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SECRETARY OF THE AIR FORCE**

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This publication implements Air Force Instruction (AFI) 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, and Air Force Manual (AFMAN) 11-202, V1, *Aircrew Training*. This manual prescribes standard procedures used by all pilots operating an Air Force T-38 aircraft and applies to all Regular Air Force, Air Force Reserve, and Air National Guard instructor pilots flying the T-38. Ensure that records created as a result of processes prescribed in this manual are maintained in accordance with AFI 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with the Air Force Records Disposition Schedule located in the Air Force Records Information Management System. This manual requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by Title 10 United States Code, Section 9013, Secretary of the Air Force. The applicable SORN F011 AF XO A, *Aviation Resource Management System (ARMS)* is available at: <http://dpclo.defense.gov/Privacy/SORNS.aspx>. Refer recommended changes and

questions about this manual to the Office of Primary Responsibility (OPR) listed above using the Air Force Form 847, *Recommendation for Change of Publication*; route AF Form 847 from the field through the appropriate Standardization and Evaluation functional chain. This publication may be supplemented at any level. Major commands (MAJCOM) will coordinate proposed MAJCOM-level supplements to this volume through 19 AF/DOV to AF/ACTF for coordination prior to publishing. Field units below MAJCOM level will coordinate copies of their supplements with their parent MAJCOM OPR prior to publishing. The authorities to waive wing/unit level requirements in this manual 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 OPR for non-tiered compliance items.

(AETC) This supplement implements and extends the guidance of Air Force Manual (AFMAN) 11-2T-38, Volume 1, *T-38 Aircrew Training*. This supplement establishes Air Education and Training Command (AETC) standards for training and qualifying personnel performing duties in the T-38 aircraft; except for personnel participating in an associate program, this supplement does not apply to Air Force Reserve Command or Air National Guard units unless specified by a major command (MAJCOM) memorandum of understanding. This supplement does not apply to the United States Space Force. The authorities to waive wing/unit level requirements in this manual are identified with a Tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. See Department of the Air Force Manual (DAFMAN) 90-161 *Publishing Processes and Procedures*, 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 respective AETC/A3V for non-tiered compliance items. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule (RDS), which is located in the Air Force Records Information Management System. Refer recommended changes to the office of primary responsibility above using the Department of the Air Force (DAF) Form 847, *Recommendation for Change of Product*; route DAF Form 847 from the field through the appropriate Stan/Eval functional chain. This publication may be supplemented at any level. Unit supplements to this volume will be coordinated through AETC/A3V prior to publication.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed

(AETC) This document has been substantially revised and must be completely reviewed. Major changes include outlining the training requirements for the specialized Fighter Bomber Fundamentals (FBF) certifications instructors can acquire.

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Chapter 1

GENERAL GUIDANCE

1.1. Roles and Responsibilities:

1.1.1. 19 AF/DO personnel will:

1.1.1.1. Review and revise guidance herein as required in conjunction with 19 AF/DOU. **(T-2).**

1.1.1.2. Host annual conferences to review ground and flying training requirements and programs for applicable units. **(T-2).** Conference participants will include 19 AF/DOV and other applicable MAJCOM representatives. **(T-2).**

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

1.1.1.4. Review unit training waivers and semi-annual training deficiencies. **(T-2).**

1.1.2. Wing and Group Commanders will:

1.1.2.1. Help subordinate units manage training programs, ensure programs meet unit needs, and provide necessary staff support. **(T-2).**

1.1.2.2. Develop programs to ensure training objectives are met. **(T-2).**

1.1.2.3. Forward copies of unit training programs and unit supplements that expand on the minimum guidelines of this manual and subsequent changes as directed by 19 AF/DOU for review. **(T-2).**

1.1.2.4. Review programs and supplements annually. **(T-2).**

1.1.3. Individual Aircrew Members will:

1.1.3.1. Hand-carry all available training records to assist the gaining unit in assessing certifications and training requirements. **(T-3).**

1.1.3.2. Complete training requirements and maintaining currencies within the guidelines of this manual. **(T-2).**

1.1.3.3. Participate only in ground and flying activities for which they are adequately prepared, trained, qualified, certified and current unless the activity is part of an upgrade or program leading to qualification or certification, or for regaining currency. **(T-2).**

1.1.4. (Added-AETC) Squadron Commanders will:

1.1.4.1. **(Added-AETC)** Manage squadron continuation training (CT) to ensure adequate continuity and supervision of individual training requirements, experience, and proficiencies of assigned and attached aircrew. **Note:** This requirement may be delegated to no lower than the squadron assistant operations officer.

1.1.4.2. **(Added-AETC)** Establish policies and guidance to include, but not limited to, theater indoctrination (TI), CT, buddy instructor pilot (BIP) programs, and unit certifications.

1.1.4.3. **(Added-AETC)** Brief newly assigned aircrew on their responsibilities and BIP program policies before the new aircrew accomplishes the unit mission and any student

training. **Note:** The squadron director of operations (SQ/DO) may conduct this brief if the squadron commander (SQ/CC) is unavailable.

1.1.4.4. **(Added-AETC)** Fly at least one sortie with newly assigned pilots during TI. **Note:** The SQ/DO or assistant operations officer may fly this sortie if the SQ/CC is unavailable.

1.1.4.4.1. **(Added-AETC)** Discuss policies, techniques, and grading practices in conjunction with the sortie.

1.1.4.4.2. **(Added-AETC)** Document any deviations and identify emphasis areas in the aircrew member's training folder.

1.1.4.4.3. **(Added-AETC)** [Euro-NATO Joint Jet Pilot Training (ENJJPT) only] This sortie will be flown as part of the BIP program.

1.1.4.5. **(Added-AETC)** Review completed TI and BIP documentation, assign qualified individuals to a training status, and certify Instructor Pilots (IPs).

1.1.4.6. **(Added-AETC)** Ensure aircrew members only participate in sorties, events, and tasks for which they are adequately prepared, trained, qualified, certified, and current. This requirement does not apply to activities that are part of an upgrade syllabus or program leading to qualification or certification, nor does it apply to regaining currency.

1.1.4.7. **(Added-AETC)** Select only people with the knowledge, credibility, capability, and airmanship required to succeed in additional certification upgrade training.

1.1.4.8. **(Added-AETC)** Report end-of-cycle training shortfalls through the operations group commander (OG/CC).

1.1.4.9. **(Added-AETC)** Report number of pilots qualified only as Direct Support Mission Pilots (DSMP) to AETC Operations Directorate, Undergraduate Formal Training Division (AETC/A3F) quarterly (Introduction to Fighter Fundamentals (IFF) / FBF Employment (EM) Phase only).

1.1.5. **(Added-AETC) Squadron or Flight Training Officer will:**

1.1.5.1. **(Added-AETC)** Supervise overall scheduling, training, and progress of the TI program. On a case-by-case basis, assign additional training sorties tailored to correct deficiencies or improve emphasis areas, as required.

1.1.5.2. **(Added-AETC)** Provide regular updates to the squadron commander on the status of all personnel in training, including estimated completion dates.

1.1.5.3. **(Added-AETC)** Maintain training documentation.

1.1.5.3.1. **(Added-AETC)** Inspect training documentation on pilots who have completed TI and forward the documentation through the flight commander and SQ/DO to the squadron commander for certification of mission ready (MR) or basic aircraft qualification (BAQ) status, as applicable.

1.1.5.3.2. **(Added-AETC)** Retain training documentation for each pilot until AF Form 4348, *USAF Aircrew Certifications*, is signed by the appropriate authority. Once the completed AF Form 4348 is archived, supporting training documentation may be removed.

1.1.5.4. **(Added-AETC)** Establish a system for monitoring and planning training. After approval by the flight commander, ensure the flight scheduler requests the sorties required to meet the flight's training requirements.

1.2. Phases of Training: Note: All references to “days” in this publication are to “calendar days” unless specifically noted otherwise:

1.2.1. **Initial Qualification Training (IQT).** This training is necessary to qualify aircrew for duties in the T-38 aircraft. See [Chapter 2](#) for IQT program requirements. The maximum completion time for IQT will be in accordance with the applicable IQT syllabus. **(T-2).**

1.2.2. **Mission Qualification Training (MQT).** This training is necessary to qualify aircrew for specific unit mission or local area requirements and may be incorporated in MAJCOM-approved IQT syllabi. See [Chapter 3](#) for MQT requirements.

1.2.3. **Continuation Training (CT).** This training is necessary for qualified aircrew to maintain their assigned level of proficiency and/or increase flight qualifications. It provides minimum ground and flight training event requirements. This training is also necessary to develop the instructor pilot (IP) force and certify pilots in specific unit or local area requirements. Individual aircrew CT requirements are based on unit assignment as inexperienced or experienced. See [Chapter 4](#) for CT program requirements. Using MAJCOMs will detail their CT program in their MAJCOM supplement and squadron commanders will designate all pilots as experienced or inexperienced, as follows: **(T-2).**

1.2.3.1. **Experienced Aircrew.** For the purposes of this manual, the wing commander, wing vice commander, operations group commander (OG/CC), deputy OG/CC, squadron commander, and squadron operations officer are designated as experienced aircrew. If Using MAJCOMs choose to expand this definition, it will include the definition of “experienced” aircrew in their MAJCOM supplement. **(T-2).** Document experienced designation on the AF Form 4348, *USAF Aircrew Certifications* or unit certification document in accordance with AFI 11-202, V2, *Aircrew Standardization/Evaluation Program*.

1.2.3.2. **Inexperienced Aircrew.** Aircrew who do not qualify as experienced or who are not certified as such by the squadron commander are considered inexperienced. Aircrew designated as inexperienced will progress through a program managed by the flight commander to develop sound flying and instructional skills. **(T-2).** Flight commanders will tailor each program based on the aircrew's past flying experience and performance during IQT and MQT. **(T-2).** No time limit is established to transition from inexperienced to experienced.

1.2.3.3. **(Added-AETC)** Unit commanders will designate aircrew as “experienced” based off [Table 1.1 \(Added\)](#) minimum requirements. **(T-2) Exception:** Wing, group, and squadron leadership are designated experienced in accordance with (IAW) the parent publication. Commanders will designate experience level on the Letter of Xs (LoX). **(T-2)**

Table 1.1. (Added-AETC) Experienced Aircrew Minimum Flying Hour Requirements.

I T E M	Crew position	Minimum Flying Hour Requirements
1	Pilot	150 total rated hours of either primary or instructor flight time in the aircraft and 600 hours total rated time or 250 total rated primary or instructor flight time in the aircraft and 450 hours total rated time.
2	Weapons Systems Operator (WSO) (Note)	500 hours of total fighter time and 100 hours total time in the T-38.
Note: For WSOs, fighter time is hours logged in aircraft assigned an Air Force Specialty Code of 12F3X or 12F4X.		

1.2.4. **Specialized/Certification Training.** This training is necessary to carry out the unit's assigned missions, but is not required of every crewmember. Examples of specialized training include, but are not limited to, stall pilot, and functional check flight pilot. Individuals selected for training will accomplish appropriate formal course training to certify in these specialized areas, or comply with locally developed syllabi and squadron-developed training programs in accordance with [Chapter 5. \(T-2\)](#).

1.2.5. **Night Vision Goggles Training.** Night vision goggles training is not authorized.

1.3. Aircrew Graduate Evaluation Program. Refer to the appropriate formal course syllabus or command directive for aircrew graduate evaluation procedures.

1.4. (Added-AETC) Pilot Utilization Guidance. Commanders will ensure pilots fill only authorized positions in accordance with unit manning documents (UMDs) and pilot status is properly designated. **(T-3)**

1.4.1. **(Added-AETC)** Supervisors may assign pilots to valid, short-term tasks (e.g., escort officer, flying evaluation board member, mishap board member, etc.) after giving due consideration to other factors (e.g., level of pilot tasking, flying proficiency, currency, and experience).

1.4.2. **(Added-AETC)** Duties required by various publications that may be assigned to aircrew position indicator (API)-1 pilots are weapons and tactics officer, programmer, flying safety officer, supervisor of flying, mobility and contingency plans, training (excluding Aviation Resource Tool Enterprise Mission Information System (ARTEMIS) documentation), standardization/evaluation liaison officer, squadron aircrew flight equipment continuation training instructor, electronic combat officer, and other duties directly related to flying operations.

1.4.2.1. **(Added-AETC)** API-1 pilots will not be attached to wing staffs or man wing staff positions unless total wing API-1/6 pilot manning at or above 100 percent. **(T-2)**

1.4.2.2. **(Added-AETC)** Commanders will ensure wing staff pilots (API-6) perform duties justified in MAJCOM manpower standards documents and authorized in UMDs. **(T-2)**

1.5. (Added-AETC) Training Records and Reports. Units will:

1.5.1. **(Added-AETC)** Maintain aircrew records for individual training and evaluations according to AFMAN 11-202, Volume 1, *Aircrew Training*, AFMAN 11-202, Volume 2, *Aircrew Standardization and Evaluation Program*, and the RDS. **(T-2)** Graduate/Training Integration Management System (G/TIMS) is the system of record for maintaining training documentation.

1.5.2. **(Added-AETC)** Maintain documentation on an AF Form 4348, or G/TIMS equivalent, according to AFMAN 11-202V2 AETC Supplement for each certification listed on the squadron LoX. **(T-2)** Paper records may be converted to a digital format after signature. Corresponding training records maintained during the certification process must be retained a minimum of six months after AF Form 4348 is signed, then handled in accordance with the RDS

1.6. (Added-AETC) Flying Training Wing Key Personnel.

1.6.1. **(Added-AETC)** Wing commanders (Wg/CCs), wing deputy commanders (Wg/CDs), OG/CCs, and OG deputy commanders will complete Initial Qualification Training (IQT) and mission qualification training (MQT) and be fully qualified in their primary mission aircraft.

1.6.2. **(Added-AETC)** Wing flight safety officers will complete IQT and MQT in their primary mission aircraft.

1.6.3. **(Added-AETC)** OG/CC and OG deputy commanders will maintain flight examiner (FE) certification in their primary mission aircraft. **(T-2)**

Chapter 2

INITIAL QUALIFICATION TRAINING (IQT)

2.1. General Information. This chapter outlines the IQT program for the T-38. The primary method of initial qualification is to attend and complete the appropriate formal training course listed in education and training course announcement (ETCA), available at <https://etca.randolph.af.mil>. Completing the appropriate formal course satisfies basic qualification training requirements. In accordance with AFMAN 11-202, V1, when attendance is not practical or quotas are not available, units will request waivers from the MAJCOM/A3 to conduct in-unit qualification training, using formal school courseware.

2.1.1. Upon completion of the IQT program, aircrew will be qualified in accordance with AFI 11-202, V2; and AFMAN 11-2T-38, V2, *T-38 Aircrew Evaluation Criteria*.

2.1.2. Except for unusual circumstances, aircrew members undergoing qualification training will receive ground and flight instruction with minimum interruption and complete training within the time specified by the syllabus. **(T-2).** Aircrew members undergoing qualification training will not be utilized in unit jobs or other duties until the completion of training. **(T-2).** (Exception: Students enrolled in Pilot Instructor Training (PIT) or PIT Theater Indoctrination (TI) may serve as runway supervisory unit (RSU) observers after their instrument/qualification check.) Failure to complete training within the specified time limit requires notifying the gaining wing commander of the aircrew's name, grade, reason for delay, planned actions, and estimated completion date.

2.1.3. Completion of IQT qualifies pilots to act as pilot-in-command of the model (T-38A/B or T-38C) the instrument/qualification evaluation was accomplished in.

2.2. Prerequisites. For listings of formal training courses or administrative and reporting requirements see the ETCA. The formal course syllabi list waiver authorities for course entry prerequisites. Before entering IQT, each aircrew member must comply with prerequisites of the appropriate formal course training syllabus and AFMAN 11-202, V1. **(T-2).** In addition, all personnel maintaining flying status will meet the physical examination; physiological training; survival, evasion, resistance, and escape training requirements in AFMAN 11-202, V1; and centrifuge training in accordance with AFMAN 11-404, *Fighter Aircrew Acceleration Training Program*, before flying. **(T-2).**

2.3. Ground Training. Ground training will follow the current formal course syllabus flow, but may be tailored to the individual's background and experience as well as local conditions. **(T-2).**

2.4. Flying Training. Formal course syllabus mission objectives and tasks are minimum requirements for IQT. Additional training is available within the constraints of the formal course syllabus. Pilots may satisfy MQT and upgrade training requirements during IQT if the appropriate IP is available and the formal course training allows it.

2.5. Basic Aircraft Requalification Training. Follow the requalification guidance in AFMAN 11-202, V1, and [paragraph 4.5.2](#) along with its sub-paragraphs of this manual.

2.5. (AETC) Basic Aircraft Requalification Training. An aircrew member is unqualified upon expiration of their qualification evaluation or loss of currency exceeding six months for any

ground/flying training events required to maintain BAQ status. Follow the requalification guidance in AFMAN 11-202V1, and the parent publication to this supplement.

2.6. Conversion and/or Difference Qualification. Conversion qualification follows the guidance in this chapter and the formal course conversion syllabus. Difference training is authorized for pilots converting from the T-38C to the T-38A/B or vice-versa. MAJCOMs will provide difference training guidance. **(T-2).**

2.6. (AETC) Conversion and/or Difference Qualification. Conduct difference training according to the appropriate formal course syllabus.

2.7. Multiple Qualifications. Qualification in more than one mission design series is authorized according to AFMAN 11-202, V1. **(Note:** Multiple qualifications are not authorized for general officers.) Multiple qualifications require completion of IQT as specified in this chapter.

2.8. Senior Officers Qualifications. Senior Officers' (colonel selects and above) training will follow the appropriate formal course syllabus and comply with guidance provided in AFI 11-401, *Aviation Management*, and AFMAN 11-202, V1. **(T-2).**

2.8.1. **(Added-AETC)** General officer flying training wing (FTW) commanders will be fully qualified IPs and have a completed AF Form 8, *Certificate of Aircrew Qualification*, according to the requirements of DAFMAN 11-401, *Aviation Management*, and AFMAN 11-202V2. **(T-2)**

2.8.2. **(Added-AETC)** If current and qualified, general officers in command billets may fly without an IP in their primary aircraft.

2.8.3. **(Added-AETC)** Other general officers and those maintaining basic qualifications or less will fly with an IP in the same aircraft. **(T-2)**

2.9. (Added-AETC) Flight Surgeon Qualification. In addition to applicable requirements in AFMAN 11-202V1, flight surgeons will complete all the following ground training:

2.9.1. **(Added-AETC)** A review of aircraft systems and emergency procedures with an IP. **(T-2)**

2.9.2. **(Added-AETC)** One-time cockpit/crew resource management (CRM) training in accordance with AFMAN 11-290, *Cockpit/Crew Resource Management and Threat & Error Management Program*. **(T-2)**

2.9.3. **(Added-AETC)** Aircrew flight equipment and procedures training and egress training in accordance with AFMAN 11-301, Volume 1, *Aircrew Flight Equipment (AFE)*. **(T-2)**

2.9.4. **(Added-AETC)** Flight surgeon qualification examination according to AFMAN 11-202V2. **(T-2)**

Chapter 3

MISSION QUALIFICATION TRAINING (MQT)

3.1. General. Using MAJCOMs will determine MQT requirements.

3.1. (AETC) General. This chapter outlines AETC specific MQT and Theater Indoctrination (TI) training for AETC aircrew.

3.2. (Added-AETC) MQT. Completion of MQT in accordance with AFMAN 11-202V2 and AFMAN 11-2T-38, Volume 2, *T-38 Aircrew Evaluation Criteria* qualifies T-38 aircrew as a basic mission capable (BMC) IP. **Exception:** Refer to the “Senior Officer Limited IFF MQT” section in this chapter.

