the pilot's G-tolerance **(T-3)**. The SQ/CC determines if commander-directed acceleration training is required IAW AFI 11-404, *Fighter Aircrew Acceleration Training Program* **(T-3)**.

4.10. CDO. CDO scenario development will be included in daily training (aircraft, academics and MTC), and also be incorporated into MSN evaluations and EP evaluations. Daily CT flights and MTC missions should discuss the following CDO areas in relationship to the mission's profile:

4.10.1. Contested: Electro-magnetic spectrum degradation caused by enemy action (jamming).

4.10.2. Degraded: Electro-Magnetic Spectrum and battlespace degradation caused by failed systems (global positioning system (GPS) degradation/denial, datalink, simple failure).

4.10.3. Operationally limited: Reduced mission effectiveness caused by the physical or operational environment (system, force structure, rules of engagement/special instructions, etc.).

Chapter 5

WEAPONS DELIVERY/EMPLOYMENT CERTIFICATION

5.1. General. This chapter outlines guidance for attaining initial weapons certification and maintaining CT proficiency in "Weapons Certification Requirements" listed in the RTM. Refer to **Attachment 2** for further guidance on weapons events.

5.2. MSN Evaluation Versus Employment Certification. A successful AF Form 8 MSN evaluation qualifies a pilot to employ the member's assigned weapon system in accomplishing the unit's operational or DOC statement mission. SQ/CCs will certify pilots in employing weapons before employing without instructor supervision **(T-3)**.

5.3. Initial Weapon Certification. Initial weapon certification can be achieved in IQT, MQT, or a combination of each. Weapons certification carries over for consecutive tours in the MDS. In order to be designated CMR, accomplish initial certification in RTM directed "proficient" munitions.

5.3.1. Initial certification in a weapon is satisfied when a pilot has achieved a minimum of 3 hits out of 6 consecutive record deliveries (see **Attachment 2**). To count as a hit, the delivery must be valid and assessable IAW AFTTP 3-1.Shot Kill.

5.3.2. **Gun.** Certification is achieved by meeting the "qualified" criteria for A/A employment IAW AFI 11-2F-15V2 and may be verified through mission recording assessment of an engagement or via live fire.

5.3.3. **A/A Missile.** Certification is achieved by meeting the qualification criteria for missile employment IAW AFI 11-2F-15V2.

5.4. CT Proficiency. Each pilot's weapons employment is assessed for validity IAW AFTTP 3-1.IPE, *Integrated Planning and Employment* criteria. The results in each category (i.e., air intercept missile (AIM)-120) are recorded for the current training period (RAP required tasks) per the squadron weapons and tactics program (refer to AFI 11-415, *Weapons and Tactics Programs*).

5.4.2. Proficiency in A/A weapons employment is maintained by achieving a 75 percent valid at weapons release rate for AIM-120/9 and 75 percent valid attempt at trigger squeeze for gun.

5.4.3. Failure to meet annual RTM weapon proficiency requirements results in the individual losing certification in that weapon. The SQ/CC may consider regressing pilots to N-CMR/N-BMC until proficiency/familiarization is regained (see **paragraph 4.4.7**).

5.5. Weapons Delivery Parameters. All deliveries conform to the limits established for each specific event. Pattern descriptions, procedures, training rules, and foul criteria are contained in AFIs 11-2F-15V3 and 11-214, *Air Operations Rules and Procedures*. Events performed at night may require higher minimum recovery altitudes based on AFI 11-214 minimum altitude restrictions.

5.5.1. **A/A Weapons Events.** Missile and gun employment is IAW AFTTP 3-1.IPE criteria.

5.5.2. **A/G Weapons Events.** A/G employment is IAW AFTTP 3-1.IPE criteria.

5.6. Full Scale/Live Ordnance. Full scale weapons delivery and live ordnance training is essential to pilot combat capability. Each pilot should be given the opportunity to deliver/employ

as many types of weapons inventoried on the unit committed munitions list as possible. Delivery of live or inert ordnance representing a typical combat configuration in a tactical scenario qualifies as a full scale weapons delivery event. Only one event per weapon type may be logged per sortie. See the RTM for additional full scale weapons delivery requirements.

Chapter 6

SPECIALIZED TRAINING

6.1. General. This chapter outlines upgrade training programs for special capabilities, certifications, 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 consists of unit-developed academics and scenarios. Conduct flight training IAW a program approved by the SQ/CC.

6.1.1. Prior to any certification, the SQ/CC personally interviews the UP and reviews responsibilities, scope of duties, authority, and philosophy. The SQ/CC approves the new status, including any restrictions, in appropriate written format (grade sheet, training folder, Letter of X's, etc.).

6.1.2. Units review the progress of each UP for trends and common errors.

6.1.3. Unaccomplished Tasks. Scheduled training events unaccomplished need not delay certification/qualification. In such cases, the SQ/CC certifies individuals with appropriate limitations to preclude performance of duties in which training is incomplete (e.g., AAR).

6.1.4. **Scope.** The RTM may list additional specialized training requirements.

6.2. Flight Lead Upgrade (FLUG) - Certification.

6.2.1. Initial FLUG entry is as a 2-ship/element FL until experience and proficiency warrant further progression.

6.2.2. SQ/CCs select pilots for FLUG entry based on proficiency and experience. Pilots selected for FLUG training should have:

6.2.2.1. 250 hours F-15C/D, or

6.2.2.2. 150 hours F-15C/D with 400 hours first pilot/mission pilot/IP/evaluator pilot in a 11K3F (T-6 Pilot) or 11K3D (T-38 Pilot) Air Force specialty code (AFSC), or

6.2.2.3. 50 hours F-15C/D if previously certified as a 11Fxx (Fighter Pilot, undefined) FL or sister service equivalent (e.g., F/A-18 pilot).

