

**BY ORDER OF THE COMMANDER
AIR COMBAT COMMAND**

**AIR COMBAT COMMAND MANUAL
11-2QF-16, VOLUME 1**



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Flying Operations

QF-16—AIRCREW TRAINING

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This manual implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations*. It applies to all QF-16 aircrew under Air Combat Command (ACC) authority, including Air Force Reserve (AFR) or Air National Guard (ANG) personnel that operate QF-16 aircraft, it does not apply to the United States Space Force. This manual establishes the minimum standards for training and qualifying QF-16 aircrew. This publication requires the collection and or maintenance of information protected by the Privacy Act of 1974; authorized by 5 United States Code (USC), Section (§) 552a, *Records Maintained on Individuals*, referred to as the Privacy Act of 1974; 10 USC § 9013, *Secretary of the Air Force*; Air Force Instruction (AFI) 36-2406, *Officer and Enlisted Eval Systems*; Executive Orders (EOs) 9397 *Relating to Federal Agency Use of Social Security Numbers*; and 13478 *Amendments to Executive Order 9397 Relating to Federal Agency Use of Social Security Numbers*. The applicable System of Record Notice (SORNs) F036 AF PC A, Effectiveness/Performance Reporting Records and F011 AF XO Aviation Resource Management System (ARMS) are available at: <http://dpclo.defense.gov/Privacy/SORNs.aspx>. Ensure all records generated as a result of processes prescribed in this publication adhere to AFI 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Submit recommended changes and questions about this publication to Air Combat Command Director of Operations (ACC/A3) using the Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication*. Route DAF Forms 847 from the field through the appropriate functional chain of command. This manual may not be supplemented or further implemented/extended. The 53 WEG/CC is the wavier authority for this Volume and may delegate on a case-by-case to the 82d Aerial Targets Squadron Commander (82 ATRS/CC). See

[paragraph 1.2.4](#) for further guidance on waivers. Submit requests for waivers through the chain of command to the appropriate tier waiver approval authority.

SUMMARY OF CHANGES

This document has been revised and should be completely reviewed. Changes include office symbol changes, currency requirements for Pilots and Remote Pilots, and clarification/amplification for Remote Pilots.

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Chapter 1

GENERAL GUIDANCE

1.1. Purpose, Abbreviations, Acronyms, and Terms.

1.1.1. This instruction prescribes basic policy and guidance for training QF-16 pilots and remote pilots according to AFPD 11-2; Air Force Manual (AFMAN) 11-202, Volume 1, *Aircrew Training*; and AFMAN 11-2F-16, Volume 1, *F-16—Aircrew Training*. **Note:** For the purposes of this publication, certification denotes a commander's action, whereas qualification denotes a formal evaluation. Reference AFMAN 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*, for an explanation of qualifications versus certifications.

1.1.2. The QF-16 Full Scale Aerial Target (FSAT) is an Optionally Piloted Aircraft (OPA). It can be flown in a manned status (by a pilot), in a manned remote status (by a remote pilot with a pilot onboard acting as a safety pilot (SP)), or in an unmanned status (by a remote pilot with no pilot onboard). The unmanned QF-16 FSAT is a Not Under Live Local Operator (NULLO) aircraft.

1.1.3. Target Control System (TCS) – TCS either Gulf Range Drone Control System (GRDCS) at Tyndall AFB (TAFB), or White Sands Missile Range (WSMR) Integrated Target System (WITS) at Holloman AFB (HAFB).

1.1.4. X-Ray – TCS Full-Scale Aerial Target (FSAT) primary remote pilot for unmanned NULLO FSAT missions. TCS FSAT primary remote pilot for manned FSAT missions

1.1.5. Yankee –Assistant remote pilot for unmanned NULLO FSAT missions.

1.1.6. Tango – Drone Runway Preflight/Launch Coordinator for unmanned NULLO FSAT missions.

1.1.7. For a list of abbreviations, acronyms and terms, see [Attachment 1](#).

1.2. Roles and Responsibilities:

1.2.1. The 53rd Weapons Evaluation Group (53 WEG) is designated as the responsible agency for this volume. The 53 WEG will:

1.2.1.1. Develop programs to ensure training objectives are met. Assist subordinate units in management of training programs, ensure programs meet unit needs, and provide necessary staff support.

1.2.1.2. Process all waivers and change requests.

1.2.1.3. Review programs and manning position designations annually.

1.2.2. Squadron supervision responsibilities:

1.2.2.1. Certify and publish a monthly letter of pilot/remote pilot qualifications/certifications (Letter of Xs, (LOX)).

1.2.2.2. Ensure adequate continuity and supervision of individual training needs, experience, and proficiencies of assigned/attached aircrews.

1.2.2.3. Review training and evaluation records of newly assigned aircrews and those completing training to ensure provisions of this publication are met.

1.2.2.4. Ensure training scenarios and missions are oriented to conditions anticipated in the unit mission.

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

1.2.2.6. Report end-of-cycle training deficiencies through channels to 53d Weapons Evaluation Group Commander (53 WEG/CC).

1.2.2.7. Monitor individual assigned/attached aircrew currencies and requirements.

1.2.2.8. Ensure pilots only participate in missions, events, and tasks for which they are being trained or trained, current, and prepared for that purpose.

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

1.2.3. **Individual aircrew responsibilities:**

1.2.3.1. Ensure Flight Evaluation Folder (FEF) and most recent gradebook and LOX are received by the gaining unit prior to Permanent Change of Station (PCS) to assist in assessing qualifications/certifications and training requirements. Electronic records are acceptable.

1.2.3.2. Monitor currencies and requirements established by this publication.

1.2.3.3. Only participate in ground and flying activities for which they are prepared, current, and trained, or are being trained for that purpose.

1.2.4. **Wavier Authority:** The 53 WEG/CC is the wavier authority for this Volume and may delegate on a case-by-case to the 82d Aerial Targets Squadron Commander (82 ATRS/CC). The wavier approving official will notify ACC Standardizations Branch (ACC/A3TV) within 72 hours of waiver approval. **(T-2)** IAW DAFMAN 90-161, *Publishing Processes and Procedures*, a copy of the approved waiver must follow within 30 days of issuance. **(T-2)** An email of the waived publication to ACC/A3TV that includes a completed DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval*, or equivalent will suffice.

1.2.5. **Pilot Training.** Training programs are designed to progress pilots from Initial Qualification Training (IQT), then to Mission Qualification Training (MQT), and finally to Continuation Training (CT).

1.2.5.1. **Initial Qualification Training (IQT).** IQT provides the training necessary to initially qualify aircrews in a basic position and flying duties without regard to a unit's mission. Upon completion of IQT, the pilots attain Basic Aircraft Qualification (BAQ) status. Pilot BAQ is a prerequisite for MQT.

1.2.5.2. **Mission Qualification Training (MQT).** MQT provides the training necessary to upgrade aircrews to Mission Ready (MR) status. Pilots maintain BAQ status until they complete MQT. Completion of MQT should be completed prior to remote pilot (X-Ray, Yankee, or Tango) qualification training (QT).

1.2.5.3. **Continuation Training (CT).** The CT program provides crew members with the volume, frequency, and mix of training necessary to maintain proficiency in the assigned

certification/qualification level. There are two aspects of CT for pilots. The first consists of pilot training in the basic flying skills which ensure safe operation of the aircraft. The second consists of specific mission-related training required to accomplish the unit's assigned missions.

1.2.6. Aircrew Status.

1.2.6.1. **Mission Ready (MR).** MR is defined as the minimum training required for aircrews to be familiarized in all, and may be qualified and proficient in some, of the primary missions tasked to their assigned unit and weapons system.

1.2.6.2. All squadron assigned and attached remote pilot positions are designated MR positions. The 82 ATRS/CC will determine the level of training and supervision required for each mission flown. MR pilots may participate in any mission for which they are proficient and qualified. Failure to complete MR required training results in regression to Non-MR (N-MR) status. While N-MR, the 82 ATRS/CC will determine missions the pilot may perform and supervision required.

1.2.6.3. **Specialized Training.** Specialized training is training in any special skills necessary to carry out the unit's assigned missions that are not required by every pilot. Specialized training consists of upgrade training such as instructor remote pilot upgrade (IUUG), as well as CT to maintain proficiency and qualification in these capabilities and missions. Specialized training is in addition to MR requirements. Unless otherwise specified, aircrews in MR positions may hold special capabilities/qualifications as long as any additional training requirements are accomplished.

1.2.7. Remote Pilot Training:

1.2.7.1. **Initial Qualification Training (IQT).** Remote Pilot IQT provides the training necessary for remote pilots to safely operate the TCS remote pilot console on manned FSAT remote missions. Upon completion of IQT, the remote pilot is qualified to fly manned FSAT missions and perform assistant remote pilot duties for unmanned (NULLO) FSAT missions (Yankee). Completion of IQT is a prerequisite for entry into MQT.

1.2.7.2. **Mission Qualification Training (MQT).** MQT provides the training necessary to qualify remote pilots to safely operate the TCS remote pilot console on unmanned FSAT NULLO missions. Upon completion of MQT, the remote pilot is qualified to perform primary remote pilot duties for unmanned (NULLO) missions (X-Ray). MQT training (X-Ray) will be accomplished using local syllabus. MQT status does not affect a remote pilot's status as a qualified Yankee.

1.2.7.3. **Continuation Training (CT).** There are two aspects of CT for remote pilots. The first consists of remote pilot training in the basic flying skills which ensure safe operation of the aircraft. The second consists of specific mission-related training required to accomplish the unit's assigned missions and emergency procedure training required to recover an unmanned FSAT or safely destroy it on-range.

1.2.8. Training Concepts and Policies:

1.2.8.1. Units will design training programs to achieve the highest degree of proficiency consistent with flight safety and resource availability. Training must balance the need for realism against aircrew/controller capabilities and safety. This instruction provides training

guidelines and policies for use with operational procedures specified in applicable flying/operations publications.

1.2.8.2. The 82 ATRS will develop, and 53 WEG/CC will validate training programs.

1.2.8.3. The 82 ATRS will design training missions to achieve proficiency in unit-tasked roles and enhance mission accomplishment and safety. Training missions should emphasize either basic pilot flying skills, SP skills, basic remote pilot skills, or scenarios that reflect procedures and operations based on developmental and operational test requirements. Use of procedures and actions applicable to test scenarios are desired (e.g., adversary tactics, threat reactions, FSAT maneuvers, remote landings, briefing/debriefing). Tactical training will include the use of adversary tactics, countermeasures, and dissimilar aircraft. It is imperative that pilots receive sufficient uncoupled, hands-on flying to achieve a high state of basic transition, aircraft handling, instrument, and formation proficiency.

1.2.8.4. Remote pilot emergency procedure training will be accomplished using the TCS FSAT simulator (SIM) to the maximum extent possible.

1.2.9. **In-flight Supervision:**

1.2.9.1. Unless specifically directed, the 82 ATRS/CC determines the level of supervision necessary to accomplish the required training. If the mission objectives include introduction to tasks or instruction to correct previous discrepancies, then an instructor may be required.

1.2.9.2. Instructor pilots (IPs) and flight lead (FL)-qualified squadron supervisors may allow any pilot to lead portions of a mission if appropriately briefed. This provision will only be used to allow the pilot to practice events in which he is already qualified or to help determine if the pilot is ready for upgrade. In either case, the IP or squadron (SQ) supervisor is responsible for the flight.

1.2.9.3. FLs may give their wingman the tactical lead for specific tasks. As a tactical lead, the wingman makes tactical decisions for the flight, but the FL retains overall authority and responsibility.

1.2.10. **Experienced Pilot (EXP).** EXP will be:

1.2.10.1. 500 hours (Q)F-16, or

1.2.10.2. 300 hours (Q)F-16 with 1,000 hours (First Pilot (FP)/IP/Mission Pilot (MP)), or

1.2.10.3. 200 hours (Q)F-16 and 600 hours fighter time, or

1.2.10.4. 100 hours (Q)F-16 and previously fighter experienced.

1.2.10.5. Hours are defined as FP/IP/MP/Evaluator Pilot (EP) time. Fighter time is defined as hours logged in an aircraft with an assigned Air Force Specialty Code (AFSC) of 11FX or sister service equivalent (e.g., F-18 pilot). T-38 hours (Adversary Air (ADAIR) & Introduction to Fighter Fundamentals (IFF) only) are considered fighter time.

1.2.11. **Experience Remote Pilot (EXU).** EXUs will be 50 hours FSAT remote pilot time and 1 year since qualification.

1.2.11.1. Mission Video Recording. Squadron Commanders (SQ/CCs) will determine program for supervisory review of mission video recording.

1.2.11.2. Pilots will record from takeoff to landing to the max extent possible in order to maximize training value.

1.2.12. Training Records and Reports. Units will maintain aircrew records for individual training and evaluations IAW:

1.2.12.1. AFMAN 11-202V1, *Aircrew Training*.

1.2.12.2. AFMAN 11-202V2, *Aircrew Standardization/Evaluation Program*.

1.2.12.3. DAFMAN 11-401, *Aviation Management*.

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

1.2.13. Track the following information for all aircrew, as appropriate:

1.2.13.1. Ground training.

1.2.13.1.1. Requirements and accomplishments of individual sorties, sortie types, and events cumulatively for the training cycle.

