

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

**AIR FORCE MANUAL 11-2FTV,
VOLUME 1**



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FLYING OPERATIONS

FLIGHT TEST AIRCREW TRAINING

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This publication implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations* and is consistent with AFPD 11-4, *Aviation Service*; Air Force Manual (AFMAN) 11-202V1, *Aircrew Training*, and AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*. This publication applies to all Air Force Materiel Command (AFMC) units, as well as Defense Contract Management Agency (DCMA) units pursuant to AFI 10-220_IP, *Contractor's Flight and Ground Operations*, and Air Force Reserve (AFR) Total Force Associations under AFMC Coordination Authority pursuant to AFMAN 90-1001, *Planning for Total Force Associations (TFAs)*, Memoranda of Agreement (MOA). This publication does not apply to the Air National Guard or the United States Space Force. Compliance with attachments to this instruction prescribe Mission Design Series (MDS) specific operating procedures which are mandatory. Units will maintain all applicable attachments for assigned/possessed aircraft. This publication may be supplemented at lower levels, but all supplements must be routed to the OPR of this publication for coordination prior to certification and approval. Keep supplements current by complying with DAFI 90-160, *Publications and Forms Management*. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. The authorities to waive wing or unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See DAFI 90-161, *Publishing Processes and Procedures*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate tier waiver approval authority, or alternately, to the requestor's commander for non-tiered compliance items (See [Paragraph 1.2](#)). Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction 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. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been substantially revised and should be completely reviewed. Much of the material from the Major Design (MD) specific attachments has been brought forward to the main document. Training tables and currencies have been substantially modified.

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1. GENERAL INFORMATION.

1.1. **Program Goals.** The AFMC aircrew training program objective is to develop and maintain the most qualified aircrews to ensure safe and effective flight test activities.

1.2. **Waivers.** Accomplish all Tier 0/1 waiver requests using the *DAF Form 679*, Air Force Publication Compliance Item Waiver Request/Approval. Accomplish all Tier 2/3/non-tiered waiver requests on the AFMC Form 73, AFMC Waiver and Approval Request. Submit Tier 0/1/2 waiver requests through appropriate operations channels and chain of command to Air Force Materiel Command Standardization and Evaluation Branch (AFMC/A3V) using the AFMC/A3V SharePoint for processing. Email approved T-3 waivers to AFMC/A3V workflow.

1.2.1. The Commander, Air Force Materiel Command (AFMC/CC) delegates Air Force Materiel Command Air, Space and Information Operations Directorate (AFMC/A3) as the T-2 waiver authority for this manual.

1.2.2. AFMC/A3 is the USAF waiver authority for contractor operations (See AFI 10-220).

1.2.3. AFMC/A3V is the T-3 waiver authority for units without flying wing commanders and the waiver authority for non-tiered items.

1.3. **General Guidance.** AFMC publishes a 3-volume set of Flight Test (FT) instructions containing attachments for each weapon system flown. These instructions, numbered AFMAN 11-2FTV1, V2 and V3, contain training, evaluation and operations procedures/restrictions. AFMC uses these instructions, with MD specific attachments, in lieu of AFMAN11-2 MD-Specific volumes for flying operations. Reference **Attachment 31** for Aircraft flown under AFMC guidance without a specific MD Attachment.

1.3.1. In the absence of published guidance, AFMC units coordinate with AFMC/A3V for approval of locally developed guidelines.

1.3.2. AFMC/A3V SharePoint address is: <https://usaf.dps.mil/teams/HQ-AFMC-STAN-EVAL/SitePages/Home.aspx>

1.3.3. Events/maneuvers without established AFMC, flight manual, or lead MAJCOM guidance are prohibited unless flown as part of an approved test plan.

1.3.4. USAF Test Pilot School (TPS) publishes guidance for administration of the syllabus glider and Flight Test Engineer (FTE) airmanship programs governed by Title 14 Code of Federal Regulations (CFR) Part 61, *Certification: Pilots, Flight Instructors and Ground Instructors*, and 14 CFR Part 91, *General Operating and Flight Rules*.

1.3.5. TPS will define instructor (assigned and attached) training, currency, and proficiency requirements specific to administering the TPS syllabus. **(T-2) Note:** Ensure compliance with [paragraph 4.4](#) and [paragraph 4.7](#), Loss of Currency and Proficiency.

1.3.6. TPS student training is as directed in the TPS syllabus.

1.3.7. The USAF School of Aerospace Medicine (SAM) conducts training for students as directed in USAF SAM syllabus.

1.4. Roles and Responsibilities.

1.4.1. AFMC/A3V responsibilities:

1.4.1.1. Review and approve Phase I and II training plans (**Exception:** Unit Mission Orientation (UMO) and unit specific plans) and training requirements for aircraft and/or individuals for which guidance does not currently exist.

1.4.1.2. Maintain all AFMC approved training plans on Center Ops Online (COOL) located at (<https://cool.area52.afnoapps.usaf.mil/>).

1.4.1.3. Publish an AFMC authorized simulator (sim) listing on AFMC/A3V SharePoint.

1.4.1.4. Initiate annual Command Chief Pilot (CCP) reviews of training plans in July.

1.4.1.5. Adjudicate AFMAN differences.

1.4.2. OG/CCs responsibilities:

1.4.2.1. Ensure capability to fly unit aircraft, including contingencies or unusual circumstances.

1.4.2.2. Approve Qualitative Evaluations and prerequisite aircraft training IAW [paragraph 2.5.1](#) and [paragraph 2.5.7](#).

1.4.2.3. Review the End of Half (EOH) Report and any required corrective actions.

1.4.2.4. Approve unit specific and UMO training plans.

1.4.2.5. Endorse local requests in lieu of formal training.

1.4.2.6. Endorse removal requests from scheduled formal training.

1.4.3. Flying Unit Commanders (Unit CCs) responsibilities: **Note:** Within this document, Unit CC duties are delegable to the Operations Officer unless specifically stated otherwise.

1.4.3.1. Determine which aircrew maintain qualification in specific aircraft and events including determining the number of night current aircrew necessary to execute the unit mission.

- 1.4.3.2. Identify and nominate aircrew for instructor qualification.
- 1.4.3.3. Monitor aircrew training progress to ensure timely progression through training phases and identify areas in which an aircrew member needs more training.
- 1.4.3.4. Assign individual training and qualifications/certifications IAW applicable guidance.
- 1.4.3.5. Certify Aircrew Letter of Qualification (Letter of X (LoX)) changes. Certify the LoX at least once per month.
- 1.4.3.6. Review flight profiles, ensure sound safety principles, and ensure all flights are thoroughly planned, monitored, and flown as briefed.
- 1.4.3.7. Assign EOH corrective actions, if required.
- 1.4.3.8. Review unit specific and UMO training plans.
- 1.4.4. Unit Training Office responsibilities:
 - 1.4.4.1. Develop and implement programs to carry out required aircrew training.
 - 1.4.4.2. Ensure all Education Training Course Announcement (ETCA) formal course prerequisites are scheduled prior to requesting formal training and before entering an individual into any phase of training. **Note:** Units request formal training through AFMC/A3V.
 - 1.4.4.3. Track Phase I and II training progress (entry and completion dates as a minimum).
 - 1.4.4.4. Maintain aircrew training folders using COOL, or paper if COOL is inaccessible, for all assigned/attached flyers (**See paragraph 1.5.3.**). Classified programs maintain equivalent training documentation (electronic or paper) via secure methods.
 - 1.4.4.5. Conduct and document a review on active training folders annually.
 - 1.4.4.6. Conduct and document a final review before a training folder becomes inactive.
 - 1.4.4.7. Maintain a certified LoX via COOL, paper if COOL is inaccessible, to document all aircrew qualifications/certifications.
 - 1.4.4.8. Develop AFMC COOL training plans and establish currency/proficiency requirements for Non-Rated Aircrew (NRA) mission certifications, aircraft designated as developmental, experimental, pre-production or prototype, and training where AFMC approved guidance does not yet exist. Submit to AFMC/A3V for approval prior to use.
 - 1.4.4.8.1. Develop Phase II work-up training programs and currencies to incorporate into test and/or safety plans for short term certifications that AFMC aircrew have no intent or method to maintain currency beyond completion of the test program (e.g., NVG Assault Landing, Single Engine Air Start).
 - 1.4.4.8.2. Develop unit specific training plans including UMO as necessary.

1.4.4.9. Initiate programmed flying training, programmed ground training, and local qualification training requests via the AFMC/A3V SharePoint.

1.4.4.10. Establish procedures so individuals, commanders and supervisors can monitor progress toward accomplishing currency and proficiency requirements.

1.4.4.11. Create EOH Reports listing aircrew who failed to meet proficiency requirements. Track the completion of assigned EOH corrective actions.

1.5. Training Guidelines.

1.5.1. Training restrictions are incorporated throughout this instruction, but MD-Specific attachments take precedence over main body guidance.

1.5.2. Maintain all training and currency/proficiency documents for a minimum of the current and previous training period. Items documented on an Aircrew Records Management System (ARMS) individual training summary meet this intent.

1.5.3. Document all waivers and commander approvals (Acceptance of Qualification-AOQ, Entry into Training-EIT, etc.) referenced in this document or applicable to an individual's training in the Memorandum for Record (MFR) section of their training folder.

1.5.4. Acceptance of Qualification (AoQ). Unit Commanders may accept an individual's qualifications/certifications (basic aircraft, mission and upgrade) from both AFMC and non-AFMC sources. **(T-2)** Acceptance is predicated on applicable validation such as the AF Form 8, *Certificate of Aircrew Qualification*, AF Form 1381, *USAF Certification of Aircrew Training*, AF Form 4348, *USAF Aircrew Certifications*, or other appropriate documentation (including formal training course grade sheets if the commander has reviewed the course syllabus and grading standards for the event they are accepting, e.g., TPS chase). If training is accepted, the Unit CC ensures AFMC-specific training items are covered. Place signed AOQ letters in the MFR section of the aircrew training folder. If additional training is required, document training via MFR in the individual's aircrew training folder. Document basic aircraft qualifications on the AF Form 4348 and training certifications on the AF Form 1381, reference AFMAN 11-202V2, *Aircrew Standardization/Evaluation Program* for guidance.

1.5.5. Contractor Aircrew. Reference AFI 10-220.

1.5.6. Entry into Training (EIT). Prior to beginning training, the Unit CC authorizes training via the LoX or an EIT letter.

1.5.7. Training Sequencing.

1.5.7.1. Do not enter aircrew into concurrent Phase I training plans. **(T-2) Exception:** Unit CCs may approve aircrew to execute Phase I IQT (Initial Qualification Training) concurrently with Phase I conversion/difference training.

1.5.7.2. Pilots complete Phase I initial/requalification training and evaluation prior to Phase II training. **(T-2) Exceptions:**

1.5.7.2.1. Reference **Chapter 7** for pilot concurrent training authorizations.

1.5.7.2.2. Pilot conversion/difference, night, and instructor requalification training is authorized concurrently with Phase II training.

1.5.7.2.3. Unit CCs may approve pilots previously qualified on the MD and phase II element and conduct those training plans concurrently based on prior proficiency and recency of experience.

1.5.7.2.4. Pilots assigned to TPS and upgrading to instructor are authorized to conduct concurrent Phase I and Phase II training.

1.5.7.2.5. All other crew positions may execute concurrent Phase I and Phase II training.

1.5.8. Training Duration.

1.5.8.1. Complete all training plans, including the flight evaluation if applicable, within 6 months, to the day, of the first training event on that plan, ground or flight. A flight evaluation resulting in a First Pilot (FP) restricted Form 8 satisfies this requirement.

1.5.8.2. If training is not complete within 6 months, remove the trainee from training or obtain an AFMC/A3V waiver. Requests state why training was not completed, why the extension is required, plan for completion and new completion date.

1.5.9. Simulator.

1.5.9.1. AFMC/A3V lists authorized simulators on the AFMC/A3V SharePoint. Simulators must be able to simulate emergency instrument patterns at instructor discretion and Level C+ at a minimum, unless further exempted by AFMC/A3V.

1.5.9.2. Use simulator training (documented on AFMC Forms 67, *Ground Training Record*, 68, *Flying Training Record*, or 69, *Flying Training Comments*) to the maximum extent possible to augment local Phase I and II training. Complete syllabus required simulator training before beginning flying training (T-3); however, additional non-syllabus simulator training may be executed during flying training to reinforce training objectives but does not count towards flying training requirements. **Exception:** If the aircraft is flown to the simulator location and an instructor is on board, the transit may be credited toward flying training requirements.

1.5.9.3. If an MD has no simulator (formal or contracted), simulator training is not required.

1.5.9.4. If simulator training is specified but not practical, the OG/CC may approve (via MFR in the training folder) an instructor supervised cockpit familiarization, with displays powered and functioning, stressing normal and emergency procedures to include unique procedures normally accomplished in the aircraft.

1.5.9.5. Aircrew certified in several series of the same mission design aircraft only need to complete annual refresher simulator training in one series.

1.5.9.6. Flying units may develop annual simulator refresher lesson plans to complement their local mission vice executing lead MAJCOM refresher syllabi. Lesson plans emphasize aircraft systems, emergency procedures and Crew/Cockpit Resource Management (CRM).

1.5.9.7. Simulator training includes suitable crew compliment for the events to be logged and mirror a normal training sortie (e.g. 5 minutes in the simulator prepositioned to a 5 mile final to log a single ILS and landing is NOT suitable).

1.5.9.8. Failure to complete simulator refresher training in the prescribed period is not grounding. However, training offices should schedule training as soon as possible for the individual. If annual simulator refresher training is more than six months overdue, SQ/DO approval is required for unsupervised flight. Unit DOT will document approval via MFR in the training folder and include the scheduled date for simulator completion.

1.5.10. Instructor Requirements.

1.5.10.1. In order to conduct training, an instructor must be current and qualified in the MD, crew position, and task (i.e., Phase I or Phase II event) and while in flight, in a position to correct or override the student if an action performed is inappropriate. (T-2) The following exceptions apply:

1.5.10.2. For ground training, crew positions that have common systems may be instructed by unlike crew positions (e.g., Weapon System Operators (WSO) instructing pilots or pilots instructing WSOs), if the tasks are similar in nature. **Paragraph 7.1** and MD attachments may provide additional authorizations.

1.5.10.3. Any rated or Career Enlisted Aviator (CEA) instructor may instruct NRA Phase I and II training. Instructor qualified NRA may only administer NRA Phase II training

1.5.11. Test Aircraft Limited Availability. If adequate flight currency and proficiency cannot be maintained in the test aircraft (e.g., prototype aircraft), then aircrew may maintain currency and proficiency in an AFMC operational aircraft similar in flight characteristics and handling qualities to the test aircraft. Flying proficiency events accomplished in the test aircraft may be credited toward total training requirements.

1.6. **COOL.** Manage AFMC training and currencies using COOL with source documentation being pulled from ARMS to the maximum extent possible.

1.7. **Flight on AFMC Aircraft.** A consolidated summary of aircrew, non-aircrew, and non-interference flying status prerequisites is available on the AFMC 1C0X2A3V SharePoint under AFMC 1C0X2 SharePoint at <https://usaf.dps.mil/teams/11333/SitePages/Home.aspx>. All aircrew (rated, NRA and CEA) and Ops Support Fliers (OSF) (ASC 9C) complete Phase I Training (except where **paragraph 2.5.1** applies). (T-2)

1.8. **Ancillary Training.** Expanded AFMC training guidance is provided for the AFIs/AFMANs below. In the event of a conflict, the parent AFI/AFMAN is the governing document. For a list of current ancillary training tables, reference: AFMC 1C0X2 SharePoint <https://usaf.dps.mil/teams/11333/SitePages/Home.aspx>

1.8.1. AFMAN11-301V1, *Aircrew Flight Equipment (AFE) Program*. All non-passenger and non-incentive personnel are required to complete egress training prior to flying. Training is valid for 12 months for ejection seat aircraft and 24 months for non-ejection seat aircraft. This includes LL02 (Egress-Ejection Seat), LL03 (Egress-Non-Ejection Seat), and LL06 (AFE Training). **Note: for passenger and incentive training, see AFMAN 11-301V1.**

1.8.2. LL07 Fit Check will be completed every 6 months for all aircrew. (**Exception:** T-38 and U-2 platforms which are 120-day currency).