6.2.2.4. For converting units, OG/FG/CCs may select prior FL-certified pilots to upgrade to FL concurrent with MQT regardless of F-15C/D hours.

6.2.3. **FLUG Ground Training.** Units develop local training in the following areas **(T-3)**:

6.2.3.1. **FL Responsibilities.** Wingman relationship, unit training objectives, and squadron responsibilities. Review of appropriate Joint/MAJCOM instructions, AFIs, and local guidance.

6.2.3.2. **Mission Preparation.** Wingman requirements and responsibilities, currencies, proficiencies, capabilities, delegation of mission planning duties, developing appropriate mission objectives, and briefing preparation.

6.2.3.3. **Conduct of Flight Briefings and Debriefings.** Mission objectives, use of briefing guides and audiovisual aids, wingmen involvement, briefing techniques,

debriefing/questioning techniques, mission recording review responsibilities and procedures.

6.2.3.4. **Conduct of Missions.** Leadership and control of flight, flight discipline, and training rules.

6.2.3.5. **Practice Briefing(s).** Administrative items, mission tasks, and contingencies.

6.2.3.6. **AGSM Techniques.** Briefing, debriefing, and mission recording assessment.

6.2.3.7. **In-flight Emergencies and Emergency Diverts.** Divert decisions as an element, support of wingman during EPs, FL responsibility and authority, minimum fuel planning, and air traffic control assistance.

6.2.4. **FLUG SIM Training.** Units should incorporate MTC profiles into the FLUG to the maximum extent practical, depending on MTC capabilities and availability.

6.2.5. **FLUG Flight Training.**

6.2.5.1. SQ/CCs ensure the following guidelines are met:

6.2.5.1.1. All FLUG training will be under the direct supervision of an IP **(T-3)**.

6.2.5.1.2. A dedicated FL certification mission will be flown with the SQ/CC or a designated representative **(T-3)**.

6.2.5.1.3. Schedule dissimilar and support assets to the maximum extent practical.

6.2.5.2. **FLUG Missions and Events.** The following missions and events are recommended to be baseline FLUG. Missions may be flown in any order provided day training precedes respective night training. FLUG events can be accomplished anywhere in the FLUG.

6.2.5.2.1. **FLUG Events.** Day/Night AAR, instrument trail departure, radar trail recovery, threat reactions, hung ordnance recoveries, CDO, wounded bird, formation approach, and lost wingman procedures.

6.2.5.2.2. **FLUG Missions.** BFM, ACM, TI, defensive counter air, offensive counter air and certification. See **paragraph 6.6** for night certification.

6.3. Instructor Pilot Upgrade (IPUG) – Qualification and Certification. Upgrading IPs (UIPs) at a FTU complete the formal syllabus IPUG.

6.3.1. SQ/CCs select pilots certified as a 4-ship FL for IPUG entry based on proficiency and experience. Pilots selected for IPUG training should have either:

6.3.1.1. 400 hours F-15C/D, or

6.3.1.2. 300 hours F-15C/D with 400 hours first pilot/mission pilot/IP/evaluator pilot in a 11K3F (T-6) or 11K3D (T-38) AF specialty code, or

6.3.1.3. 100 hours in F-15C/D if previously qualified as a 11Fxx IP or sister service equivalent (e.g., F/A-18 pilot).

6.3.1.4. For converting units, pilots may be designated by the OG/FG/CC for IPUG regardless of time in the new MDS if they have at least 1,000 hours first pilot/mission pilot/IP/evaluator pilot in a fighter AF specialty code.

6.3.2. **IPUG Ground Training.** UIPs complete the following unit-developed blocks of instruction prior to IP qualification **(T-3)**:

6.3.2.1. **Principles of Instruction.** Creating clear learning objectives, IP/UP roles, instructing versus evaluating, and responsibility for UP progression.

6.3.2.2. **Techniques of Instruction.** Training objectives, UP interaction, learning environment and IP demeanor, maneuver demonstration, performance assessment, recognition and analysis of common errors, in-flight corrections and assistance, immediate IP correction versus allowing UP to recognize/correct errors, post-flight review and instruction, and setting objectives for follow-on missions.

6.3.2.3. **Conduct of flight briefings.** Mission objectives, adherence to training requirements, order of presentation, use of briefing guides and audiovisual aids, and debriefing techniques.

6.3.2.4. **Conduct of Phase Briefings.** Review of applicable phase briefings, use of visual aids, review of flying and grading standards, common UP errors, and flight preparation techniques.

6.3.2.5. **UP Grading.** Performance objectives, training standards, grading systems, determining unsatisfactory performance, and grade sheet completion.

6.3.2.6. **Practice Briefing(s).** Administrative items and instruction of mission events.

6.3.2.7. **AGSM Techniques.** Briefing, debriefing, and mission recording assessment.

6.3.2.8. **Chase Techniques.** Techniques for flying evaluation chase to include recommended parameters to effectively determine aim point/glide path, airspeed, altitude, and the effects of level off on final. Discuss limitation of evaluation chase versus safety chase with regard to terrain/obstacle clearance.

6.3.2.9. **CRM.** Techniques for increasing airmanship, methods to improve mission effectiveness, task/risk management and prioritization, feedback and crosscheck loops.

6.3.3. **IPUG SIM Training.** Units should incorporate MTC profiles into the IPUG to the maximum extent practical, depending on MTC capabilities and availability.

6.3.4. **IPUG Flight Training.** Conduct flight training IAW an upgrade program approved by the OG/FG/CC.

6.3.4.1. The SQ/CC ensures the following guidelines are met:

6.3.4.1.1. All IPUG training will be under the direct supervision of an IP **(T-3)**.

6.3.4.1.2. A dedicated IP qualification mission will be flown with the SQ/CC or a designated representative **(T-3)**.

6.3.4.1.3. IPUG training objectives are based on instruction of MQT, FLUG, and specialized training. Mission scenarios reflect typical unit training missions/events and the simulation of common UP errors.