1.2.13.1.2. Sortie requirements and accomplishment using 1-month and 3-month running totals for look-back.

1.2.13.1.3. Individual Currencies.

1.2.13.1.4. Units will maintain a training folder for each assigned aircrew to include, minimum, the following information:

1.2.13.1.4.1. Current aircrew certifications, qualifications, and upgrade training programs.

1.2.13.1.4.2. Letter of qualification from previous unit (if applicable).

1.2.13.1.4.3. Documentation for completion of any specialized training programs while assigned to the unit.

1.2.13.2. Units will fill in squadron Aviation Resource Management System (ARMS) or equivalent with either the date of the last formal training unit (FTU) or United States Air Force Weapons School (USAFWS) equivalent training accomplished or the unit mission certification date.

1.2.14. Aircrew Utilization Policy:

1.2.14.1. Commanders (CCs) will ensure that wing/group active duty (Aircrew Position Indicator (API)-1/6s) fill authorized positions IAW unit manning documents and that aircrew status is properly designated. The overall objective is that aircrew perform mission related duties. Supervisors may assign aircrew to valid, short-term tasks (escort officer, Flying Evaluation Board/mishap board member, etc.), but must continually weigh the factors involved, such as level of aircrew tasking, flying proficiency, currency, and experience. For inexperienced (inexp) non-supervisory aircrew, supervisors will limit the non-flying duties to those related to mission activities to the maximum extent practicable.

1.2.14.2. Duties required by various regulations that may be assigned to API-1/6 pilots are weapons and tactics officer, programmer, Flying Safety Officer (FSO), Supervisor of Flying (SOF), mobility/contingency plans, training (except ARMS documentation), SQ

Standardization/Evaluation Liaison Officer (SELO), Aircrew Flight Equipment officer, electronic combat officer, and other duties directly related to flying operations.

1.2.14.3. Civilian aircrew duties may be assigned as allowed by individual Core Personnel Documents.

1.2.15. Sortie Allocation Guidance:

1.2.15.1. Priority for aircrew sortie allocation should be established by 82 ATRS/CC, to support unit-assigned projects/programs/taskings, IQT/MQT, instructor upgrade, and MR training title requirements.

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

1.2.15.3. Unit pilots will fly the MR sortie rate based 72 sorties per year (5 last 30 days / 15 last 90 days for lookback) as a minimum. SQ/CCs will direct additional sorties if syllabus or test missions provide insufficient pilot proficiency training.

1.2.16. Remote Pilot Utilization Policy:

1.2.16.1. Commanders will fill authorized positions IAW unit manning documents and ensure that remote pilot status is properly designated. The overall objective is that remote pilots perform mission related duties. Supervisors may assign remote pilots to valid short-term tasks (escort officer, Flying Evaluation Board/mishap board member, etc.), but must continually weigh the factors involved, such as level of remote pilots tasking, flying proficiency, currency and experience. For inexperienced non-supervisory remote pilots, supervisors will limit the non-flying duties to those related to mission activities to the maximum extent practical.

1.2.16.2. Duties required by various regulations that may be assigned to remote pilots are scheduler/programmer, FSO, Squadron Operations Supervisor, training (except ARMS documentation), SELO, and other duties directly related to flying operations.

1.2.16.3. Civilian remote pilot duties may be assigned as allowed by individual Core Personnel Documents.

1.2.17. Waivers:

1.2.17.1. Unless specifically noted otherwise in the appropriate section, the waiver authority is the 53 WEG/CC. This may be delegated to the 82 ATRS/CC.

1.2.17.2. Waivers to this volume will be valid until the approving authority cancels it in writing or revises the publication.

Chapter 2

INITIAL QUALIFICATION TRAINING

2.1. General. This chapter outlines IQT of aircrew into the QF-16. Pilot IQT will be IAW QF-16 IQT approved syllabus or an F-16 Senior Officer Course (SOC) course. QF-16 pilot mission qualification requirements are contained in **Chapter 3** and are in addition to basic F-16 qualification. QF-16 remote pilot IQT will be conducted IAW the approved 53 WEG FSAT QT Syllabus.

2.1.1. Successful completion of pilot IQT requires the Upgrading Pilot (UP) to complete an aircraft qualification and instrument evaluation IAW Air Combat Command Manual (ACCMAN) 11-2QF-16, Volume 2, *QF-16—Aircrew Evaluation Criteria*.

2.1.2. Successful completion of remote pilot IQT requires the Upgrading Remote Pilot (UU) to complete FSAT Remote Pilot IQT IAW the approved 53 WEG FSAT QT syllabus.

2.1.3. Successful completion of X-Ray Qualification Training requires the UU to complete an FSAT remote pilot mission qualification IAW ACCMAN 11-2QF-16V2.

2.1.4. Training will be completed within the time specified by the appropriate syllabus. Failure to complete within the specified time requires notification to the 53 WEG/CC with aircrew name and rank, reason for delay, planned actions, and estimated completion date.

2.1.5. Initial/re-qualification flight training for colonel selectees and above requires ACC/A3 approval.

2.2. Approval/Waiver for Pilot Initial Qualification Training (IQT). Pilot IQT may be conducted at the local unit IAW provisions of this chapter. This local IQT will normally be conducted using appropriate formal USAF Transition or Requalification Training Course syllabus tracks, flow programs, and requirements. When local IQT is authorized, the gaining MAJCOM assumes responsibility for the burden of providing this training locally. The following guidance applies only to other than formal course IQT.

2.2.1. ACC/A3 is approval authority to conduct local IQT, and is waiver authority to change the formal requirements of locally conducted IQT. Info MAJCOM/A3T.

2.2.2. Commander, ACC (COMACC) is the approval authority for non-formal course IQT for Colonel selectees and above to be conducted at the unit to which the officer is assigned.

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

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

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

2.2.3.3. Date training will begin and expected completion date.

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

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

2.4. Ground Training.

2.4.1. Pilot ground training may be tailored to the individual's background and experience or peculiar local conditions. However, available and current reference materials such as Air Force Tactics, Techniques, and Procedures (AFTTP) 3-3.F-16, *Combat Aircraft Fundamentals F-16*; AFTTP 3-1.F16, *Tactical Employment*; Operational Test Reports and Tactical Bulletins; instructor guides; and audiovisual programs should be used as supporting materials to the maximum extent possible. SIM missions will be accomplished in the best SIM available.

2.4.2. Remote pilot ground training will consist of academic training, and normal/emergency unmanned FSAT operations in the GRDCS SIM. The 82 ATRS/CC will direct FSAT instructor remote pilots to develop blocks of instruction covering areas pertinent to the mission.

2.5. Flying Training:

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

2.5.2. Training will be completed within the time specified by the syllabus, as approved. Failure to complete within the specified time limit requires notification through 82 ATRS/CC to the 53 WEG/CC with pilot's name, rank, reason for delay, planned actions, and estimated completion date.

2.5.3. Pilots in IQT will fly under IP supervision (dual or chased) until completing the instrument qualification evaluation.

2.5.4. Remote pilots in QT will fly under IU supervision until completing the mission certification or qualification.

2.5.5. Qualified Yankee remote pilots may perform normal Yankee duties while upgrading to X-Ray remote pilot.

2.5.6. Formal course syllabus mission objectives and tasks are minimum requirements for pilot IQT. However, additional training events, based on student proficiency and background, may be incorporated into the IQT program with authorization of the 82 ATRS/CC. Additional training due to student non-progression is available within the constraints of the formal course syllabus and may be added at the discretion of the 82 ATRS/CC.

2.5.7. Successful completion of pilot IQT requires the UP to complete an aircraft instrument qualification IAW ACCMAN 11-2QF-16V2.

2.5.8. Remote pilots, upon completion of the approved 53 WEG FSAT QT syllabus, will be "Yankee" qualified to perform mission coordinator duties for FSAT missions, perform FSAT wiggles, and control manned FSATs. The LOX and the student's gradebook will be updated, and the Yankee may be entered into FSAT X-Ray training.

2.5.9. UUs, upon the successful completion of the approved 53 WEG FSAT QT syllabus, are Mission Capable (MC) and are qualified as unmanned FSAT X-Ray (MU). In addition to an AF Form 8, *Certificate of Aircrew Qualification*, and AF Form 942, *Record of Evaluation*, entry in the individual's FEF in Patriot Excalibur (PEX), annotate all qualifications on the unit LOXs and the individual's gradebook.

2.6. Pilot Initial Qualification Training (IQT) for Senior Officers:

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

2.6.2. Senior officers must meet course entry prerequisites and will complete all syllabus requirements unless waived IAW syllabus directives and **paragraph 2.2.2**.

2.6.3. If senior officers must be trained at the base to which they are assigned, they will be in formal training status. Unit duties will be turned over to appropriate deputies or vice commanders (CVs) until training is completed. Exceptions to this policy must be approved by MAJCOM/CC.

Chapter 3

MISSION QUALIFICATION TRAINING (MQT)

3.1. General. MQT is a training program that upgrades pilots to MR status to accomplish the unit mission. A pilot is Basic Mission Capable (BMC) after accomplishing F-16 IQT, Low Altitude Step Down Training (LASDT), Air Combat Training (ACBT) and test mission profile sorties (MP-X, Holloman). A BMC pilot may fly non-FSAT missions such as Red Air and surface-to-air test profiles. A pilot is considered MR for remote operations after completing SP-5 IAW ACCMAN11-2QF-16V2, as outlined in this chapter. A QF-16 remote pilot is considered MR after completing the FSAT remote pilot MQT IAW 53 WEG FSAT QT syllabus and a mission evaluation IAW ACCMAN11-2QF-16V2. Restriction: SQ/CCs will not fly MQT UPs in Flag-level exercises or weapons system evaluation program.

3.2. Pilot Mission Qualification Training (MQT):

3.2.1. Pilot MQT training requirements in this section are for upgrading a QF-16 BAQ pilot to formation FL, drone chase (DC), and SP for captive missions.

3.2.2. The SP portion of the MQT program should be individually tailored based on the MQT student's experience especially if previously SP/DC qualified.

3.2.3. Pilot MQT entry is at the discretion of the 82d Aerial Targets Squadron Operations Officer (82 ATRS/DO) and should be based on the UP's IQT performance.

3.2.4. During pilot academic, ground, and flying training, special emphasis should be placed on remote-control systems and captive flight.

3.2.5. Pilot MQT will be completed within 60 calendar days after the individual's start of MQT. Failure to complete within specified time interval requires notification to 53 WEG/CC with aircrew name and rank, reason for delay, planned actions, and estimated completion date.

3.2.6. If more than 14 calendar days elapse between pilot sorties, an additional review sortie, designated "P", may be flown at the discretion of 82 ATRS/CC or 82ATRS/DO.

3.3. Ground Training. Ground training will consist of academic training, and normal/emergency remote operations in a SIM/Cockpit Procedures Trainer (CPT) or static aircraft. The 82 ATRS/CC will direct QF-16 instructors to develop blocks of instruction covering areas pertinent to the mission.

3.4. Flying Training:

3.4.1. Supervision: IP supervision required.

3.4.2. Sortie Requirements: SP-1 through SP-5 are mandatory.

3.4.3. SP-6 is a local orientation sortie for the crossflow of SPs between TAFB and HAFB. SP-6 is optional for previously qualified SPs at the given location. SP-6 is not applicable (N/A) for HAFB.

3.4.4. DC-1 and DC-2 (if applicable) must be flown prior to SP-5.

3.4.5. Flight Lead Upgrade (FLUG)-1 must be flown prior to SP-5. Clearance for FL duties should be annotated on the grade sheet and updated on the unit LOX as required.

3.4.6. LASDT (SP-4, DC-1, DC-2, FLUG-1): The objective of low/slow speed chase training is to expose pilots to problems associated with intercepting low altitude (below 5000 feet Above Ground Level (AGL)) and slow (less than 250 knots) flying aircraft for chase operations. Emphasis should be placed on intercepting drones at or below 2000 feet AGL and 250 Knots Indicated Air Speed (KIAS) (either during the takeoff phase, recovery phase, or as a result of battle damage). Emphasis should also be placed on slow speed maneuvering capabilities at varying gross weights. Training will be conducted IAW AFTTP 3-3 and AFMAN 11-214, *Air Operations Rules and Procedures*.

3.5. Student Non-Progression. If a sortie is non-effective for student non-progression, it will be re-flown as an "X" or extra ride and appropriately annotated on the student grade sheet. If more than one X-ride per syllabus sortie is required, the student will be considered for disqualification from the program. 82 ATRS/CC or 82d Aerial Targets Squadron Detachment 1 Commander (82 ATRS Det 1/CC) approval is required for flying more than one X-ride per sortie. More than three X-rides flown for student non-progression for the syllabus will result in removal from the course.

3.6. Flight Lead (FL) Qualification. Upon the successful completion of SP-5, the UP is MR and is qualified as FL, DC, and SP. Annotate all qualifications on the unit LOXs and the student's gradebook.