1.8.3. AFMAN 11-301V1. Unless required by the Unit Type Code (UTC), AFMC does not require LL04 (ACBRN), LL05 (Egress-ACBRN), LL08 (ACBRN-Fit Check) currencies.

1.8.4. AFMAN 11-404, *Fighter Aircrew Acceleration Training Program*. PP14 (Anti-G Straining Maneuver (AGSM) Refresher) currency is 365 days.

1.8.5. AFI 16-1301, *Survival, Evasion, Resistance and Escape (SERE) Program*. Refer to source AFI for practical survival training exceptions during periods of non-availability/unsafe weather.

1.8.6. AFI 16-1301, AFMC is more restrictive requiring Mission Essential Personnel (MEP) to complete tailored Emergency Parachute Training (EPT) with a 12-month currency prior to flying ejection seat aircraft.

1.8.7. AFI 16-1301. Unless required by the UTC, AFMC does not maintain SS02 (Combat Survival), SS03 (Conduct After Capture), or SS09 (EPT with ACBRN) currencies.

1.8.8. AFI 16-1301. AFMC requires aircrew not intending to obtain MD qualification and MEP flying overwater (beyond autorotational distance) in MD equipped with Helicopter Emergency Egress Devices (HEED) training prior to flight valid for 12 months.

1.9. Crew/Cockpit Resource Management (CRM).

1.9.1. For the purpose of AFMC, initial CRM training is defined as CRM training that was either conducted as part of initial flight training (i.e., ATC/AETC), or the first academic CRM training that a crewmember received. If units receive crewmembers that have not received any type of initial CRM training, they will require CRM academics with emphasis on initial CRM skills and concepts.

1.9.1.1. CRM academic training will be accomplished every three years. Continuation training/CRM exercise may include either ground training or simulator/flying training. Aircrews and those aircrews designated by the Flight Operations Authority requiring CRM will accomplish a minimum of one CRM continuation/CRM exercise training event every 12 months. AFMC crewmembers attached to another MAJCOM flying unit will maintain that MAJCOM's CRM currency/training requirements and are authorized to update their CRM currency/training with AFMC upon completion of training. CRM academic and continuation/CRM exercise training events will be documented and tracked through ARMS/COOL. For small flying organizations (with less than four primary crewmembers) which do not utilize ARMS/COOL. CRM events may be tracked in training folders. accomplish a minimum of one CRM continuation/CRM exercise training event every 12 months. AFMC crewmembers attached to another MAJCOM flying unit will maintain that MAJCOM's CRM currency/training requirements and are authorized to update their CRM currency/training with AFMC upon completion of training. CRM academic and continuation/CRM exercise training events will be documented and tracked through ARMS/COOL. For small flying organizations (with less than four primary crewmembers) which do not utilize ARMS/COOL; CRM events may be tracked in training folders.

1.9.1.2. Crediting CRM Events. Crewmembers may credit an actual aircraft emergency as an annual CRM continuation/exercise training event provided that during the debrief crew performance, interaction, CRM skills, and feedback to improve crewmember skills, are thoroughly critiqued and reviewed. For multiplace aircraft, the entire crew must be present during the debriefing.

1.9.1.3. CRM Briefing and Debriefing Guide. Identify strengths or weaknesses that you or members of your crew/test team can build on with the focus on improving your CRM skills. Units are authorized to reproduce this attachment and place it in local flight briefing guides.

Table 1. CRM Briefing/Debriefing Guide Situational Awareness.

Situational Awareness		
Anticipates, monitors, prevents loss, recognizes own/others loss, regains SA	Vs	Disoriented, confused, lost fixated
Crew Coordination/Flight Integrity:		
Leads, identifies roles/expectations, sets tone, respects, encourages, assertive	Vs	Judges, ridicules, over reacts, ignores, imposes, accepts error
Communication:		
Clear, concise, listens, interprets, efficient, gets/gives feedback	Vs	Interrupts, withholds, discounts, ambiguous, mumbles
Risk Management/Decision Making:		
Identifies/assesses problem, explores solutions, makes appropriate decision involves and informs crew	Vs	Avoids, delays, vacillates, argues, fails to consider consequences of
Task Management:		
Prioritizes, assign tasks, creates time, plans, delegates, checklist discipline	Vs	Rushed, overloaded, complacent
Mission Planning/Debrief:		
Objective, thorough feedback, nonthreatening, recaps key points solicits inputs, provides corrective actions	Vs	Rushed, incomplete, vague, lectures, blames, ignores

2. TRAINING PHASE I – AIRCRAFT QUALIFICATION TRAINING.

2.1. **General.** This section outlines training needed to qualify aircrew (rated, NRA and CEA) and OSF for basic aircrew duties in an assigned position for a specific aircraft. Phase I training may include IQT, Requalification, Instructor, Transition, Senior Officer/Test Pilot, Conversion/Difference and Launch and Recovery training.

2.2. **Training Prerequisites.** Before entering qualification training, complete AFMAN 11-202V1 prerequisites in addition to USAF ETCA prerequisites.

2.2.1. Centrifuge Training. Guidance on centrifuge training is provided in AFMAN 11-404.

2.2.2. Remotely Piloted Aircraft (RPA) Training. Prior to requesting RPA pilot qualification training, candidates must meet one of the following requirements (**T-2**):

2.2.2.1. DoD pilot with an instrument qualification.

2.2.2.2. DoD RPA pilot with a Basic Unmanned Aerial System (UAS) Qualification-4 (BUQ 4).

2.2.2.3. Civilian FAA commercial pilot with instrument rating and a valid FAA medical certificate or equivalent per AFI 48-123, Medical Examinations and Standards.

2.3. Qualification/Requalification Training.

2.3.1. Local Qualification/Requalification Training. Guidance on local qualification/requalification training is provided in AFMAN 11-202V1 AFMC Supplement. Unit training office requests should include the following:

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

2.3.1.2. Summary of the individual's flying experience.

2.3.1.3. Proposed training syllabus.

2.3.1.4. Training program differences from the ETCA formal course or, if applicable, the MAJCOM authorized program. **Note:** Courseware need not be converted to AFMC formats.

2.3.2. Night Qualification. (N/A MQ-9, YQ-11) Qualification is optional at the discretion of the Unit CC.

2.3.2.1. Reference AFMAN 11-202V2 and AFMAN 11-2FTV2, *Flight Test Aircrew Evaluation Criteria*, Form 8 guidance. Additionally, reflect "day only restrictions" on the unit LoX.

2.3.2.2. Single-place aircraft: Complete night qualification events after the qualification flight evaluation. (**T-2**)

2.3.2.2.1. {F-15/F-16/T-38} Fly the first night qualification/requalification sortie dual. (**T-3**)

2.3.2.2.2. Single-place aircraft Instructor Pilots (IP) must be in radio contact with the trainee and monitor night landings from a chase aircraft or, with OG/CC approval, a ground position suitable to observe the approach and landing. (**T-2**)

2.3.2.2.3. Chasing overhead patterns to observe night landings is prohibited. (**T-2**)

2.3.3. Single-Pilot Aircraft. Aircraft with flight manuals requiring a crew of only one pilot regardless of whether a second seat exists (e.g., F-15 and F-16 are both "single-pilot aircraft").

2.3.3.1. Ground training. Prior to the first flight, complete a closed book written qualification test and critical action procedures/boldface examination. (**T-2**)

2.3.3.2. Flight Training.

2.3.3.2.1. If an IP is not on board the aircraft with the trainee, fly all Phase I training under Visual Meteorological Conditions (VMC) until the instrument evaluation is complete. **(T-1)**

2.3.3.2.2. First Flight. An IP qualified in the same aircraft must fly in and instruct from a second seat in the same aircraft or chase aircraft for the first training flight in a single-pilot aircraft. **(T-2)**

2.4. Conversion/Differences Training.

2.4.1. Conversion training is required when dissimilarities within (or between) series of the same MD aircraft (e.g., F-15A-D to F-15E; T-38A to T-38C; HH-60G to HH-60W) are significant enough to warrant more in-depth training, usually including flight training. Conversion training open book testing is required, and closed book testing is not required (unless MD attachments dictate otherwise).

2.4.2. Difference training is required when transitioning within (or between) series of the same MDS (e.g., KC-135R Block 40 to KC-135R Block 45; F-16C PW Engine to F-16C GE Engine; HH-60M to HH-60W).

2.4.3. **Exception:** Due to the volume of variants, C-130 qualification, difference, and conversion training does not conform to these definitions; see MD attachment.

2.4.4. Phase II certified aircrew completing conversion/difference training do not need to re-accomplish Phase II training in the new aircraft.

2.4.5. Instructors and flight examiners completing conversion/difference training may be designated instructors and flight examiners in the new series.

2.5. AFMC Specialized Training.

2.5.1. Qualitative and Short-Term Evaluations. The OG/CC may approve TPS graduates, TPS students, and TPS staff instructors to perform qualitative and short-term evaluations to enhance test aviator career experience or accomplish specific tests without completing Phase I training. Guidance for TPS students and staff instructors are provided in TPS curriculum and AFMAN 11-2FTV3. Qualitative Evaluations must not be used to conduct aircraft training as a precursor to or substitute for other aircraft training programs. **(T-2)**

2.5.1.1. The AFTC/CC is the approval authority for Air Force Test Center (AFTC) aircrew O-6 and above. AFMC/A3 is the approval authority for non-AFTC aircrew O-6 and above. This authority must not be further delegated nor confused with Orientation Flight approval authorities in DAFMAN 11-401, *Aviation Management*. **(T-2)**

2.5.1.2. Missions may be accomplished on any operations, test, test support, or training mission and follow guidance provided in DAFMAN 11-401 flight authorization and flying time logging processes.

2.5.1.3. Unit commanders must review flight profiles, ensure sound safety principles are followed, and ensure all flights are thoroughly planned, monitored, and flown as briefed.

2.5.1.4. Minimum requirements:

2.5.1.4.1. Aircrew meet flight on AFMC Aircraft requirements in [paragraph 1.8](#)

and have a current Form 8 (or other service equivalent) in any aircraft (except TPS students/graduated TPS students within the past 6 months and will fly a Qualitative Evaluation on a dual-controlled aircraft). (T-2)

2.5.1.4.2. Dual-controlled aircraft: A qualified instructor pilot at a set of controls. (T-2)

2.5.1.4.2.1. Pilots may execute takeoffs and landings from either seat (including helicopters).

2.5.1.4.2.2. Non-pilot aircrew may conduct qualitative and short-term evaluations if they complete the ground training for non-qualified personnel IAW [paragraph 2.5.7](#).

2.5.1.4.2.3. Non-pilot aircrew will not control the aircraft during critical phases of flight. (T-1)

2.5.1.4.3. Single-place aircraft: Test pilots may fly single-place aircraft if a dual controlled model is not available if current in a similar type of aircraft (per AFMAN 11-202V2 AFMC Supplement in similar Instrument Evaluation Category). An instructor pilot current in the aircraft being evaluated must be in a chase aircraft. (T-2) The evaluating test pilot must complete the following within 30 days before the flight (T-2):

2.5.1.4.3.1. Qualification open and closed book written tests.

2.5.1.4.3.2. Appropriate Phase I ground training (OG/CC determines the extent of training given on local area procedures and aircraft systems not used on the flight(s)).

2.5.1.4.3.3. Simulator training or at least 1 hour supervised cockpit time if simulator training is unavailable.

2.5.1.4.3.4. Preflight brief including an oral evaluation of normal and emergency procedures.

2.5.2. Limited Qualification Status. For primary aircrew that cannot meet the training requirements of this instruction because of mission requirements or aircraft limitations. The following rules apply to this status:

2.5.2.1. Use is restricted to aircrew in particular test programs, units without assigned aircraft, multiple-qualified (multi-qualification) pilots (who maintain full qualification in their primary aircraft) and TPS instructors.

2.5.2.2. Do not use this status to solve problems caused by temporary shortages of aircraft or flying hours or as an intermediate qualification leading to initial qualification. (T-2)

2.5.2.3. OG/CCs ensure sufficient capability is retained to fly unit aircraft during contingencies or unusual circumstances. (T-2)

2.5.2.4. Limited qualification may be acquired by completing training in the areas aircrew exercise in the accomplishment of the mission. For example, a pilot who has a limited qualification in the F-16 and is restricted to non-formation, day and VMC

would only need the familiarization sorties during IQT. Continuation training and currency would consist of sorties and landings only.

2.5.2.5. Personnel in limited qualification status only perform in-flight duties under conditions for which they are trained and current (e.g., day or VMC only). **(T-2)**

2.5.2.6. Personnel in this status only fly the aircraft on the assigned mission, and the only additional personnel authorized on the aircraft are those required for mission completion. **(T-2)**

2.5.2.7. A full qualification may be acquired by completing the full training requirements.

2.5.3. Civil Type Certification.

2.5.3.1. Aircrew executing Civil Aircraft Operations (CAO), including TPS contracted programs, adhere to training, currency, and qualification requirements outlined in Title 14, Code of Federal Regulation (CFR) Part 61, unless guidance is included in this AFMAN. **(T-2)**

2.5.3.2. Request AFMC/A3V approval, IAW [paragraph 1.4.4.8](#), for 14 CFR Part 61 aircrew type certificate training to support approved test programs.

2.5.3.3. OG/CC may approve, on a case-by-case basis, the extra training to earn an Airline Transport Pilot Certificate.

2.5.3.4. Aircrew using a civil training program leading to qualification in a military aircraft reference AFMAN 11-202V2 for Form 8 documentation.

2.5.3.5. RPA Companion Trainer. RPA Pilots, including 18X and 11U AFSC, are authorized to fly civil companion trainers (e.g. Aero Club Cessna) to maintain airmanship and instrument currency. Civil flights are flown IAW the Federal Aviation Regulations (FAR) to include qualification, instructor requirements, Flight Review, and currencies (i.e. intercepting and tracking course, holding, and instrument approach).

2.5.4. C-12/F-16/T-38 Navigator/WSO/EWO Qualification. Complete a qualification flight evaluation consisting of: **(T-2)**

2.5.4.1. Closed book exam from the pilot Master Question File (MQF) (applicable blocks/MDS).

2.5.4.2. Instrument Refresher Course (IRC).

2.5.4.3. Instrument exam.

2.5.4.4. Boldface/CAPS (F-16/T-38 for the rear cockpit only station).

2.5.4.5. Emergency Procedures Evaluation (EPE) emphasizing notes, warnings and cautions for normal and emergency procedures found in Sections 2, 3 and 5 of the flight manual.