6.3.4.1.4. **Method of Instruction.** UIPs practice assessing performance, immediately recognizing errors, and providing timely in-flight corrections. UIPs may also instruct mission tasks through maneuver demonstration as specified in the IPUG flight profile.

Briefings should cover guidelines for in/out-of-scenario instruction, and methods for pausing and/or resuming the scenario, as appropriate.

6.3.4.2. **IPUG Missions and Events.** Unit programs should clearly specify which tasks the UIP demonstrates, which tasks the UIP practices evaluating the "student's" performance, and which tasks the UIP does both. The following missions and events are recommended for the baseline IPUG. IPUG events can be accomplished anywhere in the IPUG. IPUG Missions: AHC, BFM, ACM, TI, defensive counter air, offensive counter air, and qualification. See **paragraph 6.6** for night certification.

6.4. Mission Commander (MC) Upgrade – Certification.

6.4.1. **MC Prerequisites.** SQ/CCs select pilots certified as a 4-ship FL for MC upgrade based on proficiency and experience.

6.4.2. **MC Responsibilities.**

6.4.2.1. The MC is responsible for planning, coordinating, briefing, executing, and debriefing joint/composite force employment packages. Certified MCs are authorized to lead joint/composite force training.

6.4.2.2. MCs may delegate authority and responsibility for a portion of the mission to a package commander/deputy MC.

6.4.3. **MC Ground Training.** Units develop local training in the following areas **(T-3)**:

6.4.3.1. Review AFTTP 3-1 volumes for specific MC checklists and considerations.

6.4.3.2. **Mission Planning Considerations:** Airspace requirements/restrictions, ATC restrictions/considerations/flight plans, air refueling operations, inter-unit coordination, A/A and air-to-ground force integration, IADS penetration/avoidance, on-range controlling agencies coordination, and command and control coordination.

6.4.4. **MC SIM Training.** Units should incorporate, as available, one MTC MC profile prior to MC certification.

6.4.5. **MC Flight Training.** The upgrading MC observes a certified MC during the planning, briefing, flight, and debriefing of at least one composite force mission prior to certification. The upgrading MC then plans, briefs, flies, and debriefs a minimum of one mission under the supervision of an MC-certified IP. Unit tasking should drive force composition, adversaries, and minimum flight size.

6.5. LASDT – Certification.

6.5.1. LASDT completion IAW **paragraph 6.5.4** certifies pilots to conduct LOWAT at the altitudes listed in **Table 6.1**. CAT I certification is the minimum requirement for CMR status and is normally accomplished in IQT or MQT.

6.5.2. SQ/CC will ensure all LASDT sorties are supervised by an instructor who is certified and current in Low A/A **(T-3)**.

Table 6.1. LOWAT Categories.

Category	Altitude Block	Minimum Requirements To Certify
I	1,000-500	LASDT-1, -2, -3

6.5.3. **LASDT Ground Training.** Ground training supports the mission and concept of operations of the individual squadron. Incorporate appropriate portions of AFTTPs 3-1.F-15, *Tactical Employment—F-15,* and 3-3.F-15, *Combat Aircraft Fundamentals--F-15*. Complete all ground academics prior to the flight brief and include discussion of the following:

6.5.3.1. **Low Altitude AHC.** Aircraft performance, density altitude, G-loading, power settings, level turns and bank angles, vertical maneuvering, climb/dive/slice, recoveries, terrain avoidance and ridge crossings, head-up display use, overbanking during turns, and cross check of aircraft attitude relative to horizon.

6.5.3.2. **Environmental Factors.** Cockpit visibility and field of view restrictions, sun angle, terrain, G-excess illusions/perceptions, weather considerations, air turbulence, jet wash, and bird strike.

6.5.3.3. **Task Management.** Low altitude tasks, task management and prioritization, factors influencing individual proficiency, route familiarity and complacency, and airmanship.

6.5.3.4. **Low Altitude Tactical Navigation/Formation.** Dead reckoning, tactical formations, hazards at low altitudes, task prioritization, tactical turns, and visual lookout/mutual support.

6.5.3.5. **Defensive Reactions.** Visual lookout and mutual support, threat weapons systems envelopes, threat reactions, and flight member deconfliction.

6.5.3.6. **Special Subjects.** Training rules, weather route abort procedures, aircraft emergencies, and separation/disengagement considerations.

6.5.3.7. **LOWAT Employment.** Level engagements, fuel management, required turning room, maximum dive angle restrictions, weapons employment, visual lookout and intercepts.

6.5.4. **LASDT Flight Training.** SQ/CCs may combine and/or modify profiles as necessary, based on UP's experience. To conduct low altitude operations safely, pilots need to be knowledgeable of aircraft handling and performance characteristics, tactical formation, intercept, offensive maneuvering, defensive reactions, and navigation. **Note**: LASDT-1 is a dedicated mission.

6.5.4.1. **LASDT-1 (Single ship w/chase or in a D-model).** Mission objectives: Demonstrate proficiency in single-ship maneuvering between 5,000 and 1,000 feet AGL. Introduce category I operations based on AFTTP 3-3.F-15. Mission tasks consist of AHC (low altitude handling/flight qualities, vertical awareness exercise, climb/dive/slice maneuvers, nose low recoveries, attitude awareness maneuvers), G-ex, 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 "knock-it-offs," defensive reactions, and low altitude TI.

6.5.4.2. **LASDT-2 (2-ship).** Mission objectives: Demonstrate proficiency in single-ship LOWAT Category I operations and introduce 2-ship low altitude operations down to 500 feet AGL. Mission Tasks: Same as LASDT-1 only accomplished down to 500 feet AGL as UP proficiency increases.