3.2.1. **(Added-AETC)** MQT is normally conducted in conjunction with IQT according to the formal course pilot instructor training (PIT), ENJJPT PIT, FBF PIT, IFF upgrading instructor pilot (UIP) or DSMP syllabus. **Note:** FBF Designated IP (DIP) certification is required to instruct upgrading FBF IPs in the DIP’s primary FBF mission sets(see [paragraph 5.7.1.](#)).

3.2.2. **(Added-AETC)** Pilots will not be designated as MR until completion of TI training and certification by the squadron commander. **(T-2)** IFF / FBF EM pilots who have completed a DSMP Qualification Evaluation are considered BMC flight leads (FL) while accomplishing the upgrading instructor syllabus. **(T-2)**

3.2.3. **(Added-AETC)** Pilot Training (PT) / FBF IPs who complete MQT at PIT / FBF PIT will be initially certified in TR phase transition, formation, low-level, and instruments. **(T-2)** IFF / FBF IPs who complete MQT through the UIP / FBF EM PIT syllabus will be certified in EM phase offensive basic fighter maneuvers (BFM) (OB), defensive BFM (DB), surface attack (SA), and high-aspect BFM (HA). **(T-2)**

3.2.4. **(Added-AETC)** Pilots will complete T-38 IQT, as well as prerequisites in the appropriate formal course training syllabus and AFMAN 11-202V1, prior to beginning MQT. **(T-2)**

3.2.5. **(Added-AETC)** When MQT is not conducted in conjunction with IQT:

3.2.5.1. **(Added-AETC)** Pilots will complete the minimum ground training consisting of the ground training required by the instructor phase of the formal course instructor syllabus. **(T-2) Exception:** Refer to the “Senior Officer Limited IFF MQT” section in this chapter.

3.2.5.2. **(Added-AETC)** Minimum flying training will consist of the instructor phase sorties required by the formal course instructor syllabus or the DSMP sorties required by the DSMP syllabus. **(T-2) Exception:** Refer to the “Senior Officer Limited IFF MQT” section in this chapter.

3.2.6. **(Added-AETC)** Log MQT sorties as mission support sorties when MQT is not completed by formal course training. MQT sorties may be used to meet sortie and event requirements during the training cycle in which flown.

3.3. (Added-AETC) Senior Officer Limited IFF/FBF EM Phase MQT. Senior officer pilots with previous fighter experience may complete a locally developed, AETC/A3V approved MQT program for the IFF or FBF EM phase mission. Senior officer pilots will complete a mission evaluation in accordance with AFMAN 11-202V2. **(T-2)** Upon completion of the mission

evaluation, aircrew will be assigned BMC status. **(T-2)** Aircrew will only fly events for which they are qualified (e.g., air-to-air or air-to ground) or as part of training leading to qualification. **(T-2)**

3.3.1. **(Added-AETC)** Air-to-Air Mission Qualification. At a minimum, pilots will perform the following events for air-to-air mission qualification:

3.3.1.1. **(Added-AETC)** Academic Training. Specialized training and phase briefs, IFF syllabus review, brief/debrief instruction, advanced handling characteristics (AHC) academics, and basic fighter maneuvers (BFM) academics. **(T-2)**

3.3.1.2. **(Added-AETC)** Simulator Training. Offensive BFM, defensive BFM, high aspect BFM, and mission emergency procedures evaluation (EPE). **(T-2)**

3.3.1.3. **(Added-AETC)** Flying Training. AHC, offensive BFM, formation direct support (DS), defensive BFM, high aspect BFM, bandit direct support, and mission evaluation. **(T-2)**

3.3.2. **(Added-AETC)** Air-to-Ground Mission Qualification. At a minimum, pilots will perform the following events for air-to-ground mission qualification:

3.3.2.1. **(Added-AETC)** Academic Training. Specialized training and phase briefs, AHC, low level (LL), IFF/FBF EM Phase syllabus review, briefing/debriefing instruction, and surface attack academics. **(T-2)**

3.3.2.2. **(Added-AETC)** Simulator Training. Low level, conventional range procedures and patterns, tactical weapons delivery events/patterns, and mission EPE. **(T-2)**

3.3.2.3. **(Added-AETC)** Flying Training. Low level, conventional range procedures and patterns, tactical weapons patterns/deliveries, surface attack direct support, and mission evaluation. **(T-2)**

3.4. (Added-AETC) Theater Indoctrination Training. TI is the beginning of the local pilot upgrade process, where skills learned during IQT and MQT are reinforced in the local flying environment. New pilots will fly a local orientation mission prior to the specific TI category missions. **(T-2)** Units will develop local orientation missions to focus on terminal area procedures, special use airspace procedures, and pattern operations to allow new unit pilots to absorb as many of the local idiosyncrasies as possible before concentrating on required category missions. **(T-3)** The TI category missions should focus on training techniques, local constraints, common student errors, and should use local routes and bases to the maximum extent possible.

3.4.1. **(Added-AETC)** Pilots in TI will fly with TI pilots designated by the squadron commander. **(T-3)**

3.4.2. **(Added-AETC)** Pilots will not perform instructor duties or the unit mission prior to completing TI. **(T-2)**

3.4.3. **(Added-AETC)** Units will record TI and TI completion in G/TIMS. **(T-2)**

3.4.4. **(Added-AETC)** TI sorties and events may be applied toward CT requirements during the period in which they are flown. As a minimum, pilots will fly the missions in [Table 3.1 \(Added\)](#). **(T-2)** **Note:** In addition to the Local Area Orientation sortie, FBF IPs must only accomplish TI sorties for mission sets they are initially certified for following MQT. **(T-2)**

3.4.5. **(Added-AETC)** TI sorties may be combined where all training objectives can be met for each individual sortie. Units will develop TI sorties to include normal operations and emergency situations in the local area such as diversions, single runway operations, and emergency airfields. **(T-2)**

3.4.6. **(Added-AETC)** After successfully completing TI, the squadron commander certifies the new pilot as MR, BMC, or BAQ, as applicable.

3.4.7. **(Added-AETC)** PIT squadron commanders may tailor TI for previous MR IPs directly gained from T-38 PT squadrons; however, at a minimum, pilots must accomplish a local familiarization sortie. **(T-2)**

3.4.8. **(Added-AETC)** Squadron commanders may tailor TI for IPs based on their previous IP experience; however, at a minimum, pilots must accomplish the local orientation sortie. **(T-2)**

3.4.9. **(Added-AETC)** Squadron commanders may waive TI for pilots that remain at the same base in which they completed MQT.

Table 3.1. (Added-AETC) T-38 TI Sortie Requirements.

I T E M	A	B	C
	Sortie Description	T-38 Pilot Training (PT) / FBF Transition (TR) Phase, ENJJPT, and PIT / FBF TR phase PIT	IFF/ FBF EM Phase and UIP / FBF EM Phase PIT
1	Local Orientation	X	X
2	Contact/Transition Sortie	X	
3	Basic Fighter Maneuvers		X
4	Surface Attack		X
5	Instrument/Navigation Sortie	X	
6	Formation Sortie	X	
7	Low level Sortie	X	

3.5. (Added-AETC) Loss of MR status. Non-Mission Ready (NMR) IPs will not accomplish instructor duties (neither simulator events nor flight events), except under IP supervision to regain MR status. **(T-2) Exception:** Certified T-38C military simulator instructors (MSI) follow AETC Instruction (AETCI) 11-203, *Flying Training Simulator Instructor Programs*, guidance.

Chapter 4

CONTINUATION TRAINING (CT)

4.1. General Information. This chapter outlines minimum ground and flying training requirements for T-38 aircrew CT. There are two aspects of CT. The first consists of aircrew training in the basic flying skills, which ensures safe operation of the aircraft. The second consists of specific mission-related training required to accomplish the unit's assigned missions or taskings. Taskings may be locally generated or higher headquarters directed. All CT will be maintained in the Aviation Resource Management System database in accordance with AFMAN 11-202, V1 and AFMAN 11-421, *Aviation Resource Management*. Completion and tracking of continuation training is ultimately the responsibility of the individual crewmember. Using MAJCOMs will define additional currencies and requirements in their MAJCOM supplement. **(T-2).**

4.2. Training Cycle. Using MAJCOMs will define the training cycles in their MAJCOM supplement. **(T-2).**

4.2. (AETC) Training Cycle. There are two semiannual CT training cycles each calendar year: 1 January to 30 June and 1 July to 31 December.

4.3. CT Administration:

4.3.1. Quarterly CT Meetings:

4.3.1.1. Squadron commanders will direct and supervise quarterly CT meetings for aircrew members. **(T-2).** The purpose of these meetings is to discuss standardization, safety, mission-related topics, instructional techniques, grading practices, and to increase general knowledge. A cockpit/crew resource management (CRM) topic or scenario should be discussed in each CT meeting referring to core concepts from AFI 11-290, *Cockpit/Crew Resource Management Program*.

4.3.1.2. Attendance at CT meetings is mandatory. The unit will determine a method to track attendance as part of the go/no-go process for flight. **(T-2).** Individuals not available for CT meetings will read the meeting minutes or be briefed by an operations supervisor before their first flight of the next quarter. **(T-2).**

4.3.1.3. **(Added-AETC)** Associate aircrew (e.g., wing/group staff, Air Reserve Component associate pilots, etc.) will attend CT meetings held by the flying unit to which they are attached.

4.3.2. Requirements. MAJCOMs may add to the minimum annual or semi-annual requirements listed in this chapter. Squadron commanders will approve profiles for all required CT sorties. **(T-2).** Profiles will detail the minimum events and currency items to be accomplished on the sortie (for example, aircraft handling characteristics maneuvers, approaches, or emergency patterns and landings). **(T-2).** Sorties and events accomplished during MQT may be credited toward CT requirements (ground and flying events) for the training cycle in which they were accomplished. Before an aircrew member who fails to meet minimum CT requirements may fly in the new training cycle, the OG/CC will determine if additional training is required. **(T-2).** **(Note:** Additional training may be required, depending on the type and magnitude of the deficiency.)

4.3.2.1. **(Added-AETC)** BMC aircrew will maintain the same sortie and event requirements as an instructor, based on the crewmember's experience level. **(T-2)**
Exception: BMC aircrew are not required to accomplish Instructor Development (ID) and student instructional sorties. DSMP (IFF only) / FBF IPs follow BMC/DS event requirements in **Table 4.3 (Added)** for the missions they are DS certified for. FBF IPs certified in EM phase missions as DS only must accomplish the BMC/DS event requirements for the missions they are DS certified for. **(T-2)**

4.3.2.2. **(Added-AETC)** BAQ aircrew members maintain the minimum requirements listed in **Table 4.1** of the parent publication and currencies that affect BAQ status as listed in **Table 4.2 (AETC)** of this supplement. **(T-2)**

4.3.2.3. **(Added-AETC)** AETC/A3V is the reviewing, additional training, and waiver authority for Command flight examiners.

4.3.2.4. **(Added-AETC)** Logging ID Sorties. Only one IP in the aircraft may log an ID sortie. **Exception:** An experienced IP flying with another experienced IP may both log instrument and navigation sorties (including low level navigation). **(T-2)** Any IP may log an Instrument ID if flying with another IP accomplishing a different ID sortie provided all unit-specified requirements to log an ID sortie are met. **(T-2)**

4.3.3. **Prorating End-of-Cycle Requirements.** At the end of the training cycle, the squadron commander may prorate training requirements, for aircrew members who were not available for flying duties according to AFMAN 11-202, V1. Round off prorated numbers resulting in fractions of less than 1/2 to the next lower whole number, but prorate no requirement below 1.

4.3.4. **Failure to Complete Annual and Semiannual CT Requirements.** Aircrew members who fail to maintain training requirements according to **Table 4.1**, **Table 4.2**, additional MAJCOM flying or ground requirements, and minimum mission ready, basic mission capable or basic aircraft qualification (BAQ) CT requirements according to AFMAN 11-202, V1, will be placed in non-mission ready (NMR) or non-basic aircraft qualified (N-BAQ) status as applicable. **(T-2).** Aircrew members will not fly in the new training cycle until the OG/CC determines the cause of the deficiency and whether additional training is required. **(T-2).**

4.3.5. **Multiple Qualifications.** MAJCOMs will specify which sorties and events flown in other aircraft may be used to satisfy T-38 sortie, event, and currency requirements in their MAJCOM supplement. **(T-2).**

4.3.6. **(Added-AETC)** Multiple Mission Qualifications. T-38 aircrew members with multiple mission qualifications must meet all T-38 CT requirements. **(T-2)** Sorties and events that are common to T-38 Pilot Training/ENJJPT/PIT and IFF may be credited to both when accomplished (e.g., a Low Level ID sortie accomplished in IFF may also be credited to T-38 Pilot Training/ENJJPT/PIT Low Level ID requirements). FBF IPs must meet the CT requirements for all the mission sets they are certified for. **(T-2)**

4.4. Minimum Training Requirements. Training accomplished during IQT, MQT, TI, and Buddy Instructor Program training may be credited toward CT requirements for the training cycle in which it was accomplished. AFMAN 11-202, V1, and **Table 4.1** establish aircrew minimum training requirements. **(T-2).** Using MAJCOMs may specify additional ground training requirements in their MAJCOM supplement. For ancillary, readiness, mobility, and other training requirements, refer to the Advanced Distributed Learning Service website.

4.4. (AETC) Minimum Training Requirements. CRM continuation training frequency is 12 months.

Table 4.1. Aircrew Minimum Requirements Table.

I T E M	A	B	C	D	E
	Subject (Note 1)	Frequency (Note 2)	Prescribing Directive	Grounding	Status if overdue (Note 3)
1	Flight Physical	455 days	AFI 44-170/AFI 48-123	Yes	N-BAQ
2	Physiological Training	60 months	AFI 11-403		N-BAQ
3	Emergency egress training, ejection seat (LL02)	12 months	AFMAN 11-202, V1		N-BAQ
4	Emergency parachuting training (SS06)		AFI 16-1301		N-BAQ
5	Instrument/Qual Evaluation	17 months	AFI 11-202, V2	No	N-BAQ
6	Mission Evaluation				NMR
7	CRM continuation training (Note 4)	Note 4	AFI 11-290		N-BAQ
8	Aircrew flight equipment familiarization (LL01)	One time/assignment	AFMAN 11-202, V1	Yes	N-BAQ
9	Aircrew flight equipment training (LL06)	12 months		No	N-BAQ
10	Aircrew Flight Equipment Fit Check (LL07)	4 months		Yes	N/A
11	Local area survival training (SS01)	One time/assignment (Note 5)	AFI 16-1301	Yes	N-BAQ
12	Water survival training (SS05)	Note 6		Note 6	Note 6
13	Instrument refresher course	17 Months	AFMAN 11-210	No	N-BAQ
14	Boldface and operations limits testing	Monthly	This AFMAN	Yes (Note 7)	Note 7
15	Flight Surgeon Written Exam (Note 8)	17 months	AFI 11-202, V2	Yes	N-BAQ
16	Centrifuge Training	One time (Note 9)	AFMAN 11-404	No (note 9)	N-BAQ

17	Marshalling Exam	One time/ assignment (Note 10)	AFMAN 11-218	No	NMR
18	Air Card Training	36 months (Note 11)	AFI 11-253	No	NMR

Notes:

1. This is a consolidated list. Units will comply with grounding/frequency requirements of most restrictive guidance when differences exist between this AFI and prescribing directives. **(T-2)**.
 2. *n* Months – Expires at the end of the last day of the *n*th calendar month after last accomplished. For example, if last accomplished 10 Jan 16, expires on 31 Jan 17, overdue on 1 Feb 17.
 3. See **paragraph 4.3.4.1**.
 4. MAJCOM's determine frequency. For multiple-qualified T-38 pilots, accomplishment of annual CRM CT in their primary aircraft fulfills the T-38 annual CRM CT requirement in this table. For Flight Surgeons, CRM is a one-time requirement in the primary assigned aircraft.
 5. Visiting aircrew are required to be trained on unique/local Aircrew Flight Equipment & local area survival requirements to include equipment configurations and individual survival components/scenarios. **(T-2)**. Once accomplished on the initial TDY at each location, this training is current for the duration of the assignment.
 6. Units required to conduct routine over-water flights will maintain water survival training currency. **(T-2)**. An over-water flight is defined as a flight in which the aircraft is flown outside the safe glide ratio to land at any time during the flight. Aircrew non-current in water survival training must accomplish water survival training prior to conducting over-water flight. Reference AFI 16-1301 and MAJCOM Supplements.
 7. Required before the first flight of the month. **(T-2)**. An unsatisfactory boldface exam will result in grounding until successful re-accomplishment. **(T-2)**. Ops limits exams are correctable to 100 percent.
 8. Flight Surgeons only.
 9. Refresher training is designed for aircrew reassigned to the T-38 following a non-flying assignment or converting from a non-sustained high-G aircraft or lower-G sustained aircraft to the T-38. See AFMAN 11-404, Chapter 5, for more guidance on refresher training.
 10. N/A if tested at a formal school within the previous 6 months.
 11. Complete initial AIR Card user training before using the card.
- Cited publications: AFI 11-403, *Aerospace Physiological Training Program*; AFI 16-1301, *Survival, Evasion, Resistance, and Escape (SERE) Program*; AFI 44-170, *Preventive Health Assessment*; AFI 48-123, *Medical Examinations and Standards*; AFMAN 11-210, *Instrument Refresher Program (IRP)*; AFMAN 11-218, *Aircraft Operations and Movement on the Ground*.

4.5. Flying Training. All pilots will maintain currency requirements as applicable in **Table 4.2. (T-2)**. Units will document OG/CC reviews of training cycle shortfalls and additional training requirements in the individual's training folder. **(T-2)**. Using MAJCOMs may specify additional events or sortie currencies in their MAJCOM supplement.

4.5. (AETC) Flying Training. All pilots will maintain currency and event requirements as applicable in **Table 4.2 (AETC)** and **Table 4.3 (Added)**. **(T-2) Note:** FBF IPs must accomplish requirements for each FBF mission set they are certified for. **(T-2)** Units will document OG/CC reviews of training cycle shortfalls and additional training requirements in the individual's training folder. **(T-2)**

Table 4.2. T-38 Pilot Currencies.

Event or Sortie	Inexperienced	Experienced	Affects BAQ?	Notes
Landing	30	45	Yes	1
Instrument Approach			No	2
IP RCP Landing	60	90		3
IP RCP Night Landing	90			3, 4

Notes:

1. See **paragraph 4.5.2.1.** of this manual.
2. Instrument approach currency may be updated from either cockpit when an instrument approach is flown at day, night, or during actual instrument meteorological conditions. Non-qualified instrument pilots will only gain/regain currency in simulated or actual meteorological condition with a qualified safety observer as a crewmember. **(T-2).** MAJCOMs will determine limitations when instrument approach currency is expired. **(T-2).**
3. Rear cockpit (RCP) landings update both RCP landing currency and landing currency. Front cockpit landing currency is good day or night.
4. Accomplish night landings between the end of evening civil twilight and the beginning of morning civil twilight. **(T-2).** To regain RCP night landing currency, three night landings must be accomplished from the RCP and the front cockpit must be qualified (not necessarily current) in front cockpit and RCP night landings. **(T-2).** See **paragraph 5.3.** of this manual.

Table 4.2. (AETC) T-38 Pilot Currencies.