3.7. MQT Syllabus Missions:

3.7.1. SP-1 Remote Range Procedures.

3.7.1.1. QF-16D (UP/IP) desired or QF-16 (UP), QF-16 (IP).

3.7.1.2. Weather (WX) Minimums: UP WX category or 1500/3 if performing Automatic Takeoff (ATO)/Fixed Control Site (FCS) landings.

3.7.1.3. Prerequisites: IAW [paragraph 3.1](#) and [paragraph 3.2](#).

3.7.1.4. Mission Objectives: Introduce student to FCS flight profile and remote range operations. Introduce the UP to FCS ground operations and flight characteristics of the QF-16 while under remote control. UP should gain knowledge of typical SP/controller coordination and awareness of what is considered "normal" remote flight characteristics.

3.7.1.5. Mission Requirements: IP (Console IP or Chase) brief/debrief. Preflight (including remote control items), manual/auto wiggle, engage in airspace for remote operations to include:

3.7.1.5.1. High/low speed All Attitude Recovery (AAR)

3.7.1.5.2. Type 1 and type 2 maneuvers

3.7.1.5.3. 5.0 Gravitational load factor (G) slice with and without G-disconnect.

3.7.1.5.4. Loss of Carrier (LOC) routine.(medium altitude)

3.7.1.5.5. Barrel roll with two revolutions.

3.7.1.5.6. Mil power wrap with variable airspeed and bank.

3.7.1.5.7. G weave for a minimum of two cycles, altitude hold weave for a minimum two cycles. Return to Base (RTB) for FCS approaches (both long and short) .

3.7.1.5.8. Touch-and-go landings.

- 3.7.1.5.9. This sortie may also include local Area Orientation if UP is not familiar with local area.
- 3.7.1.6. Minimum Overall Grade: 1 (safe).
- 3.7.2. SP-2 FCS Formation.
 - 3.7.2.1. QF-16D (UP/IP), QF-16 (SP) desired or QF-16 (UP), QF-16 (IP).
 - 3.7.2.2. WX minimums: 1500/3.
 - 3.7.2.3. Prerequisites: SP-1.
 - 3.7.2.4. Mission Objectives: Introduce student to QF-16 two-ship remote operations and slot positions, observe/practice two-ship programmed maneuvers.
 - 3.7.2.5. Mission Requirements: IP (Console IP or Chase) brief/debrief of formation items. Preflight (including remote control items). FCS ground operations, UP will lead to the area, drone slots formation: minimum of one racetrack target pattern, formation weave, 180 degree turn, and slice. Profiles should be flown with UP seeing both lead and wing slots/positions. Split for single-ship RTB for FCS approaches and landings. UP initiated go-around.
 - 3.7.2.6. Minimum Overall Grade: 2 (proficient).
- 3.7.3. SP-3 System Acceptance Flight Evaluation (SAFE) Flight Profile. (N/A for HAFB)
 - 3.7.3.1. QF-16D (UP/IP) desired or QF-16 (UP), QF-16 (IP).
 - 3.7.3.2. WX Minimums: 1500/3.
 - 3.7.3.3. Prerequisites: SP-1.
 - 3.7.3.4. Mission Objectives: Introduce student to FCS/SAFE flight profile and remote range operations. Introduce the UP to the flight characteristics of the QF-16 while executing SAFE profile and differing type maneuvers.
 - 3.7.3.5. Mission Requirements: IP (Console IP or Chase) brief/debrief. Preflight (including remote control items), ATO (required), SAFE profile, RTB for multiple FCS approaches, touch and go's and an Auto full stop landing (required).
 - 3.7.3.6. Minimum Overall Grade: 2 (proficient).
- 3.7.4. SP-4 Low Altitude FCS.
 - 3.7.4.1. QF-16D (UP/IP) desired or QF-16 (UP), QF-16 (IP).
 - 3.7.4.2. WX Minimums: IP WX category or 1500/3 if performing ATO/FCS landings.
 - 3.7.4.3. Prerequisites: SP-3.
 - 3.7.4.4. Mission Objectives: Introduce student to FCS low altitude flight profile. The objective of this training is to expose pilots to problems associated with remote operations in the low (below 5,000 feet AGL) environment. Demonstrate awareness of flight characteristics of the QF-16 while executing different maneuvers, with emphasis on turn performance at or below 5,000 feet at varying speeds and gross weights under remote control. Introduce drone LOC and AAR performance in the Low Altitude Awareness

Training (LOWAT) environment at varying airspeeds. Training will be conducted IAW AFTTP 3-3 and AFMAN 11-214.

3.7.4.5. Mission Requirements: IP (Console IP or Chase) brief/debrief. Preflight (including remote control items), ATO (if possible), low altitude FCS maneuvers to include Derived Radar Altitude Penetration Enhancement (DRAPE (HAFB)), LOC routines, AH turns, check turns, and weave. Medium altitude maneuvering to include high/low speed AARs and a minimum of two of the following maneuvers: barrel roll with two revolutions, mil power wrap with variable airspeed and bank, G weave for a minimum of two cycles, Altitude hold weave for a minimum two cycles. RTB for FCS approaches and landings as required. UP initiates go-around.

3.7.4.6. Minimum Overall Grade: 2 (proficient).

3.7.5. DC-1 Drone Chase.

3.7.5.1. QF-16D (UP/IP), QF-16 (SP) desired or QF-16 (UP), QF-16 (IP), QF-16 (SP).

3.7.5.2. WX minimums: 1500/3.

3.7.5.3. Prerequisites. DC academics: 1 hour block focusing on the specifics of drone takeoff, departure, auto-approaches, auto recoveries, LOC routines, destruct modes, and chase techniques. LOWAT event currency.

3.7.5.4. Mission Objectives: Introduce student to DC operations.

3.7.5.5. Mission Requirements: IP (Rear Cockpit (RCP) IP or Console IP) brief (chase pickup procedures down to 100 feet AGL), drone rejoin/failsafe procedures, FCS pattern procedures and ground references, chase position/techniques) and debrief. Normal ground operations, taxi and takeoff, boat report (TAFB only), drone pickup (QF-16 ATO off droneway), rejoin/fail safe procedures, Battle Damage Assessment (BDA). At least one drone rejoin must be performed with the drone at 2,000 feet AGL. Recovery to FCS pattern: Alignment and missed approach, loss of carrier demonstration, chase multiple FCS patterns. Subscale drone pick-up pattern will also be flown.

3.7.5.6. Minimum Overall Grade: 1 (safe), 2 (proficient, if DC-2 proficiency advanced).

3.7.6. DC-2 Drone Chase.

3.7.6.1. QF-16D (UP/IP), QF-16 (SP) desired or QF-16 (UP), QF-16 (IP).

3.7.6.2. WX minimums. 1500/3.

3.7.6.3. Prerequisites. DC-1, LOWAT event currency.

3.7.6.4. Mission Objectives: Complete DC checkout IAW objectives for DC-1.

3.7.6.5. Mission Requirements: UP brief/debrief applicable chase pilot portions. Any items not accomplished on DC-1.

3.7.6.6. Minimum Overall Grade: 2 (proficient). At successful completion of mission, UP will be certified as DC after 82 ATRS/CC signs off on grade sheet, annotated on LOX's, and documented in front of gradebook.

3.7.7. FLUG-1 Multi-ship FL upgrade.

3.7.7.1. QF-16 x 4 desired (UP) (IP) (SP) (SP). Minimum of two aircraft (UP) (IP) required.

3.7.7.2. WX minimums. Visual Meteorological Conditions (VMC) in area. Suitable for Visual Flight Rules (VFR) patterns and landings.

3.7.7.3. Prerequisites. IQT complete, LOWAT event currency, Electronic Attack (EA) Pod employment academics, Red Air academics.

3.7.7.4. Mission Objectives: Demonstrate proficiency in leading a multi-ship formation and formation low altitude maneuvering.

3.7.7.5. Mission Requirements: UP brief/debrief. UP leads departure, area work (medium and low altitude) and recovery.

3.7.7.6. Minimum Overall Grade: 2 (proficient). Upon mission completion, UP will be certified as multi-ship FL after 82 ATRS/CC signs off on grade sheet, annotated on LOX's, and documented in front of gradebook.

3.8. SP-5 Safety Pilot (SP) Mission Evaluation.

3.8.1. QF-16D (UP/Flight Examiner (FE)) highly desired or QF-16 (UP), QF-16 (FE) (FE may be located at console for mission checks only).

3.8.2. WX Minimums: 1500/3.

3.8.3. Prerequisites: SP-4, DC-2, FLUG-1.

3.8.4. Mission Objective: Successfully complete IAW AFMAN 11-2QF-16V2. Certify UP as a SP.

3.8.5. Mission Requirements. IAW ACCMAN 11-2QF-16V2.

3.8.6. Minimum Overall Grade: IAW ACCMAN 11-2QF-16V2.

3.9. SP-6 SAFE Orientation for TAFB/HAFB Crossflow.

3.9.1. QF-16D (UP/IP) desired or QF-16 (UP), QF-16 (IP).

3.9.2. WX minimum: Pilot WX category.

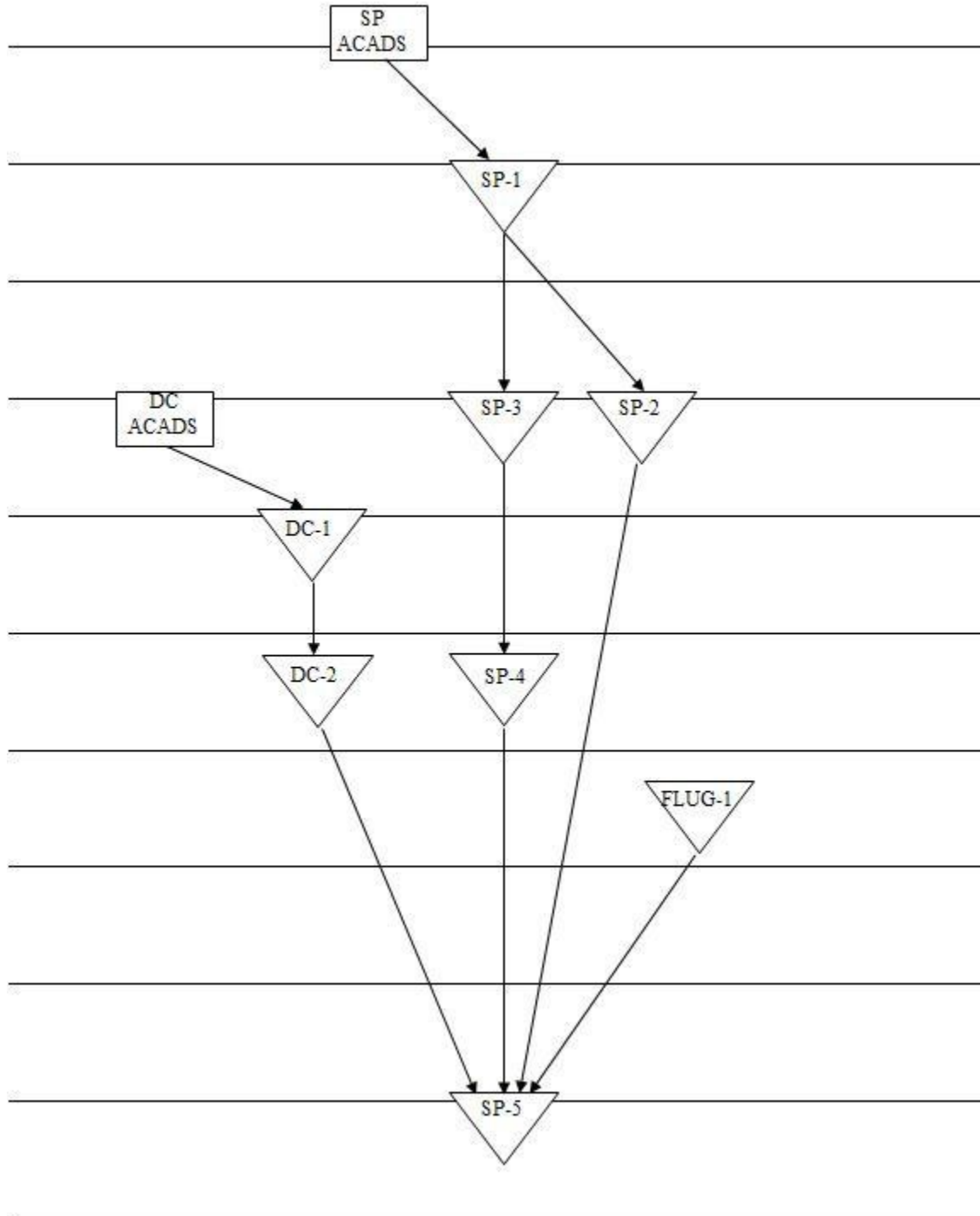
3.9.3. Prerequisites: SP-5, SAFE academics/local area academics as applicable.

3.9.4. Mission Objective: Orientation at other base.

3.9.5. Mission Requirements: (TAFB Pilots) IP brief, preflight (including remote control items), ATO using HAFB procedures, FCS Pattern orientation and procedures, range orientation, landings as applicable. (HAFB Pilots) IP brief, preflight (including remote control items), ATO using TAFB procedures, RTB for auto approach, FCS patterns and landings as applicable.