6.5.4.3. **LASDT-3 (2-ship) – LOWAT CAT I Certification.** Mission Objectives: Demonstrate proficiency in low altitude operations down to 500 feet AGL. Mission Tasks: Same as LASDT-1. **Note**: Upon satisfactory completion of this mission, the SQ/CC can certify the pilot to LOWAT Category I.

6.6. Night Vision Device (NVD) – Certification.

6.6.1. **NVD.** Upon successful completion of IQT IAW formal FTU course syllabi (B-course), pilots should be NVD certified by completion of that training at the FTU location. For pilots reporting to a unit who did not complete NVD training in a formal course (e.g., TX), tailor the FTU NVD syllabus based upon individual's previous experience, qualifications, and documented performance.

6.6.2. **FL.** Certified NVD pilots who upgrade to FL need one supervised (IP) flight as a FL on NVDs before performing unsupervised NVD FL duties. This flight may be conducted at anytime during or after the FLUG syllabus.

6.6.3. **IP.** A NVD instructor must fly one supervised (IP) instructional night sortie under NVDs before performing unsupervised night instructor duties while under NVDs **(T-3)**. Multiple upgrades may be accomplished on a NVD sortie, or in conjunction with other NVD upgrades, at the SQ/CC discretion.

6.7. Functional Check Flight (FCF) – Certification.

6.7.1. **Prerequisites.** OG/FG/CCs select pilots to enter the FCF training program based on experience and proficiency. Pilots should have a minimum of 300 hours in the F-15C/D.

6.7.2. **Supervision.** Unit-designated chief FCF pilot, or their representative, trains new FCF pilots and administers FCF certification flights according to local unit training programs. Minimum supervision for flight or simulator is a current and certified FCF pilot.

6.7.3. **FCF Ground Training.** Ground training includes a review of applicable technical orders and publications, including, at a minimum: AFI 21-101, *Aircraft and Equipment Maintenance Management;* technical order (TO) 1-1-300; *Technical Manual, Acceptance/Functional Check Flight and Maintenance Operational Checks;* TO 1F-15-6CF-1, *Functional Check Flight Procedures, USAF Series F-15 Aircraft;* and local FCF procedures. A full-profile FCF should be flown in the MTC.

6.7.4. **FCF Flight Training.** Upon completion of the training program, the OG/FG/CC or designated representative certifies the pilot via a memorandum, placed in the pilot's training record.

6.7.5. **CT.** Establish a CT program for review of FCF techniques and procedures. Refer to **Table 4.1** for FCF currency requirements.

6.8. MTC Operator Upgrade – Certification. SQ/CCs determine the number of MTC operators required to perform the unit mission. The required supervision for this upgrade program

is an instructor operating system (IOS)-certified instructor. The following guidelines are provided to SQ/CCs for use in developing the unit training plan to certify selected pilots to operate the MTC.

6.8.1. **MTC Operator Ground Training.** Units develop an academic training program to familiarize pilots with normal and emergency operating procedures of the IOS.

6.8.2. **MTC Operator SIM Training (Based on SIM Capabilities):**

6.8.2.1. **SIM Instructor (SI)-1, IOS Operations.** The MTC operator should conduct mission initialization, CRT page review and modification, keyboard operation, light pen operation, emergency shutdown, record/playback, hard copy, performance, and procedures monitoring.

6.8.2.2. **SI-2, IOS Operations.** The MTC operator should conduct, tactics mission file, console-operated air intercepts and options, A/A weapons scoring, ground threats and modifications, air-to-ground weapons scoring, surface-to-air engagement scoring, program and simulator freeze, mission parameter modifications.

6.8.2.3. **SI-3, Practical Exercise.** The MTC operator should conduct a regularly scheduled simulator mission from the IOS under supervision of an IOS-certified instructor.

6.8.3. **Certification.** Following successful completion of SI-3, the SQ/CC certifies the pilot's MTC operator status in appropriate written format (Letter of X's, ARMS, gradesheet, etc.).

6.9. Aerospace Control Alert (ACA) – Certification. The following are guidelines to train and certify ACA tasked pilots.

6.9.1. **ACA Ground Training.** The intent of ground training is to become familiar with combatant commander specific missions/organization, authentication procedures, applicable plans, facilities locations and call signs. Include applicable air defense artillery corridor procedures, safe passage procedures, alert procedures, alert camera operations and combatant commander rules of engagement. Refer to applicable sections of AFI 11-214 procedures and AFTTP 3-1.

6.9.2. **ACA SIM Training.** The intent of simulator training is to practice procedures difficult to simulate during live flight. One FMS mission dedicated to an ACA scenario including a scramble, handover, voice authentication, combat air patrol procedures, controller-directed visual identification profiles, low altitude intercepts below 1,000 feet AGL, electronic counter-countermeasures intercepts, and weapons employment rules of engagement.

6.9.3. **ACA Flight Training.** The intent of flight training is to prepare pilots for intercepting all aircraft with an emphasis on low/slow flying aircraft (rotary and fixed wing) and should include one dedicated flight. Creation of realistic environment to allow full use of F-15 electronic/visual identification capabilities is essential to the conduct of low/slow-speed operations. SQ/CCs determine the depth of ground and flight training necessary prior to participating in exercises and contingency operations.

6.10. Banner – Certification. Banner certification should be accomplished in MQT, FLUG, and IPUG.

6.10.1. **Banner Ground Training.** Units produce ground training which incorporates the following topics: pattern procedures, firing procedures/techniques, training rules and foul

criteria, degraded system considerations and gun malfunction procedures, and hot gun recovery.