2.5.4.6. Flight evaluation.

2.5.4.7. Open book exam requirements are at unit discretion.

2.5.5. Flight Surgeons Qualification.

- 2.5.5.1. Units designate one MD aircraft as primary for Flight Surgeons who fly on more than one of the unit's assigned aircraft. (T-2)
- 2.5.5.2. If no Flight Surgeon training plan exists, an NRA training plan may be utilized instead.
- 2.5.6. NRA Qualification including FTEs and in-flight maintenance technicians (IMT).
 - 2.5.6.1. An NRA qualification is obtained for each MD.
 - 2.5.6.2. Reference [paragraph 1.5.10](#) for instructor requirements.
 - 2.5.6.3. Ground Training. Complete the following minimum training prior to the first flight: (T-2)
 - 2.5.6.3.1. Instructor led training on aircraft systems and test equipment orientation.
 - 2.5.6.3.2. Training focusing on aircraft controls, gauges, switches, and checklist preflight items. If an aircraft is unavailable, a cockpit trainer may be substituted.
 - 2.5.6.3.3. Normal and emergency procedures including crew coordination, terminology, and checklist usage.
 - 2.5.6.4. Flying Training. A MD training flight is required for each MD qualification and should replicate a typical profile the NRA will fly. (T-2) **Exception:** OG/CCs may approve replacing a training flight on an MD with a sortie on a similar aircraft if the specific MD is not available prior to the commencement of the flight test for which the NRA is required.
- 2.5.7. Non-Qualified Personnel Requirements.
 - 2.5.7.1. OG/CCs document training of AFMC personnel flying aircraft (at a crew position with a set of flight controls) in which they are not qualified IAW [paragraph 1.8](#) and AFMAN 11-202V3 and DAFMAN 11-401 (T-2) (**Exception:** Qualitative Evaluations are IAW [paragraph 2.5.1](#)). Qualified helicopter flight engineers or Special Mission Aviators occupying the left seat need not accomplish this training in single pilot helicopters.
 - 2.5.7.2. As a minimum, training includes: (T-2)
 - 2.5.7.2.1. Flight prerequisites and eligibility for flight.
 - 2.5.7.2.2. Aircraft switches and controls.
 - 2.5.7.2.3. Aircraft systems.
 - 2.5.7.2.4. Cockpit familiarization.
 - 2.5.7.2.5. Aircraft Operations (limits, transfer of aircraft control, radios and specific crew position duties).
 - 2.5.7.2.6. Emergency Procedures (to include ground, inflight, egress and ejection).

3. TRAINING PHASE II – MISSION CERTIFICATIONS.

3.1. **General.** Phase II training leads to AFMC mission element certification. Do not develop/consolidate Phase II training plans where completion of one training plan results in multiple certifications (e.g., completion of W training plan yields X, Y, Z certifications). Each

training plan should yield a single certification; however, multiple corresponding training plans may be executed concurrently with redundant events dual logged.

3.1.1. Multi-Qualification. For multi-qualified aircrew maintaining Phase II certifications reference Section 7 to determine whether the certification is transferable for each aircraft.

3.1.2. C-12/F-16/T-38 Navigator/WSO/EWO Mission Certification. Crewmembers may observe Phase II elements in which the Aircraft Commander is current and certified.

3.1.3. Aerial Photographer Certification. Unit CCs, in coordination with the chief photographer, may authorize aerial photographers, classified as NRA to perform airborne photographic duties in support of unit missions. Further guidance is provided in AFI 35-109, *Visual Information*. **Note:** Combat Camera personnel are operational support flyers and are not considered NRA nor AFMC Aerial Photographers until training and qualification are complete.

3.1.3.1. Comply with [paragraph 2.5.6](#). NRA training requirements followed by Phase II Aerial Photographer Certification training (ejection and/or non-ejection). (T-2)

3.1.3.2. Unit CC approval is required to carry more than 2 camera systems on a fighter/trainer sortie due to safety concerns.

3.1.3.3. As a minimum, training includes: (T-2)

3.1.3.3.1. Crew duties take priority over photographer duties.

3.1.3.3.2. Trainee wearing all applicable flight gear with a representative camera system for use in a representative aircraft (or cockpit trainer if aircraft is unavailable).

3.1.3.3.3. Demonstration of equipment stowage.

3.1.3.3.4. Discussion of restrictions associated with aerial photography in the applicable aircraft (e.g. limited space in a fighter cockpit).

3.1.3.3.5. Bailout and ejection procedures with equipment in cockpit.

3.1.3.3.6. Normal procedures including chase positioning and crew coordination terminology (e.g. up-down-forward-aft-in-out). Include photographer specific training to include the importance of sun angles, canopy reflections and problems associated with a zoom lens.

3.1.3.3.7. Mission requirements associated with photo chase sortie (e.g. weapons separation, CFP, Loads and Flutter, Public Relations support). Review past chase mission footage and proof sheets with trainee. Make sure trainee fully understands the indispensable data they are responsible for on photo chase missions. Cover the requirements of a "photo desired" versus a "photo required" mission.

3.1.3.3.8. Practice photography on the ground with each camera to ensure thorough familiarization prior to first flight with a camera.

3.1.3.3.9. A minimum of 1 training flight with no camera system prior to beginning initial Aerial Photographer certification training documented on a NRA training plan.

3.1.3.3.9.1. For subsequent aircraft qualifications, Aerial Photographers not previously qualified on either an F-15 or F-16 are required a minimum of 1 training flight prior to F-15 or F-16 Aerial Photographer certification training.

3.1.3.3.10. Flying training for ejection seat aircraft simulating a typical Photo Chase profile. Fly a day VMC 2-ship with a Photo/Safety Chase certification instructor pilot conducting training.

3.1.3.3.10.1. Ensure inter-cockpit communication, radio calls and equipment management reflect an actual test mission and review mission data after each flight to provide trainee feedback.

3.1.3.3.11. Ground training only for subsequent Aerial Photographer MD qualifications. **Exception:** paragraph 3.1.3.3.9.1.

4. TRAINING PHASE III – CONTINUATION / PROFICIENCY TRAINING.

4.1. **General.** Follow the guidance outlined in this instruction when qualified in AFMC aircraft. (T-2) Additionally, paragraph 1.8 references a consolidated summary of flying status requirements.

4.1.1. Aircrew maintain currency and proficiency additionally defined in MD attachments.

4.1.2. Unit CCs determine which aircrew maintain specific qualifications/certifications. Currency/proficiency requirements only apply to aircrew trained in the event.

4.1.3. Aircrew may not log currency/proficiency until qualified and certified (if applicable). **Exception:** Events accomplished on a Form 8 evaluation or final sortie leading to certification.

4.1.4. Currency/proficiency requirements are established based on the date of successful completion of the final Phase I or II training event or Form 8 evaluation, whichever is later.

4.1.5. Proficiency requirements are accomplished semi-annually (1 Oct-31 Mar and 1 Apr-30 Sep) and should be accomplished uniformly throughout the training period.

4.2. Multiple Qualification.

4.2.1. Complete currency requirements (Table 3) in every MD qualified. (T- 3)

4.2.2. Total basic proficiency flying event requirements cannot be less than the qualification requiring the most repetitions. (T-2)

4.2.3. Perform at least 50% of proficiency volume flying requirements (Table 3) in each MD the individual is qualified. (T-2)

4.2.4. Instrument approaches accomplished in manned aircraft update currencies in manned and unmanned aircraft. Instrument approaches accomplished in unmanned aircraft, only update currencies in other unmanned aircraft. (T-2)

4.3. Proration of Training. Reference AFMAN 11-202V1 AFMC Supplement 3.4 for Proration of Training.

4.4. Loss of Currency.

4.4.1. Non-current. An individual is non-current after they fail to accomplish the required event in the specified time period (e.g. a pilot is non-current for landings beyond 45 days from their last landing).

4.4.2. Unqualified in aircraft. Individuals are unqualified on the MD if any Phase I qualification event currency defined in **Section 7** is not regained within 6 months (to the day) of going non-current (interpreted in **Section 7** as “Regaining Currency” codes A and C).

4.4.3. Loss of certification currency. Unit CCs determine how aircrew non-current for certification events will regain currency (interpreted on **Section 7** as “Regaining Currency” codes B and D). Depending on the individual circumstances, examples can range from flight with an instructor to demonstrate proficiency to completion of a full training plan.

4.5. **Regaining Currency.**

4.5.1. **Section 7** defines implications of going non-current and the method to regain currency via codes in the “Regaining Currency” column.

4.5.1.1. For non-grounding currency items not defined in **Section 7**, no additional supervisory requirements are mandated during the period of noncurrency.

4.5.1.2. Pilots non-current for IRC may only fly day VMC or with an instructor in an aircraft with a dual set of controls. IRC non-current navigators (including Combat System Operator-CSO, WSO) must fly with an instructor navigator or instructor pilot in the formation. **(T-3)**

4.5.2. If all qualified instructors have lost currency in a mission event, the Unit CC should request support of a current instructor from another AFMC or MAJCOM unit. In the absence of such support, submit a training plan to AFMC/A3V for approval allowing select instructors to regain currency without supervision.

4.6. **Regaining Qualification/Certification.** Reference AFMAN 11-202V1 guidance for requalification/recertification training.

4.7. **Loss of Proficiency and EOH Reporting.**

4.7.1. At the conclusion of each semi-annual training period, unit training offices create an EOH Report for the Unit CC and OG/CC documenting aircrew who failed to meet proficiency requirements.

4.7.2. Unit CCs review the EOH Report and each individual’s reasons for failing to complete proficiency requirements and assign corrective action if appropriate. Corrective action may range from no action to aircraft or mission requalification/certification.

4.7.3. Phase I event corrective actions must be certified complete prior to flying any sortie unsupervised. **(T-3)** Phase II event corrective actions must be certified complete prior to flying unsupervised in that mission event. **(T-3)**

4.7.4. Non-proficient aircrew for A and C coded events may fly under the supervision of an instructor prior to the Unit CC assigning corrective actions. For B and D coded events, non-proficient aircrew may fly unsupervised if the sortie does not involve the delinquent mission element. **Reference Section 7.**

4.7.5. Unit Training Offices maintain a copy of the EOH Report as a minimum through the end of the next half to track completion of the assigned corrective actions and identify aircrew trends.

5. UPGRADE TRAINING.

5.1. **General.** Phase I training guidance applies. Flying Time for Upgrade.

5.1.1. RPA/UAS time does not count toward flying hours for non-RPA/UAS aircraft. Pilot flying time (**Exception:** AFTO Form 781 “Other” time) in any aircraft counts towards the minimum total flying hours for RPA upgrades.

5.1.2. Only primary or secondary time (aircraft or simulator) is creditable toward PAA time. The OG/CC may waive upgrade minimum flying time requirements up to 50%.

5.1.3. The OG/CC or FOA is responsible for upgrade prerequisites found in [Table 2](#) and will be the final approval authority for all aircrew obtaining these requirements.

5.2. **Aircraft Commander Upgrade.** Prerequisite flying times are defined in [Table 1](#). Unit CCs ensure the pilot has the knowledge and judgment to effectively accomplish the unit mission.

5.3. **Instructor Upgrade/Requalification.** Unit CCs select instructors based on the individual's experience, judgment, flying skill, technical knowledge and airmanship. Prerequisite flying times are outlined in [Table 1](#). Students must attain all flying hour requirements prior to entry into an instructor upgrade course.

5.3.1. Instructor upgrade training in conjunction with requalification training may be authorized by the OG/CC.

5.3.2. If executing locally, complete concurrent training plans being sure to complete the most restrictive quantity and proficiency requirements. Individuals may dual log events if appropriate.

5.3.3. All AFMC Instructors (whether via AOQ or upgrade) complete the AFMC “Instructor Upgrade” ground training plan in COOL to cover AFMC policies and guidance. (T-3)

5.3.4. Instructor Formal Training.

5.3.4.1. Aircrew who have never been instructor qualified in any aircraft must attend formal school instructor upgrade training, if one exists for the MD unless approved by AFMC/A3V. **Exception:** Fighter/Trainer aircrew may conduct local training for instructor upgrades.

5.3.4.2. Aircrew previously instructor qualified in another MD should attend formal school instructor training but may be upgraded locally with OG/CC approval.

5.3.5. Instructor Ground Training.

5.3.5.1. Ground training is mandatory and includes, as a minimum: (T-3)

5.3.5.1.1. Aircraft systems, procedures, unit primary missions and other areas in which instructional duties apply.

5.3.5.1.2. Forms and procedures for documenting student training.

5.3.5.1.3. Prerequisites and ground training for non-qualified personnel outlined on the “Non-qualified Personnel Ground Training” syllabus.

5.3.5.1.4. For local upgrades of first-time instructors, use “The Fundamentals of Instruction” training located on the AFMC/A3V SharePoint. Additionally, complete the associated COOL test with a minimum grade of 85%.

5.3.6. Instructor Flying Training. Conduct training in the crew position from which instruction will normally be performed. Instructor lessons consist of demonstrations and practice of procedures and techniques used in accomplishing instructor duties. The upgrading instructor briefs/instructs/debriefs elements of the unit’s primary mission.

5.3.6.1. Fighter/Trainer Instructors not maintaining a rear cockpit landing certification may not instruct Phase I events from the rear cockpit; however, they may instruct Phase II events from the rear cockpit provided the front seat pilot is current and qualified on all Phase I events.

5.3.7. Instructor Qualification. An instructor candidate evaluation may be accomplished prior to completion of night training events; however, the individual may not perform instructor duties at night until completion of these events.

5.3.7.1. Evaluate one or more unit mission elements during the instructor evaluation. Evaluate one or more unit mission elements during the instructor evaluation.

5.3.7.2. Upon qualification as an instructor, aircrew are instructor certified in all mission types they are currently certified in, unless a specific mission instructor training plan exists (e.g. Air Combat Training (ACBT) instructors accomplish an ACBT instructor training plan).

5.3.7.3. Upon instructor qualification, aircrew are instructor qualified in all variants of that MD in which they hold a qualification/certification. **Exception:** C-130 and F-35 see MD attachment.

5.4. **Flight Examiner Certification.** Designate flight examiners using guidance provided in AFMAN 11-202V2. Flight Examiner Upgrade Ground Training is accomplished by the upgrade candidate with a flight examiner prior to certification as a flight examiner. When accepting flight examiner status from another MAJCOM, accomplish the Flight Examiner Upgrade Ground Training lesson plan to familiarize the aircrew member with AFMC policy, instructions and regulations.

Table 2. Upgrade Flying Hour Prerequisites (T-3).

Aircraft	Crew Position	Upgrade to:	Minimum Total Flying Time	Minimum Primary & Secondary Time in Design Aircraft
Fighter, Trainer	Pilot	Instructor	500 & 200 in high performance acft (hi-perf time not req'd for T-6)	100
	WSO	Instructor	500	100

U-2	Pilot	Instructor	500	300
Bomber, Cargo, Reconnaissance Tanker	Pilot	Aircraft CC	1500	None
			750	100
	Pilot	Instructor	1500	200
			750	300
	Nav, OSO, DSO, EWO, CSO, FE, BO, LM	Instructor	500	200
	Other Aircrew	Instructor	300	200
	C-12	Instructor	Reference AFMAN 11-2C-12	
	TPS C-12	Instructor	500	50
RPA	Pilot, Sensor	Instructor	500	150
Tilt Rotor	Pilot	Aircraft CC	600	200
			300	300
	Pilot	Instructor	400	400
	SMA	Instructor	300	300
Helicopter	Pilot	Aircraft CC	800	50
			500	100
			300	200
	Pilot	Instructor	500	200
			500	100 with IP experience in another Helicopter MD
	SMA	Instructor	500	100

6. TRAINING EVENTS.

6.1. **General. Section 7** provides guidance on aircrew training events. Descriptions of those events are provided throughout Section 6.

6.2. **UMO - Unit Mission Orientation.** All AFMC aircrew complete UMO once per PCS or change in unit of attachment before performing airborne duties. Flying units create and tailor COOL UMO Training Plans to cover the unique local area and mission aspects of that unit. Additionally, UMO training plans include:

6.2.1. Flight Test or Unit Mission Elements (as applicable):

- 6.2.1.1. AFMC specific rules and directives.
- 6.2.1.2. Center, Wing, Group, Unit test procedures.
- 6.2.1.3. Equipment and support facilities.
- 6.2.1.4. Required documentation and decision criteria.
- 6.2.1.5. Unit mission requirements.
- 6.2.1.6. Unit aircraft differences or instrumentation.