I T E M	Maneuver	Currency in # of Days		Notes
		Inexperienced	Experienced	
1	Landing	30	45	1
2	Instrument Approach			2
3	Rear Cockpit (RCP) Landing			3
4	RCP Night Landing	90	90	4
5	Formation Takeoff	60	90	5
6	Formation Approach	60	90	6
7	Student Instructional Sortie	30	60	7
8	Stall Recognition/Recovery	120	180	8
9	Low Level	90	120	9
10	Student Direct Support Sortie	30	60	10
11	Demanding Mission	30	45	11
12	Air Combat Training (ACBT)	60	90	11, 12

13	Low Altitude (LOW ALT)			11, 13
14	Low Altitude Air-to-Air (LOW A/A)			11, 14
15	Weapons Delivery			11, 15
16	Functional Check Flight (FCF) sortie	not applicable	90	16
17	Night Formation	120	180	17

Notes:

1. Accomplish a landing from either cockpit, day or night. Reference **paragraph 4.5.2.1** of the parent publication. Affects BAQ status if currency is lost (reference **paragraph 2.5. (AETC)** of this supplement).
2. Accomplish an instrument approach (full procedure or vectors) from either cockpit to the applicable minimum descent altitude or decision altitude. Affects BAQ status if currency is lost (reference **paragraph 2.5. (AETC)** of this supplement).
3. IPs only. Accomplish a landing from the RCP (day or night). Also updates landing currency (item 1 of this table). Affects MR status if currency if lost (reference **paragraph 3.5. (Added)** of this supplement).
4. IPs only in units that have night flying requirements. Accomplish a night landing from the RCP between the end of evening civil twilight and the beginning of morning civil twilight. Also updates landing, RCP landing, and night landing currencies (items 1, 3, and 4 of this table). If currency is lost, accomplish three night landings from the RCP with the front cockpit (FCP) occupied by an IP who is certified (not necessarily current) in RCP night landings.
5. Accomplish a formation takeoff as lead or wingman (interval takeoffs do not update currency).
6. Accomplish a formation approach as lead or wingman (a formation drag maneuver does not update currency). If flown from an instrument approach, only the pilot flying in the lead aircraft may update Instrument Approach currency (item 2 of this table).
7. IPs only. Complete a syllabus-directed mission as the IP of record or fly as a flight examiner on an evaluation. See parent publication for recurrency and/or requalification requirements.
8. Accomplish a full aft stick stall, a final turn stall, and a landing attitude approach to stall. If currency is lost, accomplish the same with a current and qualified IP in the same aircraft.
9. T-38 Pilot Training, ENJJPT, FBF TR phase & PIT IPs only. Accomplish or provide airborne instruction of a route entry/exit and fly at least 10 minutes of a Military Training Route.
10. FBF EM DS & IFF BMC pilots only. Complete a syllabus-directed mission as the direct support flight lead. See parent publication for recurrency and/or requalification requirements.
11. Accomplish a demanding mission. If currency is lost, accomplish a non-demanding mission or accomplish a demanding mission with a current and qualified IP in the same aircraft.
12. Accomplish or provide airborne instruction of a Heat-to-Guns (HTG) sortie, BFM, air combat maneuvering (ACM), or air combat tactics (ACT) event, whether similar or dissimilar.

If currency is lost, accomplish the same in the FCP. This event currency is not applicable to FBF DS / IFF Direct Support BMC pilots who are not certified for air-to-air missions.

13. FBF EM Phase & IFF only. Accomplish or provide airborne instruction of a LOW ALT event. This event currency is not applicable to FBF DS / IFF Direct Support BMC pilots who are not certified for air-to-ground missions.

14. FBF EM Phase & IFF only. Accomplish or provide airborne instruction of a LOW A/A event. If currency is lost, regain currency with a current and qualified IP in the RCP of the same aircraft. **Note:** If FBF is certified as a FBF TR Low Level IP, LOW A/A events flown in FBF EM phase do not re-hack Low Level currency. Additionally, recurrency requires satisfactory performance in the following events below 1,000 feet Above Ground Level (AGL): vertical awareness, training, hard turns, tactical formation, and offensive/defensive maneuvering. Waiver authority is AETC/A3V.

15. FBF EM Phase & IFF only. Accomplish or provide airborne instruction of an Air-to-Ground weapons delivery event in either cockpit.

16. Functional Check Flight (FCF) pilots only. Accomplish or instruct a FCF sortie from either cockpit or in an appropriately configured simulator. If flown dual, both FCF pilots may update the currency if a proportionate number of test items are accomplished by each pilot. If currency is lost, refer to **Attachment 2 (Added)** of this supplement.

17. IPs only in units that have night formation requirements. To update currency, fly in the wing position of a formation between the end of evening civil twilight and the beginning of morning civil twilight. If dual, both IPs may update currency. If currency is lost, regain currency by completing a night formation certification program.

Table 4.3. (Added-AETC) T-38 Semiannual Event Requirements (Inexperienced/Experienced (I/E)).

I T E M	Requirement	T-38 Pilot Training, FBF TR Phase, ENJJPT & PIT		IFF & FBF EM Phase			Notes
		IP (I/E)	BMC (I/E)	IP (I/E)	WSO (I/E)	BMC / DS	
1	Sortie (Total)	18/10		12/9	10/8	8	1
2	- Transition	2/1					2
3	- Formation	2/1					
4	- Instrument/Navigation	2/1		3/2	1	1	2, 3
5	- Low Level Navigation	2/1	2/1	2/1	1	1	2, 4
6	- Advance Handling Characteristics			1	1	1	2

7	- Air Combat Training			3/2	2	2	2, 5
8	- Surface Attack			3/2	2	2	2, 6
9	Emergency Procedure (EP)/CRM Simulator	2/1	2/1	1	1	1	7
10	Instrument Approach (Total)	12/8	12/8	10/8		8	8
11	- Published Approach Procedure	4/2	4/2	3/2		2	9
12	- Precision Approach	4/2	4/2	4/3		3	10
13	- Non-precision Approach	4/2	4/2	4/3		3	
14	- Single-Engine Precision Approaches	3/2	3/2	2/1		1	
15	- Single-Engine Non-precision Approaches					1	
16	- HUD-off Instrument Approach	2/1	2/1	2/1		1	11
17	Circling Maneuver	2	2	2		2	12
18	No-Flap Landing	3/2	3/2	3/2	2	3/2	13
19	Single-Engine Landing						
20	Night Landing	2	2				14
21	Formation Takeoff	4/2	4/2				15
23	Formation Approach						
22	Single-Engine Go-Around/Missed Approach	3/2	3/2	2/1	2	1	

Notes:

1. Flown as ID sorties (IPs and WSOs) or for proficiency as part of Direct Support mission events (BMC & DS pilots).
2. Updates Sortie (Total) (item 1 in this table).
3. Instrument/Navigation ID sorties should be flown off-station to the maximum extent possible.
4. Updates Low Level currency in **Table 4.2. (AETC)**.
5. Not applicable to IFF / FBF EM Phase BMC/DS pilots qualified for air-to-ground missions only.
6. Not applicable to IFF / FBF EM Phase BMC/DS pilots qualified for air-to-air missions only.
7. Reference the “Annual EP and CRM Training” guidance in **chapter 5** of this publication.
8. Updates Instrument Approach currency in **Table 4.2. (AETC)**
9. Accomplish a complete procedure (high or low altitude) from the initial approach fix to a landing, missed approach, or climb out. Log in conjunction with Precision Approach (item 12), Non-precision Approach (item 13), Single-Engine Precision Approach (item 14), or Single-Engine Non-precision Approach (item 15) in this table, as appropriate.
10. Also updates Instrument Approach (Total) (item 10 in this table).
11. Accomplish an instrument approach from either cockpit without reference to the Heads-Up Display (HUD). In the FCP, accomplish with the HUD blanked or dimmed from view. Log in conjunction with Precision Approach (item 12), Non-precision Approach (item 13), Single-Engine Precision Approach (item 14), or Single-Engine Non-precision Approach (item 15) in this table, as appropriate.
12. Accomplish a circling maneuver at the end of a non-precision approach (or low closed pattern where local procedures are established).
13. Log, as appropriate, in conjunction with the appropriate landing currency type in **Table 4.2. (AETC)**. For IPs, log only if accomplished from the RCP.
14. Only required for pilots assigned/attached to units with night requirements.
15. Accomplish from either the lead or wing position. Interval takeoffs do not satisfy formation takeoff requirements. Formation drag maneuvers do not satisfy formation approach requirements.

4.5.1. **Restrictions.** Pilots will not fly sorties, events, mission, and currency items in which they are not qualified, current, and certified. **(T-2)**. First pilots will not fly simulated emergency patterns, touch-and-goes, traffic pattern stalls, formation, or low-level without a current IP at a set of controls. **(T-2)**. **Exception:** First pilots enrolled in a formal Air Education and Training Command course of training (i.e., PIT), or First pilots flying sorties during Wing Theater Indoctrination training, are exempt from these restrictions. In these cases, formation sorties will be performed under the direct supervision of an IP in the other formation aircraft. **(T-2)**.

4.5.2. **Currency and Recurrency.** Unless otherwise restricted, pilots may log and update currencies during any sortie (including student sorties) if the maneuver or item is demonstrated. Pilots must log all flying currencies/events in the aircraft. **(T-2)**. If a pilot loses an event currency, the pilot will not perform that event except for the purpose of regaining currency under the supervision of a current and qualified instructor. **(T-2)**. Unless otherwise specified in this manual, supervisory requirements pertaining to recurrency may be satisfied in the flight position that offers the best control of the mission, as determined by the squadron commander.

4.5.2.1. **Landing Currency.** Landing currency, in accordance with **Table 4.2**, is required to maintain basic aircraft qualification (BAQ). **(T-2)**. Currency may be regained by flying

at least three satisfactory landings with a landing-current IP. A landing from either the front cockpit or RCP updates landing currency. Loss of landing currency exceeding 90 days requires the following action: (**Note:** Timing starts from date of last landing.)

4.5.2.1.1. For 91 through 135 days. Same as [paragraph 4.5.2.1](#), plus an instructor-supervised emergency procedure and instrument review session (normal, emergency, and instrument procedures). (**T-2**).

4.5.2.1.2. For 136 through 210 days (to 225 days Experienced). Same as [paragraph 4.5.2.1](#) and [paragraph 4.5.2.1.1](#), plus a recurrency flight (in accordance with [paragraph 4.5.2.1](#)), qualification written examinations, and an emergency procedures evaluation. (**T-2**). AF Form 8, *Certificate of Aircrew Qualification*, documentation is not required.

4.5.2.1.3. For 226 days up to 39 months at the end of a nonflying assignment or 48 months at the end of any active flying assignment. For basic aircraft requalification, accomplish items in [paragraph 4.5.2.1](#), [paragraph 4.5.2.1.1](#) and [paragraph 4.5.2.1.2](#), plus a locally administered qualification program approved by the OG/CC, to include an instrument or qualification evaluation. (**T-2**).

4.5.2.1.4. For periods of time greater than [paragraph 4.5.2.1.3](#). Accomplish basic aircraft requalification in accordance with AFMAN 11-202, V1, and accomplish instructor/mission requalification according to MAJCOM direction. (**T-2**).

4.6. Special Categories:

4.6.1. **Loss of Instructor Qualification and Requalification.** An instructor will be unqualified for:

4.6.1.1. Cause in accordance with AFI 11-202, V2. (**T-2**).

4.6.1.2. A failed flight evaluation. (**T-2**). To regain instructor status, an instructor must successfully complete a flight evaluation in accordance with AFI 11-202, V2. (**T-2**).

4.6.1.3. A failed qualification or instrument written examination. (**T-2**). To regain instructor status, an instructor must successfully re-accomplish the written examination. (**T-2**).

4.6.1.4. (**Added-AETC**) Expiration of the required periodic mission evaluation. In addition to applicable requalification requirements in the parent publication and AFMAN 11-202V2, IPs who have not performed a student instructional sortie for:

4.6.1.4.1. (**Added-AETC**) A period of up to 225 days will fly at least one ID sortie with a current and qualified instructor in the same aircraft and update all expired currencies in [Table 4.2](#) (AETC). (**T-2**)

4.6.1.4.2. (**Added-AETC**) A period of 226 days to 2 years (730 days) may complete a locally generated training program in lieu of a formal requalification syllabus. The OG/CC is the approval authority. Tailor the local training program based on the pilot's previous experience and currency. Units must send an information copy of the training program to AETC/A3F. (**T-2**)

4.6.1.4.2.1. (**Added-AETC**) Only experienced IPs will administer the flying portions of the local training program. (**T-2**)

4.6.1.4.2.2. **(Added-AETC)** For requalification, IPs must complete the appropriate instructor/mission evaluation. **(T-2)** For instructor/mission requalification conducted in conjunction with basic and instrument requalifications, utilize a building-block approach by accomplishing basic and instrument training and qualification events prior to accomplishing instructor/mission training and qualification events. **(T-2)**

4.6.1.4.3. **(Added-AETC)** A period of 2 to 5 years will complete the appropriate formal requalification syllabus. **(T-2)**

4.6.1.4.4. **(Added-AETC)** A period of more than 5 years will complete the appropriate IQT, MQT and evaluation requirements. **(T-2)**

4.6.2. **Demanding Sortie.** MAJCOMs will list sorties or events requiring demanding sortie currency in their MAJCOM supplement. **(T-2).** Aircrew who do not have demanding sortie or event currency will not participate in demanding sorties without the proper level of supervision as determined by the squadron commander. **(T-2).**

4.6.3. **Flight Surgeon.** Flight Surgeons will accomplish ground-training requirements in accordance with [Table 4.1](#) of this manual. **(T-2).** Flight Surgeons will accomplish a written evaluation every 17 months in accordance with AFI 11-202, V2 and CT flying requirements in accordance with AFMAN 11-202, V1. **(T-2).**

4.6.4. **Higher Headquarters Aircrew Position Indicator 8 Aircrew.** For training other than that conducted in support of a formal inspection, higher headquarters personnel will coordinate with the supporting unit as follows:

4.6.4.1. Aircrew will ensure appropriate Aviation Resource Management System data is maintained and provided in accordance with AFI 11-401. **(T-3).**

4.6.4.2. Units will review the qualifications and currencies of higher headquarters-assigned aircrew before authorizing them to fly. **(T-2).** Units will evaluate the demands of each mission scenario and ensure higher headquarters-assigned aircrew ability and proficiency will not be exceeded. **(T-2).**

4.6.4.3. Aircrew will submit qualification and authorization documentation to the supporting squadron commander or operations officer prior to flying with that squadron. **(T-2).**

4.7. (Added-AETC) Indoctrination Flier Training.

4.7.1. **(Added-AETC)** In addition to DAFMAN 11-401 and supplemental guidance, indoctrination fliers will accomplish the following:

4.7.1.1. **(Added-AETC)** A review of Technical Order (TO) 1T-38C-1, *Flight Manual USAF Series T-38C Aircraft*, AFMAN 11-2T-38 Volume 3, *T-38 Operations Procedures*, and applicable supplements. **(T-2)**

4.7.1.2. **(Added-AETC)** Egress training in accordance with AFMAN 11-301V1 or AFMAN 11-202V1. **(T-2)**

4.7.1.3. **(Added-AETC)** Survival training according to AFI 16-1301, *Survival, Evasion, Resistance, and Escape (SERE) Program*. **(T-2)**

4.7.1.4. **(Added-AETC)** An aircraft cockpit review of crew coordination, proper checklist use, normal and emergency procedures applicable to aircrew position, operation of aircraft equipment, and basic aircraft characteristics. **(T-2)**

4.7.2. **(Added-AETC)** Indoctrination fliers will complete an annual ground training program to include review of aircraft systems, emergency procedures, and egress training in accordance with **paragraph 4.7.1.2 (Added)** above. **(T-2)**

4.7.3. **(Added-AETC)** Indoctrination fliers have no continuation training or flying currency requirements.

Chapter 5

SPECIALIZED TRAINING PROGRAMS

5.1. Overview. This chapter outlines upgrade training programs for special capabilities and qualifications. These programs are intended to provide a basic starting point and may need to be modified by the squadron commander, based on the unit's requirements and the aircrew's previous experience, qualifications, and documented performance. Unless governed by a formal course syllabus, ground and device training for these programs will consist of unit-developed academics and scenarios. **(T-2).** Flight training will be conducted in accordance with a program approved by the squadron commander. **(T-2).** Using MAJCOMs may specify additional specialized training programs in their MAJCOM supplement.

5.2. Instructor Upgrade. Follow a MAJCOM-approved formal course syllabus. **(T-2).**

5.2. (AETC) Instructor Upgrade. For an FBF IP to instruct a specific FBF mission set they were not certified for during MQT they must follow the specific mission training outlined in [paragraph 5.7.](#) **(T-2)**

5.3. Night Landing Qualification Training:

5.3. (AETC) Night Landing Qualification Training. Accomplish all ground training events prior to the first night sortie.

5.3.1. Spatial Disorientation Ground Training. Spatial disorientation ground training will consist of both a briefing and a training system demonstration that focus on prevention, recognition and recovery. **(T-2).** Spatial disorientation briefing requirements are met by currency in the instrument refresher course. If spatial disorientation training system is not available, ground training may consist of a briefing only, but special emphasis on spatial disorientation prevention, recognition and recovery will be made during the briefing. **(T-2).**

5.3.2. Flying Training. For initial qualification, an IP qualified in RCP night landings will occupy the front cockpit. **(T-2).** The IP being night qualified will accomplish a minimum of three RCP landings. **(T-2).** Night landings to gain or regain night landing qualification will be accomplished between the end of evening civil twilight and the beginning of morning civil twilight. **(T-2).**

5.3.2. (AETC) IPs will plan a night instrument and navigation sortie with emphasis on spatial disorientation prevention, cockpit lighting, night instruments, local area and traffic pattern procedures, and visual references. **(T-2)**

5.4. Formation and/or Flight Lead Upgrade. Using MAJCOMs will publish formation and/or flight lead training programs in their MAJCOM supplement. **(T-2).** Completion of a formal course syllabus may satisfy this requirement.

5.4. (AETC) Formation and/or Flight Lead Upgrade. Completion of a formal PIT, UIP, or DSMP syllabus satisfies this requirement.

5.5. Low Altitude Training Upgrade. Using MAJCOMs will publish low altitude upgrade programs in their MAJCOM supplement. **(T-2).** Completion of a formal course syllabus may satisfy this requirement.

5.5. (AETC) Low Altitude Training Upgrade. Completion of a formal instructor pilot course syllabus (PIT or UIP), or for LOW A/A, specialized training, certifies aircrew members for low altitude training.

5.6. Functional Check Flight Training. MAJCOMs will publish functional check flight pilot training requirements in their MAJCOM supplements. **(T-2).**

5.6. (AETC) Functional Check Flight Training. Pilots will accomplish the FCF Training Program in accordance with **Attachment 2 (Added).** **(T-2)**

5.7. (Added-AETC) FBF Mission Certifications. To attain additional FBF certifications beyond those acquired during MQT, FBF IPs must accomplish the specific training outlined in this section for a specific mission set. **(T-2)** Only experienced IPs can be considered for additional FBF certifications outside of their primary phase of training. **(T-2)** Candidates for upgrade certifications must be recommended by Chief IP or SQ/DO and approved by SQ/CC. **(T-2)** **Note:** Certified FBF Designated IPs (DIPs) (see **paragraph 5.7.1**) are the only IPs who can provide the flight instruction prescribed in the certification paragraphs below. **(T-2)**

5.7.1. **(Added-AETC) FBF Designated IP (DIP) Certification.** Unit will nominate and certify IPs as DIPs in their primary phase of training (TR or EM). **(T-2)** EM phase DIP candidates must complete a DIP upgrade program under the supervision of a current EM phase DIP before becoming certified. **(T-2)** Only DIPs may act as the IP of Record (IPOR) for UIPs and IPs seeking additional FBF flying certifications. **(T-2)** **Note:** a unit without a certified DIP for a particular phase would be unable to upgrade any IPs for additional certifications in that phase without sending IPs to be trained with another unit's DIP. Candidates being considered for the DIP certification must have at least 150 hours of EM phase / IFF instructor flight time, or 300 hours of TR phase / PT instructor flight time. **(T-2)** Units will develop their own DIP upgrade program which, at a minimum, must include how to safely perform simulated student error demos in flight with a certified DIP or PIT IP. **(T-2)** The DIP upgrade will also include ground training for instruction and debriefing techniques for instructor upgrades. **(T-2)**

5.7.2. **(Added-AETC) FBF Transition (TR) Phase Transition IP Certification.** Units will certify FBF employment (EM) phase IPs to provide transition training to FBF student pilots as specified in this publication. **(T-2)**

5.7.2.1. **(Added-AETC) Ground Training.** Ground training will be administered by the unit's Chief IP, Chief of Stan/Eval, assistant director of operations (ADO), or Flt/CC, in order of preference. **(T-2)** As a minimum, ground training for FBF TR phase transition IP will consist of:

5.7.2.1.1. **(Added-AETC) Stall seminar.** **(T-2)**

5.7.2.1.2. **(Added-AETC) Transition instructional and defensive techniques P-mission.** **(T-2)**

5.7.2.1.3. **(Added-AETC) International student training.** **(T-2)**

5.7.2.1.4. **(Added-AETC) IPs must demonstrate a working knowledge of FBF TR Phase syllabus, grading practices, and course training standards (CTS) of the transition training block.** **(T-2)**

5.7.2.1.5. **(Added-AETC) Emergency Procedure Training.** A minimum of one emergency procedure simulator will be completed with a Civilian Simulator Instructor

(CSI). Focus will be on the IP's ability to properly instruct identifying and mitigating EPs IAW established procedure and accepted techniques. Training scenarios will be IAW [paragraph 5.12](#) of this volume. Additional EP simulator sorties are authorized as needed to ensure appropriate experience and ability to instruct EPs proficiently.