6.10.2. **Banner Flight Training.** Pilots need one supervised (IP) banner flight for certification. Pilots who upgrade to FL/IP require an additional supervised (IP) banner flight before performing unsupervised FL/IP duties. This ride can be combined and may may be conducted at anytime during or after the FLUG/IPUG syllabus.

Mark D. Kelly, Lt Gen, USAF
DCS Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

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Abbreviations and Acronyms

A/A—**Air-to-Air**

AAR—**Air-to-Air Refueling**

ACA—**Aerospace Control Alert**

ACBRN—**Aircrew Chemical Biological, Radiological, Nuclear**

ACBT—**Air Combat Training**

ACC—**Air Combat Command**

ACM—**Air Combat Maneuvering**

ACT—**Air Combat Tactics**

AERP—**Aircrew Eye and Respiratory Protection**

AF—**Air Force**

AFE—**Aircrew Flight Equipment**

AFI—**Air Force Instruction**

AFMAN—**Air Force Manual**

AFPD—**Air Force Policy Directive**

AFR—**Air Force Reserve**

AFRC—**Air Force Reserve Command**

AFTTP—**Air Force Tactics, Techniques and Procedures**

AGL—**Above Ground Level**

AGSM—**Anti-G Straining Maneuver**

AGTS—**Advanced Gunnery Training System**

AHC—**Aircraft Handling Characteristics**

AIM—**Air Intercept Missile**

ANG—**Air National Guard**

API—**Aircrew Position Indicator**

ARC—**Air Reserve Component(s)**

ARMS—**Aviation Resource Management System**

B—**Basic**

BAQ—**Basic Aircraft Qualification**

BFM—**Basic Fighter Maneuvers/Maneuvering**

BMC—**Basic Mission Capable**

CAS—**Close Air Support**

CAT—**Category**

CC—**Commander**

CDO—**Contested, Degraded, Operationally Limited**

CMR—**Combat Mission Ready**

COMAFFOR—**Commander, Air Force Forces**

CRM—**Cockpit/Crew Resource Management**

CT—**Continuation Training**

D—**Dissimilar**

DO—**Operations Officer**

DOC—**Designed Operational Capability**

DRU—**Direct Reporting Unit**

EOC—**End of Cycle**

EP—**Emergency Procedure**

EXP—**Experienced**

FCF—**Functional Check Flight**

FG—**Fighter Group**

FL—**Flight Lead**

FLUG—**Flight Lead Upgrade**

FOA—**Field Operating Agency**

FTU—**Formal Training Unit**

G—Gravitational load factor

GPS—Global Positioning System

IAW—In Accordance With

INEXP—Inexperienced

INSTM—Instrument

IOS—Instructor Operator Station

IP—Instructor Pilot, Initial Point

IPUG—Instructor Pilot Upgrade

IQT—Initial Qualification Training

LAO—Local Area Orientation

LASDT—Low Altitude Step Down Training

LOW A/A—Low Altitude Air-to-Air

LOWAT—Low Altitude Training

MAJCOM—Major Command

MC—Mission Commander

MDS—Mission Design Series

MQT—Mission Qualification Training

MR—Mission Ready

MSN—Mission

MTC—Mission Training Center

N/A—Not Applicable

NGB—National Guard Bureau

NVD—Night Vision Device

OG—Operations Group

OPR—Office of Primary Responsibility

PROF—Proficient

QUAL—Qualification

RAP—Ready Aircrew Program

RTM—RAP Tasking Memorandum

SEPT—Situational Emergency Procedure Training

SI—Simulator Instructor

SIM—Simulator

SQ/CC—Squadron Commander

TDY—Temporary Duty

TI—Tactical Intercept(s)

TO—Technical Order

TX—Transition

UIP—Upgrading Instructor Pilot

UP—Upgrading Pilot

USAF—United States Air Force

USAFWS—United States Air Force Weapons School

WG—Wing

Terms

Note—See AFI 11-214 for further clarification on definitions/terms throughout the following attachments. If there is a conflict, AFI 11-214 will take precedence.

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

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

Airspace Control Alert (ACA)—Mission focused on intercepting low/slow-flying aircraft and traditional intercepts, with emphasis on target identification and shadowing procedures.

Basic Aircraft Qualification (BAQ)—An aircrew member who has satisfactorily completed training prescribed to maintain the skills necessary to perform aircrew duties in the unit aircraft (AFI 11-202V1).

Basic Mission Capable (BMC)—An aircrew member who has satisfactorily completed mission qualification training, is qualified in some aspect of the unit mission, but does not maintain MR/CMR status (AFI 11-202V1).

Certification—Procedure used to document competency in a particular task. Not interchangeable with "qualification," which requires formal AF Form 8 documentation (AFI 11-202V2).

Combat Mission Ready (CMR)—An aircrew member who has satisfactorily completed MQT and maintains qualification and proficiency in the command or unit combat mission (AFI 11-202V1).

Continuation Training (CT)—Training to maintain proficiency and improve pilot capabilities to perform unit missions. CT includes pilot proficiency sorties and upgrades not flown in IQT/MQT.

Currency—The minimum frequency required to maintain proficiency and allow safe performance of an event or mission.

Delivery Parameters—Weapons-related data reflecting current delivery considerations for proper ordnance function and tactical survivability. Appropriate aircraft/weapons technical orders must

be consulted for live ordnance safe escape criteria and aircraft performance charts for recovery altitudes.

Emergency Procedures Evaluation—See AFIs 11-202V2 and 11-2F-15V2.

Experienced Pilot (Exp)—A pilot who has flown the aircraft for a specified criteria, which then permits training at a reduced rate to maintain a safe level of proficiency (AFI 11-412, *Aircrew Management*). See **paragraph 1.6**.