3.9.6. Minimum Overall Grade: 2 (proficient).

Figure 3.1. Mission Ready (MR) Course Map.



3.10. Remote Pilot Mission Qualification Training (MQT). Successful completion of remote pilot MQT requires the upgrading remote pilot to complete a mission evaluation IAW ACCMAN11-2QF-16V2.

3.10.1. RP MQT entry is at the discretion of the 82 ATRS/CC and should be based on the individual's performance as a manned QF-16 remote pilot.

3.10.2. During remote pilot academic, ground, and flying training, special emphasis should be placed on unmanned remote flight operations.

3.11. Remote Pilot Training Timeline.

3.11.1. Remote pilot IQT/MQT will be completed within 90 calendar days after the individual's start of IQT/MQT. Failure to complete within specified time interval requires notification to 82 ATRS/CC with aircrew name and rank, reason for delay, planned actions, and estimated completion date.

3.11.2. If more than 14 calendar days elapse between remote pilot sorties, an additional review sortie, designated "P", may be flown at the discretion of 82 ATRS/CC or 82 ATRS/DO.

3.11.3. Remote Pilot Ground Training. Ground training will consist of academic training, and normal/emergency remote operations using a TCS SIM. The 82 ATRS/CC will direct QF-16 instructors to develop blocks of instruction covering areas pertinent to the mission.

3.11.4. Supervision: IU supervision required.

3.11.5. Sortie Requirements are IAW approved 53 WEG FSAT QT syllabus.

3.11.6. Upon the successful completion of MQT, annotate all qualifications on the unit LOXs and the student's gradebook.

Chapter 4

CONTINUATION TRAINING

4.1. General. This chapter outlines annual training requirements for QF-16 aircrews. Refer to **Chapter 6**, Specialized Training, for additional program specifics. Pilots must be qualified IAW ACCMAN 11-2QF-16V2 and have completed IQT/MQT as appropriate to be MR, and be eligible to enter CT. Remote pilots must be qualified Yankee (IQT) or X-Ray (MQT) remote pilots to be eligible to enter CT.

4.2. Ground Training. Ground training will be accomplished IAW **Table 4.3**. The table is a single-source reference for Mission Design Series (MDS)-specific ground training only and does not include non-MDS- specific ancillary training. Waiver authority for each event is IAW the reference directive. Where discrepancies exist, the reference directive takes precedence. Ground training accomplished during IQT/MQT may be credited toward CT requirements for the training cycle in which it was accomplished.

4.2.1. Pilot Simulator (SIM/CPT): QF-16 pilot Emergency Procedures Evaluation (EPE) and Mission SIM training requirements will be accomplished in best available SIM. The 82 ATRS/CC will determine the required supervision for CT SIM missions, based on SIM capabilities, and mission training objectives. 82d Aerial Targets Standardization and Evaluation 82 ATRS/CCV or designated individual will develop scenarios that cover both EP and Mission SIM events based on expected employment tasking and general systems knowledge requirements. Emphasis should be placed on training not readily attainable during daily flying activities. The 82 ATRS/CCV or designated individual will review scenarios each training cycle and update as required.

4.2.1.1. During EP SIM missions, training in the following areas will be accomplished each training cycle: unusual attitude recoveries, spatial disorientation, inadvertent WX entry, controlled flight departure recognition and recovery procedures, controlled and uncontrolled ejection parameters, aircraft subsystem failure checklist procedures, relevant critical action procedures, and precision instrument procedures. **Note:** Pilots may satisfy EP SIM requirements by accomplishing or administering instrument qualification (INSTM/QUAL) EP Evaluations (EPEs).

4.2.1.2. Remote Pilot SIM: QF-16 FSAT remote pilot EP training requirements will be accomplished in the TCS SIM, or best available. The 82 ATRS/CC will determine the required supervision for CT SIM missions, based on SIM capabilities and mission training objectives. 82 ATRS/CCV or designated individual will develop scenarios that cover both EP and Mission SIM events based on expected employment tasking and general systems knowledge requirements. Emphasis should be placed on training not readily attainable during daily flying activities. The 82 ATRS FSAT flight commander will review scenarios each training cycle and update as required.

4.2.1.3. During EP SIM missions, training in the following areas will be accomplished each training cycle: ATO, all remote pilot critical action EPs, and an automatic landing in either AFCC 1 or AFCC 2. **Note:** Remote pilots may satisfy EP SIM requirements by accomplishing or administering MSN EP Evaluations (EPEs).

4.2.2. Risk Management Training and Cockpit/Crew Resource Management (CRM)

Training: Remote pilots (X-rays and Yankees) and FSAT Mission Commanders (Mikes) must complete and remain current in Risk Management training and CRM training IAW AFMAN 11-290, *Cockpit/Crew Resource Management and Threat & Error Management Program*. Any Risk Management training that is fulfilled by aircrew members in compliance with any other MDS Vol 1 training manual is valid and shall be accepted to fulfill this requirement. Example: A QF-16 pilot or E-9A pilot who completes Risk Management Training under the provisions of this publication or ACCMAN 11-2E-9, Volume 1, *E-9—Aircrew Training*, shall be deemed current for the purposes of Risk Management remote controlling the QF-16 FSAT as well. However, if there are any Remote Pilots or Mission Commanders who are solely qualified to remote control the QF-16 FSAT and who do not maintain Risk Management or CRM currency in another aircraft, they must gain and maintain Risk Management and CRM currency IAW AFMAN 11-290 as a prerequisite to remote control, manage, or command QF-16 FSAT operations.

4.2.3. Instrument Refresher Course (IRC): When under remote control, the QF-16 FSAT is operated by the sole reference to instruments. Every Remote Pilot of the QF-16 FSAT must maintain currency and qualification in the Instrument Refresher Course IAW AFMAN 11-210, *Instrument Refresher Program (IRP)*, and AFMAN 11-202V1. If a QF-16 FSAT Remote Pilot fulfills this IRC requirement as a requisite for manned flight in any other aircraft, that training shall be valid for purposes of remotely flying the QF-16. If the QF-16 FSAT Remote Pilot is not qualified in any other aircraft, they must still gain and maintain currency in the IRC IAW AFMAN 11-210 and AFMAN 11-202V1 as a requirement to remotely pilot the QF-16 FSAT.

4.2.4. Situational Emergency Procedures Training (SEPT).

4.2.4.1. This training is not an evaluation but a review of emergency procedures and aircraft systems operations/limitations during realistic scenarios. One pilot/remote pilot should present a situation and another should discuss actions necessary to cope with the malfunction and carry it to a logical conclusion. Critical action procedures (if applicable) and squadron special interest items should be emphasized. Incorporate the following elements into squadron SEPT training programs:

4.2.4.2. 82 ATRS/CC or DO involvement in the selection of SEPT topics.

4.2.4.3. Develop SEPT scenarios using FSAT/QF-16/F-16 mishaps/incidents.

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

4.2.4.5. SEPT training will be accomplished each calendar month. Failure to accomplish by the end of the month will result in grounding until subsequently completed. Completion of a SIM EP profile satisfies the monthly SEPT requirement. For an IP/FE administering the SEPT/EP SIM, this will satisfy their SEPT requirement.

4.2.4.6. SEPTs should be accomplished in the best available SIM. Inexp pilots/remote pilots require a SIM every 60 days with an IP/IU (120 days for EXP aircrew). If a SIM is not available, SEPTs will be accomplished in an en-masse format focusing on realistic scenarios to the maximum extent possible. SEPTs should allow each member to participate to the full extent and share equal time responding to emergency situations. This requirement does not alleviate the requirement for pilots to accomplish SEPTs in a CPT at the rate defined in [Table 4.1](#) and [Table 4.2](#). This requirement does, however, encourage

interaction of SPs, remote pilots, and DMCs to discuss various considerations to different emergency procedures.

4.2.4.7. SEPT requirement applies to both QF-16 and FSAT Remote Pilot, if qualified.

4.3. Flying Training. All aircrew will accomplish the mission and event requirements listed in this instruction. Failure to accomplish these requirements may not affect pilot's status or remote pilot's certification/qualification, but may require additional training as determined by the 82 ATRS/CC. In addition, the following are required:

4.3.1. Pilot Basic Aircraft Qualification (BAQ) Requirements:

4.3.1.1. Instrument Qualification Evaluation IAW ACCMAN 11-2QF-16V2.

4.3.1.2. Currencies (as applicable) IAW [Table 4.1](#).

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

4.3.1.4. BAQ pilots that remain in BAQ status for more than 6 months will be grounded (except General Officers or Colonels), unless currently enrolled in a program to achieve MR.

4.3.2. Remote Pilot BAQ Requirements:

4.3.2.1. Qualification Evaluation IAW ACCMAN 11-2QF-16V2.

4.3.2.2. Currencies (as applicable) IAW [Table 4.2](#).

4.3.2.3. Unlike pilot BAQ restrictions, FSAT remote pilots may remain in BAQ status indefinitely. Remote pilot MQT is based upon unit manning and NULLO mission tasking.

4.3.3. Pilot Basic Mission Basic Mission Capable (BMC) Requirements:

4.3.3.1. Mission Evaluation IAW ACCMAM 11-2QF-16V2.

4.3.3.2. Currencies (as applicable) IAW [paragraph 4.6](#).

4.3.3.3. Ground training requirements related to applicable missions/events.

4.3.3.4. LASDT Category I certification.

4.3.4. Remote Pilot BMC Requirements:

4.3.4.1. Mission Evaluation IAW ACCMAN 11-2QF-16V2.

4.3.4.2. Currencies (as applicable) IAW [paragraph 4.6](#).

4.3.4.3. Ground training requirements related to applicable missions/events.

4.3.5. Special Categories:

4.3.5.1. Flight Surgeon (FS):

4.3.5.2. FSs may fly any missions for which they are fully briefed and prepared. They should fly with an EXP pilot or FL. Initial checkouts will be IAW [paragraph 5.3](#).

4.3.5.3. FS flying rates and requirements will be IAW AFMAN 11-202V1.

4.3.5.4. All SQ FSs assigned to fighter/attack/Forward Air Controller Airborne (FAC (A))/FTU are required to complete centrifuge training IAW AFMAN 11-404, *Fighter Aircrew Acceleration Training Program*. During centrifuge training, they will receive instruction on Airborne Video Tape Recorder (AVTR) review.

4.3.6. Multiple Qualification/Currency: See AFMANs 11-202V1/2 for guidance on authorization to obtain multiple qualification. This does not apply to variants of the QF/F-16 which are considered the same MDS.

4.3.6.1. Individually authorized multiple qualifications (QF-16, FSAT RP, Subscale Aerial Target (SSAT) RP, or E-9) are valid as long as the individual is assigned to the specific position, and aircraft requested, or until rescinded by the 82 ATRS/CC.

4.3.6.2. Multiple qualification is not appropriate for senior wing supervisors of units with different types of aircraft. Wing/CCs will qualify in only one of their wing's aircraft. Either the WG/CV or Operations Group (OG)/CC should qualify in another of the wing's aircraft (not the same one selected by the WG/CC).

4.3.7. Multiple Requirements.

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

4.3.7.2. Remote pilots qualified as X-Ray/Yankee in both FSAT and SSAT will satisfy all sortie and event requirements for both FSAT and SSAT X-Ray remote pilots IAW the applicable Volume 1 training requirements.

4.3.8. Multiple Pilot Currencies. Pilots/Remote pilots will comply with currency requirements for each MDS. Pilots must complete conversion training IAW an approved syllabus. Multiple qualifications are authorized and will be tracked concurrently.

4.3.9. Currencies/Recurrencies/Requalifications: Currency. **Table 4.1** and **Table 4.2** define currency requirements for all QF-16 aircrew. If an aircrew loses a particular currency, that sortie/event may not be performed except for the purpose of regaining currency as noted. (wavier authority: 53 WEG/CC)

Table 4.1. Pilot Currencies.