5.7.2.2. **(Added-AETC)** Flight Training. IPs must complete sufficient flight training to demonstrate a satisfactory proficiency and instruction level in all transition maneuvers. Additionally, for certification IPs must fly the following sorties:

5.7.2.2.1. **(Added-AETC)** Transition Syllabus Sortie. IPs must fly at least one sortie sampling a whole profile of area work and patterns to demonstrate proper student management, building a specific training profile based on a simulated student's needs, and choosing the appropriate level of instruction / intervention to maintain safety and improve / effectively instruct the simulated student. **(T-2)**

5.7.2.2.2. **(Added-AETC)** Stall / Sink Awareness Sortie. IPs must fly one sortie to learn situations that could deteriorate into a stall / sink rate condition, approach to stall recognition, and stall recovery procedures. **(T-2)** This sortie must be flown with a certified stall IP. **(T-2)**

5.7.2.3. **(Added-AETC)** Post Certification Requisites. After certification, new FBF transition IPs will adhere to the following restrictions:

5.7.2.3.1. **(Added-AETC)** Initial Student Sorties. Before the new transition IP flies any pre-solo student sorties, the IP will complete a minimum of three sorties with a post-solo TR phase student (in any category of training). **(T-2)**

5.7.2.3.2. **(Added-AETC)** Student Solo. Prior to the new transition IP soloing their first student, an experienced TR phase IP in the IP's chain of command will fly one of the last four sorties before the student's initial solo. **(T-2)** This sortie will not be the last sortie prior to initial solo. **(T-2)**

5.7.3. **(Added-AETC)** FBF TR Phase Formation IP Certification. Units will certify FBF EM phase IPs to provide formation training to FBF TR phase student pilots as specified in this publication. **(T-2)**

5.7.3.1. **(Added-AETC)** Ground Training. Ground training will be administered by the unit Chief IP, Chief of Stan/Eval, ADO, or Flt/CC, in order of preference. **(T-3)** As a minimum, ground training for FBF TR phase formation IP will consist of:

5.7.3.1.1. **(Added-AETC)** Formation instructional and defensive techniques P-mission. **(T-2)**

5.7.3.1.2. **(Added-AETC)** IPs must demonstrate a working knowledge of FBF Transition Phase syllabus, grading practices, and CTS of the formation training block. **(T-2)**

5.7.3.2. **(Added-AETC)** Flight Training. IPs must complete sufficient flight training to demonstrate a satisfactory proficiency and instruction level in all formation maneuvers, emphasizing basic formation. **(T-2)** Additionally, for certification IPs must fly the following sorties:

- 5.7.3.2.1. **(Added-AETC)** One simulated student sortie sampling a full profile of TR formation tasks to practice building a specific training profile based on simulated student's training requirements and choosing the appropriate level of instruction / intervention to maintain safety and effectively instruct the simulated student. **(T-2)**
- 5.7.3.2.2. **(Added-AETC)** One direct support sortie under the supervision of a TR IP against an actual solo student to demonstrate required proficiency / instruction level in 2-ship maneuvers. **(T-2)**
- 5.7.3.3. **(Added-AETC)** Post Certification Requisites. After certification, new FBF transition phase formation IPs will fly at least two consecutive formation syllabus sorties with the same student pilot. **(T-2)** After this string, an experienced transition phase IP will fly with the same student to assess the new IP's instructional techniques and grading practices and to provide feedback. **(T-2)**
- 5.7.4. **(Added-AETC)** FBF TR Phase Low-Level Navigation IP Certification. Units will certify FBF EM phase IPs to provide low-level navigation training to FBF TR phase student pilots as specified in this instruction. **(T-2)**
- 5.7.4.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must be certified as a TR formation IP. **(T-2)**
- 5.7.4.2. **(Added-AETC)** Ground Training. Ground training will be administered by the unit Chief IP, Chief of Stan/Eval, ADO, or Flt/CC, in order of preference. **(T-3)** As a minimum, ground training for FBF TR phase low-level IP will consist of:
- 5.7.4.2.1. **(Added-AETC)** Low-level navigation instructional and defensive techniques P-mission. **(T-2)**
- 5.7.4.2.2. **(Added-AETC)** IPs must demonstrate a working knowledge of FBF TR Phase syllabus, grading practices, and CTS of the low-level navigation training block. **(T-2)**
- 5.7.4.3. **(Added-AETC)** Flight Training. IPs must complete sufficient flight training to demonstrate a satisfactory proficiency and instruction level in all low-level navigation maneuvers, both single-ship and in formation. **(T-2)** Additionally, for certification IPs must fly at least one simulated student sortie to practice building a specific training profile based on simulated student's training requirements and choosing the appropriate level of instruction / intervention to maintain safety and effectively instruct the simulated student. **(T-2)**
- 5.7.5. **(Added-AETC)** FBF TR Phase Instrument IP Certification. Units will certify FBF EM phase IPs to provide instrument training to FBF TR phase student pilots as specified in this publication. **(T-2)**
- 5.7.5.1. **(Added-AETC)** Ground Training. Ground training will be administered by the unit Chief IP, Chief of Stan/Eval, ADO, or Flt/CC, in order of preference. **(T-3)** As a minimum, ground training for FBF TR phase instruments IP will consist of:
- 5.7.5.1.1. **(Added-AETC)** Instruments instructional and defensive techniques P-mission. **(T-3)**

5.7.5.1.2. **(Added-AETC)** IPs must demonstrate a working knowledge of FBF TR Phase syllabus, grading practices, and CTS of the instruments training block. **(T-2)**

5.7.5.2. **(Added-AETC)** Flight Training. Units will dedicate sufficient flight / immersive training device (ITD) training for IPs to demonstrate proficiency and instructional competency in all instrument procedures and maneuvers as defined by AFMAN 11-202V2. **(T-2)** IPs must complete sufficient flight training (minimum of 5 sorties, 2 of which may be in the ITD or UTD) to demonstrate satisfactory proficiency and instruction level in all instrument procedures and maneuvers. Additionally, for certification IPs must fly at least one simulated student sortie off-station to practice building a specific training profile based on simulated student's training requirements and choosing the appropriate level of instruction / intervention to maintain safety and effectively instruct the simulated student. **(T-2)**

5.7.6. **(Added-AETC)** FBF TR Phase Heat-to-Guns / Fluid Maneuvering IP Certification. Units will certify FBF IPs to provide Heat-to-Guns (HTG) / Fluid Maneuvering (FM) training to TR phase student pilots as specified in this publication. **(T-2)** EM phase DIPs or TR DIPs certified in HTG/FM may provide the flight instruction directed by this paragraph.

5.7.6.1. **(Added-AETC)** Ground Training.

5.7.6.1.1. **(Added-AETC)** Heat-to-Guns / Fluid Maneuvering instructional academics will be taught by unit Chief IP or certified HTG / FM IP. **(T-2)**

5.7.6.1.2. **(Added-AETC)** IP must observe the brief and debrief of an FBF HTG sortie. **(T-2)**

5.7.6.2. **(Added-AETC)** Flight Training. IPs must complete sufficient flight training (minimum of 3 sorties) to demonstrate satisfactory proficiency and instruction level of HTG and FM as both lead and wing. **(T-2)**

5.7.7. **(Added-AETC)** FBF TR Phase BFM AHC IP Certification. Units will certify FBF TR Phase IPs to provide BFM AHC training to FBF TR phase student pilots (just prior to Offensive BFM) as specified in this instruction. **(T-2)**

5.7.7.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must be certified as a TR Phase HTG/FM IP. **(T-2)**

5.7.7.2. **(Added-AETC)** Ground Training. Ground training will be administered by the DIP or a certified BFM AHC IP. **(T-2)** At a minimum, the ground training will consist of:

5.7.7.2.1. **(Added-AETC)** BFM AHC instructional and defensive techniques P-mission. **(T-2)**

5.7.7.2.2. **(Added-AETC)** IPs must demonstrate a working knowledge of FBF TP Phase syllabus, grading practices, and CTS of the BFM AHC training block. **(T-2)**

5.7.7.3. **(Added-AETC)** Flight Training. IPS must complete dedicated flight training to demonstrate a satisfactory proficiency and instruction level in BFM AHC maneuvers, including choosing the appropriate level of instruction/intervention to maintain safety and effectively instruct the simulated student. **(T-2)**

5.7.8. **(Added-AETC)** FBF EM Phase Offensive BFM DS Certification. Units will certify FBF TR IPs to fly DS for Offensive BFM (OB) EM phase student sorties as specified in this publication. **(T-2)**

5.7.8.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must be HTG/FM certified. **(T-2)**

5.7.8.2. **(Added-AETC)** Ground Training. IPs must complete the FBF EM phase brief consisting of the following training:

5.7.8.2.1. **(Added-AETC)** BFM Terms and Training Rules academics. **(T-2) Note:** This ground training may be omitted if trainee is already certified in DB DS.

5.7.8.2.2. **(Added-AETC)** Review training rules in AFMAN 11-214, *Air Operations Rules and Procedures*. **(T-2)**

5.7.8.2.3. **(Added-AETC)** Local OB procedures briefing. **(T-2)**

5.7.8.3. **(Added-AETC)** Simulator Training. Upgrading pilots must execute at least one sim which mirrors the FBF EM phase simulator event(s) introducing OB procedures and adds DS considerations. **(T-2)**

5.7.8.4. **(Added-AETC)** Flying Training. Upgrading pilots must demonstrate proficiency in executing FBF EM OB as a wingman prior to demonstrating proficiency in executing the flight lead/bandit role. **(T-2)** Upgrading IP must fly a minimum of one sortie against an FBF EM student.

5.7.9. **(Added-AETC)** FBF EM Phase Defensive BFM (DB) DS Certification. Units will certify FBF TR IPs to fly DS for EM phase DB student sorties as specified in this publication. **(T-2)**

5.7.9.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must be HTG/FM certified. **(T-2)**

5.7.9.2. **(Added-AETC)** Ground Training. IPs must complete the FBF EM phase brief consisting of the following training:

5.7.9.2.1. **(Added-AETC)** BFM Terms and Training Rules academics. **(T-2) Note:** This ground training may be omitted if trainee is already certified in OB DS.

5.7.9.2.2. **(Added-AETC)** Review training rules in AFMAN 11-214. **(T-2)**

5.7.9.2.3. **(Added-AETC)** Local DB procedures briefing. **(T-2)**

5.7.9.3. **(Added-AETC)** Simulator Training. Upgrading pilots must execute at least one sim which mirrors the FBF EM phase simulator event(s) introducing DB procedures and adds DS considerations. **(T-2)**

5.7.9.4. **(Added-AETC)** Flying Training. Upgrading pilots must demonstrate proficiency in executing FBF EM DB as a wingman prior to demonstrating proficiency in executing the flight lead/bandit role. **(T-2)** Upgrading IP must fly a minimum of one sortie against an FBF EM student. **(T-2)**

5.7.10. **(Added-AETC)** FBF EM Phase High Aspect (HA) BFM DS Certification. Units will certify FBF TR IPs to fly DS for EM phase HA student sorties as specified in this publication. **(T-2)**

5.7.10.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must be certified in OB and DB DS. **(T-2)**

5.7.10.2. **(Added-AETC)** Ground Training. IPs must complete the FBF EM phase brief consisting of the following training:

5.7.10.2.1. **(Added-AETC)** HA BFM maneuvering academics. **(T-2)**

5.7.10.2.2. **(Added-AETC)** Review training rules in AFMAN 11-214. **(T-2)**

5.7.10.2.3. **(Added-AETC)** Local HA procedures briefing. **(T-2)**

5.7.10.3. **(Added-AETC)** Simulator Training. Upgrading pilots must execute at least one sim which mirrors the FBF EM phase simulator event(s) introducing HA procedures and adds DS considerations. **(T-2)**

5.7.10.4. **(Added-AETC)** Flying Training. Upgrading pilots must demonstrate proficiency in executing FBF EM HA as a wingman prior to demonstrating proficiency in executing the flight lead/bandit role. **(T-2)** Upgrading IP must fly a minimum of one sortie against an FBF EM student. **(T-2)**

5.7.11. **(Added-AETC)** FBF EM Phase Surface Attack (SA) DS Certification. Units will certify FBF TR IPs to fly DS for EM phase SA student sorties as specified in this publication. **(T-2)**

5.7.11.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must be HTG/FM certified. **(T-2)**

5.7.11.2. **(Added-AETC)** Ground Training. IPs must complete the FBF EM phase brief consisting of the following training:

5.7.11.2.1. **(Added-AETC)** SA Academics to include:

5.7.11.2.1.1. **(Added-AETC)** SA Basics. **(T-2)**

5.7.11.2.1.2. **(Added-AETC)** Continuously calculated impact point (CCIP). **(T-2)**

5.7.11.2.1.3. **(Added-AETC)** Wind Effects. **(T-2)**

5.7.11.2.1.4. **(Added-AETC)** Patterns, Procedures, and Parameters. **(T-2)**

5.7.11.2.1.5. **(Added-AETC)** Popup and Level Deliveries. **(T-2)**

5.7.11.2.2. **(Added-AETC)** Review training rules in AFMAN 11-214. **(T-2)**

5.7.11.2.3. **(Added-AETC)** Local SA procedures briefing. **(T-2)**

5.7.11.3. **(Added-AETC)** Simulator Training. Upgrading IPs must execute at least one sim which mirrors the FBF EM phase simulator event(s) introducing level and popup SA procedures and adds DS considerations. **(T-2)**

5.7.11.4. **(Added-AETC)** Flying Training. Upgrading pilots must demonstrate proficiency in executing FBF EM SA as a wingman prior to demonstrating proficiency in

executing the flight lead role. **(T-2)** Upgrading IP must fly a minimum of one sortie against an FBF EM student. **(T-2)**

5.7.12. **(Added-AETC)** FBF EM Phase OB IP Certification. Units will certify FBF TR IPs to instruct OB for EM phase student sorties as specified in this publication. **(T-2)**

5.7.12.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must have been previously qualified in a fighter aircraft (Air Force Specialty Code [AFSC] 11F), DS certified, and have flown at least 10 FBF EM student sorties OR previously a 4-ship FL in a fighter aircraft (AFSC 11F) with minimum 500 hours in fighter aircraft.

5.7.12.2. **(Added-AETC)** Ground Training. IPs must complete the following training:

5.7.12.2.1. **(Added-AETC)** Brief a simulated FBF EM student on high-aspect guns-to-separation (HAGS) and 6K engagements. **(T-2)**

5.7.12.2.2. **(Added-AETC)** Brief a simulated FBF EM student on a Quarter Plane exercise, 6K, and 3K engagements. **(T-2)**

5.7.12.3. **(Added-AETC)** Flying Training. Upgrading pilots must complete sufficient flight training (minimum of 6 sorties) to demonstrate satisfactory proficiency in instructing OB exercises. **(T-2)**

5.7.13. **(Added-AETC)** FBF EM Phase DB IP Certification. Units will certify FBF TR IPs to instruct DB for EM phase student sorties as specified in this publication. **(T-2)**

5.7.13.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must have been previously qualified in a fighter aircraft (AFSC 11F), DS certified, and have flown at least 10 FBF EM student sorties OR previously a 4-ship FL in a fighter aircraft (AFSC 11F) with minimum 500 hours in fighter aircraft. **(T-2)**

5.7.13.2. **(Added-AETC)** Ground Training. IPs must complete the following training:

5.7.13.2.1. **(Added-AETC)** Brief a simulated FBF EM student on reversal/scissors and 6K engagement. **(T-2)**

5.7.13.2.2. **(Added-AETC)** Brief a simulated FBF EM student on jink exercise, 6K, and 3K engagements. **(T-2)**

5.7.13.3. **(Added-AETC)** Flying Training. Upgrading IPs must complete sufficient flight training (minimum of 6 sorties) to demonstrate satisfactory proficiency in instructing DB exercises. **(T-2)**

5.7.14. **(Added-AETC)** FBF EM Phase HA IP Certification. Units will certify FBF TR IPs to instruct HA for EM phase student sorties as specified in this publication. **(T-2)**

5.7.14.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must have been previously qualified in a fighter aircraft (AFSC 11F), DS certified and have flown at least 10 FBF EM student sorties OR previously a 4-ship FL in a fighter aircraft (AFSC 11F) with minimum 500 hours in fighter aircraft.

5.7.14.2. **(Added-AETC)** Ground Training. IPs must brief a simulated FBF EM student on 2-circle high-to-low and 1-circle low-to-high engagements. **(T-2)**

5.7.14.3. **(Added-AETC)** Flying Training. Upgrading IPs must complete sufficient flight training (minimum of 6 sorties) to demonstrate satisfactory proficiency in instructing HA exercises. **(T-2)**

5.7.15. **(Added-AETC)** FBF EM Phase SA IP Certification. Units will certify FBF TR IPs to instruct SA for EM phase student sorties as specified in this publication. **(T-2)**

5.7.15.1. **(Added-AETC)** Prerequisites. Prior to training, candidates must have been previously qualified in a fighter aircraft (AFSC 11F), DS certified, and have flown at least 10 FBF EM student sorties OR previously a 4-ship FL in a fighter aircraft (AFSC 11F) with minimum 500 hours in fighter aircraft.

5.7.15.2. **(Added-AETC)** Ground Training. IPs must brief a simulated student on conventional patterns and on tactical SA patterns. **(T-2)**

5.7.15.3. **(Added-AETC)** Flying Training. Upgrading IPs must complete sufficient flight training (minimum of 6 sorties) to demonstrate satisfactory proficiency in instructing a SA sortie. **(T-2)**

5.8. (Added-AETC) BIP Program. Accomplish the BIP Program in accordance with [Attachment 3](#). **(T-2)** For IPs gaining FBF mission certifications, accomplish the BIP post-requisites for the specific mission set outlined in [paragraph 5.7](#).

5.9. (Added-AETC) Re-Blue Program. IPs will accomplish the Re-Blue Program in accordance with [Attachment 4](#). **(T-2)**

5.10. (Added-AETC) IFF Special Mission Training. Pilots will accomplish the IFF special mission training in accordance with [Attachment 5](#). **(T-2)**

5.11. (Added-AETC) AETC T-38 Lead-In Training for T-6 First Assignment Instructor Pilots (FAIP):

5.11.1. **(Added-AETC)** T-6 FAIPs are authorized T-38 familiarization training at home wings prior to attending IFF. Training will normally consist of ten T-38 sorties and two simulator events. The OG/CC may authorize additional sorties and/or simulator events based on individual needs.