Familiar—Aircrew have a basic knowledge of mission area and may make errors of omission or commission. Aircrew are able to operate in a permissive environment and are able to handle some basic contingencies and unusual circumstances. Familiar aircrew may need additional training prior to first mission tasking

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

Hot Pit—Term for an engine running aircraft refueling and/or rearming procedure where the aircraft lands, taxis to a designated location, refules/rearms, then takes off for another mission.

Initial Qualification Training (IQT)—Training needed to qualify aircrew for basic aircrew duties in an assigned crew position for a specific aircraft, without regard for the unit's operational mission (11-202V1). IQT graduates demonstrate proficiency in mission tasks as indicated in the FTU syllabi.

Letter of X's—A monthly summary of assigned and attached pilots that lists qualifications and certifications. An "X" is put in the appropriate column next to the pilot name showing their qualification or certification, hence its name.

Lookback—Used to assist a commander in determining a pilot's status (CMR/BMC – Probation – N-CMR/N-BMC). Lookback reflects RAP sortie and simulator counts over 1 and 3 month periods. Reference **paragraph 4.4.7** and **figure 4.1** for lookback use in regression determination.

Mission Commander (MC)—A SQ/CC certified 4-ship FL designated to lead large force employment (AFI 11-214) and joint/composite force missions.

Mission Qualification Training (MQT)—Training required to achieve the required level of competence in a unit's primary-tasked missions. This training follows IQT and is a prerequisite for CMR/BMC status. MQT provides an aircraft mission qualification certificate, and allows the pilot to prepare for follow-on specialized training.

Mission Ready (MR)—An aircrew member who has satisfactorily completed MQT and maintains qualification and proficiency in the command or unit operational mission (AFI 11-202V1).

Proficient—Aircrew have a thorough knowledge of mission area but occasionally may make an error of omission or commission. Aircrew are able to operate in a complex, fluid environment and are able to handle most contingencies and unusual circumstances. Proficient aircrew are prepared for mission tasking on the first sortie in theater.

Qualification—See AFIs 11-202V2 and 11-2F-15V2.

Specialized Training—Specialized training provides CMR/BMC pilots with advanced qualifications or certifications to support the unit's mission tasking. This training normally follows MQT as pilot skills and proficiency warrant, but may be conducted during MQT or CT, as required.

Verification—A unit briefing for pilots to update and verify tactical knowledge required to accomplish the unit's wartime mission tasking. Verification includes initial and continuation phases in which a formal board is normally convened to assess pilot knowledge of tactical employment.

Attachment 2

GLOSSARY OF MISSION AND EVENT DEFINITIONS

A2.1. Mission/Event Definitions.

A2.1.1. Air Combat Maneuvers (ACM) Mission. 2vX training mission designed to achieve proficiency in element formation maneuvering and the coordinated application of BFM to achieve a simulated kill or effectively defend against one or more aircraft from a pre-planned starting position (AFI 11-214). ACM maneuvers cover training (2vX or 1vX) designed to prioritize flow priorities to achieve proficiency in element and single-ship 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.

A2.1.2. Aircraft Handling Characteristics (AHC) Mission. 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 angle of attack maneuvering, energy management, minimum-time turns, maximum/optimum acceleration and deceleration techniques and confidence maneuvers (AFI 11-214).

A2.1.3. Air-to-Air Refueling (AAR) Event. An AAR event requires tanker rendezvous, hook-up and transfer of fuel or stabilized dry hook-up. More than one event may be credited if receivers accomplish another rendezvous, hook-up and fuel transfer/dry hook-up.

A2.1.4. Alert Scramble Event. From an alert posture, launch on a scramble order in any tasked role. Simulated event may terminate after initial taxi. Only one event may be logged per sortie.

A2.1.5. Basic Fighting Maneuvers (BFM) Mission. 1v1 training mission 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 (AFI 11-214).

A2.1.6. Basic Intercept. Single or two-ship intercept performed with the express purpose of practicing fundamental radar acquisition and lock-on techniques, controlling intercept geometry against LIMITED maneuvering targets, recognizing weapons employment zones and taking valid shots, practicing proper switchology and radio commentary. Tasks are performed independent of actual or briefed threat capabilities and weapons, and environmental considerations. These intercepts will not update ACBT currency.

A2.1.7. Basic Surface Attack Mission. Training designed to achieve proficiency in air-to-surface weapons delivery events.

A2.1.8. Chaff/Flare Event. Inflight dispensing of chaff/flare 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.

A2.1.9. Close Air Support Mission. Mission flown with detailed coordination in support of ground forces under the positive control of a joint terminal attack controller /forward air controller (airborne). Mission elements include: intel scenario, tactical mission planning, interface with the TACS/AAGS network, execution against threats, and weapons employment against joint terminal attack controller /forward air controller (airborne)-designated targets.

Except for the role of a joint terminal attack controller /forward air controller (airborne), mission elements and roles may be simulated during training.

A2.1.10. Commander (CC) Option Mission. An allotment of missions to each pilot for allocation at commander's discretion in support of training requirements and unit objectives. CC Option missions are part of the pilot's overall training cycle sortie allotment and may be designated uniquely for each pilot or generally for all in the unit.

A2.1.11. Composite Force Training. Scenarios employing multiple flights of the same or different MDS aircraft, each under the direction of its own flight leader, performing the same or different roles (AFI 11-214). Blue air sorties including multiple fighter/bomber MDSs, a command and control platform (desired for flight event), and an A/A and/or air-to-ground threat scenario. Reference RTM for specific flight and SIM event requirements.

A2.1.12. Contingency Sortie. A sortie tasked and flown while deployed for a contingency operation. We do not conduct training during contingency operations; however, SQ/CCs will determine when pilot/aircrew can log training for contingency sorties.