PILOT CURRENCIES					
Event	To Update Fly:	INEXP	EXP	To Regain Currency Fly:	Notes
AAR	AAR	180	270	Event	2, 10
FCF	FCF sortie or SIM	180	180	FCF Sortie or SIM	11
Demanding Sortie	Any Sortie	21	30	Non-demanding	1
Day Landing	Landing	30	45	Ref paragraph 4.6.3	2
Night Landing	Day/Night	21	30	Day Landing	3
IP RCP Landing	RCP Landing	N/A	120	Event	4
LOWAT	Event	60	90	LOW A/A or Low A/G Event	2, 5
Formation Approach	Event (LD or WG)	120	180	Event	6
Formation Takeoff/Landing	Event (LD or WG)	120	180	Event	9
Precision Approach	Event or SIM Event	30	45	Event	7
TCS	Event	90	180	Event	2
DC	Event	120	180	Event	2, 5
SEPT w/IP	Event	60	120	Event	2
SEPT	Event	1 Month	1 Month	Event	2
ACBT	ACBT	60	90	Event	6
SFO	Event	90	90	Event	8

Notes:

1. Non-demanding sorties are Advanced Handling Characteristics (AHC) Formation maneuvering (at or above 1000 feet AGL) or Instruments.
2. Recurrency supervision level is aircraft IP in the aircraft or chase, or aircraft IP, qualified and current in event.
3. Pilots will not perform a night landing unless a day landing has been accomplished within 21 days and a precision approach has been flown within 30 days.
4. IP RCP landing currency is 45 days. IP RCP landing recurrency requires current and qualified pilot in the Front Cockpit (FCP).
5. LOWAT recurrency requires a LOWAT current and qualified IP/SQ supervisor in the RCP or chase. Must accomplish minimum of one segment of Low Altitude Tactical Navigation (LATN) or Low Altitude Intercept (LAI).
6. Recurrency supervision level is a current and qualified IP/SQ supervisor in the RCP or in the element.
7. If non-current in precision approaches, increase the pilot WX minimum by one category. To regain currency, fly a precision approach. Any SIM may be used to update currency (but not to regain currency) provided SIM training is accomplished with WX at or below pilot minimums.
8. Supervision will be FL-qualified SQ supervisor or instructor, qualified and current in the event/capability.
9. Recurrency supervision level is a current and qualified IP/SQ supervisor in the RCP or in the element and will be accomplished from the wing position. FLs may update currency from either lead or wing position.
10. In the absence of a QF-16D model, QF-16 pilots, who have not aerial refueled in the F-16, will accomplish F-16 air-refueling academics taught by a qualified/current air-refueling IP and one air-refueling events chased by a qualified/current air-refueling IP.
11. Supervision for flight or SIM will be a current FCF Pilot.

Table 4.2. Remote Pilot Currencies.

REMOTE PILOT CURRENCIES					
Event	To Update control:	INEXP	EXP	To Regain Currency Control:	Notes
ATO	ATO	30	120	SIM Event	1, 2
Auto Land	Auto Land	30	120	SIM/Manned Event	1, 2
FSAT Present	FSAT Present	90	180	SIM/Manned Event	1, 2
FSAT Form	FSAT Form	90	180	SIM/Manned Event	1, 2
FSAT LOWAT	FSAT LOWAT	90	120	SIM/Manned Event	1, 2
FSAT Sim	FSAT Sim	30	60	SIM Event	
Unmanned FSAT (NULLO)	ATO <i>and</i> Auto Land	30	30	SIM Event	1
FSAT Critical Profile	Specific FSAT Critical Profile	15	15	SIM Event	1
SEPT	Event	3 months	3 months	Event	
Notes:					
1. May be updated during manned FSAT, NULLO, or SIM mission.					
2. Re-currency supervision level is IU in the aircraft <i>or</i> at the console, qualified and current in event.					

4.3.10. Recurrency. Aircrew require additional training if a currency requirement is not met.

4.3.10.1. Aircrew must accomplish overdue training requirements as specified by the 82 ATRS/CC before they are considered requalified to perform the task.

4.3.10.2. Unless otherwise specified, supervisory requirements pertaining to recurrency may be satisfied in the cockpit or flight position that offers the best control of the mission, as determined by the 82 ATRS/CC.

4.3.11. Pilot Landing Recurrency. Loss of landing currency requires the following action (timing starts from date of last landing):

4.3.11.1. 31-90 Days (46-90 Days--EXP). Regain landing currency.

4.3.11.2. 91-135 Days. Same as [paragraph 4.3.11.1](#), plus instructor supervised SIM (normal, instrument, and emergency procedures).

4.3.11.3. 136-210 Days (136-225 for EXP). Same as [paragraph 4.3.11.2](#), plus closed and open book qualification examinations, EPE, and CAPs written examination.

4.3.11.4. 211 (226 for EXP) or More Days. Requalification training IAW AFI 11-202V1. Training will include landing recurrency.

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

4.3.12.1. 61/91 Days (inexp/EXP) to 180 days. Dedicated sortie(s) including AHC and Basic Fighter Maneuvers (BFM). (offensive and/or defensive)

4.3.12.2. Greater than 180 days. Accomplish an 82 ATRS/CC tailored program.

4.3.13. Loss of/Requalification to IP Status. IPs will be decertified for:

4.3.13.1. Failure of a flight evaluation. To regain IP status, the IP must successfully complete a flight check IAW AFMAN 11-202V2.

4.3.13.2. Failure of an INST/QUAL open book test. To regain IP status, the IP must successfully reaccomplish the written exam.

4.3.13.3. RCP Landing. IP rear cockpit landing currency is 90 days.

4.3.14. Loss of/Requalification to IU Status. IUs will be decertified for:

4.3.14.1. Failure of a mission evaluation. To regain IU status, the IU must successfully complete a flight check IAW ACCMAN 11-2QF-16V2.

4.3.14.2. Failure of a remote pilot open book test. To regain IU status, the IU must successfully re-accomplish the written exam.

4.3.15. Annual Requirements. Annual sortie requirements are found in [Table 4.3](#) and [Table 4.4](#). Annual ground training requirements and currencies are found in [Table 4.5](#) and [Table 4.6](#).

Table 4.3. Annual Flying Requirements.

PILOT REQUIREMENTS	MR	Notes
CT Sorties	12	
TCS	8	Dedicated Training
Total Sorties	60	Per Year
ATO	4	
Auto Approach	8	
Instrument Penetration	4	
Precision Approach	8	Updates Precision Currency
No HUD Precision Approach	4	Updates Precision Currency
Non-Precision Approach	8	
No HUD Non-Precision Approach	4	
SFO – OVHD (360 degree)	8	Updates SFO Currency
SFO – Alternate Entry (Random/St-in)	8	Updates SFO Currency
Total Sorties	72	

Table 4.4. Annual Flying Requirements.

REMOTE PILOT REQUIREMENTS	MR	Notes
Manned FSAT Sorties	12	
Unmanned FSAT Sorties	2	
Prim Land	12	

Table 4.5. Pilot Annual Ground Training Requirements.

AIRCREW TRAINING				
Subject	Frequency	Directive	Grounding	Affect MR Status
AIRCREW FLIGHT EQUIPMENT CONTINUATION TRAINING (AFECT)				
Local Area Survival Training (LL01)	Initial/PCS	AFMAN 11-301 V1; AFMAN 11-202 V1	Yes	Yes
Emergency Egress Training/Ejection Seat (LL02)	12 Months	AFMAN 11-301 V1	Yes	Yes
Life Support Equipment Training (LL06)	24 Months	AFMAN 11-301 V1	No	Yes
SERE TRAINING				
Local Area Survival (SS01)	Initial/PCS	AFI 16-1301 as supplemented	No	Yes
Life Support Non Combat Survival Training (SS04)	36 Months	AFI 16-1301 as supplemented	No	Yes
Water Survival (SS31 or SS05)	36 Months	AFI 16-1301 as supplemented	No	Yes
Emergency Parachute Training (SS06)	12 Months	AFI 16-1301 as supplemented	Yes	Yes
GROUND AND PROCEDURAL TRAINING				
SEPT (GS03) (QF-16 / FSAT Remote Pilot)	1 Month / 3 month	AFMAN 11-2QF-16 V1	Yes	Yes
Critical Action Procedures (GA02)	Prior to first flight of each month / 1 st & 15 th for inexp aircrew	AFMAN 11-202 V2 ACC Sup	Yes	No
SIM	IAW Table 4.1 this volume	AFMAN 11-2QF-16V1	No	Yes

Instrument Refresher Course (GS06)	Last day of the 17 th month when accomplished	AFMAN 11-210; AFAN 11-202 V1	No	No
Flight Safety Training (GS26)	Quarterly	DAFI 91-202	No	No
CRM (GA06)	24 Months	AFMAN 11-290 as supplemented; AFMAN 11-202 V1	Yes (WEG/CC waiverable)	Yes
Physiological Refresher Training (PP10)	5 years	AFMAN 11-403 AFMAN 11-202 V1	Yes	Yes

Table 4.6. Remote Pilot Annual Ground Training Requirements.

REMOTE PILOT TRAINING				
Subject	Frequency	Directive	Grounding	Affect MR Status
GROUND AND PROCEDURAL TRAINING				
SEPT (QF-16 / FSAT)	1 Month / 3 Month	AFMAN 11-2QF-16 V1	Yes	Yes
Critical Action Procedures	Prior to first mission of each month / 1 st & 15 th for inexp remote pilots	AFMAN 11-2QF-16 V2	Yes	Yes
Flight Safety Training	Quarterly	DAFI 91-202	No	No
CRM (GA06)	24 Months	AFMAN 11-290 as supplemented; AFMAN 11-202 V1	Yes (WEG/CC waiverable)	Yes

4.4. Pilot Regression.

4.4.1. MR Regression for Failure to Meet Lookback. All sorties may be used for lookback. If a pilot does not meet monthly lookback requirements throughout the training cycle, SQ/CCs can either: Regress the pilot to N-MR; remove the pilot from a MR manning position; or initiate action to remove the pilot from active flying status.

4.4.2. Failure to meet 1-month sortie lookback (5 Sorties) requires a review of the pilot's 3-month sortie history. If the 3-month lookback (15 sorties) has been met, pilots may, at SQ/CC discretion, remain MR. Failure to meet the 3-month lookback will result in regression to N-MR status as appropriate, or the pilot may be placed in probation status for one month at the SQ/CC's discretion. If probation is chosen, the only way to remove a pilot from probation and preserve the current status is to reestablish a 1-month lookback at the end of the probation period. Probation will not be used to disguise extended shortfalls in sorties that would result in underperforming the training cycle totals. Probation should be used sparingly.

4.4.3. MR pilots regressed to N-MR for lookback, must complete a SQ/CC approved re-certification program to include supervision requirements, sortie types, and mission elements

specific to the N-MR aircrew to return to MR status. Upon completion of the re-certification program, the MR pilots must also meet 1-month lookback requirements prior to reclaiming MR status. The sorties and events accomplished during the re-certification program may be credited towards their total/type sorties and events.

4.4.4. Lookback computations begin following completion of MQT. The pilot must maintain 1-month lookback (5 sorties) until 3-month lookback (15 sorties) is established. SQ/CCs may apply probation rules if a new MR pilot fails to meet 1-month lookback while establishing 3-month lookback. In addition, 1-month look back will start the first full month of MR.

4.5. Aircrew End of Cycle Requirements.

4.5.1. Pilots who fail to complete mission and/or event requirements of this instruction at the end of the training cycle may require additional training depending on the type and magnitude of the deficiency. Refer to **paragraph 4.6** to see if some of these requirements can be prorated. In all cases, report training shortfalls to the 53 WEG/CC. Pilots failing to meet mission type requirements will result in one of the following:

4.5.1.1. Regress to N-MR if 82 ATRS/CC determines the mission type deficiency is significant. To regain MR the pilot must complete all deficient sortie types. These sorties may count towards total requirements for the new training cycle.

4.5.1.2. Pilots failing to accomplish sorties required for Special Capabilities/Qualifications will lose their qualification. The SQ/CC will determine requalification requirements.

4.5.2. Remote pilots who fail to complete mission and/or event requirements of this instruction at the end of the training cycle may require additional training depending on the type and magnitude of the deficiency. Refer to **paragraph 4.6** to see if some of these requirements can be prorated. In all cases, report training shortfalls to the 53 WEG/CC.

4.6. Proration of End-of-Cycle Requirements. At the end of the training cycle, the 82 ATRS/CC may prorate all training requirements when Duties Not Involving Flying (DNIFs), emergency leaves, and non-flying TDYs. Use **Table 4.7** to determine proration. Normal leave will not be considered as non-availability. Extended bad WX, which precludes the unit from flying for more than 15 consecutive days may be considered as non-availability. The following guidelines apply:

Table 4.7. Proration Allowance.

CUMULATIVE DAYS OF NON-FLYING	MONTHS OF PRORATION ALLOWED
0 – 15	0
16 – 45	1
46 – 75	2
76 – 105	3
106 – 135	4
136 – 165	5
166 – 195	6
196 – 225	7
226 – 255	8
256 – 285	9
286 – 315	10
316 – 345	11
346 – 365	12

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

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

4.6.3. If IQT or MQT is re-accomplished a pilot's training cycle will start over at a prorated share following completion of IQT/MQT training.

4.7. Pilot Instrument Training.

4.7.1. Instrument training program will be developed IAW AFMAN 11-210, *Instrument Refresher Program (IRP)*.

4.7.2. During selected SEPT sessions, pilots will review lost wingman procedures, recognition and recovery from spatial disorientation, proper instrument cross-check, and transition from visual to instrument conditions.

4.8. Pilot G-Awareness. Units will develop a CT program that provides feedback to pilots and engrains a proper AGSM so that it becomes an integral part of pulling Gs. This program's intent is to make assessment of the AGSM a normal debrief item after every flight. The assessment should be done as a normal part of tape review while debriefing other portions of the mission.

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

4.8.2. Develop a program to ensure at least one tactical mission tape for each pilot is reviewed and documented each training cycle by an aeromedical specialist (i.e., Flight Surgeon), aerospace operational physiologist (AOP), and/or pilot-physicians for Anti-G Straining Maneuver (AGSM) and human factors required IAW AFMAN 11-403, *Aerospace Physiological Training Program*, and AFPAM 11-419, *G Awareness for Aircrew*.