5.11.2. **(Added-AETC)** The T-38 unit will establish training records that will be transferred to the gaining IFF unit upon the T-6 FAIP's completion of training. **(T-2)**

5.11.3. **(Added-AETC)** For each sortie and simulator, IPs will use a grade sheet appropriate to the category of training to document progress and potential problem areas. **(T-2)** Assign an overall grade of "No Grade" to each mission. The IP of record may assign an overall grade of "Unsatisfactory" if significant deficiencies are demonstrated in basic airmanship, situational awareness, safety of flight, and/or flight discipline, using AFMAN 11-2T-38, Volume 2 criteria. Prior to flying the first sortie, the T-6 FAIP will complete the following ground items:

5.11.3.1. **(Added-AETC)** Instructor-monitored systems review, workbook, or computer-based training, as determined locally. **(T-2)**

5.11.3.2. **(Added-AETC)** T-38C open-book and closed-book examinations. **(T-2)**

5.11.3.3. **(Added-AETC)** T-38C boldface and operations limits examinations. **(T-2)**

5.11.3.4. **(Added-AETC)** T-38C emergency egress training (LL02), AFE Training (LL06), and AFE Fit Check (LL07). **(T-2)**

5.11.3.5. **(Added-AETC)** T-38C normal and emergency procedures training in the simulator. **(T-2)**

5.11.4. **(Added-AETC)** Conduct all airborne training from the FCP with emphasis on the transition (including AHC), instrument, and formation categories. **(T-2)**

5.11.5. **(Added-AETC)** Sandbag sorties are authorized.

5.12. (Added-AETC) Night Formation Certification:

5.12.1. **(Added-AETC)** Except for IPs undergoing night formation (re)certification, only IPs certified in night formation will fly in a formation between the end of evening civil twilight and the beginning of morning civil twilight. **(T-2)**

5.12.2. **(Added-AETC)** RCP night landing qualification is a prerequisite. **(T-2)**

5.12.3. **(Added-AETC)** Instructors should emphasize night-lighting procedures, visual signals, formation approaches (lead and wing), and formation splits.

5.13. (Added-AETC) Annual EP and CRM Training:

5.13.1. **(Added-AETC)** All aircrew will maintain EP and CRM mission currency IAW AFMAN 11-2T-38V1. Aircrews will accomplish the mission in the simulator with a certified CSI, MSI, or a T-38C flight examiner. **(T-2)** MSIs or FEs may take credit for an EP and CRM simulator when administering the simulator.

5.13.2. **(Added-AETC)** Because of local emergency scenarios, instructors will use a locally generated simulator EP and CRM instructor guide when administering the simulator. **(T-2)** The EP simulator mission will include the following as a minimum:

5.13.2.1. **(Added-AETC)** A cross-section of thrust deficient situations (e.g., a low or abnormal thrust situation in the low altitude (500 feet above ground level (AGL)) environment). **(T-2)**

5.13.2.2. **(Added-AETC)** Use of HUD-only, head down-only, and standby instrument use. **(T-2)**

5.13.2.3. **(Added-AETC)** All Boldface procedures. **(T-2)** The instructor will also emphasize selected noncritical action emergencies. **(T-2)**

5.13.2.4. **(Added-AETC)** At least one CRM practice scenario using CRM core concepts from AFMAN 11-290. **(T-2)**

5.13.2.5. **(Added-AETC)** Applicable mishap lessons learned identified by MAJCOM, wing, or unit safety staffs. **(T-2)**

5.13.2.6. **(Added-AETC)** A reduced runway condition reading or hydroplaning stopping scenario. **(T-2)**

5.13.2.7. **(Added-AETC)** A scenario covering nosewheel steering characteristics above normal taxi speeds, and in emergency scenarios with directional control problems. **(T-2)**

5.13.2.8. **(Added-AETC)** One emergency procedure per phase of flight. **(T-2)**

5.13.2.9. **(Added-AETC)** A compounding emergency situation tying two aircraft emergencies closely together (e.g., tire failure on takeoff leading to foreign object damage and a compressor stall; bird strike leading to structural damage or canopy loss in flight; compressor stall leading to engine fire, etc.). **(T-2)**

5.13.3. **(Added-AETC)** Pilots and WSOs must attend a CRM refresher each calendar year. **(T-2)** Units will track this training in ARTEMIS. **(T-2)**

5.14. (Added-AETC) Graduate Break in Training (BIT) Flying:

5.14.1. **(Added-AETC)** The Graduate BIT program is designed for T-38C graduates to maintain landing currency and proficiency in flying skills gained from T-38 Pilot Training and ENJJPT so the T-38C graduate can be best prepared for follow-on training. All T-38C Pilot Training and ENJJPT graduates with a projected BIT between graduation and their IFF course start date of more than 30 days, and IFF / FBF graduates with a BIT between graduation and their Fighter formal training unit (FTU) start date greater than 45 days must complete this program. **(T-2)** SQ/CCs will ensure BIT students are assigned to a rated flight commander. **(T-3)** Every effort should be made to ensure BIT students maintain FCP currency for the duration of the program; however, resources available to the BIT programs at each base are organic, and on a non-interference basis to each unit's primary-task formal training mission.

5.14.2. **(Added-AETC)** If a BIT student fails to meet graduate standards, the SQ/CC will focus training to correct deficiencies. **(T-3)** If performance remains below standards, the OG/CC will coordinate with AETC /A3F to discuss possible reassignment to a less demanding major weapons system (MWS). **(T-2)** A student should not be sent to follow-on training if they lack the potential to complete the course.

5.14.3. **(Added-AETC)** Deviations. The OG/CC, at the base where the BIT program is being executed, is the waiver authority for individual BIT events. Each BIT student must accomplish all training. **(T-2)** If a student inadvertently misses required training (i.e., temporary duty, duties not including flying, etc.), the OG/CC may authorize the omitted training be done later if it does not degrade quality of training. Units will document all deviations, OG/CC-directed corrective actions, and the accomplishment of the omitted training in the student's training folder. **(T-3)** Report all deviations to AETC/A3F.

5.14.4. **(Added-AETC)** Waivers. AETC/A3F is the waiver authority for the Graduate BIT program. The OG/CC, at the base where the BIT program is being executed, will submit waiver requests on DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval*, to AETC/A3F. AETC/A3F coordinates the waiver to Air Combat Command Operations Directorate, Training Division (ACC/A3T) for Air Combat Command-gained students. AETC/A3F coordinates course entry prerequisite waiver requests with the gaining OG/CC. Submit waivers as soon as it is determined a training shortfall may occur. Units will document all approved waivers in the student's training folder. **(T-3)**

5.14.5. **(Added-AETC)** Training Folders. Units will maintain a training folder in G/TIMS on each BIT student and forward along with the rest of the student's training documentation to the follow-on training unit. **(T-2)** Load each participating student in G/TIMS in the current "Local Syllabus - T-38C Graduate BIT". Record each aircraft and simulator event in G/TIMS, along with all student-flown approaches, patterns, and landings on each grade sheet. Unites

will use the AF Form 4293 to document training not captured on the individual's grade sheet. **(T-3)**

5.14.5.1. **(Added-AETC)** Grading Procedures:

5.14.5.1.1. **(Added-AETC)** Grade individual maneuver grades against the CTS of the respective T-38 Pilot Training, FBF, ENJJPT, T-38C transition, or IFF syllabus using the "Absolute Grading Scale." Accurate individual maneuver grading is essential. BIT instructors must provide sufficient and meaningful instructor comments on grade sheets to provide the next IP, the flight commander (FLT/CC), and squadron leadership an accurate assessment of the BIT student's performance. **(T-3)**

5.14.5.1.2. **(Added-AETC)** IPs will grade the BIT student's overall sortie grade as either "No Grade (NG)" or "Unsatisfactory (U)". **(T-3)** The instructor should assign an overall grade of "U" when any maneuver is graded "U" and a higher level of proficiency is required by syllabus maneuver information file (MIF). The instructor will also assign an overall grade of "U" when more than three maneuvers (where a "Good (G)" is required) are graded "Fair (F)" or when a single maneuver (where a "G" is required) is graded "F" on two consecutive attempts on different sorties. **(T-3)**

5.14.5.1.3. **(Added-AETC)** When a BIT student's overall grade is "U" for a sortie, the SQ/DO must review and initial the BIT student's grade sheet prior to the BIT student accomplishing any further sorties (simulator or aircraft). **(T-3)** The instructor for the sortie, the BIT student's FLT/CC, and the SQ/DO should determine additional training to be accomplished to help the BIT student achieve the desired level of proficiency for the maneuver(s) the BIT student is lacking in proficiency. If more than three sorties (aircraft and/or simulator) are graded "U" overall, the SQ/CC or SQ/DO will brief the OG/CC on the BIT student's performance and prognosis. **(T-3)**

5.14.6. **(Added-AETC)** At a minimum, BIT students will accomplish boldface and operational limits testing graded by a supervisor prior to flying a sortie during each calendar month. **(T-2)** Master question file testing is not required.

5.14.7. **(Added-AETC)** On FCP BIT sorties, BIT students should log "UP" for the Duty Code and "primary" for flight time, and the IP should log "IP" and instructor flight time. The mission code is T3C1. On sandbag sorties, BIT students should log "UP" and other flight time, and the IP should log "MP" and primary flight time IAW DAFMAN 11-401.

5.14.8. **(Added-AETC)** FCP Training (pilot only):

5.14.8.1. **(Added-AETC)** BIT students must log a minimum of one FCP sortie event every 30 days. **(T-3)** BIT students should attempt to accomplish four dedicated FCP BIT sorties per month. Currency requirements start on the date the last syllabus sortie was flown prior to graduation and end once the student has met follow-on course entry requirements. Additional FCP sorties are authorized and encouraged consistent with availability.

5.14.8.2. **(Added-AETC)** An FCP sortie refers to a dedicated sortie where the primary mission is proficiency for the BIT student, who flies hands-on for at least 50% of the time and accomplishes a landing. As the BIT student's proficiency allows, previously introduced specific mission tasks may be accomplished.

5.14.8.2.1. **(Added-AETC)** FCP Transition / Instrument Sortie — The majority of the sortie should be dedicated to the BIT student. Normally accomplish at least one instrument approach / pattern and a landing to be considered effective.

5.14.8.2.2. **(Added-AETC)** FCP Formation Sortie — The FCP formation sortie can be flown 2-ship or 4-ship. To be considered effective, a FCP formation sortie should normally meet all the following conditions: Part of an IP CT mission or flown against an Advanced Formation T-38 Pilot Training, FBF or ENJJPT mission; the BIT student flies as wingman for at least half of the sortie; and the BIT student accomplishes at least one landing (formation or single-ship).

5.14.9. **(Added-AETC)** Simulator Training:

5.14.9.1. **(Added-AETC)** BIT students must complete a minimum of one simulator event every 30 days. **(T-3)** Unlimited simulator sorties, solo or with an instructor, are authorized on a space-available basis. A simulator sortie is considered effective if accomplished with a qualified CSI/MSI..

5.14.9.2. **(Added-AETC)** BIT students must obtain simulator currency prior to accomplishing any flying event. **(T-3)**

5.14.9.3. **(Added-AETC)** Units will ensure simulators emphasize emergency and instrument procedures and are instructed by T-38 Pilot Training, FBF, ENJJPT, PIT or IFF CSI, or MSI using any available training device. **(T-3)**

5.14.10. **(Added-AETC)** Aircraft:

5.14.10.1. **(Added-AETC)** Sandbag Sorties: Unlimited sandbag sorties are authorized on a cockpit available basis. Any sandbag sortie is considered an effective sandbag sortie. The sandbag sortie may be flown in the FCP or RCP. The FCP is desired, however, the IP may decide, based on mission impact, which cockpit the BIT student will occupy. A sandbag sortie cannot negatively impact syllabus or continuation training. Do not use BIT as a justification for the mission. To the maximum extent practical, BIT students should sandbag tactical formation or other advanced sorties. Sandbagging with the IFF squadron is encouraged.

5.14.10.2. **(Added-AETC)** Pre-IFF BIT sorties (FCP and sandbag) may be flown with a T-38 Pilot Training, ENJJPT, FBF, PIT, or IFF squadron. On dedicated FCP sorties, BIT students will only fly missions and events previously introduced in T-38 Pilot Training, ENJJPT, or the T-38C transition syllabus. **(T-2)** On RCP sandbag sorties, students will not fly hands-on during IFF-specific events. **(T-2)**

5.14.10.3. **(Added-AETC)** Post-IFF / FBF BIT sorties (FCP and sandbag) may be flown with a T-38 Pilot Training, FBF, ENJJPT, PIT, or IFF squadron. Syllabus-directed events that were unaccomplished during IFF / FBF may be flown with an IFF / FBF squadron only, but proficiency is not required. BIT students will not be introduced to new events. **(T-2)** Grade individual maneuver grades against the IFF / FBF syllabus. On sorties with T-38 Pilot Training, FBF, ENJJPT, or PIT squadrons, BIT students will only missions and events previously introduced in T-38 Pilot Training, FBF, ENJJPT or the T-38C transition syllabus. **(T-2)**

5.14.11. **(Added-AETC)** Aeronautical orders will reflect aviation service code (ASC) IX, flying activity code (FAC) 2 IAW DAFMAN 11-402, *Aviation and Parachutist Service*. Log all training in accordance with DAFMAN 11-401. Instructors may log events in accordance with [paragraph 4.5](#).

5.14.12. **(Added-AETC)** For IFF / FBF graduates who will not exceed a 45-day break-in-training, additional sorties are not automatically authorized. However, Wg/CCs may authorize orientation sorties for these graduates in any wing aircraft in accordance with DAFMAN 11-401 and its AETC supplement.

5.15. (Added-AETC) T-38 Stall/Sink Rate Awareness Training Program (T-38 Pilot Training, FBF TR Phase, ENJPPT, ENJJPT PIT and PIT Only):

5.15.1. **(Added-AETC)** T-38 Stall/Sink Training Mission. Conduct the T-38 stall/sink training mission according to [Attachment 6](#). Only certified stall pilots will conduct stall training. **(T-2)**

5.15.1.1. **(Added-AETC)** Stall Recognition and Recovery Currency. In order to update currency, the pilot must fly a minimum of one full aft stick stall and a minimum of one turning and one landing attitude approach to stall. **(T-3)** The stall/sink rate orientation flight given by a designated stall pilot updates this currency for both pilots.

5.15.1.2. **(Added-AETC)** Stall Seminar. Certified stall pilots will conduct an annual stall and sink rate seminar during the first quarter of each calendar year. **(T-2)** Attendance is mandatory for all assigned T-38 pilots; if the crewmember misses the annual seminar, the crewmember will attend a makeup seminar given by a certified stall pilot or review the materials used during the seminar (slide presentation and meeting minutes). **(T-2)** Aircrews who fail to complete the annual seminar prior to 31 March will lose their stall currency. **(T-2)** Crewmembers assigned to the unit after 31 March or attending IQT will accomplish and log this training at the next annual seminar.

5.15.1.3. **(Added-AETC)** When Stall Currency Is Lost. A crewmember not current in stalls will be placed on supervised status until currency is reestablished. **(T-2)** If currency is lost due to failure to attend the annual stall seminar, the crewmember must complete a stall seminar per [paragraph 5.15.1.2](#). **(T-2)**

5.15.1.4. **(Added-AETC)** To Regain Stall Currency. Pilots must practice stall recognition and recovery on a dual CT sortie with a stall-current IP. **(T-3)**

5.15.2. **(Added-AETC)** Initial Stall/Sink Rate Awareness Training:

5.15.2.1. **(Added-AETC)** Each IP must fly a stall and sink rate orientation flight within 8 to 14 months of PIT graduation. **(T-3)** The IP will occupy the primary seat needed to instruct (RCP for T-38 Pilot Training, FBF and ENJJPT; FCP for PIT). **(T-2)** Pilots who fail to complete the stall and sink rate orientation flight within the 8-to-14-month window will lose stall currency until accomplishment of the stall and sink rate orientation flight. **(T-2)**

5.15.2.2. **(Added-AETC)** Units will document the completed stall/sink rate awareness mission in the individual's training folder. **(T-3)**

5.15.3. **(Added-AETC)** Stall Pilot Certification and Currency:

5.15.3.1. **(Added-AETC)** Unit-certified stall pilots are normally Standardization & Evaluation (Stan/Eval) FEs. In special circumstances, squadron or operations group commanders may certify experienced T-38 IPs as stall IPs.

5.15.3.2. **(Added-AETC)** Prior to certification, T-38 stall pilots will attend one stall seminar and fly three stall training sorties. **(T-3)**

5.15.3.3. **(Added-AETC)** Units will conduct a semiannual stall pilot CT meeting to discuss demonstration standardization, ground briefing, seminar techniques, problems, policies, and training objectives. **(T-3)**

5.15.3.4. **(Added-AETC)** Certified stall pilots will fly a stall sortie once every 90 days to maintain currency. **(T-3)** To regain currency, the stall pilot must conduct a stall sortie with a current stall pilot. **(T-3)**

5.15.3.5. **(Added-AETC)** Stall pilot certification will be documented on an AF Form 4348 in the individual's training folder. **(T-3)**

5.16. (Added-AETC) Civilian Simulator Instructor (CSI) Indoctrination Flying. CSI Indoctrination Flights are encouraged for the purpose of improving CSI awareness of local area procedures and operations; maintaining current, relevant instructional focus; and maximizing standardization of instruction across all media.

5.16.1. **(Added-AETC)** CSI Indoctrination flights will be flown on a non-interference basis in otherwise empty cockpits, will not be authority to generate a sortie, and are not restricted to the local area. Current and fully qualified CSIs may occupy any seat with controls as long as a current and qualified IP seated at the other set of controls. CSIs who are not current and qualified will not occupy the primary seat. CSIs will not log flight time, receive flight pay, nor be placed on flying status in ARTEMIS.