A2.1.13. Defensive Counter Air (DCA) Mission. Mission designed to develop proficiency in defensive counter air mission tactics. Mission elements include: Intel scenario and planning; execution of tactics to detect, engage, and negate aircraft employing adversary tactics and weapons to penetrate protected airspace or target areas, and in-flight report.

A2.1.14. Degraded/Denied Comm. Inflight operations in a Comm jamming environment that provides realistic effects (intervals and duration) without use of active anti-jam radios and/or effective chattermark procedures to counter jamming.

A2.1.15. Degraded/Denied Datalink. Inflight operations with degraded or denied datalink. Log only one event per sortie. In the absence of systems capable of degrading or denying datalink, the effects may be generated by turning systems OFF or SILENT.

A2.1.16. Degraded/Denied GPS. Inflight operations with degraded or denied GPS which impacts navigation and/or weapons capability at a minimum. In the absence of actual systems capable of degrading or denying GPS, the effects may be generated by selecting a non-GPS navigational aid or turning GPS OFF.

A2.1.17. Demanding Mission. Missions that task the pilot to the extent that flying currency and proficiency are most critical. Missions and events requiring demanding mission currency are: ACM, ACT, joint/composite force training, and LOWAT below 1,000 feet AGL. SQ/CCs may add missions/events to the demanding mission list, depending on unit tasking and pilot capabilities. See Non-Demanding Mission.

A2.1.18. Electronic Attack A/A Event. An intercept performed against a target using active and/or passive electronic protection against attacker's radar, causing the attacker to employ electronic attack techniques or tactics. Does not include co-channel interference.

A2.1.19. Electronic Protection A/A Event. The pilot detects an airborne threat via electronic means and reacts with appropriate maneuvers, pod/internal electronic countermeasures switchology, and/or expendables. Airborne threat training can be accomplished only with a dedicated adversary attacking from beyond visual range.

A2.1.20. Event. Unless otherwise specified in these event descriptions, units determine the necessary parameters for fulfilling and/or logging tasked events. An event is defined in one of the following manners:

A2.1.20.1. Accomplishment of a specific training element, function, or task.

A2.1.20.2. A specific type of weapon delivery performed during a mission, defined by aircraft flight path, ordnance delivered, delivery method, or target struck.

A2.1.20.3. Expending ordnance, or simulated attack where allowed, against a target according to predetermined flight path parameters and delivery methods. A single delivery constitutes an event.

A2.1.21. Electronic Warfare (EW) Range Event. Inflight operations conducted on an EW range with a fixed or mobile surface-to-air emmiters 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 switchology and/or expendables. Missions flown against EW aggressor or mobile threat emitters placed in non-special use airspace are acceptable.

A2.1.22. Formation Approach. Begins not later than the FAF and may terminate in a restricted low approach or low approach.

A2.1.23. Have Quick / Secure Voice Event. Requires proper radio configuration for HAVE QUICK / Secure Voice operation and successful utilization during tactical mission accomplishment and/or effective chattermark procedures.

A2.1.24. Instrument Mission. Training designed to ensure instrument proficiency. RAP events may be accomplished on an instrument sortie mission provided accomplishment does not interfere with the primary goal of instrument training. Units are allocated sorties for every pilot to accomplish their basic skills requirements and maintain minimum basic skills.

A2.1.25. Low Altitude Intercept. An intercept conducted below 5,000 feet AGL.

A2.1.26. Low Altitude Training (LOWAT). Tactical training operations in a certified low altitude block, which is divided into low altitude step-down training (LASDT) categories. This tactical training does not apply to traffic pattern operations or other basic transitions through the low-altitude structure. A LOWAT event involves performing realistic, mission-oriented low altitude operations while in a LOWAT-certified low altitude block, in which pilots practice realistic reactions to air and ground threats. LOWAT is divided into two currencies/events, LOW A/A and LOW A/G.

A2.1.27. LOW A/A Currency. Mission-oriented A/A operations while in a LOWAT certified LOWAT block (see **Table 6.1**). Includes skills necessary to search for and engage an aerial target at low altitude offensively or defensively.

A2.1.28. 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 end of evening civil twilight and the beginning of morning civil twilight.

A2.1.29. Non-Demanding Mission. Missions that provide the pilot with the opportunity to regain basic flying proficiency after a period of non-flying. Events in this mission do not excessively task pilot skills that have been underused. Missions not included in A.2.1.17. are

non-demanding missions. SQ/CCs take into account operational risk management before determining whether a mission is non-demanding depending on unit tasking and the invidual's capabilities. See Demanding Mission.

A2.1.30. Offensive Counter Air (OCA)-Escort/Sweep Mission. Mission designed to develop proficiency in offensive counter air escort/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, vulnerability time), and in-flight report.

A2.1.31. Red Air Mission. Mission where adversary tactics, aircraft simulation, weapon systems, and/or maneuvering is replicated in support of blue air.

A2.1.32. Sortie. An operational flight from takeoff to final full stop landing which includes a set of tasks that lead to an (airborne) objective, to include associated planning, brief, enroute, mission execution, recovery, and debrief events.

A2.1.33. Tactical Intercepts Mission. Mission designed to develop proficiency in tactical intercept tactics. Mission elements include: Intel scenario and planning, execution of tactics to engage and negate aircraft employing adversary tactics (hot and cold ops), and in-flight report.

A2.2. Weapon Employment Terms.

A2.2.1. A delivery is defined as a pass at a target on which ordnance is expended or simulated and meets the criteria defining a specific weapon delivery. Weapon events are defined in **Chapter 5**. All deliveries are recorded, but not necessarily as a record delivery. The two types of deliveries are as follows:

A2.2.1.1. Basic Delivery. A delivery using a conventional box pattern. It may be used as a record event only for initial certification. There is no restriction on the number of dry passes made before or during basic deliveries in a record event for initial certification; however, only the first two deliveries per event may count for record.