6.2.2. Local Area Elements (required for pilots and navigators; other aircrew at unit discretion):

- 6.2.2.1. Instrument and Visual flight procedures including navigation aids.
- 6.2.2.2. Airspace restrictions and landmarks.
- 6.2.2.3. Alternate and Emergency Airfields. Pilots should fly to a minimum of one local alternate airfield. Unit CCs may modify or eliminate the training requirement, and document approval via a training folder MFR.
- 6.2.2.4. Controlled bailout, lost link, emergency mission profile and ditching locations.
- 6.2.3. Touch and Go training, if unique to AFMC (e.g. F-16 Simulated Flame Out (SFO) Touch and Go) or not part of the basic aircraft qualification.
- 6.3. **Systems Refresher.** A focused knowledge review for aircrew. Annual simulator refresher training may be credited as one systems refresher event. Training includes:
 - 6.3.1. Aircraft systems, subsystems and components
 - 6.3.2. Critical and non-critical emergency procedures.
- 6.4. Theater Indoctrination. Certifies aircrew to operate within a specific theater of operations with particular flight requirements and restrictions.
 - 6.4.1. Training may be accomplished in conjunction with pre-mission planning, and include, as a minimum:
 - 6.4.1.1. A thorough review of International Civil Aeronautics Organization (ICAO) instrument procedures.
 - 6.4.1.2. Theater unique instrument requirements and procedures.
 - 6.4.1.3. Use of non-DOD/NOAA instrument approach procedures.
 - 6.4.1.4. Required instrumentation for specific approaches.
 - 6.4.1.5. Theater weather conditions.
 - 6.4.1.6. Local area procedures.
 - 6.4.1.7. Host nation agreements.
 - 6.4.1.8. Specific theater NOTAMS.
 - 6.4.1.9. Foreign Clearance Guide.
- 6.5. **Sortie.**
 - 6.5.1. A sortie may be logged if AFTO Form 781/AF Form 3521 primary, instructor or evaluator time was logged.
 - 6.5.2. Flight Surgeon. Fly at least 50% of the semi-annual training requirements in the primary aircraft. (T-3)
 - 6.5.3. NRA. NRA qualified in ejection and non-ejection seat aircraft maintains both sortie currencies. Example: An F-16 and C-130 qualified NRA must complete an ejection seat sortie (1/60 days) and a non-ejection seat sortie (1/90 days), or sortie currency is lost in that aircraft.
 - 6.5.4. Contractor pilots. API-6 for proficiency purposes regardless of level of assignment.

6.6. **Night Sortie.** Night Sortie requirements are defined in [paragraph 6.5](#) and guidance provided by DAFMAN 11-401 under Night Time.

6.7. **Conversion Sortie.** Conversion Sortie is for aircrew who maintain certification in multiple series of the same MD. Conversion sorties only apply to MDSs where certification between series required Conversion Training (not differences training). Log a sortie IAW [paragraph 6.5](#) in the aircrew's non-primary aircraft series.

6.8. **RPA Launch Procedure.** Accomplish aircraft launch procedures up to but not including takeoff IAW flight manual procedures.

6.9. **Simulated Engine Out.**

6.9.1. **Simulated Engine Out (Fighter/Trainer).** Fighter/trainer aircraft authorized to perform airborne simulated engine out procedures will execute a simulated engine out approach terminating in a simulated engine out landing, all-engine go around, or all-engine missed approach. (T-2)

6.9.2. **Simulated Engine Out (Non-Fighter/Trainer).** Non-fighter/trainer aircraft authorized to perform airborne simulated engine out procedures will execute a simulated engine out approach terminating in a landing, touch-and-go, single-engine out go around, or single-engine out missed approach. (T-2)

6.10. **Night Landing. (N/A Rotorcraft, MQ-9, YQ-11 &)** Accomplish a night landing (as defined in AFMAN 11-202V3) full stop, stop and go or touch and go landing.

6.11. **Rear Seat Landing (IP only).** Accomplish a rear seat touch and go, stop and go, or full stop landing.

6.12. **Special Departure Procedures (SDP).** Certifies aircrew to fly published and approved SDPs. Pilots, Nav/CSO/WSOs and FE/SMA's must complete training prior to flying SDPs. (T-2)

6.13. **Instrument Landing System (ILS).** Category II ILS. Certifies pilots and navigators to fly Cat II ILS approaches. Currency may be logged in flight if Cat II ILS procedures were exercised regardless of weather.

6.13.1. If certified, practice Cat II ILS procedures and faults to approach minimums during simulator refresher training. Additionally, currency may be regained in the simulator.

6.13.2. ILS Precision Runway Monitoring (ILS PRM). Certifies aircrew to fly ILS approaches at airfields where multiple simultaneous ILS approaches violate traditional minimum Federal Aviation Regulation (FAR) separation requirements.

6.13.3. Pilots and navigators require ILS PRM training prior to flying ILS PRM approaches.

6.14. **Air to Air Refueling (AAR).**

6.14.1. Tanker AAR. Includes C-130 Helicopter AAR (HAAR) and Tiltrotor AAR (TAAR). Training certifies tanker aircrew to transfer fuel to receivers.

6.14.1.1. Pilot/CSO/C-130 LM. Perform mandatory duties while receiver is in a contact position.

6.14.1.2. Boom Operator. Operate the tanker boom for one contact with a receiver aircraft.

6.14.2. Receiver AAR. Training certifies aircrew to receive fuel from tankers. Demonstrate proficiency in day refueling before night contacts are attempted.

6.14.2.1. Pilot. Fly the receiver aircraft in the contact position. Instructor candidates in training fly from the instructor position.

6.14.2.2. FE/SMA/C-130 NAV/CSO. Accomplish duties per flight manual procedures.

6.14.3. AAR Rendezvous. Accomplish a rendezvous per flight manual and Allied Tactical Publication (ATP) 3.3.4.2 procedures.

6.14.4. AAR Tanker Test. Certifies tanker aircrew for proximity testing, AAR envelope expansion, and to refuel new or modified aircraft.

6.14.4.1. Prerequisites: Tanker AAR certification.

6.14.4.2. Include boom limit procedures in training.

6.15. **Functional Check Flight/Acceptance Check Flight (FCF/ACF).** Training certifies aircrew to perform appropriate T.O. 1X-1X-6CF-1 or ACF approved checklists that are not covered by approved test and safety plans.

6.15.1. The OG/CC designates aircrew, selecting from the most qualified and experienced with the highest levels of expertise. Document OG/CC prior approval in ground training worksheet or MFR. **(T-3)**

6.15.2. The OG/CC may waive up to 50% of the **Table 3**. FCF minimum flying time requirements if the added risk is acceptable.

6.15.3. Training Requirements. Demonstrate basic competency in each phase of the FCF mission prior to flight on a non-airworthy aircraft. Basic competency is normally accomplished in-flight in an airworthy aircraft. An AFMC approved simulator may be used for some or all the FCF training, with unit CC approval. For each phase/check of the FCF profile, a simulator may be used only if it provides sufficient fidelity for that phase/check. **Example:** if the simulator does not adequately replicate the aircraft emergency gear extension, then the emergency gear extension portion of the FCF training may not be completed in the simulator. Document the phrase "has demonstrated basic competency in FCF procedures" in Block 6 of the AFMC Form 69/AFMC FCF training plan.

6.15.4. Aircrew flying in a primary aircrew position on an FCF/ACF aircraft are required to be FCF certified or in FCF training IAW **paragraph 6.15.3 (Exception:** reference AFMAN 11-202V2 AFMC Supplement). Unit CCs may authorize non-FCF/ACF aircrew to fly on an FCF/ACF sortie in a non-primary role if the benefit is assessed to be greater than the additional risk. In this case, the flying unit CC assigns tailored training for the specific mission, an instructor administers the training, and training documentation is attached to the flight authorization.

6.15.5. FCF/ACF training may not begin until satisfactory completion of Phase I flight evaluation or AOQ. See TO 1-1-300 for Mission/Training events or combinations of intended flight profiles. UMO may be conducted on FCF/ACF.

6.15.6. Pilot. To log this event, accomplish a minimum of 1 preflight procedure and 3 in-flight procedures in T.O. 1X-1X-6CF-1.

6.15.7. Nav/WSO/EWO/CEA. To log this event, accomplish a minimum of 3 in-flight procedures in T.O. 1X-1X-6CF-1.

6.15.8. Scanner. Administered training via an Instructor Scanner Flight Engineer or Loadmaster.

Table 3. Flying Hour Prerequisites for FCF Aircrew (T-3).

Aircraft	Crew Position	Minimum Total Flying Hours (Note 1)	Primary & Secondary Hours in MD (Note 2)
Fighter/Trainer	Pilot	750 (fighter/trainer)	200
	Nav/WSO	750 (fighter/trainer)	100
U-2	Pilot	1000	300
Bomber/Cargo/Reconnaissance/	Pilot/FE/BO/LM	1000	200
	Nav/WSO	1000	100
Tanker	MA (Refer to TO 1-1-300)	100	100
RPA	MU	500	150
Tiltrotor	MP/MF	750	200
Helicopter	MP/MF	500	200

NOTES:

1. RPA/UAS time does not count toward minimum total flying hours for non-RPA/UAS aircraft. Flying hours for any Air Force MDS accumulated in the pilot crew position may be counted towards the minimum total flying hours for RPA.
2. Instructor time may be counted toward Primary & Secondary Hours in MD if the time was logged in a crew position with direct access to flight controls

6.16. **Low Level Navigation.** Certifies aircrew to conduct operations at or below 2,000' AGL but at or above 500' AGL. **Exception:** C-17, C-130, and rotorcraft see MD attachment. **(T-2)**

6.16.1. Training does not apply to takeoff/landing or Flight Test Techniques (FTTs), such as tower flyby. Demonstrate proficiency in day low level before starting night training.

6.16.2. To log currency, fly a minimum of 10 minutes at Low Level altitude IAW [paragraph 6.18](#).

6.17. **Low Altitude Step Down Training (LASDT).** Certifies aircrew for navigational flight between 500' AGL and 200' AGL without terrain following radar. (T-3) **Exception:** Weapon delivery minimum recovery altitudes below Low Level Navigation altitudes are authorized without being LASDT certified. A-10 minimum LASDT altitude is 100' above ground level (AGL). LASDT training does not apply to C-17, C-130, and rotorcraft.

6.17.1. Initial training is not allowed without a functional radar altimeter. (T-3)

6.17.2. **[Fighter]** Training consists of a minimum of one dedicated front seat sortie with a LASDT instructor in the rear cockpit or chase aircraft, as applicable. (T-3)

6.17.3. For LASDT-instructor upgrades, the upgrading instructor conducts ground training and instruction from the rear seat, chase aircraft, or instructor position as appropriate.

6.17.4. To log currency, fly a minimum of 10 minutes below 500' AGL. The 10 minutes need not be continuous but should allow sufficient time to operate in the low altitude environment. (T-2)

6.18. **Terrain Following/Terrain Avoidance (TF/TA) (Day/Night IMC/VMC).** Certifies aircrew to operate automated aircraft systems for the express purpose of avoiding terrain while flying in the Low Level Navigation environment ([paragraph 6.18](#)) under any flight condition.

6.18.1. Prerequisites: Low Level Navigation certification. (T-3)

6.18.2. To log currency, fly a minimum of 10 minutes utilizing the aircraft TF/TA system(s). (T-2)

6.19. **Night Vision Goggle (NVG).** Certifies fixed wing aircrew to use NVGs at or above the Minimum Safe Altitude (MSA) and rotary wing aircrew beyond the airfield. (T-2)

6.19.1. Reference AFMAN 11-202V1 for initial NVG training. For recurring NVG training, every OG or unit conducting NVG operations must have at least one academic instructor to facilitate AFMAN 11-202V1 requirements. (T-3) NVG academic instructors should coordinate assistance from AFE and a flight surgeon or aerospace physiologist to facilitate training.

6.19.2. Complete NVG academics (if applicable) within 60 days prior to the first NVG flight training flight. Instructors step-down training altitudes and illuminations should be commensurate with the experience levels of the trainee.

6.19.3. Prerequisite. Prior to flying a mission element on NVGs, the individual must be certified to conduct that mission element in daylight or night unaided (if appropriate). (T-3)

6.19.4. Currency:

6.19.4.1. Fixed Wing. Fly an NVG sortie with at least 10 minutes of usage above the MSA. (T-2)

6.19.4.2. Rotary Wing. Fly a minimum of 30 minutes of primary NVG time to include visual navigation, obstacle recognition, one take off, and one landing. (T-2)

6.19.5. NVG at Low Altitude. Certifies aircrews to use NVGs below MSA (rotorcraft and C-130 refer to MD attachment for Low Altitude/Low Level). Training Plans for NVG at Low Altitude may be tailored to specific mission elements (e.g. low level navigation, T/O, NVG assault, etc.); therefore, units must track aircrew certification (i.e. LoX) to ensure appropriate aircrew training and certification prior to authorizing NVG sorties. (T-2)

6.19.5.1. Prerequisites:

6.19.5.2. Fixed Wing (except C-130). NVG (above MSA) is a prerequisite to NVG at Low Altitude. (T-2) Prior to NVG at Low Altitude instructor upgrade, certify candidates as NVG instructors (above MSA) and fly a minimum of 5 low altitude NVG sorties. (T-2)

6.19.5.3. Rotorcraft. Remote Site Operations (Day), Low Level Navigation (Day). (T-2)

6.19.5.4. Currency:

6.19.5.4.1. Fixed Wing. Fly a NVG sortie with at least 10 minutes of usage below the MSA. (T-2)

6.19.5.4.2. C-130. Fly a minimum of 30 minutes of primary NVG time at Low Altitude. (T-2)

6.19.5.4.3. Rotary Wing. Minimum of 10 minutes enroute primary NVG time at Low Altitude. (T-2)

6.20. Advanced Handling Characteristics / Advanced Handling Maneuvers (F-15 AHM). Certifies aircrew to perform MD specific maneuvers to explore the aircraft's flight envelope and reinforce awareness of aircraft performance.

6.20.1. To log this event, accomplish at least 2 (F-15) advanced handling maneuvers. (T-2)

6.21. High Angle of Attack (High AoA) (Fighter/Trainer). There are 3 certifications, all of which include training in spin area (as applicable), engine stall and simulated flameout procedures.

6.21.1. High AoA Familiarization IP. Certifies pilots to operate an aircraft in AoA regions beyond normal aircraft operations and instruct the High AoA Familiarization sortie.

6.21.2. Prerequisites: TPS graduate. (T-2)

6.21.3. High AoA Test. Certifies aircrew to conduct test in AoA regions beyond normal aircraft operations.

6.21.3.1. Prerequisites: TPS graduate and High AoA Familiarization sortie. (T-2)

6.21.3.2. Training includes control room procedures. Flying training may be conducted under the supervision of a current and qualified IP from the mission control room in lieu of airborne chase.

6.21.4. High AoA Test IP. Certifies aircrew to instruct High AoA Test training and provide specific TPS curriculum instruction.

6.21.4.1. Prerequisites: TPS graduate and High AoA Test certification. (T-2)

6.22. Formation Flight Lead (Fighter/Trainer). Certifies pilots to lead fighter/trainer formations. The Unit CC may approve, via AOQ, pilots with previous fighter/trainer flight lead experience as Formation Flight Lead certified if the formation portions of the AFMC Phase I training plan are accomplished during IQT/requalification.

6.23. Targeting Pod (TGP). Certifies aircrew to operate specific targeting pods. Ground training is mandatory. Flight training is at the discretion of the unit.

6.23.1. Prerequisites. None.

6.24. **Intercept.** Certifies aircrew to perform maneuvers from beyond visual range (BVR) to place the aircraft in a position relative to another aircraft to employ ordnance, make a Visual Identification (VID), or to initiate a visual engagement. Certified aircrew may conduct engagements up to and including limited maneuvering IAW AFI 11-214, *Air Operations Rules and Procedures*. **Note:** Intercept certified pilots may participate in missions with an unlimited overall maneuvering category but must adhere to limited maneuvering criteria. **(T-2)**

6.24.1. Intercept certification is required to conduct test sorties involving the air-to-air employment (simulated or actual) of ordnance against an airborne target.