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

- (Added-AETC) AFMAN 11-202V1, *Aircrew Training*, 27 September 2019
- (Added-AETC) AFMAN 11-202V2, *Aircrew Standardization and Evaluation Program*, 30 August 2021
- (Added-AETC) AFMAN 11-202V2_AETCSUP, *Aircrew Standardization and Evaluation Program*, 1 September 2022
- (Added-AETC) AFMAN 11-214, *Air Operations Rules and Procedures*, 29 November 2022
- (Added-AETC) AFMAN 11-290, *Cockpit/Crew Resource Management and Threat & Error Management Program*, 25 October 2021
- (Added-AETC) AFMAN 11-2T-38V1, *Aircrew Training*, 14 May 2020
- (Added-AETC) AFMAN 11-2T-38V2, *T-38 Aircrew Evaluation Criteria*, 14 May 2020
- (Added-AETC) AFMAN 11-2T-38V3, *T-38 Operations Procedures*, 14 May 2020
- (Added-AETC) AFMAN 11-2T-38V3_AETCSUP, *T-38 Operations Procedures*, 24 August 2022
- AFPD 11-2, *Aircrew Operations*, 31 January 2019
- AFI 11-200, *Aircrew Training, Standardization/ Evaluation, and General Operations Structure*, 21 September 2018
- AFI 11-202, V2, *Aircrew Standardization/Evaluation Program*, 6 December 2018
- AFI 11-202, V3, *General Flight Rules*, 10 August 2016
- AFI 11-214, *Air Operations Rules and Procedures*, 14 August 2012
- AFI 11-253, *Managing Off-Station Purchases of Aviation Fuel and Ground Services*, 19 August 2013
- AFI 11-290, *Cockpit/Crew Resource Management Program*, 15 October 2012
- AFI 11-401, *Aviation Management*, 10 December 2010
- AFI 11-403, *Aerospace Physiological Training Program*, 30 November 2012
- AFI 16-1301, *Survival, Evasion, Resistance, and Escape Program*, 3 August 2017
- AFI 33-360, *Publications and Forms Management*, 1 December 2015
- AFI 44-170, *Preventive Health Assessment*, 30 January 2014
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- (Added-AETC) AETCI 11-203, *Flying Training Simulator Instructor Programs*, 2 February 2022

(Added-AETC) AETCTTP 11-1, *T-38C Employment Fundamentals/Introduction to Fighter Fundamentals (IFF)*, 31 December 2024

AFMAN 11-2T-38, V2, *T-38 Aircrew Evaluation Criteria*, 14 May 2020

AFMAN 11-202, V1, *Aircrew Training*, 27 September 2019

AFMAN 11-210, *Instrument Refresher Program (IRP)*, 4 October 2019

AFMAN 11-218, *Aircraft Operations and Movement on the Ground*, 5 April 2019

AFMAN 11-404, *Fighter Aircrew Acceleration Training Program*, 27 November 2019

AFMAN 11-421, *Aviation Resource Management*, 23 March 2020

(Added-AETC) TO 1-1-300, *Maintenance Operational Checks and Check Flights*, 15 December 2023

(Added-AETC) TO 1T-38C-1, *Flight Manual USAF Series T-38C Aircraft*, 1 February 2020

(Added-AETC) TO 1T-38C-6CF-1, *Functional Check Flight Procedures*, 27 September 2022

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

(Added-AETC) DAFI 10-3004, *Survival, Evasion, Resistance, and Escape Program*, 18 March 2025

(Added-AETC) DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 January 2020

(Added-AETC) DAFMAN 11-401, *Aviation Management*, 27 October 2020

(Added-AETC) DAFMAN 11-402, *Aviation, Missile, and Parachutist Service*, 24 January 2019

(Added-AETC) DAFMAN 90-161, *Publishing Processes and Procedures*, 18 October 2023

Prescribed Forms

(Added-AETC) None

Adopted Forms

(Added-AETC) AF Form 2400, *Functional Check Flight Log*

(Added-AETC) AF Form 4287, *Functional Check Flight Certification Record T-38 Aircraft*

(Added-AETC) AF Form 4293, *Student Activity Record*

(Added-AETC) AF Form 4327, *ARMS Flight Authorization*

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 847, *Recommendation for Change of Publication*

AF Form 4348, *USAF Aircrew Certifications*

(Added-AETC) AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*

(Added-AETC) DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval*

Abbreviations and Acronyms

(Added-AETC) **A/A**—air-to-air

(Added-AETC) **ACBT**—air combat training

(Added-AETC) **ACC**—Air Combat Command

(Added-AETC) **ACM**—air combat maneuvering

(Added-D) **ACM**—dissimilar) air combat maneuvering

(Added-AETC) **ACT**—air combat tactics

(Added-D) **ACT**—dissimilar) air combat tactics

(Added-AETC) **ADO**—Assistant director of operations

(Added-AETC) **AETC**—Air Education and Training Command

(Added-AETC) **AETCI**—Air Education and Training Command Instruction

(Added-AETC) **AFE**—aircrew flight equipment

AFPD—Air Force Policy Directive

AFI—Air Force Instruction

AFMAN—Air Force Manual

(Added-AETC) **AFSC**—Air Force Specialty Code

(Added-AETC) **AGL**—above ground level

(Added-AETC) **AGSM**—anti-G strain maneuver

(Added-AETC) **AHC**—advanced handling characteristics

(Added-AETC) **AOA**—angle of attack

(Added-AETC) **API**—aircrew position indicator

(Added-AETC) **ARTEMIS**—Aviation Resource Tool Enterprise Management Information System

(Added-AETC) **ASC**—aviation service code

(Added-AETC) **AWACS**—airborne warning and control system

BAQ—basic aircraft qualification

(Added-AETC) **BFM**—basic fighter maneuvers

(Added-D) **BFM**—dissimilar) basic fighter maneuvers

(Added-AETC) **BIP**—buddy instructor pilot

(Added-AETC) **BIT**—break in training

(Added-AETC) **BMC**—basic mission capable

(Added-AETC) **BSA**—basic surface attack

(Added-AETC) **CAP**—commander awareness program

(Added-AETC) CAS—close air support
(Added-AETC) CCIP—constantly computed impact point
(Added-AETC) CHUM—chart update manual
(Added-AETC) CR—commander review
CRM—cockpit/crew resource management
(Added-AETC) CSI—civilian simulator instructor
CT—continuation training
(Added-AETC) CT—currency training
(Added-AETC) CTS—course training standards
(Added-AETC) DAF—Department of the Air Force
(Added-AETC) DAFI—Department of the Air Force Instruction
(Added-AETC) DAFMAN—Department of the Air Force Manual
(Added-AETC) DB—defensive BFM
(Added-AETC) DS—direct support
(Added-AETC) DSMP—direct support mission pilot
(Added-AETC) EM—employment phase
(Added-AETC) ENJJPT—Euro-NATO joint jet pilot training
(Added-AETC) EP—emergency procedure
(Added-AETC) EPE—emergency procedures evaluation
ETCA—education and training course announcement
(Added-AETC) FAC—flying activity code
(Added-AETC) FAIP—first assignment instructor pilot
(Added-AETC) FBF—fighter bomber fundamentals
(Added-AETC) FCF—functional check flight
(Added-AETC) FCP—front cockpit
(Added-AETC) FE—flight examiner
(Added-AETC) FL—flight lead
(Added-AETC) FLT/CC—flight commander
(Added-AETC) FM—fluid maneuvering
(Added-AETC) FP—first pilots
(Added-AETC) FTU—formal training unit
(Added-AETC) FTW—flying training wing

(Added-AETC) G/TIMS—graduate/training integration management system

(Added-AETC) GCI—ground control intercept

(Added-AETC) HA—high-aspect BFM

(Added-AETC) HAGS—high-aspect guns-to-separation

(Added-AETC) HTG—heat-to-guns

(Added-AETC) HUD—heads up display

(Added-AETC) IAW—in accordance with

(Added-AETC) ID—instructor development

(Added-AETC) IFF—introduction to fighter fundamentals

(Added-AETC) IMC—instrument meteorological conditions

IP—instructor pilot

IQT—initial qualification training

(Added-AETC) KIAS—knots indicated airspeed

(Added-AETC) LASDT—low-altitude step-down training

(Added-AETC) LATF—low-altitude tactical formation

(Added-AETC) LATN—low-altitude tactical navigation

(Added-AETC) LL—low level

(Added-AETC) LOW A/A—low altitude air-to-air

(Added-AETC) LOW ALT—low altitude

(Added-AETC) LOWAT—low altitude training

(Added-AETC) LoX—letter of X

MAJCOM—major command

(Added-AETC) MASS—merit assignment selection system

(Added-AETC) MDS—mission design series

(Added-AETC) MIF—maneuver information file

MQT—mission qualification training

(Added-AETC) MR—mission ready

(Added-AETC) MSI—military simulator instructor

(Added-AETC) MWS—major weapons system

N-BAQ—non-basic aircraft qualified

NMR—non-mission ready

(Added-AETC) OB—offensive BFM

OG/CC—operations group commander

OPR—Office of primary responsibility

(Added-AETC) PFT—programmed flying training

PIT—Pilot Instructor Training

RCP—rear cockpit

(Added-AETC) RDS—records disposition schedule

(Added-AETC) rpm—revolutions per minute

RSU—Runway Supervisory Unit

(Added-AETC) SA—surface attach

(Added-AETC) SAT—surface attack tactics

(Added-AETC) SERE—survival, evasion, resistance, and escape

(Added-AETC) SQ/CC—squadron commander

(Added-AETC) SQ/DO—squadron director of operations

(Added-AETC) TACAN—tactical air navigation

TI—Theater Indoctrination

(Added-AETC) TO—technical order

(Added-AETC) TR—transition phase

(Added-AETC) TTP—tactics, techniques, and procedures

(Added-AETC) UIP—upgrading instructor pilot

(Added-AETC) UMD—unit manning document

(Added-AETC) USEM—unit stan/eval monitor

(Added-AETC) VDTS—video data transfer system

(Added-AETC) VMC—visual meteorological conditions

(Added-AETC) VVI—vertical velocity indicator

(Added-AETC) Wg/CC—wing commander

(Added-AETC) Wg/CD—wing deputy commander

(Added-AETC) WSO—weapons system officer

Office Symbols

(Added-AETC) ACC/A3T—Air Combat Command Operations Directorate, Training Division

(Added-AETC) AF/A3T—Air Force Operations Directorate, Training Division

(Added-AETC) AETC A3/6—AETC Operations and Communications Directorate

(Added-AETC) AETC/A3F—AETC Operations Directorate, Undergraduate Formal Training Division

(Added-AETC) AETC/A3V—AETC Operations Directorate, Standardization and Evaluations Division

Terms

Aircraft handling characteristics—Training for proficiency in utilization and exploitation of the aircraft flight envelope, consistent with operational and safety constraints, that includes (but is not limited to) high or maximum angle of attack maneuvering, energy management, minimum time turns, maximum or optimum acceleration, deceleration techniques, and confidence maneuvers (AFI 11-214, *Air Operations Rules and Procedures*).

Basic aircraft qualification—An aircrew member who has satisfactorily completed training prescribed to maintain the skills necessary to perform aircrew duties in the unit aircraft. (AFMAN 11-202, Vol. 1)

Continuation training (CT)—The program that provides crew members with the volume, frequency, and mix of training necessary to maintain proficiency in the assigned qualification level.

Currency—A measure of how frequently and/or recently a task is completed. Currency requirements should ensure the average aircrew member maintains a minimum level of proficiency in a given event.

(Added-AETC) Demanding sortie—A sortie that tasks the aircrew to the extent that flying frequency and continuity are most critical. Sorties and events requiring demanding sortie currency include ACBT ((D)BFM, (D)ACM, (D)ACT), LOWAT (LOW ALT, LOW A/A), surface attack tactics (SAT), close air support (CAS), and basic surface attack (BSA) (except level passes at or above 1000 feet AGL). Depending on unit tasking, the SQ/CC may add sorties and events to the demanding sortie list.

Emergency procedures evaluation—An evaluation of aircrew knowledge and responsiveness to critical and noncritical emergency procedures conducted by a Standardization and Evaluation flight examiner orally or in a cockpit training device.

Experienced—Aircrew who meet the experience qualifications defined in MAJCOM supplements (see inexperienced).

Flight lead—As designated on flight orders, the individual responsible for overall conduct of the mission from preflight preparation and briefing to postflight debriefing, regardless of his or her actual position within the formation. A certified four-ship flight lead may lead formations and missions in excess of four aircraft unless restricted by the unit commander. A two-ship flight lead may lead an element in a larger formation.

Formal course—Training courses listed in Air Force ETCA.

Inexperienced—Aircrew who do not qualify as experienced or are not certified as such by the squadron commander (see experienced).

Initial qualification—An aircrew member engaged in training needed to qualify for basic aircrew duties in an assigned position for a specific aircraft, without regard for the unit's operational mission.

Initial qualification training (IQT)—Training needed to qualify for basic aircrew duties in an assigned position for a specific aircraft, without regard for the unit's operational mission. This training is the minimum requirement for BAQ.

(Added-AETC) Low Altitude (LOW ALT)—An event defined by performing realistic, mission-oriented low altitude operations while below 1000 feet AGL. The event includes low altitude navigation and/or tactical formation, air-to-surface attacks, and defensive maneuvering to avoid or negate surface-to-air threats.

Low altitude training—Mission-oriented operations in the certified low-altitude block (500 feet to 1,000 feet above ground level).

(Added-AETC) Low altitude training—Low Altitude Training (LOWAT) events are divided into two categories, LOW ALT and LOW A/A. This tactical training does not apply to traffic pattern operations or other basic transitions through the low-altitude structure.

Mission qualification—An aircrew member engaged in training to qualify in an assigned aircrew position to perform a command or unit mission.

Night—The time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time (AFI 11-202V3).

Night landing—A landing conducted between the end of evening civil twilight and the beginning of morning civil twilight.

Night sortie—A sortie in which either a takeoff or a landing and at least 50 percent of flight duration is accomplish between the end of evening civil twilight and the beginning of morning civil twilight.

(Added-AETC) Non-demanding sortie—A sortie that provides the aircrew with the opportunity to regain basic flying proficiency without excessively tasking those skills unused during the non-flying period. Authorized sorties and events flown for or on a non-demanding sortie include instruments, AHC, formation, low level navigation at or above 1000 feet AGL, and level weapons deliveries at or above 1000 feet AGL.

Proficiency—A measure of how well a task is completed. Aircrew members are considered proficient when they can perform tasks at the minimum acceptable levels of speed, accuracy, and safety (AFMAN 11-202, V1).

Attachment 2 (Added-AETC)**FCF PROGRAM**

A2.1. (Added-AETC) Overview. The OG commander designates one FCF pilot as the chief of the FCF program, one lead FCF pilot for each operationally assigned aircraft, and determines the need for additional FCF pilots. The chief FCF pilot will be assigned to the OG. **(T-2) Exception:** The FCF Chief pilot at the 80 FTW is assigned to the Wing. Lead FCF pilots should be assigned to the OG at the discretion of the OG commander. The chief FCF pilot may act as Mission Design Series (MDS)-specific lead FCF pilot. Document FCF pilot and FCF IP certifications IAW AFMAN 11-202V2.

A2.2. (Added-AETC) FCF Chief Responsibilities:

A2.2.1. **(Added-AETC)** Supervise and administer the wing aircraft FCF program according to Department of the Air Force Instruction (DAFI) 21-101, *Aircraft and Equipment Maintenance Management*; TO 1-1-300, *Maintenance Operational Checks and Check Flights*; TO 1T-38C-6CF-1, *Acceptance and Functional Check Flight Procedures*; and MAJCOM and local guidance and procedures.

A2.2.2. **(Added-AETC)** Work closely with maintenance quality assurance personnel.

A2.2.3. **(Added-AETC)** Maintain an FCF read file for FCF issues available to all FCF pilots for review before flying FCF sorties.

A2.2.4. **(Added-AETC)** Ensure FCF crews maintain a high level of proficiency and knowledge of maintenance requirements to produce a quality aircraft for mission accomplishment.

A2.2.5. **(Added-AETC)** Ensure minimum FCF requirements and currencies are met, and noncurrent pilots are not allowed to fly until recurrent.

A2.2.6. **(Added-AETC)** Act as a liaison member of OG Stan/Eval and air traffic control agencies.

A2.2.7. **(Added-AETC)** Ensure local flight clearance is coordinated between the FCF section and air traffic control agencies.

A2.2.8. **(Added-AETC)** The unit FCF chief will maintain AF Form 4327 to serve as the FCF Flight Authorization. **(T-3)** The unit FCF chief will maintain AF Form 2400 or a locally developed, equivalent automated product to serve as the FCF Flight Log. **(T-3)**

A2.3. (Added-AETC) FCF Pilot Requirements. The OG/CC will select FCF pilots from wing pilots. **(T-2)** Pilots selected must have completed TI and have at least 4 months of experience in the T-38C, 750 total flying hours and 200 IP/FP hours, or 650 total hours and 300 IP/FP hours in the T-38C. **(T-2)**

A2.4. (Added-AETC) FCF IP Requirements. A pilot selected to be an FCF IP must have at least 4 months of experience conducting FCFs. **(T-2)** The OG/CC will certify FCF IPs on the AF Form 4348 IAW AFMAN 11-202V2. Once appointed, FCF IPs train new FCF pilots and administer FCF certification flights according to local training programs.

A2.5. (Added-AETC) FCF Training. Prior to being certified as an FCF pilot, pilots will complete a local checkout program that, at a minimum, includes (in the order listed):

A2.5.1. **(Added-AETC)** Review of applicable areas of DAFI 21-101 and supplemental guidance, TO 1-1-300, TO 1T-38C-6CF-1, AFMAN 11-2T-38V1 and this supplement, AFMAN 11-2T-38V3 and supplemental guidance, the local FCF Read File, and local FCF procedures. **(T-2)**

A2.5.2. **(Added-AETC)** Flying an adequate number of FCF training profiles in the aircraft or simulator as determined by the FCF IP. **(T-2)**

A2.5.3. **(Added-AETC)** Flying a certification flight on a full profile FCF sortie after completing the local checkout program. **(T-2)**

A2.5.4. **(Added-AETC)** Completion of AF Form 4287, *Functional Check Flight Certification Record T-38 Aircraft*, and AF Form 4348. **(T-2)** The OG/CC will sign the AF Form 4348 certifying the pilot to perform FCF duties. **(T-2)** Units will file the signed AF Form 4348 in the FCF pilot's training folder and update the unit's LoX. **(T-2)**

A2.6. (Added-AETC) FCF Loss of Currency/Certification. FCF pilots who fail to meet FCF currency requirements in **Table 4.2 (AETC)** will not fly an FCF sortie until recurrent. **(T-2)** To regain currency, the FCF pilot will review the FCF read file and fly an FCF sortie with a current FCF IP in the aircraft or simulator. **(T-2)** Units will decertify any FCF pilots who exceed 180 days from their last FCF flight. **(T-2)** To become recertified, FCF pilots will accomplish FCF training as prescribed in **paragraph A2.5** above. **(T-2)**

Attachment 3 (Added-AETC)**BUDDY INSTRUCTOR PILOT PROGRAM**

A3.1. (Added-AETC) Overview. The AETC BIP program formalizes and standardizes the training a new IP accomplishes from PIT graduation to being designated “experienced” in addition to flying hour requirements listed in **Table 1.1 (Added)**. All new IPs at T-38 Pilot Training, FBF and ENJJPT undergraduate flying training units must complete this training. **(T-2) Note:** IPs at PIT, Wg/CCs, Wg/CDs, OG/CCs, and OG deputy commanders are exempt from this program.

A3.1.1. **(Added-AETC)** FAIPs and new IPs with neither prior fighter nor prior T-38C instructor experience must accomplish the BIP Long program. **(T-2)** The BIP Long program is recommended for IPs who have limited fighter MWS experience. **Note:** FBF EM phase IPs who become certified in TR phase mission sets will complete the mission specific post-requisites in **paragraph 5.7** rather than a long/short BIP program.

A3.1.2. **(Added-AETC)** The BIP Short program is for new IPs with previous T-38C instructor experience or extensive fighter MWS experience.

A3.2. (Added-AETC) Squadron Responsibilities:

A3.2.1. **(Added-AETC)** The SQ/CC will:

A3.2.1.1. **(Added-AETC)** Set squadron BIP policies and guidance. **(T-2)**

A3.2.1.2. **(Added-AETC)** Brief new IPs on BIP policies and responsibilities before the new IP flies with students. **(T-2) Note:** The SQ/DO may conduct this briefing in the absence of the SQ/CC.

A3.2.1.3. **(Added-AETC)** Assign each new IP to either the BIP Short or BIP Long program, as appropriate, based on the new IP’s PIT performance, TI performance, and previous experience. **(T-2)**

A3.2.1.4. **(Added-AETC)** Review completed BIP documentation. **(T-2)**

A3.2.1.5. **(Added-AETC)** Certify new IPs upon completion of the BIP program using the AF Form 4348. **(T-2)**

A3.2.2. **(Added-AETC)** The SQ/DO or assistant operations officer will:

A3.2.2.1. **(Added-AETC)** Monitor all aspects of the BIP program. **(T-2)**

A3.2.2.2. **(Added-AETC)** Chair a monthly CT meeting for IPs in the BIP program. The regularly scheduled quarterly CT meeting fulfills the requirement for that month’s meeting. **(T-2)**

A3.2.3. **(Added-AETC)** The flight commander will:

A3.2.3.1. **(Added-AETC)** Supervise overall scheduling, training, and progress of the flight BIP program. **(T-2)**

A3.2.3.2. **(Added-AETC)** Recommend an individually tailored BIP training program to the SQ/CC, based on the new IP’s past performance and experience. **(T-2)**

A3.2.3.3. **(Added-AETC)** Brief each new IP on flight policies, techniques, grading practices, and other applicable topics before conducting student training. **(T-2) Note:** The

assistant flight commander may conduct this briefing in the absence of the flight commander.