A2.2.1.2. Tactical Delivery. A delivery using patterns and techniques that minimize final flight path predictability, yet allow sufficient time for accurate weapons delivery. When a tactical delivery is flown for record, dry passes in the event are not permitted before or during the event. Wings level time on final is limited to five seconds when the aircraft will descend below 4,500 feet AGL. Timing will be from completion of roll-out until initiation of weapons release and exceeding five seconds will result in gross error. All tactical deliveries will normally include recovery to egress parameters.

A2.2.2. A delivery constitutes a Weapons Delivery Event based on two categories, record keeping (Record or Non-Record), and RAP tasking familiar (FAM) and proficient (PROF), as follows:

A2.2.2.1. Record Keeping.

A2.2.2.1.1. Non-Record. Weapons delivery accomplishments not credited toward weapons proficiency provided the pilot declares "non-record" prior to beginning the event.

A2.2.2.1.2. Record. Weapons delivery scored for individual proficiency. Scoring shall be accomplished by ground, air, or mission recording (for guided weapons), as

appropriate. A maximum of two record deliveries may be credited during a mission from a single run-in heading. Additional record deliveries may be accomplished from headings differing by at least 90 degrees or on different targets/ranges. Record deliveries may not be preceded by non-record deliveries in the event on the same sortie. The first two deliveries in each event will be considered record unless otherwise declared prior to the roll-in to final. Additional guidelines are:

A2.2.2.1.2.1. Basic. Must be scored on a Class A range (IAW AFI 13-212 V1, *Range Planning and Operations*).

A2.2.2.1.2.2. Tactical. A minimum of 50 percent must be accomplished on a ground scored range, except for simulated precision munition events. Remaining record hits may be air scored by reference to known distances from the target.

A2.2.2.1.2.3. Strafe. Aircraft rounds limiter is set to total number of rounds for the planned strafe events but no less than 100 rounds. A minimum of 50 rounds per strafe event must be set and expended to satisfy RAP strafe requirements.

A2.2.2.2. RAP Tasking. See current RTM for training cycle requirements.

A2.2.2.2.1. Familiar. Weapons events tasked at FAM may be basic/tactical record deliveries. Each single hot pass counts as one delivery. Hit percentage criteria for FAM events is not specified and is tracked at unit's discretion.

A2.2.2.2.2. Proficient. Weapons events tasked at PROF must be tactical, record deliveries **(T-3)**. PROF tasking demonstrates the pilot's ability to put appropriate ordnance on target. Unless otherwise specified in the RTM or formal course syllabi, **Chapter 5** establishes PROF criteria for each event.

A2.2.3. Miscellaneous definitions of weapons deliveries and events.

A2.2.3.1. Dry Pass. Weapons delivery pass during which no ordnance is expended. Such dry passes prior to completion of record deliveries in an event are charged to the pilot as gross error unless the pass was dry because of safety considerations, system malfunctions, basic delivery requirements, or directed for flight integrity purposes.

A2.2.3.2. Foul. A penalty directed to a specific aircraft and pilot for actions inconsistent with established procedures or safety considerations. A foul will result in a gross error for that delivery (except non-acoustic-scored strafe that will be penalized one-half the event score). A second foul or any dangerous pass will result in mandatory expulsion from any further deliveries during that mission and a gross error score for the event. A foul will be charged IAW flying directive publications. Verbal warnings do not constitute a foul.

A2.2.3.3. Full Scale Weapons Delivery. Delivery of live or inert ordnance representing a typical combat configuration or standard conventional load in a tactical scenario.

A2.2.3.4. Gross Error. A penalty score or miss assigned to a pilot's records when a weapons delivery attempt results in: munitions impact outside the range scoring capability, a chargeable dry pass, a foul, an unintentional release, or exceeding tactical delivery time on final requirements.

A2.2.3.5. Hit. Any munitions impact within the weapons criteria established for that event. For simulated weapons employment, hits will be assessed by mission recording review.

A2.2.3.6. Multiple or Unexpected Release. More than one weapon released against the same target on a single pass or a weapon released without approval, and assessed as follows:

A2.2.3.6.1. Intentional. Predetermined multiple ordnance release. The pilot will advise the range officer prior to delivery and may designate which impact to score.

A2.2.3.6.2. System Malfunction. Undeclared multiple release caused by a verified system malfunction. Score is void after the system malfunction is verified, otherwise unintentional rules apply.

A2.2.3.6.3. Inadvertent. Unexpected ordnance release by the aircraft, uncommanded by the pilot. Impact will not be scored.

A2.2.3.6.4. Unintentional. Unexpected ordnance released due to pilot error. Scored as a gross error regardless of impact point.

A2.2.3.7. No Spot. A weapons release during which no impact was observed. No score or error will be assigned.

A2.2.3.8. Void Delivery. Weapons delivery not successfully completed due to a documented and verified weapons system malfunction, a pass aborted for safety, no spot, or circumstances beyond the control of the pilot.

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 (reference **paragraph 3.2.3.2**).

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 (surface-to-air missiles, anti-aircraft artillery, electronic combat, and meaconing, intrusion, jamming, and interference), 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 (weather contingencies, options).

A3.5.3. Enroute (Go/No-go considerations, comm procedures, ground controlled intercept/airborne warning and control system /autonomous control procedures, friendly defenses, rules of engagement).

A3.5.4. Engagement tactics (target data, flow priorities, 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, identification friend or foe procedures, alternate and emergency airfields).

A3.6. ESCAPE AND EVASION.

A3.6.1. Selected areas for evasion.

A3.6.2. Search and rescue procedures.

A3.7. ESSENTIAL ELEMENTS OF INFORMATION/REPORTS.

A3.7.1. Essential Elements of Information.

A3.7.2. Required reports and reporting procedures.