6.24.2. To log, brief and fly a BVR intercept engagement as blue air or training aid/target using limited air-to-air training rules (as a minimum if higher certifications are held).

6.25. **Chase.** Certifies crews to fly sorties providing mutual support for test aircraft (clearing, test point verification, radio relay, etc.) IAW AFMAN 11-2FTV3 chase roles and duties.

6.25.1. Cargo and Bomber aircraft.

6.25.1.1. Aircrew flying cargo and bomber aircraft may chase like aircraft (same MD) if both pilots are formation certified. In this case, a chase certification is not required.

6.25.1.2. Aircrew flying cargo and bomber aircraft chasing dissimilar aircraft must be formation certified and complete chase training. **(T-2)**

6.25.2. Prerequisites. None.

6.25.3. Ground Training. Include AFMAN 11-2FTV3 general responsibilities and duties for all variations of chase.

6.25.4. Flight Training. The intent is to show the pilot various chase missions and different aspects of each particular chase mission. The events are flown as 2-ship formations with the student as the wingman. A specific MD/unit may determine certain maneuvers are not applicable and can delete them with Unit CC approval and documentation in the training folder. For weapons chase training, the test aircraft acts as the simulated weapon/test article and fly a representative profile (adhering to real-world abort altitudes, airspeeds, and dive angle limits).

6.25.5. To log currency, perform photo, safety or IP/SEFE chase.

6.26. **Basic Fighter Maneuvers (BFM).**

6.26.1. Certifies aircrew to apply aircraft handling skills to recognize and solve range, closure, aspect, angle off and turning room problems in relation to another aircraft IAW unlimited air-to-air training rules.

6.26.2. Based on a student's flying history, Unit CCs determine which BFM training plan(s) the student completes.

6.26.3. Example, a previous F-15 Weapon School Instructor Pilot joining a test squadron but not recently qualified in the F-15 because of TPS attendance might be an appropriate candidate to put directly into BFM Instructor training; whereas, an F-16 pilot that barely upgraded to Flight Lead before a staff tour and PCS to AFMC might be a good candidate to complete a BFM Qualification, followed by the BFM instructor upgrade as time and proficiency permit.

6.26.4. To log currency, accomplish at least 2 BFM engagements.

6.26.5. BFM. Prerequisite: Previous fighter BFM experience and formation flight lead. **(T-2)**

6.26.5.1. BFM Instructor. Certifies aircrew to instruct BFM trainees.

6.26.5.2. Prerequisites: Basic Instructor and BFM (**Exception: paragraph 6.28.2).** **(T-2)**

6.27. Anti-G Straining Maneuver (AGSM) Refresher. Flight Surgeon, Aerospace Physiologist, or squadron supervisor (CC, DO, ADO or Flight Commander) or instructor review aircrew in-flight AGSMs for aircrew flying 5g or greater. Training should emphasize the brief and debrief of proper AGSM techniques as part of post flight video reviews. Flight Surgeon or Aerospace Physiologist led AGSM academics suffice in the event that a tape review is not possible.

6.27.1. Identify individuals having a poor AGSM technique or low G-tolerance to the appropriate unit supervisor. Supervisors document (via training folder) actions to improve the individual's G-tolerance. **Note:** AFMAN 11-404 Commander-Directed Acceleration Training may be considered.

6.28. Air Combat Training (ACBT).

6.28.1. Certifies aircrew to participate in Air-to-Air engagements of 3 or more aircraft using unlimited training rules.

6.28.2. Based on a student's flying history, Unit CCs designate (EIT), which ACBT training plan(s) the student completes (see [paragraph 6.28.2.1](#) for examples).

6.28.3. To log currency, accomplish at least 2 engagements, as blue air or training aid/target, with 3 or more aircraft, implementing unlimited air-to-air training rules.

6.28.4. ACBT. Prerequisites: Previous fighter ACBT experience, Intercept, and BFM. **(T-2)**

6.28.5. ACBT Instructor. Certifies aircrew to instruct ACBT trainees.

6.28.5.1. Prerequisites: Basic Instructor, ACBT Qualification (**Exception: paragraph 6.30.2).**

6.29. Weapon Delivery (WD). Certifies aircrew to perform release of stores for continuation training. It is designed to familiarize aircrew with air-to-surface weapon release and employment considerations. Conversely, Ordnance Release Test certification is required to release test-unique ordnance as part of a test program.

6.29.1. Training requirements: Aircraft symbology, release criteria, range procedures and range safety.

6.29.2. To log currency, accomplish a simulated, or an actual air-to-surface weapon release. Air-to-Air weapon employment (simulated or actual) does not update WD currency.

6.30. **Ordnance Release Test.** Certifies aircrew to release stores (weapons, fuel tanks, etc.) as part of a test program. The OG/CC may approve a WD certification for flight test missions if no abnormal procedures or special equipment are used for delivering ordnance.

6.30.1. Prerequisites: WD (all aircraft) and Intercept certification (fighters). (T-3)

6.30.2. As a minimum, training includes:

6.30.2.1. Ground Weapon release.

6.30.2.2. Separation.

6.30.2.3. Jettison.

6.30.2.4. Environmental considerations.

6.30.2.5. Range safety.

6.30.2.6. Aircraft instrumentation.

6.30.2.7. Range and test control procedures.

6.31. **Aerial Gunnery (Rotorcraft).** Certifies rotorcraft aircrew to perform aerial gunnery. Pilot certification is for fixed forward firing weapons. SMA certification is for side firing weapons and should be tracked by weapon (M240, GAU-2C, etc.) on the LoX.

6.32. **Compatibility Flight Profile (CFP).** Certifies pilots to conduct test on new aircraft-stores combinations, via FTTs, performed at various airspeed, altitude and load factor combinations, designed to expand the aircraft/store operating envelope.

6.32.1. Prerequisites: TPS graduate. (T-2)

6.32.2. If Loads certified, CFP certification may be accomplished through ground training only.

6.32.3. To log currency, accomplish at least 2 sets of CFP flight test techniques (wind up turns, loaded and unloaded rolls, balanced symmetric pushovers, speed soak, etc.).

6.33. **Loads.** Certifies pilots to conduct test on new or modified aircraft, via FTTs, performed at various speeds, altitudes, load factors, designed to expand the aircraft operating envelope.

6.33.1. Prerequisites: TPS graduate. (T-2)

6.33.2. Training includes control room procedures. Flying training may be conducted under the supervision of a current and qualified IP from the mission control room in lieu of airborne chase.

6.33.3. To log currency, accomplish at least 2 sets of loads FTTs (wind up turns, loaded and unloaded rolls and balanced symmetric pushovers, stick raps, sideslips, etc.).

6.34. **Flutter.** Certifies pilots to perform testing which investigates an aircraft configuration's Aero-Servo-Elastic (ASE) phenomena.

6.34.1. Prerequisites: TPS graduate (T-2)

6.34.2. Training includes control room procedures. Flying training may be conducted under the supervision of a current and qualified IP from the mission control room in lieu of airborne chase.

6.34.3. To log currency, accomplish at least 2 sets of flutter FTTs.

6.35. **Airdrop (Cargo, Helo, etc.).** Two overarching airdrop certifications exist: Airdrop and Airdrop Test. However, Airdrop subcategories exist for mission needs (e.g. heavy equipment, personnel, etc.). Units are responsible for tracking certifications (i.e. LoX) and currency to ensure appropriate crew certification.

6.35.1. To log currency, accomplish a successful airdrop (within 300 meters of the aim point). For actuals or simulator as applicable in accordance with training tables and attachments. An off drop zone drop is not a successful drop. If circumstances beyond crew control prevent a drop after the 1-Minute warning and all checklists were completed, aircraft commanders may determine if enough training was accomplished to credit the airdrop for all crew positions. **Exception:** Helo has no currency.

6.35.1.1. Loadmasters may not log airdrop with a Simulated Airdrop Training Bundle (SATB).

6.35.2. Airdrop HE (Heavy Equipment). Certifies aircrew to airdrop using HE procedures.

6.35.3. Airdrop CDS/CRS (Container Delivery System/Container Release System). Certifies aircrew to airdrop using CDS/CRS procedures.

6.35.4. Airdrop Pers (Personnel). Certifies aircrew to airdrop using personnel procedures.

6.35.4.1. Prerequisites. Certify Loadmasters/SMA in personnel airdrop prior to completing Dummy Drop or Dummy Retrieval. **(T-3)**

6.35.5. Airdrop Actual. SATBs may not be used to log this currency.

6.35.6. Airdrop Test. Certifies aircrew to execute test programs involving the aerial delivery of personnel, supplies, or equipment from an aircraft in-flight.

6.35.6.1. Prerequisites: Airdrop certification, and personnel airdrop certification for loadmasters/SMA prior to completing Dummy Drop or Dummy Retrieval. **(T-3)**

6.36. **Helo Remote Site Ops (Day/NVG).** Certifies aircrew to operate to and from unprepared surfaces and confined areas. Separate certifications exist for day and NVG.

6.37. To log currency, complete a remote site evaluation (high/low recon). Complete a take-off and landing or an Alternate Insertion Extraction (AIE) to the site.

6.38. **Helo Cargo Sling/External Load.** Certifies aircrew in transport of external cargo.

6.39. To log currency, complete a cargo hook functional check, verbal direction, load hook-up, pattern, and load release.

6.40. **Helo Water Bucket.** Certifies aircrew in aerial firefighting/suppression operations.

6.40.1. To log currency complete the water bucket pickup, dip and fill, water release in hover, and at least one delivery type.

6.40.2. Prerequisites: Cargo sling/external load (may be trained concurrently). **(T-2)**

6.40.3. Water Bucket currency logs Cargo sling/external load currency.

6.41. **Land Hoist (Day/NVG).** Certifies aircrew to conduct overland hoist operations.

6.41.1. Prerequisites (Day): Remote Site Ops (may be trained concurrently). **(T-3)**

6.41.2. Prerequisites (NVG): Land Hoist (Day), NVG Remote Site Ops (may be trained concurrently). (T-3)

6.41.3. To log currency, SMA extend and deploy the hoist with a rescue device.

6.42. Helo Alternate Insertion Extraction (AIE). Certifies aircrew to conduct over-land insertions and extractions by rope ladder, rappel rope, fast rope, Special Patrol Insertion/Extraction System (SPIES) and rescue hoist with associated devices.

6.42.1. Prerequisites: Remote site ops, Land Hoist (may be trained concurrently). (T-3)

6.42.2. Pilots may log currency during actual or simulated AIEs. SMA deploy a device to log AIE currency.

6.43. Helo Water Ops (Day/NVG). Certifies aircrew to conduct overwater insertions and extractions using the rescue hoist with associated devices, rope ladder and low and slow operations.

6.43.1. Prerequisites (Day): Remote site ops and AIE. (T-3)

6.43.2. Prerequisites (NVG): Helo Water Ops (Day). (T-3)

6.43.3. To log currency, complete an overwater hover, an AIE and a swimmer deployment (actual or simulated).

6.44. Helo Shipboard Ops/Deck Landings.

6.44.1. Two unique certifications exist to allow aircrew to operate on or around USN or USCG vessels at sea (ref USN & USAF MOU):

6.44.1.1. Single Spot Ship (1SS)

6.44.1.2. Multi-Spot Ship (MSS)

6.44.1.3. Prerequisites: Remote site ops. (T-3)

6.44.2. To log currency land and takeoff from a ship and discuss terminal ops considerations IAW the shipboard ops MOU between the Departments of the Navy and Army/Air Force.

6.45. Low Visibility Approach (LVA). To log currency, accomplish a simulated or actual dust-out/white-out or water approach to a landing, precision hover or translational hover (low and slow). CEAs must be in the seat to log this event.

6.46. Hot Refueling / Forward Area Refueling and Rearming Point (FARP). Certification may be gained with an actual fuel transfer under the supervision of an aircraft commander. No further currency exists.

7. TRAINING TABLES.

7.1. **General.** The following tables (broken down by aircraft type) further define aircrew training events, restrictions, currencies, and proficiencies. Columns are defined as follows:

7.1.1. Volume. The number of proficiency repetitions required per half.

7.1.2. Multi-Event Credit (ME Credit). Accomplishing this event also updates the currency/proficiency for the annotated events.

7.1.3. Simulator Credit (if authorized per the table(s)). An AFMC approved simulator may be used to log currency and 50% of the proficiency volume. There is no restriction to how many times the simulator may be used to extend currency. If an individual is noncurrent for an event, currency may be regained in the simulator under supervision of an instructor qualified to teach that event to the applicable crew position. Alternatively, currency is regained per paragraph 4.4, 4.5, and 7.1.8.

7.1.4. Multi-Qual Transfer (MQ Tran). The certification is transferable across MDs within the same table (e.g. F-16 to F-15, but not F-16 to C-12) for multi-qualified aircrew.

7.1.5. Pilot Concurrent Phase I Training. Pilot Phase I training may be conducted concurrently with the specified training event IAW paragraph 1.5.7.

7.1.6. Multi-Qual Currency/Prof. Multi-qualified aircrew accomplishing this event may update currency/proficiency in all MD qualified.

7.1.7. Cross MD Re-currency Instruction (X-MD Recurrency Instruction). Instructors from another MD may provide in-flight instruction to update this currency provided the instructor possesses the qualification/certification in their respective MD.

7.1.8. Regaining Currency. The following “codes define the method to regain currency, in addition to complying with paragraphs 1.5.10, 4.4 and 4.5.

7.1.8.1. Code A – Noncurrent aircrew may not fly any sortie unless under the supervision of an instructor of the same crew position to regain currency. (T-2) Exception: Paragraph 7.1.3.

7.1.8.2. Code B – Noncurrent aircrew may fly unsupervised when not executing the event the individual is non-current for. To execute the event and/or regain currency, the individual must be under the supervision of an instructor of the same crew position. (T-2) Exception: Paragraph 7.1.3.

7.1.8.3. Code C – Noncurrent aircrew may not fly any sortie unless under the supervision of an instructor of any crew position to regain currency. (T-2)

7.1.8.4. Code D –Noncurrent aircrew may fly unsupervised when not executing the event the individual is non-current for. To execute the event and/or regain currency, the individual must be under the supervision of an instructor of any crew position. (T- 2)

Table 4. Fighter/Trainer Aircrew Training Tables.