A3.2.3.4. **(Added-AETC)** Assign each new IP a BIP who will monitor the new IP's performance and provide guidance in all areas of job requirements until the new IP has instructed through each category of training. **(T-2)**

A3.2.3.5. **(Added-AETC)** Fly at least one sortie with each new IP in the BIP program. **Note:** The assistant flight commander may fly this sortie in the absence of the flight commander. **(T-2)**

A3.2.3.6. **(Added-AETC)** Verify that new IPs have met all BIP requirements before sending documentation up the chain of command for review. **(T-2)**

A3.2.4. **(Added-AETC)** The flight training officer will:

A3.2.4.1. **(Added-AETC)** Maintain all BIP documentation and forward it to the squadron training officer for review at least once a month. **(T-2)**

A3.2.4.2. **(Added-AETC)** Inspect BIP documentation on new IPs who have completed the BIP program prior to coordination through unit leadership. **(T-2)**

A3.2.4.3. **(Added-AETC)** Ensure the flight scheduler requests sorties required to meet BIP requirements. **(T-2)**

A3.3. (Added-AETC) BIP Long Program. This program should last approximately 3 to 6 months (minimum of 3 months). Briefs accomplished during TI may be used to fulfill BIP brief requirements, as appropriate.

A3.3.1. **(Added-AETC)** Ground Training. At a minimum, IPs in the BIP Long Program will receive the following ground training items:

A3.3.1.1. **(Added-AETC)** Squadron policies brief. Accomplish this requirement before flying with students. **(T-2)**

A3.3.1.2. **(Added-AETC)** BIP brief. Accomplish this requirement before flying with students. **(T-2)**

A3.3.1.3. **(Added-AETC)** Instructor responsibilities brief. Accomplish this requirement before flying with students. **(T-2)**

A3.3.1.4. **(Added-AETC)** Commander review ("CR") and commander awareness program ("CAP") brief. **(T-2)**

A3.3.1.5. **(Added-AETC)** Grading practices brief. **(T-2)**

A3.3.1.6. **(Added-AETC)** Merit Assignment Selection System (MASS) brief. **(T-2)**

A3.3.1.7. **(Added-AETC)** CT requirements brief. **(T-2)**

A3.3.1.8. **(Added-AETC)** Scheduling brief. **(T-2)**

A3.3.1.9. **(Added-AETC)** G/TIMS brief. **(T-2)**

A3.3.1.10. **(Added-AETC)** Gradebook brief. **(T-2)**

A3.3.1.11. **(Added-AETC)** Flying safety brief. **(T-2)**

A3.3.1.12. **(Added-AETC)** Stan/Eval brief. **(T-2)**

A3.3.1.13. **(Added-AETC)** Check section brief. **(T-2)**

A3.3.1.14. **(Added-AETC)** Monitoring a check flight ground evaluation. **(T-2)**

A3.3.1.15. **(Added-AETC)** Runway supervisory unit (RSU) brief. **(T-2)**

A3.3.1.16. **(Added-AETC)** Monitoring an RSU tour of duty. **(T-2)**

A3.3.1.17. **(Added-AETC)** EP or CRM simulator with a simulator instructor. **(T-2)**

A3.3.1.18. **(Added-AETC)** Graduation evaluation program brief. **(T-2)**

A3.3.1.19. **(Added-AETC)** Open-book syllabus test (locally generated). **(T-2)**

A3.3.1.20. **(Added-AETC)** Open-book CTS test (locally generated). **(T-2)**

A3.3.2. **(Added-AETC)** Flying Training. The flying training portion of the BIP program consists of BIP sorties and sponsor sorties, as follows:

A3.3.2.1. **(Added-AETC)** BIP Sorties. BIP sorties are dual sorties flown by the new IP with the buddy IP. New IPs will fly all BIP sorties with the assigned buddy IP, flight unit Stan/Eval monitor (USEM), or any supervisor (assistant flight commander or above) in the new IP's chain of command. **(T-2)** The objective of BIP sorties is to further develop the new IP's flying proficiency and instructional ability. On each BIP sortie, the BIP will discuss instructional techniques, planning profiles, student progress, grading practices, local flying policies, common student errors, and possible pitfalls the new IP should avoid. **(T-2)** The buddy IP will document these sorties in the new IP's BIP record. **(T-2)** New IPs will fly at least one BIP sortie in each of the following categories of training:

A3.3.2.1.1. **(Added-AETC)** Contact/Transition. **(T-2)**

A3.3.2.1.2. **(Added-AETC)** Two-ship formation. **(T-2)**

A3.3.2.1.3. **(Added-AETC)** Four-ship formation. **(T-2)**

A3.3.2.1.4. **(Added-AETC)** Instrument and navigation. **(T-2)** The new IP must shadow an experienced IP on the first day of a student cross-country. **(T-2)** The new IP must fly an out-and-back mission with an experienced IP to discuss cross-country operations and unusual operational procedures or environments. **(T-2)** New IPs must accomplish instrument and navigation BIP sorties prior to the new IP flying a student cross-country. **(T-2)**

A3.3.2.1.5. **(Added-AETC)** Low level navigation sortie. **(T-2)**

A3.3.2.2. **(Added-AETC)** Sponsor Sorties. The BIP, flight USEM, or any supervisor (assistant flight commander or above) in the new IP's chain of command will fly sponsor sorties with the new IP's students as a quality of training review. **(T-2)** New IPs will fly a series of sorties (three contact/transition, two instruments/navigation, or three formation) with the same student, after which the BIP will fly with the same student. **(T-2)** The BIP will provide feedback to the new IP (within 2 workdays) on instructional techniques and grading practices. **(T-2)** Units will document all sponsor sorties and debriefs in the new IP's BIP training record. **(T-2)**

A3.3.3. **(Added-AETC)** Initial Student Sorties. Before the new IP flies any pre-solo student sorties, the IP will complete a minimum of three sorties with a post-solo student (in any category of training). **(T-2)** The BIP will document Initial Student Sorties in the new IP's BIP record. **(T-2)**

A3.3.4. **(Added-AETC)** Student Solo. Prior to the new IP soloing his or her first student, someone in the BIP chain of command will fly one of the last four sorties before the student's initial solo. **(T-2)** This sortie will not be the last sortie prior to initial solo. **(T-2)** The BIP will document the Student Solo Sortie in the new IP's BIP record. **(T-2)**

A3.4. (Added-AETC) BIP Short Program. The BIP Short program lasts approximately 1 to 3 months. Briefs accomplished during TI may be used to fulfill BIP brief requirements, as appropriate.

A3.4.1. **(Added-AETC)** Ground Training. IPs in the BIP Short program must accomplish all the ground training requirements listed in the BIP long program. **(T-2)**

A3.4.2. **(Added-AETC)** Flying Training. The flying training portion of the BIP program consists of BIP sorties and sponsor sorties, as follows:

A3.4.2.1. **(Added-AETC)** BIP Sorties. BIP sorties are dual sorties flown by the new IP with the buddy IP. IPs in the BIP Short Program will fly all BIP sorties with the assigned buddy IP, flight USEM, or any supervisor (assistant flight commander or above) in the new IP's chain of command. **(T-2)** The objective of BIP sorties is to further develop the new IP's flying proficiency and instructional ability. New IPs must fly at least one BIP sortie. **(T-2)** It may be in any category of training. On the BIP sortie, the BIP will discuss instructional techniques, planning profiles, student progress, grading practices, local flying policies, common student errors, and possible pitfalls the new IP should avoid. **(T-2)** The buddy IP will document these sorties in the new IP's BIP record. **(T-2)**

A3.4.2.2. **(Added-AETC)** Sponsor Sorties. The BIP, flight USEM, or any supervisor (assistant flight commander or above) in the new IP's chain of command will fly sponsor sorties with the new IP's students as a quality of training review. **(T-2)** At least one Sponsor Sortie will be flown (in any category of training) after the student has had sufficient exposure to be influenced by the new IP's techniques. The BIP will document all sorties and debriefings in the new IP's BIP record. **(T-2)**

Attachment 4 (Added-AETC)**PILOT INSTRUCTOR TRAINING RE-BLUE PROGRAM**

A4.1. (Added-AETC) Re-Blue Program. The purpose of the Re-Blue Program is to increase the quality of PIT instruction. This is accomplished by giving PIT IPs the opportunity to interact and fly with T-38 Pilot Training, FBF or ENJJPT student pilots in all categories of flying and ground training instruction. IP re-bluing should be accomplished at the discretion of the squadron commander after considering manning, programmed flying training (PFT), and other constraints. PIT IPs who have not flown with a T-38 Pilot Training, FBF or T-38C ENJJPT student within 2 years prior to their IP certification should spend a week flying with T-38 Pilot Training or ENJJPT students between 6 months to 1 year of receiving their IP certification at PIT. Additionally, all PIT IPs should spend a week flying with T-38 Pilot Training or ENJJPT students after instructing at PIT for 3 years.

A4.2. (Added-AETC) PIT IP Responsibilities. PIT IPs will:

A4.2.1. **(Added-AETC)** Contact the host squadron point of contact to determine additional requirements or documentation. **(T-3)**

A4.2.2. **(Added-AETC)** Are current in all requirements and training events prior to traveling to the T-38 Pilot Training or ENJJPT host squadron. **(T-2)**

A4.2.3. **(Added-AETC)** Report to the host SQ/DO or designated representative. **(T-3)**

A4.2.4. **(Added-AETC)** Attempt to sample as many different categories of flying and ground training as possible while at the host squadron. **(T-3)**

A4.2.5. **(Added-AETC)** Bring back AFTO Form 781 extracts and documentation required for logging CT training at home station. **(T-3)**

A4.3. (Added-AETC) Host Squadron Responsibilities. Host squadrons will:

A4.3.1. **(Added-AETC)** Utilize the PIT IP to the maximum extent possible after consulting with the PIT IP. **(T-3)** The PIT IP should be treated and scheduled like any other "line IP". Schedule the PIT IP for student sorties over CT sorties to maximize training objectives.

A4.3.2. **(Added-AETC)** Schedule at least one local familiarization sortie to acquaint the PIT IP with local procedures and pattern or area references. **(T-2)**

A4.3.3. **(Added-AETC)** Attempt to fly the IP with students in all categories and varying proficiency levels so the IP can get an accurate picture of the T-38 Pilot Training or ENJJPT environment. **(T-3)**

Attachment 5 (Added-AETC)**INTRODUCTION TO FIGHTER FUNDAMENTALS TRAINING**

A5.1. (Added-AETC) Air-to-Ground Weapons Deliveries. Aircrews conducting weapons delivery training conducted during formal training will follow the appropriate syllabus. **(T-2)** Aircrews conducting CT air-to-ground weapons deliveries will follow guidance in the appropriate syllabus or tactical simulations (**Note:** Should conflicts arise between AFMAN 11-214, *Air Operations Rules and Procedures*, limitations and the syllabus, AFMAN 11-214 takes precedence). **(T-3)** To the maximum extent possible, aircrews will accomplish BSA training on a Class A range. **(T-3)** The following events and parameters form the basic framework for air-to-ground weapons delivery training:

A5.1.1. **(Added-AETC)** Visual Level Delivery is a delivery with less than 5 degrees of climb or dive at weapons release (non-maneuvering), using any means of delivery with visual target acquisition or designation. Minimum altitude is that required for safe separation from the ordnance being delivered or simulated or 100 feet AGL, whichever is higher. Hit criteria are 250 feet (76 meters) or within target area for manual bombs, and 130 feet (40 meters) for CCIP bombs.

A5.1.2. **(Added-AETC)** Low Angle High Drag. Planned dive angle is less than 30 degrees. Minimum recovery altitude is safe escape from the ordnance being simulated or delivered, as required to recover above 100 feet AGL (300 feet AGL on a Class B/C or over-water range) or one-half the computed altitude loss from bomb release to recovery, whichever is higher. Hit criteria are 105 feet (32 meters) or within the target area for manual bombs, and 75 feet (23 meters) for CCIP bombs.

A5.1.3. **(Added-AETC)** Low Angle Low Drag. Planned dive angle is less than 30 degrees. Minimum recovery altitude is safe escape from the ordnance being simulated or delivered or as required to recover above 1,000 feet AGL, whichever is higher. Hit criteria are 175 feet (53 meters) for manual bombs, and 100 feet (30 meters) for CCIP bombs.

A5.1.4. **(Added-AETC)** Dive Bomb. Planned dive angle is 30 degrees or greater. Minimum recovery altitude is safe escape from the ordnance being simulated or delivered or as required to recover above 1,500 feet AGL, whichever is higher. Hit criteria are 145 feet (44 meters) for manual bombs, and 85 feet (26 meters) for CCIP bombs.

A5.1.5. **(Added-AETC)** High Altitude Dive Bomb. Planned dive angle is 30 to 60 degrees. Minimum recovery altitude is 4,500 feet AGL. Hit criteria are 125 feet (38 meters) for both manual and CCIP bombs.

A5.1.6. **(Added-AETC)** Low Angle Strafe. Planned dive angle is 15 degrees or less. The foul line is 2,000 feet and minimum recovery altitude is 75 feet AGL.

A5.1.7. **(Added-AETC)** High Angle Strafe. Planned dive angle is greater than 15 degrees. Minimum recovery altitude is 1,000 feet AGL.

A5.1.8. **(Added-AETC)** Long Range Strafe. Planned dive angle is 15 degrees or less. Minimum recovery altitude is 75 feet AGL. Open fire range is IAW range restrictions. Cease fire range is 5,000 feet for computed delivery. Hit criteria: 2 frames of A-10 gunsight pipper on the target during employment.

A5.2. (Added-AETC) Air-to-Air Weapons Employment. All aircrews accomplishing air-to-air weapons employment during formal training will follow the appropriate syllabus. **(T-2)** All aircrews conducting CT air-to-air weapons employment will follow guidance in the appropriate syllabus or tactical simulations as determined by the squadron. **(T-3)**

A5.3. (Added-AETC) Weapons and Tactics Academic Training. Units will establish a weapons and tactics academic training program to satisfy CT requirements. **(T-2)** Pilots in the academic training program requires must complete an examination (85 percent minimum to pass) once per calendar year not later than 31 January. **(T-2)** Instruction and tests should include the following (as applicable), but are not limited to:

A5.3.1. **(Added-AETC)** Conventional air-to-surface employment and tactics.

A5.3.2. **(Added-AETC)** ACBT. Principles of aerodynamics, maneuverability, AHC formations, visual lookout capability, radio terminology, tactical intercept principles, use of ground control intercept (GCI) or airborne warning and control system (AWACS), and adversary capabilities are addressed.

A5.3.3. **(Added-AETC)** A low-altitude flying academics review in accordance with [paragraph A5.5.2.4](#) and [paragraph A5.5.3.5.3.1](#) through [paragraph A5.5.3.5.3.7](#).

A5.4. (Added-AETC) Flying Training. Units will use off-station CT to support AETC FTUs to the maximum extent practical. **(T-3)** Squadron supervisors should balance the need for FTU support with limited resources, PFT, sortie allocation, and FTU requirements.

A5.5. (Added-AETC) Special Mission Training Programs. Use unit-developed training programs of instruction for upgrades in the following areas: (D)ACM, (D)ACT, CAS, SAT, and LOWAT. The SQ/CC may tailor any flying portion of the special mission training. Aircrew will only fly events they are certified for or as part of an upgrade syllabus leading to certification. **(T-2)** Units will document all training in the upgrade crewmember's training folder. **(T-3)**

A5.5.1. **(Added-AETC)** Supervision. Flight commanders recommend IFF/FBF instructors for upgrade. On completion of the appropriate training syllabus, the SQ/CC will certify aircrew on their respective AF Form 4348. **(T-3)**

A5.5.2. **(Added-AETC)** Academic Training. Upgrading crewmembers will complete academics taught by an instructor qualified in the applicable mission type prior to their first flight briefing in the program. **(T-2)** The instructor will document this training in the upgrade crewmember's training folder. **(T-3)** The instructor should use AETC Tactics, Techniques, and Procedures (TTP) 11-1, *T-38C Employment Fundamentals/Introduction to Fighter Fundamentals (IFF)*, and the appropriate academic guide and may tailor the academics to meet the individual's needs based on previous experience, as follows:

A5.5.2.1. **(Added-AETC)** Air Combat Maneuvering (ACM). Communications (directive or descriptive commentary); formation and visual lookout (mutual support); element employment against a single bandit; engaged and support fighter responsibilities; initial moves; engaged maneuvering (techniques and problems); flight management (setups); midair deconfliction; training rules (AFMAN 11-214; flight lead and instructor responsibilities and techniques; training objectives, briefing, flight management, and debriefing; and squadron policies and commander interest items.

A5.5.2.2. **(Added-AETC)** Air Combat Tactics (ACT). Communication plan; scenarios and mission type (offensive counter-air, defensive counter-air, adversary tactics); T-38 specifics (traffic collision avoidance system, air-to-air [A/A] tactical air navigation [TACAN]), engine envelope, flight deconfliction); formations; element maneuvering and mutual support; adversary tactics; low-altitude considerations (formation, navigation, offensive, and defensive maneuvering); AWACS and GCI procedures (capabilities and limitations); tactical game plan (targeting, engagement considerations, flow plan, deconfliction, and midair collision potential); flight lead and instructor responsibilities and techniques (objectives, briefing, flight management, and debriefing); training rules (AFMAN 11-214); data transfer cartridge; bullseye; squadron policies; and commander interest items.

A5.5.2.3. **(Added-AETC)** Close Air Support and Surface Attack Tactics. Planning considerations (threat, terrain, etc.); low level map preparation (minimum en route altitude selection, chart update manual [CHUM] requirements); route abort procedures (visual meteorological conditions [VMC]/instrument meteorological conditions [IMC] contingencies, rendezvous techniques, etc.); low-altitude tactical formation (LATF); low-altitude tactical navigation (LATN); low-altitude threat reactions; enemy defense capabilities; weapons selection (munitions types, effectiveness, fusing, etc.); holding; initial contact techniques; target attack options (low, medium, and high altitude); coordinated two-ship attack options (target deconfliction plan); re-attack options and techniques; target area egress, rendezvous techniques, and deconfliction; radio procedures (authentication, Joint Terminal Air Controller or forward air controller airborne brief, fighter-to-fighter); flight lead and instructor responsibilities and techniques (objectives, briefing, flight management, and debriefing); training rules (AFMAN 11-214); and squadron policies; and commander interest items.

A5.5.2.4. **(Added-AETC)** LOWAT (LOW A/A). AHC (low altitude, fuel consumption, maneuvering, terrain avoidance, turning); environmental factors; task management; LATN; LATF; defensive reactions; factors affecting low level awareness; training rules (AFMAN 11-214); low-altitude A/A employment (level, low-to-high, and high-to-low intercepts and conversion aborts); squadron policies; and commander interest items.

A5.5.3. **(Added-AETC)** Flying Training. IPs will occupy the cockpit from which they can best monitor the mission. **(T-2)**

A5.5.3.1. **(Added-AETC)** Air Combat Maneuvering. The objective is to certify an IFF pilot to fly as an ACM wingman, flight lead, and instructor (for student IFF, FBF and CT ACM sorties). Any ACM-qualified flight lead may fly as the bandit. With SQ/CC approval, ACM wingmen may fly as the bandit. Emphasize engaged and support responsibilities and role exchanges, directive and descriptive communications, engaged/support maneuvering, mutual support, weapons employment considerations, quick kills, and separations. Setups will include defensive, high aspect, and beyond visual range engagements.