4.8.3. Focus ground training/academics on technique and assessment, including a discussion of the limitations imposed on aircraft/pilot performance as a result of an ineffective AGSM. Emphasize briefing, debriefing, G-suit/Aircrew Flight Equipment (AFE) differences, and assessing the proper AGSM during flight debriefs.

4.8.4. Include “AGSM effectiveness” on MQT and “AGSM assessment” on FLUG/IPUG grade sheets. IPs evaluate these areas on all upgrade missions that involve tactical maneuvering.

4.8.5. FLs emphasize G-Awareness during appropriate portions of the flight brief. FLs will also assess the AGSM effectiveness of flight members during mission debriefings. This assessment should not be limited to the G-awareness exercise. Evaluate the AGSM after the pilot has had the time to fatigue to get an accurate assessment of a pilot’s AGSM during tactically and G-demanding portion of the flight. AGSM will also be evaluated under relatively low intensity G such as Air to Ground (A/G) sorties.

4.8.6. During the mission tape/video review, FLs assess and debrief the pilot’s AGSM. Pilots having poor AGSM technique or low G-tolerance are identified to the SQ/DO or appropriate operations supervisor. The DO or appropriate operations supervisor will determine what action is required to improve the pilot’s G-tolerance. The SQ/CC determines if CC-directed acceleration training is required IAW AFMAN 11-404.

Chapter 5

PILOT SPECIALIZED TRAINING

5.1. Orientation Flights. Information and procedures for familiarization, incentive, and orientation flights are in DAFMAN 11-401. Orientation flights will be flown by EXP QF-16 pilots only.

5.2. Pilot Flight-Lead Upgrade (FLUG). FLUG is normally flown during MQT. After MQT the Squadron CC or designated representative may certify a pilot as multi-ship FL qualified on the unit LOX. If deemed necessary by the SQ/CC, FLUG may be disassociated with MQT. In this case, the SQ/CC must develop, in writing, the applicable program. This will be documented by letter in the UP's training records.

5.2.1. One of the following criteria for minimum flying hours is required prior to entering FL upgrade training:

5.2.1.1. 300 hours F-16.

5.2.1.2. 25 hours F-16 if previously qualified as a 11Fxx AFSC FL.

5.3. Non-Rated Aircrew Member/ Flight Surgeon (FS) Flying Program.

5.3.1. Ground Training. Non-rated aircrew members (i.e., flight test engineers) and FSs who are attached to and periodically fly with FSAT units, and who have not previously flown the QF-16, will accomplish the following before the first flight:

5.3.1.1. Aircraft general academics with an EXP QF-16 pilot (one-time requirement).

5.3.1.2. Hanging harness/Egress training currency: 90 days for those whose primary assigned aircraft is the QF-16B/D (60 days for flight surgeons), otherwise 30 days.

5.3.1.3. Emergency procedures review with an QF-16 IP.

5.3.1.4. Local water survival training (else restricted to over-land flights).

5.3.1.5. Local area survival (one-time).

5.3.1.6. Aircrew Flight Equipment training (90 days).

5.3.1.7. Altitude chamber physiological training (otherwise the member/FS is restricted to flight below FL 180).

5.3.1.8. Critical Action Procedures examination (emergency ground egress portion only - monthly).

5.3.1.9. Written qualification exam (annual).

5.3.2. Flight Training.

5.3.2.1. The first flight in the unit-assigned aircraft will be flown with an EXP QF-16 pilot and may be flown in conjunction with other training sorties.

5.3.2.2. FAM-1 QF-16 Familiarization.

5.3.2.2.1. QF-16B/D (MP/UNR).

5.3.2.2.2. Prerequisites: IAW [paragraph 5.3](#).

5.3.2.2.3. Mission objectives: Introduce the trainee to basic QF-16 handling characteristics and the local flying environment.

5.3.2.2.4. Mission Requirements: MP brief/debrief (emphasis on crew coordination, communications and navigation equipment, instrument interpretation, aircraft performance envelope), single-ship takeoff, transition maneuver demonstrations, basic aircraft control by trainee, local area orientation (emphasis on controlled bailout area location), communication/navigation panel operation, recover for patterns and landings as desired.

5.3.2.2.5. Minimum Overall Grade: 1 (safe).

5.3.3. Currencies Requiring Recurrency/Requalification Program.

5.3.3.1. Landing Recurrency/Requalification. Pilots become unqualified after loss of landing currency plus 180 days (e.g., an inexp pilot who has not landed for 211 days).

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

5.3.3.2.1. 31/46 (inexp/EXP) to 90 days. Regain landing currency IAW [Table 4.1](#).

5.3.3.2.2. 91-135 Days. Landing currency IAW [Table 4.1](#) and review emergency procedures with an EXP QF-16 pilot.

5.3.3.2.3. 136-210/225 Days (inexp/EXP). Same as [paragraph 5.3.3.2.2](#), plus retake the open/closed book and instrument written examinations.

5.3.3.2.4. 211/226 days (inexp/EXP) to 12 months. (e.g., an inexp pilot who has not landed for 211 to 365 days). Requalification program IAW AFMAN 11-202V1. WEG/CC is the approval authority to conduct this training locally.

5.3.3.2.5. Greater than 12 months. Accomplish applicable formal TX course. Reference [paragraph 2.2](#) for local IQT waivers.

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

5.3.4.1. 61/91 (inexp/EXP) to 180 days. Dedicated sortie(s) including AHC and BFM.

5.3.4.2. Greater than 180 days. SQ/CC tailored ACBT program and documented in gradebook.

5.4. Hi-Angle of Attack (AOA) Training. AFMC's 416th Flight Test Squadron (FLTS) has developed Hi-AOA academics and flight instruction. The training is available at Edwards AFB, Eglin AFB, or 416 FLTS IPs can travel if units have access to appropriate airspace to conduct deep stall/recovery training as defined in AFMC guidance. The training purpose is to teach the pilot how to recognize, recover from, and ultimately avoid deep stalls. Pilots should receive this instruction at least once, preferably early their career. This training is highly desired due to the highly modified QF-16 drone peculiar equipment that has changed the flight characteristics of the basic F-16.

5.5. Instructor Pilot Upgrade (IPUG). 82 ATRS/CC will select only highly qualified pilots for IPUG and may waive rides based on previous experience.

5.5.1. Ground Training. Upgrading instructor pilots (UIPs) must satisfactorily demonstrate competency in the following prior to certification as an IP:

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

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

5.5.1.3. Instructor Responsibility. Airmanship, judgment, maturity and flight discipline during briefing, in-flight, debrief, and additional squadron duties.

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

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

5.5.1.6. AGSM Techniques. Briefing, debriefing, and AVTR assessment.

5.5.1.7. Student Evaluations. Grading systems and preparation/use of grade sheets.

5.5.2. Flying Training. Training will be conducted according to mission outlines listed below. IPUG-1 should be flown first and IPUG-6 is flown last. Other sorties may be flown in any sequence except where noted. Accomplishment may be as configuration and scheduling permit.

5.5.2.1. Student non-progression. If a sortie is non-effective for student non-progression, it will be re-flown as an "X" or extra ride and appropriately annotated on the student grade sheet. If more than one X-ride per syllabus sortie is required, the student will be considered for disqualification from the program. 82 ATRS/CC approval is required for flying more than one X-ride per sortie. Failing to pass a second "X" ride for any particular sortie will result in removal from the course. Failing a total of four "X" rides will result in removal from the course.

5.5.2.2. Mission Objectives: The UIP will demonstrate the ability to properly brief, conduct, reconstruct, and debrief the mission in an instructional fashion. The sortie will be graded against these instructional abilities, not necessarily against the UIP's personal flying skills, except where those skills hamper his instructional ability.

5.5.2.3. Upon successful completion of IPUG-6, the UIP is qualified as a QF-16 IP and certified for normal, remote, LOWAT, and basic ACBT instruction. Annotate this qualification and certifications on the unit LOX.

5.5.3. IPUG Syllabus Missions.

5.5.3.1. IPUG-1/2 Transition/Instruments.

5.5.3.1.1. QF-16D (UIP/IP) desired or QF-16 (UIP), QF-16 (IP) required

5.5.3.1.2. Prerequisites: IAW [paragraph 5.5](#).

5.5.3.1.3. Mission Objectives: Introduce UIP to instruction, selected transition/instrument demonstrations, maneuvers, and procedures. Demonstrate proficiency in all items (IPUG-2).

5.5.3.1.4. Mission Requirements: UIP brief/debrief. SSTO, confidence maneuvers, AHC/HARTS maneuvers, aerobatics, unusual attitude recoveries, instrument approach, touch-and-go landings, Simulated Flame Outs (SFOs), and VFR pattern and landings. **Note:** If UIP accomplishes all tasks and demonstrates proficiency on IPUG-1, he may be proficiency advanced past IPUG-2.

5.5.3.1.5. Minimum Overall Grade: IPUG-1--1 (safe); IPUG-2--2 (proficient).

5.5.3.2. IPUG-3 Formation.

5.5.3.2.1. QF-16D, QF-16 (IP/UIP) (SP) desired or QF-16 (IP), QF-16 (UIP)

5.5.3.2.2. Prerequisites: IPUG-1.

5.5.3.2.3. Mission Objectives: Demonstrate proficiency in instructing formation. UIP must recognize differing sight pictures between FCP and RCP. Demonstrate proficiency in IP chase techniques/procedures.

5.5.3.2.4. Mission Requirements: UIP brief/debrief. Formation takeoff (lead), formation departure, formation air work (administrative and tactical formations), chase in traffic pattern and landing.

5.5.3.2.5. Minimum Overall Grade: 2 (proficient).

5.5.3.3. IPUG-4 Remote Operations.

5.5.3.3.1. QF-16D (IP/UIP) desired or QF-16 (IP), QF-16 (UIP)

5.5.3.3.2. Prerequisites: IPUG-1.

5.5.3.3.3. Mission Objectives: Demonstrate proficiency in remote-controlled instruction.

5.5.3.3.4. Mission Requirements: UIP brief/debrief. Takeoff (ATO desired), SAFE or FCS profile, auto recovery and approach, remote-controlled patterns and landings, practice VFR patterns and landings as required. IP must induce an "inadvertent" disengage and UIP must recognize and intervene appropriately.

5.5.3.3.5. Minimum Overall Grade: 2 (proficient).

5.5.3.4. IPUG-5 Low Altitude Flight / Remote Operations.

5.5.3.4.1. QF-16D (IP/UIP) desired or QF-16 (IP), QF-16 (UIP)

5.5.3.4.2. Prerequisites: IPUG-4.

5.5.3.4.3. Mission Objectives: Demonstrate proficiency in instruction for low altitude QF- 16 flight for chase and remote operations.

5.5.3.4.4. Mission Requirements: UIP brief/debrief. Normal ground operations, takeoff, and departure. UIP will instruct IP through a combined LASDT-1/2 profile. An ATO may be accomplished on this sortie.

5.5.3.4.5. Minimum Overall Grade: 2 (proficient).

5.5.3.4.6. IPUG-6 Instructor Certification.

5.5.3.4.6.1. QF-16D (FE/UIP) desired or QF-16 (FE), QF-16 (UIP)

5.5.3.4.6.2. Prerequisites: IPUG-2, IPUG-3, IPUG-5.

5.5.3.4.6.3. Mission Objectives: Complete Initial IP Flight Evaluation IAW ACCMAN 11-2QF-16V2 and unit requirements.

5.5.4. LASDT. This training is normally conducted as part of IQT and MQT. It may be used to requalify pilots who are significantly out of currency or to train pilots to a lower category.

5.5.4.1. To conduct low altitude operations safety, pilots need to be knowledgeable of aircraft handling and performance characteristics, tactical formation, intercept, offensive maneuvers, defensive reactions, and navigation. In addition to the tactical environment in which the QF-16 flies, the QF-16 SPs and DC pilots fly in the LOWAT environment at slower than tactical airspeeds, and often under remote control. LOWAT block/category certification is required prior to performing unsupervised operations in that block/category.

5.5.4.2. MQT pilots will review the manned (remote) operations portions of AFTTP 3-3 paying particular attention to the turn characteristics associated with various types of remote maneuvers and low altitude considerations.

5.5.4.3. MQT pilots will discuss low altitude captive and captive emergency considerations with the IP during the brief.

5.6. Low Altitude Step Down Training (LASDT) Flying Training:

5.6.1. LASDT-1 (Dual). Mission Objectives. Demonstrate proficiency in single-ship maneuvering between 5,000 and 1,000 feet AGL. Introduce LOWAT Category I operations. Specific Mission Tasks: AHC IAW AFTTP 3-3.F-16, Low Altitude Training Exercises (level turn exercise, turning room demo, acceleration/deceleration exercise, descent awareness training, visual lookout exercise); G-awareness exercise; low level navigation; airspeed control; fuel management; ridge crossings; terrain masking/maneuvering techniques for level/rolling/rough terrain; altitude awareness/control; practice KIOs; and single-ship low altitude tactical intercepts. In addition, discussion will include task management/prioritization, environmental factors (e.g., sun angle, G-excess illusions/perceptions, use of HUD), and LATN to include dead reckoning, pilotage, INS use/techniques, use of HUD, etc.