Fighter/Trainer Aircrew										
Ground Training										
EVENT	Crew Position	CURRENCY DAYS	EOH	CATEGORY				Concurrent Ph 1 Training	SIM	Multi-Qual Transfer
			VOL	Multi-Event Credit	Multi-Qual Currency	X-MD Recurrency Instructor	Regaining Currency			
UMO	All	~	~	~	~	~	~	Yes	~	Yes
Sys Refresher	All	~	3	No	No	~	~	~	Yes	~
Simulator Refresher	Pilot, WSO	365	~	Sys Refr (1/half)	No	No	~	~	Yes	No
Theater Indoc	All	~	~	~	~	~	~	Yes	~	Yes
AGSM Resresher	All	365	~	No	Yes	Yes	B	Yes	No	Yes
Fighter/Trainer Aircrew Phase I Training										
EVENT	Crew Position	CURRENCY DAYS	EOH	CATEGORY				Concurrent Ph 1 Training	SIM	NOTES
			VOL	Multi-Event Credit	Multi-Qual Currency	X-MD Recurrency Instructor	Regaining Currency			
Sortie	Pilot	45	30	No	No	~	A	~	No	
Sortie	WSO	45	30	No	No	~	C	~	No	
Sortie	FS	60	6	No	Yes	~	C	~	No	
Sortie	NRA	60	~	No	No	~	C	~	No	
Night Sortie	FS	~	1	Sortie	Yes	~	~	~	No	
Conv Sortie	All	180	2	Sortie	No	No	B	See Sec 1.5.7.1	No	N/A F-35
Instm Approach	Pilot	45	~	~	Yes	Yes	B	~	Yes	
Prec Appr	Pilot	~	6	Inst App	Yes	~	~	~	Yes	

[illegible]

Form Flight Lead	Pilot	~	~	~	~	~	~	Yes	~	Yes
Wingtip Form T/O	Pilot	180	~	~	No	No	B	No	~	No
Wingtip Form Landing	Pilot	180	~	Landing	No	No	B	No	~	No
TGP>2K	Pilot	~	~	~	No	~	~	Yes	~	No
TGP<2K	Pilot	~	~	~	No	~	~	No	~	No
Intercept	Pilot, WSO	180	~	No	Yes	Yes	D	Yes	Yes	Yes
Chase	Pilot	180	3	No	Yes	Yes	B	Yes	No	Yes
BFM	Pilot	90	~	No	Yes	Yes	B	No	No	No
BFM	WSO	180	~	No	Yes	Yes	D	~	No	No
ACBT	Pilot, WSO	120	~	BFM, Intercept	Yes	Yes	D	No	Yes	Yes
Weapon Delivery	Pilot, WSO	180	~	No	Yes	Yes	B	No	Yes	No
Ordnance Release	Pilot, WSO	~	~	~	Yes	~	~	No	~	Yes
CFP	Pilot	90	~	No	No	No	B	No	Yes	No
Loads	Pilot	60	~	No	No	No	B	No	Yes	No
Flutter	Pilot	180	~	No	No	No	B	No	Yes	No

Table 5. Bomber, Cargo, Reconnaissance, Tanker and RPA Aircrew Training Tables.

Bomber, Cargo, Reconnaissance, Tanker, RPA Aircrew										
Ground Training										
EVENT	Crew Position	CURRENCY DAYS	EOH	CATEGORY				Concurrent Ph I Training	SIM	Multi-Qual Transfer
			VOL	Multi-Event Credit	Multi-Qual Currency	X-MD Recurrency Instructor	Regaining Currency			
UMO	All	~	~	~	~	~	~	Yes	~	Yes
Sys Refresher	All	~	3	No	No	~	~	~	Yes	~
Simulator Refresher		365	~	Sys Refr (1/half)	No	No	~	~	Yes	No
Theater Indoc	All	~	~	~	~	~	~	Yes	~	Yes
Bomber, Cargo, Reconnaissance, Tanker, RPA Aircrew Phase I Training										
EVENT	Crew Position	CURRENCY DAYS	EOH	CATEGORY				Concurrent Ph I Training	SIM	Notes
			VOL	Multi-Event Credit	Multi-Qual Currency	X-MD Recurrency Instructor	Regaining Currency			
Sortie	Pilot, SO	45	API 1 = 12 API 6/8 = 9	No	No	No	A	~	No	~
Sortie	EWO, WSO, Nav, CEA	60	6	No	No	No	A	~	No	~
Sortie	FS	60	6	No	Yes	No	C	~	No	~
Sortie	ABM	90	6	No	No	No	C	~	No	~
Sortie	NRA	60	~	No	No	No	C	~	No	Ejection
Sortie	NRA	90	~	No	No	No	C	~	No	Non-Ejection
Night Sortie	FS	~	1	Sortie	Yes	~	~	~	No	~

Conv Sortie	All	180	2	Sortie	No	No	B	See Sec. 1.5.7.1	No	~
RPA Launch	Pilot, SO	60	~	No	No	No	A	~	Yes	~
Takeoff	Pilot, SO	45	6	No	No	No	A	~	Yes	~
Instm Appr	Pilot, SO	45	~	~	Yes	Yes	A	~	Yes	~
Prec Appr	Pilot	~	6	Inst Appr	Yes	~	~	~	Yes	(n/a RPA)
Non-Prec Appr	Pilot	~	6	Inst Appr	Yes	~	~	~	Yes	(n/a RPA)
Landing	Pilot, SO	45	12	No	Yes	No	A	~	Yes	~
Night Landing	Pilot, SO	180	~	Ldg	Yes	No	B	~	Yes	~
Circling Approach	Pilot	~	1	Non-Prec	Yes	~	B	~	Yes	(n/a RPA)
Sim EO Ldg	Pilot	90	~	Ldg	No	No	A	~	Yes	~
Sim EO Missed	Pilot	180	1	No	No	No	A	~	Yes	~
Bomber, Cargo, Reconnaissance, Tanker, RPA Aircrew Phase II Training										
EVENT	Crew Position	CURRENCY DAYS	EOH	CATEGORY				Concurrent Ph I Training	SIM	Multi-Qual Transfer
			VOL	Multi-Event Credit	Multi-Qual Currency	X-MD Recurrency Instructor	Regaining Currency			
SDP	Pilot, Nav, FE	~	~	~	~	~	~	Yes	~	Yes
CAT II ILS	Pilot, Nav	180	~	Prec App	No	No	B	Yes	Yes	No
ILS PRM	Pilot, Nav	~	~	Prec App	~	~	~	Yes	~	Yes
Formation	Pilot, Nav, CSO	180	~	No	No	No	B	No	Yes	No
AAR-Tanker	P, CSO, FE, LM	180	~	No	Yes	No	B	Yes	Yes	Yes
AAR-Tanker	BO	60	5	No	No	No	B	~	Yes	Yes
AAR-Tkr BrkAw	Pilot	180	~	No	No	No	B	Yes	Yes	Yes

AAR-Tanker Test	Bilot, BO	~	~	No	~	~	~	No	~	Yes
AAR-Receiver	Pilot, FE	180	~	No	No	No	B	No	Yes	Yes
AAR-RDZ	Nav, CSO, B-1 WSO	180	~	No	No	No	B	~	Yes	Yes
FCF/ACF	Pilot, WSO, Nav, CEA, SO	180	~	No	No	No	B	No	Yes	No
Low Level	Pilot, WSO, CSO, Nav	180	~	No	Yes	No	B	Yes	Yes	No
LASDT	Pilot	90	~	LL	No	No	B	No	No	No
LASDT	WSO, Nav	120	~	LL	No	No	B	~	No	No
TF/TA	Pilot	90	~	LL	No	No	B	~	Yes	No
TF/TA	FE	180	~	LL	No	No	B	~	Yes	No
NVG	Pilot, Nav, CSO, WSO	180	~	No	Yes	No	B	Yes	Yes	No
NVG (Low Alt)	Pilot, Nav, CSO, WSO	90	~	LL, NVG, Med Alt	No	No	B	No	Yes	No
Chase	Pilot	180	~	No	Yes	Yes	B	No	No	No
Weapon Delivery	Pilot, WSO, Nav, CSO, SO	180	~	No	No	No	B	Yes	Yes	No
Ordnance Release	Pilot WSO, Nav, CSO, SO	~	~	~	Yes	~	~	No	~	Yes
AD-HE	Pilot, Nav, CSO, FE, LM	180	~	Yes No-LM	No	No	B	No	Yes No-LM	No
AD-CDS/CRS	Pilot, Nav, CSO, FE, LM	180	~	Yes	No	No	B	No	Yes No-LM	No
AD-PERS	Pilot, Nav, CSO, FE, LM	180	~	Yes No-LM	No	No	B	No	Yes No-LM	No
AD-Actual	Pilot	90	~	Yes	No	No	B	No	Yes	No

Table 6. Helicopter Aircrew Training Tables.

Helicopter Aircrew										
Ground Training										
EVENT	Crew Position	CURRENCY DAYS	EOH	CATEGORY				Concurrent Ph I Training	SIM	Multi-Qual Transfer
			VOL	Multi-Event Credit	Multi-Qual Currency	X-MD Recurrency Instructor	Regaining Currency			
UMO	All	~	~	~	~	~	~	Yes	~	Yes
Sys Refresher	All	~	3	No	No	~	~	~	Yes	~
Simulator Refresher	Pilot, SMA	365	~	Sys Refr (1/half)	No	No	~	~	Yes	No
Theater Indoc	All	~	~	~	~	~	~	Yes	~	Yes
Helicopter Aircrew Phase I Training										
EVENT	Crew Position	CURRENCY DAYS	EOH	CATEGORY				Concurrent Ph I Training	SIM	NOTES
			VOL	Multi-Event Credit	Multi-Qual Currency	X-MD Recurrency Instructor	Regaining Currency			
Sortie	Pilot, SMA	60	12	No	No	No	A	~	No	
Sortie	FS	60	6	No	Yes	No	C	~	No	
Sortie	NRA	90	~	No	No	No	C	~	No	
Emergency Procedures	All	120	2	Sortie	No	No	A	~	Yes	
Night Sortie	FS	~	1	Sortie	Yes	Yes	D	~	No	
Conversion Sortie	FS	180	2	Sortie	No	No	B	~	No	
Instrument App	Pilot	60	~	~	Yes	Yes	A	~	Yes	
Night Landing	Pilot	120	~	~	Yes	No	B	~	Yes	
Precision App	Pilot	~	6	Inst App	Yes	Yes	~	~	Yes	

Non-Prec Appr	Pilot	~	6	Inst App	Yes	Yes	~	~	Yes	
Helicopter Aircrew Phase II Training										
EVENT	Crew Position	CURRENCY DAYS	EOH	CATEGORY				Concurrent Ph I Training	SIM	Multi-Qual Transfer
			VOL	Multi-Event Credit	Multi-Qual Currency	X-MD Recurrency Instructor	Regaining Currency			
Low Level	Pilot, SMA	120	~	No	Yes	No	B	Yes	Yes	Yes
TF/TA	Pilot, SMA	120	~	LL	No	No	Pilot-B SMA-D	No	Yes	No
NVG Sortie	Pilot, SMA	120	2	Sortie	Yes	Yes	B	Yes	Yes	No
NVG Low Alt	Pilot, SMA	120	~	NVG Sortie	Yes	Yes	B	No	Yes	No
Chase	Pilot	180	~	No	Yes	Yes	B	No	Yes	Yes
Aerial Gunnery	Pilot, SMA	180	~	No	No	No	B	No	Yes	No
Airdrop	Pilot, SMA	180	~	No	Yes	Yes	D	No	No	Yes
Remote Ops - Day	Pilot, SMA	120	2	No	Yes	Yes	B	Yes	Yes	Yes
Remote Ops - NVG	Pilot, SMA	120	2	Rem-Ops Day	Yes	No	B	Yes	Yes	Yes
Sling/Ext Load	Pilot, SMA	180	~	No	Yes	No	B	No	No	Yes
Water Bucket	Pilot, SMA	180	~	Sling/ext Load	Yes	Yes	B	No	No	Yes
AIE	Pilot, SMA	180	2	No	Yes	Yes SMA-No	B	No	No	Yes
Water Ops - Day	Pilot, SMA	180	2	No	Yes	Yes	B	No	No	Yes
Water Ops - NVG	Pilot, SMA	180	2	Water Ops-Day	No	No	B	No	No	No
Ship 1SS	Pilot, SMA	180	~	Ship MSS	Yes	Yes	B	No	No	Yes

Ship MSS	Pilot, SMA	180	~	No	Yes	Yes	B	No	No	Yes
Hoist - Day	SMA	180	~	AIE	Yes	No	B	Yes	No	Yes
Hoist - NVG	SMA	180	~	Hoist Day, AIE	Yes	No	B	Yes	No	Yes
Rope Ladder	SMA	180	~	AIE	Yes	Yes	B	No	No	Yes
Fast Rope	SMA	180	~	AIE	Yes	Yes	B	No	No	Yes
Rappel	SMA	180	~	AIE	Yes	Yes	B	No	No	Yes
SPIES	SMA	180	~	AIE	Yes	No	B	No	No	Yes
AAR-Rcvr	Pilot, SMA	180	2	Chase	Yes	No	B	No	No	No
LVA	Pilot, SMA	60	~	~	No	No	B	No	Yes	No

8. TRAINING DOCUMENTATION. AFMC flying units use COOL training forms and overprints.

8.1. Training Folders. The training folder is used to organize, track and document completed training whether via AOQ, formal course documentation or completed training plans. Training folders will include complete documentation of aircrew certifications.

8.1.1. Training folders are required for all aircrew performing aircraft duties inflight. For aircrew qualified on multiple aircraft, maintain a separate folder to document each aircraft.

8.1.2. Access to electronic training folders is restricted via COOL permissions, but is readily accessible to the individual, instructors, and supervisory personnel.

8.1.3. Instructors and trainees review training folders for each specific training session. Upon completion of the session, the instructor promptly documents training in the folder.

8.1.4. File completed training plans as sets ordered: Form 67 (top), Form 68, Form 69 (bottom) with the most recent of each form on top.

8.1.5. Unit training managers may file completed training folders in an inactive status.

8.1.6. When an individual changes units, the training office forwards the training folder to the gaining unit. If an individual separates/retires or is assigned to a non-flying position, the unit gives the training folder to the individual.

8.1.7. Organize training folders into the following 5 sections with the title displaying: trainee name, grade, aircraft and crew position, and the inside cover containing a current AF Form 1381.

8.1.7.1. Phase I - Basic Aircraft Qualification – Include all training documents including: IQT, requalification, conversion, difference and formal course training.

8.1.7.2. Phase II - Mission Certification – Include ground and flying training documentation for mission certifications.

8.1.7.2.1. When completing concurrent training plans the instructor is only required to complete one AFMC Form 69. Place a copy of the original Form 69 or a Form 69 referencing the “primary” Form with each ongoing training plan.

8.1.7.3. AC/IP/EP Qualification/Certification - Include ground and flight upgrade training documentation.

8.1.7.4. Other - Any training documentation not included in the other sections.

8.1.7.5. Training/MFR Documentation - Include all training correspondence including EIT letters, commander approvals/authorization, waiver approvals, email coordination, AOQ, mission and/or upgrade qualifications/certifications and MFRs. **Note:** MFRs and associated attachments may be kept in training folder sections to which they apply in order to clarify and document qualifications/certifications.

8.2. Training Plans.

8.2.1. The only authorized AFMC training plans are those located on COOL including the AFMC Forms 67, 68, and 69.

8.2.2. Training plans may be updated in-between annual reviews. To ensure use of the most current guidance, the training office should download the current training syllabus prior to initiating training.

8.2.3. If a unit is unable to use COOL, coordinate AFMC/A3V approval of an alternative method via an AFMC Form 73.

8.3. Training Forms.

8.3.1. Completion date is the latest date of certification for all completed training plans, AOQ, AFMC qualification/certification, government sponsored FAA training, and other than MD certifications. The Sq/DO or above are authorized to sign as Certifying Officer/Official on Training Forms (e.g. 1381/67/68/69).

8.3.2. AF Form 1381. Documents certification of all completed training other than basic aircraft qualification (e.g. AFMC certifications, AOQ, government sponsored FAA training, and other than MD certifications (SOF, SUP, ODO, etc.)). Keep the certification list current. Reference AFMAN 11-202V2 for AF Form 4348 guidance on documenting basic aircraft qualification.

8.3.2.1. For multi-qualified aircrew, document training received in one MD, which transfers to the additional MD (e.g. UMO) by annotating the training credited and the aircraft in which the training was completed.

8.3.2.2. Use the date training was completed (last sortie or last class if only ground training is required) for the "Date Completed" block.

8.3.3. AFMC Form 67. Record all ground training before the trainee's flight training.

8.3.4. AFMC Form 68. Establishes and records the minimum required events, end-of-course proficiency levels for each task, the number of events required and accomplished, and proficiency level attained by the trainee for all flying training and any additional ground training (simulators, cockpit procedural trainers, etc.) accomplished during the flying training phase.

8.3.4.1. The AFMC Form 68, or LoX in the absence of an AFMC Form 68, is the official certifying document for each Phase II certification.