A5.5.3.2. **(Added-AETC)** Air Combat Tactics. The objective is to certify an IFF pilot to fly as an ACT wingman, flight lead, and instructor. Individuals will not go below 5,000 feet AGL unless they are LOW A/A certified and current. Following ACT flight lead certification, SQ/CCs may certify instructors as ACT mission commanders who were mission commanders in a previous MDS. Reference the applicable TTPs when planning

adversary tactics. Emphasize mutual support within and between elements. Plans should also include lateral and altitude deconfliction. ACT should be flown dissimilar to the maximum extent possible.

A5.5.3.3. **(Added-AETC)** Close Air Support. The objective is to certify an IFF pilot to fly as a CAS wingman, flight lead, and instructor.

A5.5.3.4. **(Added-AETC)** Surface Attack Tactics. The objective is to certify an IFF pilot to fly as a SAT instructor (for student IFF SAT sorties). Squadrons may tailor the SAT upgrade to incorporate tactics employed throughout the spectrum of IFF SAT sorties. The following SAT sorties are not required for IPs to instruct on a student WSO SAT sortie.

A5.5.3.5. **(Added-AETC)** Low-Altitude Step-Down Training (LASDT). To conduct low-altitude operations safely, aircrew need to be knowledgeable of aircraft handling and performance characteristics, formation, and navigation in the low-altitude environment. This environment requires a well-supervised LASDT program, including initial certification and currency requirements. This program incrementally qualifies IFF crewmembers to conduct LOW ALT down to 500 feet AGL.

A5.5.3.5.1. **(Added-AETC)** Entry into LASDT requires SQ/CC approval. Crewmembers that completed the IFF UIP syllabus are considered LOW ALT qualified.

A5.5.3.5.2. **(Added-AETC)** LASDT will be scheduled and briefed as the primary portion of the mission; it will not be flown as an alternate mission. **(T-3)** Instructors and flight leads must be aware of the added stress and task-loading associated with low-altitude operations. **(T-2)** Training profiles will be developed to avoid over-tasking the upgrading crewmember, and upgrade sortie continuity should be emphasized. **(T-3)**

A5.5.3.5.3. **(Added-AETC)** Academic Training. The following academic outline is applicable to all LASDT. All academic training will be completed prior to flight training. **(T-2)**

A5.5.3.5.3.1. **(Added-AETC)** AHC. A discussion of aircraft performance as it applies to the low-altitude environment, to include control response (low and high speed, over-G potential, speed brake use); afterburner (fuel considerations, selection techniques); acceleration and deceleration; level turns, vertical maneuvering, climb, dive, and slice, recoveries, effects of gross weight, power settings, density altitude, G-loading, and bank angles; terrain avoidance (ridge crossings); terrain clearance versus turning room, dangers inherent in overbanking during turns, and importance of frequent cross check of aircraft attitude relative to the horizon.

A5.5.3.5.3.2. **(Added-AETC)** Environmental Factors. A discussion of out-of-cockpit visibility and field of view restrictions, sun angle, terrain and G-excess illusions and perceptions, and weather considerations.

A5.5.3.5.3.3. **(Added-AETC)** Task Management. A discussion of low-altitude tasks and task management and prioritization.

A5.5.3.5.3.4. **(Added-AETC)** LATN. A discussion of the system's use, LL map preparation, dead reckoning, pilotage, etc.

A5.5.3.5.3.5. **(Added-AETC)** LATF. A discussion of formations (including line abreast and wedge), hazards at low altitudes, task prioritization, tactical turns, and visual lookout.

A5.5.3.5.3.6. **(Added-AETC)** Low Level Awareness. A discussion of factors affecting low level awareness: airspeeds and maneuverability; formation size and design; formation and crewmember responsibilities; environmental effects on visibility; factors influencing individual proficiency and airmanship; route familiarity and complacency; air turbulence, jet wash, bird strike, and route obstacles; terrain features; planning and CHUM responsibilities; and route abort procedures, techniques, and considerations.

A5.5.3.5.3.7. **(Added-AETC)** Special Subjects. Weather abort procedures and aircraft emergencies.

A5.5.3.5.4. **(Added-AETC)** Flying Training. A qualified, LOW ALT current instructor is required in the aircraft. **(T-2)**

A5.5.3.5.4.1. **(Added-AETC)** LASDT-1 (Single Ship). Mission Objectives: Demonstrate proficiency in single-ship maneuvering in the low-altitude environment between 5,000 and 1,000 feet AGL. Introduce low-altitude operations down to a minimum altitude of 500 feet AGL. Specific Mission Tasks: Low-altitude handling and flying qualities; vertical awareness exercise; climb, dive, and slice maneuvers; nose-low recoveries; attitude awareness maneuvers; G- awareness exercise; low level navigation; airspeed control; fuel management; low level turns; maneuvering techniques for level, rolling, and rough terrain; visual lookout; low-altitude awareness; and low level abort practices. **Note:** At the discretion of the OG/CC, LASDT-1 not required if the upgrading crewmember has previously been certified down to 500 feet AGL in another aircraft.

A5.5.3.5.4.2. **(Added-AETC)** LASDT-2 (Single Ship). Mission Objective: Demonstrate proficiency in single-ship maneuvering in the low-altitude environment down to a minimum altitude of 500 feet AGL. Specific Mission Tasks: AHC (low-altitude handling and flying qualities, vertical awareness exercise, climb/dive/slice maneuvers; nose low recoveries; attitude awareness maneuvers; G-awareness exercise; low level navigation; airspeed control; fuel management; low level turns; terrain maneuvering techniques for level, rolling, and rough terrain; visual lookout; altitude awareness and control; and low level abort practices. Upon satisfactory completion of this mission, the SQ/CC can certify the crewmember LOW ALT qualified, single ship only. **Note:** LASDT-2 cannot be combined with LASDT-3.

A5.5.3.5.4.3. **(Added-AETC)** LASDT-3. Mission Objective: Demonstrate proficiency in 2-ship maneuvering in the low-altitude environment down to a minimum altitude of 500 feet AGL. Specific Mission Tasks: Low-altitude handling and flying qualities; vertical awareness exercise; climb, dive, and slice maneuvers; nose-low recoveries; attitude awareness maneuvers; G-awareness exercise; low level navigation; fuel management; low level turns; LATF; navigation maneuvering techniques for level, rolling, and rough terrain; visual lookout; altitude awareness and control; weather abort and rejoin practices. On satisfactory

completion of this mission, the SQ/CC can certify the crewmember LOW ALT qualified.

A5.6. (Added-AETC) G-Awareness Continuation Training. Units will develop a CT program that provides feedback to pilots and imprints a proper L-1 Anti-G Strain Maneuver (AGSM) so that it becomes an integral part of pulling Gs. **(T-2)**

A5.6.1. **(Added-AETC)** The basis of this program is to give each FL, squadron supervisor, flight surgeon and, if available, aerospace physiologist the skills needed to evaluate a flight member's video data transfer system (VDTS) to ensure a proper AGSM is being performed. This program also makes assessment of the AGSM a normal debrief item after every flight. The assessment should be done as a normal part of VDTS assessment while reviewing other tactical portions of the mission.

A5.6.2. **(Added-AETC)** Use the following minimum guidance to implement the unit's program:

A5.6.2.1. **(Added-AETC)** When maneuvers above five Gs are anticipated on any particular flight, the flight brief must emphasize G-awareness. **(T-2)**

A5.6.2.2. **(Added-AETC)** AGSM technique and assessment will be incorporated into the squadron CT program. **(T-2)** Emphasis will be placed on the L-1 AGSM brief and debrief, as well as assessment of the L-1 AGSM audio recording from the VDTS in the debrief for each mission. FLs, IPs, squadron supervisors, and flight surgeons should become adept at assessing and teaching the correct AGSM. Academics will include a discussion of the limitations imposed on aircraft performance as a result of an ineffective AGSM.

A5.6.2.3. **(Added-AETC)** The G-awareness exercise will be flown IAW the guidance in AFMAN 11-2T-38, Volume 3. **(T-2)**

A5.6.2.4. **(Added-AETC)** FLs will assess the AGSM effectiveness of flight members during mission debriefings. **(T-2)** 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.

A5.6.3. **(Added-AETC)** IPs or squadron supervisors will identify pilots having poor AGSM technique or low G-tolerance to the Flt/CC or appropriate operations supervisor. **(T-2)** The SQ/DO or appropriate operations supervisor will determine what action is required to improve the pilot's G-tolerance. **(T-2)** The SQ/CC will determine if refresher training is required IAW AFMAN 11-404, *Fighter Aircrew Acceleration Training Program*. **(T-2)**

Attachment 6 (Added-AETC)**T-38 STALL/SINK TRAINING MISSION**

A6.1. (Added-AETC) Objectives. The IP must exhibit a thorough knowledge of the following:

A6.1.1. **(Added-AETC)** Situations that could deteriorate into a stall or excessive sink rate condition, approach-to-stall recognition, and/or stall recovery procedures. **(T-2)**

A6.1.2. **(Added-AETC)** Aft stick stall characteristics. **(T-2)**

A6.1.3. **(Added-AETC)** Conditions encountered through improper stall recovery procedures. **(T-2)**

A6.1.4. **(Added-AETC)** Appropriate cues to use in preventing stall and sink rate situations and appropriate actions for recovery. **(T-2)**

A6.1.5. **(Added-AETC)** Instructional techniques for conducting stall and sink rate orientation training (stall pilot only). **(T-2)**

A6.2. (Added-AETC) Ground Training. The squadron stall IP will:

A6.2.1. **(Added-AETC)** Discuss factors affecting stall and high sink rate recognition. **(T-2)**

A6.2.2. **(Added-AETC)** Discuss the relationship between lift, drag, and thrust required and why stall recovery procedures are the best chance for survival. **(T-2)**

A6.2.3. **(Added-AETC)** Brief the maneuvers to be accomplished in detail, purpose of each maneuver, and sequence in which each maneuver will be performed. **(T-2)** The profile requires approximately 1,600 pounds of fuel.

A6.3. (Added-AETC) Flying Training. The demonstration will normally be flown in the following sequence. **(T-3)**

A6.3.1. **(Added-AETC)** Aft Stick Stall Demonstration (Stall Pilot Demonstration):

A6.3.1.1. **(Added-AETC)** This maneuver demonstrates the full buffet range as the aircraft transitions from no buffet to the fully developed stall. It also demonstrates that power alone will not reliably recover the aircraft and confirms the importance of relaxing back stick pressure to recover.

A6.3.1.2. **(Added-AETC)** Enter the maneuver with gear down, and full or 60 percent flaps. Observe the buffet progression that follows. Initially, the buffet will be a high-frequency, low-intensity vibration (angle of attack [AOA] below 0.6). The maximum performance (recovery) buffet will be a high frequency with moderate intensity (AOA 0.65 to 0.75). The definite increase in buffet intensity will be a low-frequency, high-intensity “thumping” in the cockpit (AOA 0.8). A very high sink rate, heavy buffet, and high AOA (above 1.0) indicate an actual stalled condition.

A6.3.1.3. **(Added-AETC)** Observe the wing rock tendencies, sink rate, airspeed, vertical velocity indicator (VVI), and slab position. Next, select full afterburner without releasing back stick pressure and note the increase in buffet and the illusion of recovery. If the bank angle exceeds 90 degrees or stabilizes over 60 degrees, discontinue the demonstration and recover the aircraft. Following the demonstration, recover the aircraft by relaxing back stick pressure and allowing airspeed to increase.

A6.3.2. **(Added-AETC)** Configured Rudder Effectiveness (IP Flies):

A6.3.2.1. **(Added-AETC)** This exercise demonstrates flight characteristics during the landing phase and the measurable delay between the time a rudder input is applied and the time it takes effect on the aircraft.

A6.3.2.2. **(Added-AETC)** Enter this maneuver with the aircraft configured with gear down and flaps at 60 percent. Roll the aircraft to 45 degrees of bank using ailerons and set 0.6 AOA. Once bank and AOA are established, input full rudder deflection opposite of direction of bank and immediately release rudder to neutral. After a delay of 1 to 2 seconds, the aircraft will roll approximately 90 degrees to end up approximately 45 degrees of bank opposite of that at the maneuver's start. Next, re-establish the starting parameters of 45 degrees of bank and 0.6 AOA. Again, input full rudder deflection opposite of direction of bank. This time, hold the rudder input until the first response from the aircraft is felt. Immediately, the aircraft will roll aggressively in the direction of the rudder input, often in excess of 90 degrees of bank opposite of the entry parameters. Observe the delay in rudder response with increased AOA on the aircraft.

A6.3.2.3. **(Added-AETC)** Also observe the controllability of the aircraft by using rudder at traffic pattern AOA. Fuel permitting, the IP will demonstrate using the rudder as the primary roll input at different AOA levels to learn the rudder inputs required for establishing crisp but controlled roll rates. Begin by setting 0.6 AOA in configured, level flight. With neutral ailerons, use only the rudder to roll to a bank angle between 45 and 60 degrees. Once established, maintain 0.6 AOA and use only the rudder to achieve a target bank angle of 45 degrees in the opposite direction. Repeat as desired to gain confidence. Then, set 0.8 to 0.9 AOA and repeat the exercise noting differences in rudder inputs required to start and stop rolls. Apply this knowledge to subsequent stall recoveries.

A6.3.3. **(Added-AETC)** Approach-to-Stall Recovery Practice (IP Flies). The purpose is to practice and review standard stall recovery procedures. Enter the maneuver with gear, full flaps, and normal final turn airspeed. Note the distinctive transition to the definite increase in buffet intensity, controlled use of rudder during recovery, and optimum buffet and AOA for recovery.

A6.3.4. **(Added-AETC)** Stall and Sink Rate Recovery Demonstration. The stall IP will normally use the demonstrations in [paragraph A6.3.5](#) through [paragraph A6.3.11](#) to simulate patterns resulting in rapidly stalled conditions. The pilot will perform reaction recoveries involving aggressive aft stick application with delayed power response to MAX. This recovery will be performed 400 to 500 feet above the simulated ground altitude to simulate recognition of ground rush. Because recognition of excessive sink rate usually occurs at an AGL altitude of approximately 10 percent of VVI, 400 to 500 feet would approximate the amount of altitude available during a descent with 4,000 to 5,000 feet per minute VVI. Following each demonstration, the stall pilot will repeat the setup and allow the IP to apply appropriate recovery procedures at the simulated ground rush altitude. Compare and validate the effectiveness of recovery techniques and the improved controllability, reduced altitude loss, and time taken to full recovery.

A6.3.5. **(Added-AETC)** Inadvertent No-Flap. This maneuver demonstrates the hazards of improper configuration. The stall pilot will enter the maneuver with gear, zero-percent flaps, and normal final turn airspeed. Set normal final turn picture and apply normal back stick

pressure to turn. At the early onset of buffet, relax back stick pressure and allow an increase in airspeed and sink rate. At the simulated ground rush altitude, perform the reaction recovery. Observe the rapid onset of sink rate and unpredictability of control response. Repeat the entry scenario. When reaching the simulated ground rush altitude, transfer aircraft control to the IP and direct him or her to perform the recovery simulated ground rush altitude. Compare and validate the effectiveness of the recovery procedures.

A6.3.6. (Added-AETC) Diving Final Turn. This maneuver demonstrates the hazards of an overly aggressive pattern resulting from poor wind analysis, poor flight discipline, or both. The stall pilot will enter the maneuver with gear, 60 percent flaps, and normal final turn speed. Set final turn with more than 45 degrees of bank and establish an intentional high sink rate. Continue until the simulated ground rush altitude and then perform the reaction recovery. Observe the rapid onset of sink rate and the aggravated unpredictability of control response caused by the additional wing chamber generated by the flaps. Repeat the entry scenario and have the IP perform the recovery when the stall pilot initiates a reaction recovery at the simulated ground rush altitude. Compare and validate the effectiveness of the recovery procedures.

A6.3.7. (Added-AETC) Slow at the Perch. This maneuver demonstrates the hazards of poor airspeed control before the perch. The stall pilot will enter the maneuver with gear, full flaps, and final approach airspeed. Begin a normal final turn with slow airspeed and correct by only releasing back stick pressure to maintain on speed AOA. Allow the sink to continue until the simulated ground rush altitude and perform the reaction recovery. Observe the rapid onset of sink rate and very aggravated control response resulting immediately in wing rock and stall condition. Repeat the entry scenario and have the IP perform the recovery when the stall pilot initiates a reaction recovery at the simulated ground rush altitude. Compare and validate the effectiveness of the recovery procedures.

A6.3.8. (Added-AETC) Approach and Landing Stall Scenario. During the following demonstrations, the stall pilot will simulate the hazards of reactionary responses involving abrupt control inputs low to the ground and the effects of instructor complacency. This recovery will be performed at a prebriefed altitude simulating the ground. Following each demonstration, the stall pilot will repeat the setup and allow the IP the opportunity to intervene on his or her own to prevent a high sink rate from developing. Focus training on timely instructor intervention.

A6.3.9. (Added-AETC) Duck Under. This maneuver demonstrates the hazards of sink rates from duck under glide path corrections in visual or instrument approaches. The stall pilot will enter the maneuver with gear, full flaps, final approach speed, and normal glide path and VVI. While flying an instrument glide path, simulate a correction to a contact glide path for a shorter touchdown point. At about 200 feet above the simulated ground rush altitude, lower the nose slightly and decrease power to maintain final approach speed. At about 100 feet above the simulated ground altitude, recognize the error and attempt to flare or go around, using the reaction recovery. A late decision to correct will result in simulated ground impact at a high sink rate or an improper attempt to hold the aircraft off the runway. Simulating a late transition past the visual descent point on a non-precision approach is an alternative demonstration. Repeat the entry scenario and allow the instructor to intervene to prevent a sink rate from developing. Focus training on timely instructor intervention.

A6.3.10. **(Added-AETC)** High Flare. This maneuver demonstrates the hazards of flaring high during the landing phase when ground effect would mask the classic buffet feel. The stall pilot will enter the maneuver with gear, 60 percent flaps, approximately 200 knots indicated airspeed (KIAS), and approximately 90 percent revolutions per minute (rpm) and will establish a 20-degree wings-level, nose-high pitch attitude. As airspeed decreases through 140 KIAS, lower the nose to achieve an approximate landing attitude. Simulate a late decision to go around, using the reaction recovery that will result in ground impact or an improper attempt to hold the aircraft off the runway. Repeat the entry scenario and allow the instructor to intervene to prevent a sink rate from developing. Focus training on timely instructor intervention and the lack of noticeable buffet or a definite increase in buffet intensity presence.

A6.3.11. **(Added-AETC)** Loss of Thrust/Stall on Touch and Go. This maneuver demonstrates the dangerous situation of losing thrust on one engine after a touch and go and becoming airborne again without being aware of having lost thrust. The stall pilot will enter the maneuver with gear, 100% flaps, approximately 200 KIAS, MIL power on one engine, the other engine set at 80% percent rpm minimum, and will establish a 20-degree wings-level, nose-high pitch attitude. As airspeed decreases through 160 KIAS, lower the nose to achieve a lift off attitude after a touch and go with approximately 140 KIAS and about 5 degrees nose-high pitch. Simulate a delayed decision and a reactionary recovery while trying to keep the aircraft airborne which results in ground impact or an improper attempt to hold the aircraft off the runway. Repeat the entry scenario but aim to achieve approximately 150 KIAS. The instructor should intervene in a timely manner and practice flying the aircraft out of a low airspeed loss of thrust situation. Focus training and instruction on recognizing reduced thrust, the importance of allowing the aircraft to accelerate and if needed settling back onto the runway while executing a single engine go around. Discuss the difference between the two setups and the importance of airspeed for a successful recovery.