5.6.2. LASDT-2 (Two-Ship). Mission Objectives. Demonstrate proficiency in two-ship LOWAT Category I operations. Specific Mission Tasks: G-awareness exercise; low level navigation; fuel management; Low Altitude Tactical Formation (LATF); ridge crossings; altitude awareness/control; practice KIOs; defensive reactions; WX route abort; two-ship low altitude intercepts. In addition, discussion should focus on formations (e.g., line abreast and wedge), hazards at low altitude, task prioritization, tactical turns, visual lookout/mutual support, range to element mate estimation (sight picture). Upon satisfactory completion of this mission, the SQ/CC can certify the pilot to LOWAT Category I.

5.7. F-16 Block Differences Training. To train between all variants of the F-16, pilots must be current and qualified prior to beginning training. Aircraft conversion requires differences training only; out-of-cycle check rides are not required.

5.7.1. Academics. Academic instruction should be tailored to the pilot's previous experience and should concentrate on the differences between the two blocks. Instruction should address avionics system, electrical systems, engine differences (as applicable), flight control system

differences (as applicable), and aircraft handling characteristics (including departure susceptibility), EPs, and cockpit layouts.

5.7.2. Device Training. Pilots should receive procedural training as required by previous experience. This training should include systems EPs and CAPs.

5.7.3. Flying Training. Block differences training may be conducted during MQT. Pilots who do not require MQT should receive one supervised aircraft sortie. Flight briefing should stress cockpit procedure differences.

5.7.4. A-model training consists of A-model specific academics, A-model cockpit fam with power on the jet and one instructor supervised aircraft sortie. The sortie will consist of takeoff, any non-FCS mission sortie (BFM, AHC, LOWAT, etc.) and chased approaches to include ILS, SFO, and a chased full-stop landing.

5.8. ACBT Qualification. The following sorties (in sequence) and academics will be used to become ACBT qualified. ACBT programs for pilots with previous fighter experience may be individually tailored based on experience, currency, and documented performance.

5.8.1. Flight Training:

5.8.2. Sortie 1. (D)BFM--Mission Objectives. Demonstrate proficiency in basic fighter maneuvering skills. Specific Mission Tasks: Tactical formation, ranging exercises, Air to Air (A/A) weapons employment, offensive, defensive and high aspect setups.

5.8.3. Sortie 2. (D)ACM--Mission Objectives. Demonstrate proficiency in element A/A maneuvering. Specific Mission Tasks: Defensive setups, A/A weapons employment, engaged / supporting fighter roles and responsibilities.

5.9. Academics will include the following as a minimum:

5.9.1. AFTTP 3.3.F-16 Review

5.9.2. BFM Academics (offensive/defensive/hi aspect)

5.9.3. ACM Academics

5.9.4. Air Combat Techniques (ACT) Academics (Block Adherence/C2&GCI incorporation)

5.9.5. EA Pod Usage & Tactics

5.10. Aerial Gunnery Target Set (AGTS). AGTS academics taught by AGTS IP and two sorties (see one/ do one ride). Once completed it will be annotated in the member's gradebook and the squadron LOXs.

5.10.1. AGTS-1 Observe.

5.10.1.1. QF-16D (IP/UP) or QF-16C (IP), QF-16 (UP).

5.10.1.2. Prerequisites: IP taught academics (2 hours).

5.10.1.3. Mission Objectives: Introduce UP to maneuvers and procedures required for a successful gunnery event. Observe safe AGTS operations.

5.10.1.4. Mission Requirements: IP brief/debrief. SSTO, rejoin to chase, observe mission.

5.10.1.5. Minimum Overall Grade: 1 (Safe)

5.10.2. AGTS-2 Demonstration Proficiency.

5.10.2.1. QF-16D (UP/IP) or QF-16 (UP), QF-16 (IP).

5.10.2.2. Prerequisites: AGTS-1.

5.10.2.3. Mission Objectives: Demonstrate proficiency in AGTS Weapon System Evaluation Program (WSEP) operations.

5.10.2.4. Mission Requirements: UP brief/debrief. IP maintains safety chase throughout mission.

5.10.2.5. Minimum Overall Grade: 2 (proficient).

5.11. Drone Mission Commander (DMC).

5.11.1. Definitions/Responsibilities: 82 ATRS/CC. 82 ATRS/CC will determine which individuals will be selected for duty.

5.11.2. Qualifications: FSAT. Background and experience will be evaluated on a case-by-case basis. Individuals nominated for upgrade to FSAT must be fully qualified as FSAT chase and SPs. Individuals previously qualified as a SSAT may have a shortened FSAT upgrade.

5.11.3. DMC upgrade.

5.11.3.1. Initial Training:

5.11.3.1.1. Areas covered in the IQT program will include (but are not limited to) the following:

5.11.3.1.2. Aircraft Systems

5.11.3.1.3. Drone Systems

5.11.3.1.4. Uplink/Downlink Theory

5.11.3.1.5. Command/Data Panel

5.11.3.1.6. GRDCS (Gulf Range Drone Control System)

5.11.3.1.7. Chase Procedures/Techniques

5.11.3.1.8. Destruct Procedures

5.11.3.1.9. X-Ray, Yankee, and Tango Duties

5.11.3.1.10. Anagram Procedures and Marine Operations

5.11.3.1.11. RDO/RCO Duties

5.11.3.2. Academics. A qualified will be the upgrade instructor and will conduct each session of the academic program.

5.11.3.3. GRDCS brief. Receive a brief from GRDCS personnel on displays, capabilities and limitations.

5.11.3.4. Range Destruct Officer (/) / Range Safety Officer (RSO) brief. Receive a brief from 53rd WEG Range Safety personnel on responsibilities and the 's interaction with the

5.11.3.5. Mission Control. Each upgrading DMC will observe a qualified DMC on an actual mission prior to conducting the mission under the supervision of the qualified DMC. The upgrading DMC will also observe a WSEP mission from the RCS Room prior to conducting a mission under supervision. 82 ATRS/DO is waiver authority for the provision for previously experienced WEG personnel.

5.11.4. Certification and Evaluation.

5.11.4.1. The 82 ATRS/DO will evaluate each new on the training received and knowledge level attained prior to forwarding a request for certification by the 82 ATRS/CC. 5.11.4.2. Documentation of certification will be accomplished with 82 ATRS/CC signature on Certification of Aircrew Training in front of each gradebook, 82 ATRS/CC initials on DMC upgrade form, and on the squadron Letter of X's.

5.11.5. DMC Currency

5.11.5.1. DMC's may log events for any SIM/manned/NULLO mission observed from FCS. DMC currency is 180 days.

5.11.5.2. DMC Recurrency: Loss of DMC currency requires the following action (timing starts from date of last DMC mission):

5.11.5.2.1. 181-270 **Days**. Review DMC procedures with any current DMC.

5.11.5.2.2. 270-365 **Days**. Same as above plus supervised conduct of a mission.

5.11.5.2.3. 366+ **Days**. Same as above plus observe a mission and conduct a supervised mission.

5.12. Functional Check Flight (FCF) – Certification.

5.12.1. **Prerequisites.** WEG/CC will select pilots to enter the FCF training program based on high experience and proficiency. Pilots will have a minimum of 500 hours in the (Q)/F-16.

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

5.12.3. **FCF Ground Training.** Ground training includes a review of applicable technical orders and publications, including, at a minimum, DAFI 21-101, *Aircraft and Equipment Maintenance Management*; technical order (TO) 1-1-300; Technical Manual, *Acceptance/Functional Check Flight and Maintenance Operational Checks*; TO 1F-16-6CF-1, *Functional Check Flight Procedures, USAF Series F-16 Aircraft*; and local FCF procedures. A full-profile FCF should be flown in the highest fidelity SIM available.

5.12.4. **FCF Flight Training.** Upon completion of the training program, the 53 WEG/CC or designated representative certifies the pilot via a memorandum, placed in the pilot's training record.

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

Chapter 6

REMOTE PILOT SPECIALIZED TRAINING

6.1. Instructor Remote Pilot Upgrade (IUUG). 82 ATRS/DO will select only highly qualified X-Ray remote pilots for IUUG and may waive events based upon previous experience.

6.1.1. Ground Training. Upgrading instructor remote pilots (UIUs) must satisfactorily demonstrate competency in the following prior to qualification as an IU:

6.1.1.1. Principles of Instruction. Learning objectives, instructor responsibilities, IU/upgrade remote pilot relationship, training facilities, and publications.

6.1.1.2. Techniques of Console Instruction. Training objectives and environment, maneuver demonstration, performance and review, recognition and analysis of common remote pilot errors.

6.1.1.3. Instructor Responsibility. Airmanship, judgment, maturity and flight discipline during briefing, in-flight, debrief, and additional squadron duties.

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

6.1.1.5. Student Evaluations. Grading systems and preparation/use of grade sheets.

6.1.2. I-Block 1. GRDCS Console Ground Instruction (UIU/IU).

6.1.2.1. Prerequisites: UIU self-study of TO 1F-16(Q) A-1, *QF-16 Control Algorithm Description*, *GRDCS System Software User's Guide*.

6.1.2.2. Mission Objectives: UIU practice instruction of GRDCS console operation techniques and procedures.

6.1.2.3. Mission Requirements: UIU brief a selected GRDCS academic block.

6.1.2.4. Minimum Overall Grade: Pass.

6.1.3. I-Block 2. QF-16 NULLO Emergency Procedures Ground Instruction (UIU/IU).

6.1.3.1. Prerequisites: UIU self-study of 1F-16(Q) A-1 and QF-16 Control Algorithm Description.

6.1.3.2. Mission Objectives: UIU practice instruction of NULLO emergency procedures.

6.1.3.3. Mission Requirements: UIU brief a selected block of NULLO emergency procedures.

6.1.3.4. Minimum Overall Grade: Pass.

6.1.4. I-Block 3. FSAT Mission Specific Ground Instruction (UIU/IU).

6.1.4.1. Prerequisites: UIU self-study of TO 1F-16(Q)A-1, *QF-16 Control Algorithm Description*, *QF-16 FSAT Program Flight Termination System Report*, and *TAFB/HAFB Local Checklist 101*.

6.1.4.2. Mission Objectives: UIU practice instruction of pre-launch checklist procedures.

6.1.4.3. Mission Requirements: UIU brief a selected block of NULLO operations.

6.1.4.4. Minimum Overall Grade: Pass.

6.2. Instructor Remote Pilot Upgrade (IUUG) Simulator (SIM) Missions.

6.2.1. I-Sim 1 – FSAT Single-Ship Mission

6.2.1.1. Prerequisites: None.

6.2.1.2. Mission Objectives: Practice SIM instruction on single-ship mission.

6.2.1.3. Mission Requirements: UIU brief/debrief. UIU provide instruction on console operation for IU (acting as upgrading Yankee remote pilot) on single-ship mission.

6.2.1.4. Minimum Overall Grade: 1

6.2.2. I-Sim 2 – FSAT Two-Ship Mission

6.2.2.1. Prerequisites: I-Sim 1

6.2.2.2. Mission Objectives: Demonstrate proficiency in SIM instruction on formation mission.

6.2.2.3. Mission Requirements: UIU brief/debrief. UIU provide instruction on console operation for IU (acting as upgrading Yankee remote pilot) on formation mission.

6.2.2.4. Minimum Overall Grade: 2

6.3. Flight Missions.

6.3.1. IUUG-1/2 Single-Ship Key Performance Parameters (KPP) Type Profile.

6.3.1.1. QF-16 (SP/UIU/IU).

6.3.1.2. Prerequisites: I-Sim 1.

6.3.1.3. Mission Objectives: UIU practice instruction through KPP profile maneuvers and procedures.

6.3.1.4. Demonstrate proficiency in all items (IUUG-2).

6.3.1.5. Mission Requirements: UIU brief/debrief. ATO, KPP profile, recovery for auto approaches (AFCC-1 and AFCC-2), go-around, full-stop landing. Note: If UIU accomplishes all tasks and demonstrates proficiency on IUUG-1, he may be proficiency advanced past IPUG-2

6.3.1.6. Minimum Overall Grade: IUUG-1--1 (safe); IUUG-2--2 (proficient).

6.3.2. IUUG-3/4 Formation.

6.3.2.1. QF-16, QF-16 (SP/UIU) (SP/IU).

6.3.2.2. Prerequisites: IUUG-2.

6.3.2.3. Mission Objectives: Demonstrate proficiency in planning and instructing formation remote pilot techniques and procedures. Demonstrate proficiency in all items (IUUG-4).

6.3.2.4. Mission Requirements: UIU brief/debrief. ATO takeoff (lead), 2-ship departure, formation air work (admin and combat slots), 2-ship recovery.

6.3.2.5. Minimum Overall Grade: 2 (proficient).

6.3.3. IUUG-5 Instructor Qualification.

6.3.3.1. QF-16 (SP/UIU/EU).

6.3.3.2. Prerequisites: IPUG-4.

6.3.3.3. Mission Objectives: Demonstrate proficiency in remote-controlled instruction.

6.3.3.4. Mission Requirements: UIU brief/debrief. Takeoff (ATO desired), SAFE or FCS profile, auto recovery and approach, remote-controlled patterns and landings.