8.3.4.2. Grading standards. Grade each applicable AFMC syllabus training event. **(T-2)**

8.3.4.2.1. Unless noted with a "D" in the events required column, accomplish all training events on the AFMC Form 68 until Proficiency, "P", is achieved.

8.3.4.2.2. **{P}** Proficient. The student demonstrated the knowledge and skill necessary to successfully complete the event without instructor intervention and, in the instructor's opinion, will be able to repeat the event successfully in the future.

8.3.4.2.3. **{T}** Training required. The student did not demonstrate the knowledge and skill necessary to successfully complete the event. Continue student training in that event until a grade of "P" is achieved.

8.3.4.2.4. **{D}** Discussed. The event requires instructor discussion only.

8.3.4.2.5. Proficiency Advancement. If the student demonstrates proficiency in at

least 50% of the minimum required events, the instructor, with training officer concurrence, may proficiency advance that item. If end of course proficiency is met in all training items, the number of required sorties may also be reduced using these same guidelines.

8.3.4.2.5.1. If the student reaches proficiency and then regresses, regain proficiency before training is complete.

8.3.4.2.5.2. Instructors annotate on the AFMC Form 69 which items were proficiency advanced.

8.3.4.2.5.3. The training officer signature on the AFMC Form 69 Block 9 serves as concurrence.

8.3.4.2.5.4. Example: The minimum number of required air refueling contacts is 4, and the student is proficient for 2 contacts. The instructor may recommend advancing that training item.

8.3.5. AFMC Form 69. This form provides narrative descriptions of the trainee's progress and documents training officer reviews. It is typically used in conjunction with the AFMC Form 68 to record flying training comments but can also be used independently to document training (e.g. re-currency training). For each flying training session, a separate AFMC Form 69 should accompany each AFMC Form 68. Instructors document problems the student has completing a training event in sufficient detail to enable subsequent instructors to provide appropriate training.

LT GEN ADRIAN L. SPAIN
Deputy Chief of Staff, Operations

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

Title 14, Code of Federal Regulations, Part 61, *Certification: Pilots, Flight Instructors and Ground Instructors*, current edition

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

AFPD 11-4, *Aviation Service*, 12 April 2019

DAFI 90-160, *Management of Records*, 14 April 2022

DAFMAN 11-401, *Aviation Management*, 26 October 2020

DAFMAN 48-123, *Medical Examinations and Standards*, 08 December 2020

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

AFI 10-220, *Contractor's Flight and Ground Operations*, 6 February 2023

AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, 3 May 2022

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

AFI 16-1301, *Survival, Evasion, Resistance and Escape (SERE) Program*, 3 August 2017

AFI 35-109, *Visual Information*, 1 June 2017

AFI 11-214, *Air Operations Rules and Procedures*, 8 July 2020

AFMAN 11-2FT-Volume 2, *Flight Test Aircrew Evaluation Criteria*, 21 March 2019

AFMAN 11-2FT- Volume 3, *Flight Test Operations Procedures*, 29 December 2020

AFMAN 11-202 Vol 1, *Aircrew Training*, 27 September 2019

AFMAN 11-202 Vol 2, *Aircrew Standardization/Evaluation Program*, 30 August 2021

AFMAN 11-202 Vol 3, *General Flight Rules*, 10 January 2022

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

AFMAN 11-301 Vol 1, *Aircrew Flight Equipment (AFE) Program*, 12 October 2022

AFMAN 90-1001, *Total Force Associations (TFAs)*, 22 June 2020

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AF Form 1381, *USAF Certification of Aircrew Training* AF Form 8, *Certificate of Aircrew Qualification*

AF Form 4348, *USAF Aircrew Certifications*

AFTO 781, *ARMS Aircrew/Mission Flight Data Document*

AFMC Form 67, *Ground Training Record* AFMC Form 68, *Flying Training Record*

AFMC Form 69, *Flying Training Comments*

AFMC Form 73, *AFMC Waiver and Approval Request*

AFMC Form 80, *Multiple Qualification Request and Authorization*

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

Abbreviations and Acronyms

1SS—Single Spot Ship

AAR—Air to Air Refueling

ABM—Air Battle Manager

ACC—Air Combat Command

ACF—Acceptance Check Flight

ACBT—Air Combat Training

ACM—Additional Crew Member

ADO—Assistant Director of Operations

AFE—Aircrew Flight Equipment

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFPD—Air Force Policy Directive

AFTC—Air Force Test Center

AGL—Above Ground Level (in feet)

AGSM—Anti-G Straining Maneuver

AHC—Advance Handling Characteristics

AHM—Advance Handling Maneuvers

AIE—Alternate Insertion Extraction

AOQ—Acceptance of Qualifications

ARMS—Aviation Resource Management System

ASE—Aero-Servo-Elastic

BFM—Basic Fighter Maneuvers

BO—Boom Operator

BUQ—Basic Unmanned Aerial System Qualification

BVR—Beyond Visual Range

CAO—Civil Aircraft Operations
CC—Commander
CCP—Command Chief Pilot
CDS—Container Delivery System
CEA—Career Enlisted Aviator
CFP—Compatibility Flight Profile
CFR—Code of Federal Regulations
COOL—Center Ops Online
CPT—Cockpit Procedures Trainer
CRM—Crew/Cockpit Resource Management
CSO—Combat Systems Operator
CTOL—Conventional Takeoff and Landing
CV—Carrier Variant
DAWS—Data Analysis Workstation
DCMA—Defense Contract Management Agency
DNIF—Duties Not Involving Flying
DO—Director of Operations
DoD—Department of Defense
DSO—Defensive Systems Operator
ECM—Electronic Countermeasures
EIT—Entry into Training
EOH—End of Half
EPE—Emergency Procedures Evaluation
EPT—Emergency Parachute Training
EVS—Enhanced Vision System
EWO—Electronic Warfare Officer
ETCA—Education Training Course Announcement
FAA—Federal Aviation Administration
FAR—Federal Aviation Regulation
FCF—Functional Check Flight
FE—Flight Engineer
FFS—Formation Flight System

Flt/CC—Flight Commander

FP—First Pilot

FS—Flight Sciences

FT—Flight Test

FTE—Flight Test Engineer

FTT—Flight Test Technique

GATM—Global Air Traffic Management

GFR—Government Flight Representative

HAAR—Helicopter Air to Air Refueling

HEED—Helicopter Emergency Egress Device

IAW—In Accordance With

IC—Interim Change

ICAO—International Civil Aeronautics Organization

IFAST—Integrated Avionics Software Training Facility

IFR—Instrument Flight Rules

ILS—Instrument Landing System

ILS PRM—Instrument Landing System Precision Runway Monitoring

IMC—Instrument Meteorological Conditions

IMT—In-flight Maintenance Technician

IP—Instructor Pilot

IQT—Initial Qualification Training

IR—Infrared

IRC—Instrument Refresher Course

L&R—Launch and Recovery

LASDT—Low Altitude Step Down Training

LL—Low Level

LM—Loadmaster

LoX—Letter of X / Letter of Qualification

LPS—Local Proficiency Sortie

LVA—Low Visibility Approach

MAJCOM—Major Command

MD—Mission Design

MDS—Mission Design Series
MFR—Memorandum for Record
MOA—Memorandum of Agreement
MOU—Memorandum of Understanding
MQF—Master Question File
MS—Mission Systems
MSA—Minimum Safe Altitude
MSS—Multi-Spot Ship
MTS—Multispectral Targeting System
Multi—Qual— Multiple Qualified
Nav—Navigator
NOAA—National Oceanic and Atmospheric Administration
NOTAMS—Notices to Airmen
NRA—Non-Rated Aircrew
NVG—Night Vision Goggle
OCF—Operational Check Flight
ODO—Operations Duty Officer
OG/CC—Operations Group Commander
OPR—Office of Primary Responsibility
OSF—Ops Support Flier
OSO—Offensive Systems Operator
PCS—Permanent Change of Station
PDM—Primary Depot Maintenance
PIO—Pilot Induced Oscillation
RDS—Records Disposition Schedule
ROBD—Reduced Oxygen Breathing Device
RPA—Remotely Piloted Aircraft
SAM—School of Aerospace Medicine
SATB—Simulated Airdrop Training Bundle
SDP—Special Departure Procedure
SEFE—Standardization and Evaluation Flight Evaluator
SFO—Simulated Flame Out

SKE—Station Keeping Equipment
SMA—Special Mission Aviator
SO—Sensor Operator
SOF—Supervisor of Flying
SPIES—Special Patrol Insertion/Extraction System
STOVL—Short Takeoff and Vertical Landing
SUP—Squadron Supervisor
TA—Terrain Avoidance
TAAR—Tiltrotor Air to Air Refueling
TDY—Temporary Duty
TF—Terrain Following
TGP—Targeting Pod
T/O—Takeoff
TPS—Test Pilot School
UAS—Unmanned Aerial System
UMO—Unit Mission Orientation
Unit CC—Flying Unit Commander
UPT—Undergraduate Pilot Training
USAF—United States Air Force
USCG—United States Coast Guard
USMC—United States Marine Corps
USN—United States Navy
UTC—Unit Type Code
VFR—Visual Flight Rules
VID—Visual Identification
VMC—Visual Meteorological Condition
WD—Weapons Delivery
WSO—Weapon System Operator
WVR—Within Visual Range

Office Symbols

AFMC/A3—Air Force Materiel Command Air, Space and Information Operations Directorate
AFMC/A3V—Air Force Materiel Command Standardization and Evaluation Branch

AFMC/CC—Commander, Air Force Materiel Command

AFTC/CC—Commander, Air Force Test Center

DO—Director of Operations

MAJCOM/A3—Major Command Air, Space and Information Operations Directorate

MAJCOM/A3V—Major Command Aircrew Standardization and Evaluation Division

OG/CC—Operations Group Commander

SQ/CC—Squadron Commander

Terms

Command Chief Pilot (CCP)—An AFMC/A3V assigned pilot or appointee that assists Headquarters AFMC standardization/evaluation as a MAJCOM MD subject matter expert.

Differences Training—Difference training is required when transitioning within (or between) series of the same MDS.

End of Half (EOH) Report—Report displaying aircrew compliance with semi-annual EOH Volume training requirements defined in [chapter 7](#) of this volume.

Letter of X (LoX)—A document listing all assigned and attached aircrew aircraft, crew position and mission qualifications/certifications signed by the appropriate authority.

Qualitative Evaluation (QE)—A single-flight or short-term flight series conducted by trained and designated test aviators for the purpose of providing a quick-look subjective assessment of an aircraft (characteristics, handling qualities, performance,...) and/or practicing aircraft evaluation skills and techniques. These flights are necessary to develop test aviators through exposure to the widest possible variety of aircraft. For test pilots and test pilot students, qualitative evaluation (qual-eval) flights are typically flown in the pilot-in-command seat, including single-seat qual-evals. Qual-eval flights may also be conducted for flight test professional training, to prepare for future test programs, or for continuing education.

Rotorcraft—Term to describe both helicopter and tiltrotor aircraft.

Attachment 2

A-10 TRAINING GUIDELINES

A2.1. Training Events.

A2.1.1. 100 ft LASDT. Follow **paragraph 6.19** guidance for certification to 200 ft AGL. In order to obtain further certification to 100 ft, complete the applicable COOL flying training plan.

A2.1.2. No Flap Approach. Execute a no-flap approach terminating in a go-around/missed approach.

A2.1.3. Simulated Single Engine. Execute IAW AFMAN11-2A-10CV3.

A2.2. Training Tables. A-10 aircrew will also accomplish:

Table A2.1. Additional A-10 Training Requirements.

Phase	A-10 Event	Crew Position	Currency (days)	Vol.	Multi-Event Credit	Sim Credit	Multi-Qual Currency /Prof.	X-MD Re-currency Instruction	Regaining Currency
I	No Flap	P	60	3	NO	YES	NO	NO	A
I	SSE Go Around	P	60	3	NO	YES	NO	NO	A

Attachment 3

B-1 TRAINING GUIDELINES

A3.1. General.

A3.1.1. WSO requirements. Unit CCs may publish “non-traditional” aft station crew complements including min WSO crew requirements in unit guidance IAW [paragraph 1.3.1](#).

A3.1.2. WSO Simulators. The B-1 aft station trainer located in the Integrated Avionics Software Training Facility (IFAST) at Edwards AFB, CA is an approved simulator for completing B-1 WSO simulator training events. **Exception:** Annual Simulator Refresher.

A3.1.3. Fly instructor OSO upgrade from the DSO seat.

A3.2. Training Events.

A3.2.1. **Low Level, LASDT, and TF Certification Training.** B-1 aircrew conduct Low Level Nav, LASDT, and TF as concurrent training. Demonstrate pilot proficiency at 500’ AGL prior to flight below 500’ AGL. At instructor discretion, the step down may occur on the same sortie. While the majority of low level flight is conducted using the TF system, include training on aircraft handling and performance characteristics to safely conduct low altitude operations.

A3.2.1.1. Ground Training includes:

A3.2.1.1.1. Applicable portions of AFFTP 3-1 and AFTTP 3-3 Vol 20, *Combat Aircraft Fundamentals—B-1*.

A3.2.1.1.2. Aircraft Low Level Handling Qualities including: aircraft performance, control response (SEF, Hinge Moment Limiting, Speed Brake usage, Rudders), low/high speed, over-G potential, level turns, bank angles, aircraft buffet, climb/dive recoveries, effects of gross weight.

A3.2.1.1.3. Environmental Factors including out-of-cockpit visibility, Field of View restrictions, sun angle, and shadows/illusions (radar/visual).

A3.2.1.1.4. Low Altitude Situational Awareness including crew duties, task management, prioritization concepts, and importance of frequent aircraft attitude checks relative to the horizon. Air Combat Command (ACC) Low Altitude Awareness Training satisfies this requirement.

A3.2.1.1.5. Aircrew not previously LASDT certified watch the video “How Low Can You Go?”

A3.2.1.2. Loss of currency exceeding 2 months results in loss of certification.

A3.2.2. **Electronic Countermeasures (ECM).** Certifies WSOs to operate defensive system receive/transmit functions, tail warning, towed decoy and expendable countermeasures.

A3.2.2.1. NEAJAM, EAJAM, expendable countermeasures, tail warning function and the TDS (simulated or actual) system training may be accomplished in the simulator or IFAST.

A3.3. Training Tables. B-1 adircrew also accomplish:

Table A3.1. Additional B-1 Training Requirements.

Phase	Para	B-1 Event	Crew Position	Currency (days)	Multi-Event Credit	Sim Credit	Multi-Qual Currency /Prof.	X-MD Re-currency Instruction	Regaining Currency
I	--	No Flap	P	180	Landing	YES	NO	NO	A
I	A3.2	ECM	WSO	60	NO	YES	NO	NO	B

Attachment 4**B-2 TRAINING GUIDELINES**

A4.1. General. Unit CCs determine crew complement (e.g. 2 pilot or pilot/WSO) based on unit requirements. Pilots may perform events from either seat with no requirement to log training in relation to the seat occupied.

Attachment 5

B-52 TRAINING GUIDELINES

A5.1. General.

A5.1.1. Navigator. The navigator position refers to both the B-52 navigator and radar navigator crew positions and training events may be logged in either the navigator or radar nav seat.

A5.1.2. EWO. EWOs execute the B-52 NRA/OSF Phase I syllabus; however, EWO currency and proficiency requirements are the same as Navigators.

A5.1.3. LASDT and FCF. B-52 LASDT training is incorporated into FCF training and certification. Non-FCF certified aircrew complete a LASDT training program. (T-2)

A5.2. Training Events.

A5.2.1. Low Level and LASDT. Loss of currency exceeding 2 months results in loss of certification.

A5.2.2. Simulated Engine Out. For the purposes of logging simulated engine out landing and missed approach currency as directed in the main body of this AFI, B-52 pilots execute 2 engine out procedures. (T-3)

A5.3. Training Tables. B-52 aircrew also accomplish:

Table A5.1. Additional B-52 Training Requirements.