6.3.3.5. Minimum Overall Grade: 2 (proficient).

DAVID G. SHOEMAKER, Brig Gen, USAF
Director of Operations

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

5 USC § 552a, *Records Maintained on Individuals*, referred to as the Privacy Act of 1974

10 USC § 9013, *Secretary of the Air Force*

ACCI 11-464, *Training Records and Performance Evaluation in Formal Flying Training Programs*, 27 September 2023

ACCMAN 11-2E-9V1, *E-9—Aircrew Training*, 14 April 2020

ACCMAN 11-2QF-16V2, *QF-16—Aircrew Evaluation Criteria*, 13 October 2023

AFI 16-1301_ACCSUP, *Survival, Evasion, Resistance, and Escape (SERE) Program*, 24 May 2024

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

AFI 36-2406, *Officer and Enlisted Eval Systems*, 6 August 2024

AFMAN 11-2F-16V1, *F-16 Aircrew Training*, 26 June 2024

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

AFMAN 11-202V2, *Aircrew Standardization and Evaluation Criteria*, 30 August 2021

AFMAN 11-202V2_ACCSUP, *Aircrew Standardization and Evaluation Criteria*, 19 August 2022

AFMAN 11-210, *Instrument Refresher Program (IRP)*, 21 December 2021

AFMAN 11-214, *Air Operations Rules and Procedures*, 29 November 2022

AFMAN 11-290, *Cockpit/Crew Resource Management and Threat & Error Management Program*, 25 October 2021

AFMAN 11-290_ACCSUP, *Cockpit/Crew Resource Management and Threat & Error Management Program*, 10 June 2022

AFMAN 11-301V1, *Aircrew Flight Equipment (AFE)*, 31 May 2023

AFMAN 11-403, *Aerospace Physiological Training Program*, 18 March 2024

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

AFPAM 11-419, *G Awareness for Aircrew*, 17 October 2014

AFPD 11-2, *Aircrew Operations*, 31 January 2019

AFTTP 3-1.F16, *Tactical Employment*, 17 January 2020

AFTTP 3-3.F-16, *Combat Aircraft Fundamentals F-16*, 26 August 2022

DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 January 2020

DAFI 91-202, *The Department of the Air Force (DAF) Mishap Prevention Program*, 12 March 2020

DAFMAN 11-401, *Aviation Management*, 27 October 2020

DAFMAN 90-161, *Publishing Processes and Procedures*, 18 October 2023

DAFPD 11-4, *Aviation Service*, 16 July 2024

EO 9397 (as amended), *Numbering System for Federal Accounts Relating to Individual Persons*, 22 November 1943

EO 13478, *Amendments to Executive Order 9397 Relating to Federal Agency Use of Social Security Numbers*, 18 November 2008

TO 1F-16(Q) A-1, *QF-16 Control Algorithm Description, GRDCS System Software User's Guide*, Apr 2021

TO 1F-16-6CF-1, *Functional Check Flight Procedures, USAF Series F-16 Aircraft*, updated periodically

Prescribed Forms

None

Adopted Forms

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 942, *Record of Evaluation*

DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval*

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

A/A—Air to Air

AAR—All Attitude Recovery

ACBT—Air Combat Training

ACC—Air Combat Command

ACCMAN—Air Combat Command Manual

ACM—Air Combat Maneuvering

ACT—Air Combat Tactics

ADAIR—Adversary Air

AFE—Aircrew Flight Equipment

AFECT—Aircrew Flight Equipment Continuation Training

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFR—Air Force Reserve
AFSC—Air Force Specialty Code
AFTTP—Air Force Tactics, Techniques and Procedures
A/G—Air to Ground
AGL—Above Ground Level
AGSM—Anti-G Straining Maneuver
AGTS—Aerial Gunnery Target Set
AHC—Advanced Handling Characteristics
ANG—Air National Guard
AOA—Angle of Attack
AOP—Aerospace Operational Physiologist
API—Aircrew Position Indicator
ARMS—Aviation Resource Management System
ATO—Automatic Takeoff
ATRS—Aerial Targets Squadron
AVTR—Airborne Video Tape Recorder
BAQ—Basic Aircraft Qualification
BDA—Battle Damage Assessment
BFM—Basic Fighter Maneuvers
BMC—Basic Mission Capable
CAP—Critical Action Procedure
CC—Commander
CCIP—Continuously Computed Impact Point
CPT—Cockpit Procedures Trainer
CRM—Cockpit/Crew Resource Management
CT—Continuation Training
CV—Vice Commander
DAF—Department of the Air Force
DC—Drone Chase
DMC—Drone Mission Commander
DNIF—Duty Not Involving Flying
DO—Director of Operations

DRAPE—Derived Radar Altitude Penetration Enhancement
EA—Electronic Attack
EP—Evaluator Pilot
EPE—Emergency Procedures Evaluation
ETCA—Education and Training Course Announcements
EXP—Experienced
EXU—Experience Remote Pilot
FAC (A)—Forward Air Controller Airborne
FCF—Functional Check Flight
FCP—Front Cockpit
FCS—Fixed Control Site (e.g., GRDCS and WITS)
FE—Flight Examiner
FEF—Flight Evaluation Folder
FL—Flight Lead
FLUG—Flight Lead Upgrade
FP—First Pilot
FS—Flight Surgeon
FSAT—Full Scale Aerial Target
FSO—Flying Safety Officer
FTU—Formal Training Unit
G—Gravitational—Load Factor, 32.2 feet per second squared
GRDCS—Gulf Range Drone Control System (TAFB)
HAFB—Holloman AFB, NM
HQ—Headquarters
HUD—Head Up Display
IAW—In Accordance With
IFF—Introduction to Fighter Fundamentals
IFR—Instrument Flight Rules
INEXP—Inexperienced
INS—Internal Navigation System
INST/QUAL—Instrument/Qualification
IP—Instructor Pilot

IRC—Instrument Refresher Course
IU—Instructor Remote Pilot
IPUG—Instructor Pilot Upgrade
IUUG—Instructor Remote Pilot Upgrade
IQT—Initial Qualification Training
KIAS—Knots Indicated Air Speed
KIO—Knock-it-Off
KPP—Key Performance Parameters
LAI—Low Altitude Intercept
LASDT—Low Altitude Step Down Training
LATF—Low Altitude Tactical Formation
LATN—Low Altitude Tactical Navigation
LD—Lead
LOC—Loss of Carrier
LOWAT—Low Altitude Awareness Training
LOX—Letter of Qualifications
MAJCOM—Major Command
MC—Mission Capable
MCS—Mobile Control System
MDS—Mission Design Series
MP—Mission Pilot
MQT—Mission Qualification Training
MR—Mission Ready
MU—Unmanned FSAT X-Ray
N-MR—Non-Mission Ready
NULLO—Not Under Live Local Operator
OG—Operations Group
OPA—Optionally Piloted Aircraft
OPR—Office of Primary Responsibility
P—**Pilot**—**PAI**—Primary Aircraft Inventory
PCS—Permanent Change of Station
PEX—Patriot Excalibur

PQI—Professional Qualification Index (DAFPD 11-4 and DAFMAN 11-401)

QT—Qualification Training

RAP—Ready Aircrew Program

RCP—Rear Cockpit

RCO—Range Control Officer

RDO—Range Destruct Officer

RSO—Range Safety Officer

RTB—Return to Base

RTRB—Realistic Training Review Board

SAFE—System Acceptance Flight Evaluation

SEFE—Stan/Eval Flight Examiner

SELO—Standardization/Evaluation Liaison Officer

SEPT—Situational Emergency Procedures Training

SFO—Simulated Flame Out

SIM—Simulator

SOC—Senior Officer Course

SOF—Supervisor of Flying

SP—Safety Pilot

SQ—Squadron

SQ/CC—Squadron Commander

SSAT—Subscale Aerial Target

SSTO—Single Ship Take Off

TAFB—Tyndall AFB, FL

TCS—Target Control System

TDY—Temporary Duty

U—Remote—Pilot

UIP—Upgrading Instructor Pilot

UIU—Upgrading Instructor Remote Pilot

UP—Upgrading Pilot

UU—Upgrading Remote Pilot

USAFWS—United States Air Force Weapons School

VFR—Visual Flight Rules

VMC—Visual Meteorological Conditions

WEG—Weapons Evaluation Group

WG—Wing

WITS—WSMR Integrated Target System (HAFB)

WSEP—Weapon System Evaluation Program

WSMR—White Sands Missile Range

WX—Weather

Office Symbols

53 WEG/CC—53d Weapons Evaluation Group Commander

82 ATRS/CC—82d Aerial Targets Squadron Commander

82 ATRS/CCV—82d Aerial Targets Squadron Standardization and Evaluation

82 ATRS Det 1/CC—82d Aerial Targets Squadron Detachment 1 Commander

82 ATRS/DO—82d Aerial Targets Squadron Operations Officer

ACC/A3—Air Combat Command Director of Operations

ACC/A3TO—Air Combat Command Flight Operations and Training Branch

ACC/A3TV—Air Combat Command Standardizations Branch

COMACC—Commander, ACC

Terms

Advanced Handling Characteristics (AHC)—A series of maneuvers designed to acquaint the pilot with handling characteristic at near maximum performance. These include rudder reversals, break turns, minimum time turns, optimum turns, high speed dive recoveries and acceleration maneuvers.

Air Combat Training (ACBT)—A general term which may include (D) BFM, (D) Air Combat Maneuvering (ACM), and (D) ACT. Accomplishment of this event requires visual maneuvering against an airborne adversary. Maneuvering categories (IAW AFMAN 11-214) are not a litmus test for the accomplishment of ACBT. The prefix (D) refers to dissimilar assets. When the prefix is missing, similar is assumed as flown/required. When present in parenthesis, dissimilar is optional. When present without parenthesis, dissimilar is assumed flown or required. This convention corresponds to all facets of ACBT (i.e., BFM, ACM, ACT).

Air Combat Tactics (ACT)—Training in the application of offensive and defensive maneuvering to achieve a tactical air-to-air objective. DCA, OCA, Force Protection and other A-A centric missions that include element/multi-ship blue tactics are examples of ACT. Maneuvering categories (IAW AFMAN 11-214) are not a litmus test for the accomplishment of ACT.

Air Combat Maneuvers (ACM) Mission—ACM training is designed to achieve proficiency in element formation maneuvering and the coordinated application of BFM to achieve a simulated kill or effectively defend against one or more aircraft from a pre-planned starting position.

Basic Fighter Maneuvers (BFM) Mission—Building block mission. BFM (1 v 1) Training designed to apply aircraft handling skills to gain proficiency in recognizing and solving range, closure, aspect, angle off, and turning room problems in relation to another aircraft to either attain a position from which weapons may be launched, or defeat weapons employed by an adversary.

Cockpit Procedures Trainer (CPT)—A training device in which instruments and displays are activated to respond to trainee inputs. Used for safety of flight, instrument, normal, and emergency procedures.

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

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

Demanding Sortie—Sorties that task the aircrew to the extent that flying frequency and continuity are most critical. Included are LOWAT (below 1000 feet AGL), instructor duties, DC and FCS sorties.

Drone Chase Mission—Mission flown in support of a remotely-controlled FSAT (manned or NULLO).

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

Experienced Aircrew—For IQT entry purposes: 1000 FP/MP/IP hours in high performance fighter or AT/T-38 Instructor hours with 53 WEG/CC approval. For CT currency purposes: IQT/MQT complete and: 500 F/QF-16 FP/MP/IP hours, or 1000 total hours plus 200 F/QF-16 hours, or 600 total hours plus 300 F/QF-16 hours, or previously fighter experienced plus 100 QF-16 hours.

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

Low Altitude Training (LOWAT)—Operations in a certified low altitude block.

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

Low Altitude Tactical Navigation (LATN)—Training conducted below 1,000 feet AGL using onboard systems and the fundamental aspects of dead reckoning and point-to-point low altitude navigation, with or without prior route planning.

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

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

Mission Capable (MC)—A status of an aircrew member who has satisfactorily completed training prescribed to perform the unit mission.

Mission Qualification Training (MQT)—Training required to achieve a basic level of competence in unit's primary tasked missions.

Non-demanding Sortie—A day sortie that provides the aircrew with opportunity to regain basic flying proficiency without excessively tasking those skills that have been under used during the non-flying period. Non-demanding sorties are instruments, AHC, and low-level navigation at or above 1000 feet AGL and intercepts executed under limited-maneuvering training rules.

Not Under Live Local Operator (NULLO)—An FSAT drone flown without a pilot on board.

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

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

Specialized Training—Training in specialized systems or flight responsibilities such as flight lead or instructor. This training may be conducted in MQT or CT, as required.

Squadron Supervisor—Squadron Commander (SQ/CC), Operations/Assistant Operations Officers, Flight Commanders, and contractor equivalents.

Tango—Drone Runway Preflight/Launch Coordinator for unmanned NULLO FSAT missions.

X-Ray—TCS FSAT primary remote pilot for unmanned NULLO FSAT missions.

Yankee—TCS FSAT primary remote pilot for manned FSAT missions and assistant remote pilot for unmanned NULLO FSAT missions.