Phase	Para	B-52 Event	Crew Pos	Currency (days)	Volume	Multi-Event Credit	Sim Credit	MQ Transfer	Pilot Concurrent Ph I Trng	Multi-Qual Currency/Prof.	X-MD Re-currency Instruction	Regaining Currency
I	--	No Flap T&Go	P	180	--	Takeoff, Landing	Yes	No	--	No	No	B
II	--	EA Threat Activity	EWO	60	--	- -	Yes	No	--	No	No	B

Attachment 6

C-5 TRAINING GUIDELINES

A6.1. General.

A6.1.1. AMP AOQ. Unit CCs may accept C-5 A/B/C AMP qualifications for C-5M aircrew who were previously C-5 A/B/C AMP qualified without requiring additional training.

A6.2. Training Events.

A6.2.1. Receiver AAR. Pilots may complete training in either seat. Instructor qualification/certification requires the sortie be flown from the right seat.

A6.2.1.1. Day and night certifications require separate training. (T-2)

A6.2.1.2. Loss of currency exceeding 2 months results in loss of certification. (T-2)

A6.3. Training Tables. C-5 aircrew also accomplish:

Table A6.1. Additional C-5 Training Requirements.

Phase	Para	C-5 Event	Crew Pos	Currency (days)	Volume	Multi-Event Credit	Sim Credit	MQ Transfer	Pilot Concurrent Ph I Trng	Multi-Qual Currency/Prof.	X-MD Re-currency Instruction	Regaining Currency
I	--	No Flap Ldg	P	180	--	Landing	Yes	No	--	No	No	A

Attachment 7

C-12 TRAINING GUIDELINES

A7.1. General.

A7.2. Conversion Training. Required for pilots/FEs to qualify in another C-12 aircraft category to include: C-12C/D/E/F, C-12J, MC-12 and B-1900.

A7.2.1. Pilots seeking certification in all categories require 2,000 hours total flying time and 1,000 hours combined in one or more C-12 categories.

A7.3. Training Events.

A7.3.1. C-12 Conversion Sortie. To maintain currency, pilots must meet conversion sortie currency/proficiency requirements in every C-12 category certified. (T-2)

A7.3.1.1. If unable to maintain currency in a variant, the Unit CC, on a case-by-case basis, may authorize currency to be maintained in any C-12 category to log semiannual training requirements if the following requirements are met:

A7.3.1.1.1. The aircraft used has similar avionics.

A7.3.1.1.2. Phase I ground training for the aircraft to be flown is administered.

A7.3.1.1.3. A current and qualified IP is at a set of flight controls.

A7.3.1.1.4. FP duty code is used on the AFTO Form 781.

A7.4. Training Tables. C-12 aircrew will also accomplish:

Table A7.1. Additional C-12 Training Requirements.

Phase	Para	C-12 event	Crew Pos	Currency	Volume	Multi-Event Credit	Sim Credit	Multi-Qual Transfer	Concurrent Phase I Trng	Multi-Qual Currency/Prof.	X-MD Recurrency Instruction	Regaining Currency
I	-	Engine Failure Immediately After Takeoff (EFIATO)	P	90	2	T/O	Yes	No	-	No	No	A

Attachment 8**C-17 TRAINING GUIDELINES****A8.1. Training Events.**

A8.1.1. Receiver AAR. Loss of currency exceeding 2 months results in loss of certification. (T-2)

A8.1.2. Low Level Navigation. C-17 low level is authorized to 300' AGL. (T-2)

A8.1.3. NVG.

A8.1.3.1. Pilots conducting NVG flying training require an additional pilot in the Additional Crew Member (ACM) seat to act as safety observer.

A8.1.3.2. NVG at Low Altitude. Prerequisite: Day Low Level.

A8.1.3.2.1. The following sub-area training exists:

A8.1.3.2.1.1. NVG Airland. Certifies pilots to take off and land using NVGs.

A8.1.3.2.1.2. NVG Airland 90'. Certifies pilots to take off and land on runways 90' wide using NVGs. Wider landing surfaces may be used if the 90' wide landing zone is clearly marked.

A8.1.3.2.1.3. NVG Airdrop. Prerequisite: Day Airdrop. (T-3)

A8.1.3.2.1.4. NVG Ground Ops. Log by executing a backing and combat offload or ERO.

A8.1.4. Formation. Training sorties may combine types of formation either visually or electronically. Electronic means are defined as Station Keeping Equipment (SKE) or Formation Flight System (FFS). Visual formation certifications may be limited to day only if night formation requirements are not met.

A8.1.4.1. Currency may be logged whether flying SKE/FFS or Visual.

A8.1.5. Airdrop. Pilots may log Dual Row currency as Container Delivery System (CDS) or Heavy Equipment.

A8.2. Training Tables. C-17 aircrew also accomplish:

Table A8.1. Additional C-17 Training Requirements.

PHASE	PARA	C-17 EVENT	CREW POS	CURRENCY (DAYS)	VOLUME	MULTIEVENT CREDIT	SIM CREDIT	MULTI-QUAL TRANSFER	PILOT CONCURRENT PHASE I TRNG	MULTI-QUAL CURRENCY/PROF	X-MD RE-CURRENCY INSTRUCTION	REGAINING CURRENCY
PHASE II TRAINING	A8.1	NVG LOW LEVEL	P	180	N/A	LL, NVG, NVG Low Alt	Yes	No	No	No	No	B
	A8.1	NVG T/O	P	90	N/A	TAKEOFF, NVG, NVG Low Alt	Yes	No	No	No	No	B
	A8.1	NVG LDG	P	90	N/A	LDG, NT LDG, NVG, NVG Low Alt	Yes	No	No	No	No	B
	A8.1	NVG 90° T/O	P	180	N/A	TAKEOFF, NVG, NVG Low Alt	Yes	No	No	No	No	B
	A8.1	NVG 90° LDG	P	180	N/A	LDG, NT LDG, NVG, NVG Low Alt	Yes	No	No	No	No	B
	A8.1	NVG AIRDROP	P,LM	180	N/A	AIRDROP, NVG, NVG Low Alt	Yes (P) No (LM)	No	No	No	No	B
	A8.1	NVG GND OPS	LM	180	N/A		No			No	No	B
	A8.1	AIRDROP DUAL-ROW	LM	180	N/A		No			No	No	B

Attachment 9**C-37 TRAINING GUIDELINES****A9.1. Training Events.****A9.1.1. Category II/III ILS and Enhanced Vision System (EVS) Training.**

A9.1.1.1. If CAT II/III ILS and EVS certifications were not annotated on the AF Form 8 as accomplished during IQT, pilots complete a COOL training plan. (T-2)

A9.1.1.2. Flight (non-simulator) training requires the following min weather and runway length:

A9.1.1.2.1. A 200' ceiling and ½ mile visibility (RVR of 24) or 800 meters day and night.

A9.1.1.2.2. Crosswind 15 knots or less.

A9.1.1.2.3. Runway length of computed landing distance (brakes and speed brakes) plus 2,000'.

A9.1.1.3. Ground Training includes:

A9.1.1.3.1. External system and visual aid characteristics, capabilities and limitations (e.g. approach lights, in-runway lights, transmissometers, etc.)

A9.1.1.3.2. Runway environment visual cues with respect to different glide slope angles, cockpit cutoff angles and altitudes at which these visual cues are normally discernible.

A9.1.1.3.3. Internal system characteristics, capabilities and limitations (e.g. flight director, automatic approach coupler, radar altimeters, instrumentation, etc.)

A9.1.1.3.4. Component failures with respect to decision height and missed approach planning.

A9.1.1.4. Flight Training includes: (T-2)

A9.1.1.4.1. Resolution of decision height.

A9.1.1.4.2. Missed approach procedures.

A9.1.1.4.3. Runway visual range, uses and limitations.

A9.1.1.4.4. Transition from instrument to visual flight cues.

A9.1.1.4.5. Effects of vertical and horizontal wind shear.

A9.1.1.4.6. Review of category II/III or EVS specifications.

A9.1.1.4.7. Practice at least one approach in each authorized equipment mode.

A9.2. Training Tables. C-37 aircrew also accomplish:

Table A9.1. Additional C-37 Training Requirements.

Regaining Currency		
	B	B
X-MD Re-currency Instruction	No	No
Multi-Qual Currency/Prof.	No	No
Pilot Concurrent Ph I Trng	Yes	Yes
MQ Transfer	No	No
Sim Credit	Yes	Yes
Multi-Event Credit	IAP	IAP Prc App
Volume	-	-
Currency (days)	180	90
Crew Pos	P	P
C-37 Event	HUD/EVS Appr	CAT III ILS
Para	A9.1	A9.1
Phase		I I

Attachment 10

C-130 TRAINING GUIDELINES

A10.1. General.

A10.1.1. Aircrew Training Requirements.

A10.1.1.1. Nav/CSO/WSO. Training tables and plans in this AFMAN address the traditional navigator. Develop CSO/WSO unique procedures, if applicable, IAW [paragraph 1.4.4.8](#).

A10.1.1.2. Instructor Flight Engineer. An Instructor Flight Engineer may teach any crew position aircraft systems for Qualification, Conversion, or Differences Ground Training.

A10.1.2. Aircraft Categories. Accomplish C-130 IQT within a single category. Categories are:

A10.1.2.1. C-130J - Aircraft series derived from the C-130J (e.g. MC-130J). C-130J Block 7.0/8.1/8.1.1 is considered a separate category.

A10.1.2.2. C-130H - All other aircraft series (e.g. C-130B through AC-130U). C-130 AMP is considered a separate category.

A10.2. Qualification/Conversion/Difference Training. C-130 definitions for qualification, conversion and difference training do NOT comply with AFMAN 11-2FTV1 Section 2 definitions. The C-130 is further divided into categories: C-130H (and variants); C-130J (and variants); C-130J Block 7.0/8.1/8.1.1; and C-130H AMP. Pilots seeking qualification in three or more categories require an experience level of 2,000 hours total flying time with a combined total of 1,000 hours in the C-130. Contact AFMC/A3V for approval when minimums are not met.

A10.2.1. Qualification Training. Complete J or H qualification training for initial qualification and when transitioning to a new C-130 category. (T-2) Open and closed book testing is required in the new category prior to qualification; however, no check ride is required if member holds a current C-130 Form 8 in any category. (T-3) (**Exception:** Testing is not required when qualifying in the C-130J Block 7.0/8.1/8.1.1 from the J or C-130H AMP from the H)

A10.2.1.1. Reference AFMAN 11-202V1 AFMC Supplement guidance to request training. Local training requests will only be considered if the aircrew previously attended a C-130 IQT formal course (any category).

A10.2.1.2. For the first qualification/certification in the AC-130J, SMAs must attend a formal training course. (T-2)

A10.2.2. Conversion Training (ie ground and flight training). Used to certify in another variant within category when both ground and flight training are required per [Table A10.1](#) and [Table A10.2](#). No open or closed book testing is required.

A10.2.3. Difference Training (i.e. ground training within a category). Used to certify in another variant within category when only ground training is required per [Table A10.1](#) and [A10.2](#). No open or closed book testing is required. Once initial AMP conversion training is complete, differences training (no flight required) will be completed for other variants (Exception: a flight is still required for LC-130 unless previously qualified for ski operations)

A10.2.3.1. Loadmasters use difference training to certify in variants within the same category.

A10.2.4. C-130 COOL Training Plans. COOL training plans are structured based on a generic C-130H qualification. Therefore, concurrent qualification, conversion, and difference training plans are authorized to achieve the qualification/certification and needs of the student. Tables [A10.1](#) and [A10.2](#) define minimum requirements for conversion and difference training.

A10.2.4.1. Example: A C-130J qualified pilot approved for in-unit training to certify on a KC-130T-30 would concurrently complete C-130H qualification and KC-130T-30 conversion training, dual logging events as appropriate.

Table A10.1. C-130H Conversion & Difference Training Requirements.

MDS	Pilot / Flight Engineer	Navigator	Note
C-130H AMP	Conv for initial aircraft, then Diff	Same as Pilot	1
C-130H2 / 2.5 (78-0806 to 91-9144 & 92-3021 to 92-3024)	Pilot – Conv and H1 Diff (results in H1, H2 and H2.5 certification) FE – Conv – or – Diff if H3 certified	Diff	1
C-130H3 (92-0547 to 92-1538 & 92-3281 and up)	Conv	Diff	1
C-130T (USN)	Conv – or – Diff if KC-130T certified	Diff	1
EC-130H (AVP)	Pilot – Conv FE – Diff	Conv	
HC-130H (USCG)	Conv – or – Diff if H2 certified	Diff	1
KC-130T (USMC)	Conv – or – Diff if Tanker & H2 certified	Diff	1
KC-130T-30	Pilot – KC-130T & Conv FE – see KC-130T	See KC-130T	2
LC-130H (L1)	Conv – or – Diff if SKI, H2 and H3 certified	Diff	1, 3
LC-130H (L2)	Conv – or – Diff if SKI and H3 certified	Diff	1, 3
Foreign / Retired Variants	Contact AFMC/A3V		
NOTES:			
1. Navigator difference training is based upon the navigation and radar systems grouped below. No additional difference training is required if already trained in the group. SCNS and APN-59 radar; SCNS and APN-241 radar; C-130H AMP			
2. Pilot conversion training not required if certified on another C-130 stretch variant.			
3. Ski equipped LC-130 aircraft require a flight only once			

Table A10.2. C-130J Conversion & Difference Training Requirements.

MDS	Pilot / CSO / LM	Note
CC-130J (Stretch)	C-130J & Conversion – Pilot; Differences - LM	1

Block 7.0/8.1/8.1.1	Conversion – Pilot; N/A - Loadmaster	
C-130J	Difference (if qualified in a variant)	
AC-130J	Difference	
EC-130J	Difference	
HC-130J (USAF or USCG)	Difference	
KC-130J	Difference	
MC-130J	Difference	
Notes:		
1. Conversion training not required if certified on another C-130 stretch variant.		

A10.3. Training Events.

A10.3.1. Conversion Sortie. Log a sortie IAW [paragraph 6.5](#) in the non-primary C-130 aircraft category. **Note:** Conversion sortie not required for C-130J Block 7.0/8.1 or C-130H AMP Note: C-130J LM does not require a conversion sortie for the C-130H (any variant)

A10.3.2. FCF. Pilots complete training from both left and right seats based on flying maneuvers from the left seat and running the profile from the right seat.

A10.3.3. Low Level Navigation. C-130 low level is authorized to 300' AGL day and 500' unaided night above the highest terrain or obstacle within 3NM of route centerline or the planned flight path for night.

A10.3.4. TF/TA. Applies to operations below low level navigation or NVG low level altitudes. COOL training plans exist to qualify aircrew for Day VMC, Night VMC, and Day/Night IMC, as noted on the individual COOL training plans.

A10.3.5. NVG. NVG Medium Altitude is N/A for C-130 operations.

A10.3.5.1. NVG at Low Altitude. Authorized no lower than 300' contour.

A10.3.5.1.1. To log currency, pilots fly 30 minutes hands. Navigators require 30 minutes. (T-2)

A10.3.5.2. NVG – Airdrop. Certifies aircrew to execute airdrop events while using NVGs. To log currency, aircrew fly any airdrop event while using NVGs.

A10.3.5.3. Assault-Day. Certifies pilots to land on runways less than 80' wide using assault landing procedures.

A10.3.5.4. Assault-Night/NVG. Prerequisite: Assault-Day. Certifies pilots to land at night, both unaided and using NVG, on:

A10.3.5.4.1. Runways less than 80' wide using assault landing procedures.

A10.3.5.4.2. Runways marked with AMP 1-3 lighting.

A10.3.5.5. Assault-AMP 4. Certifies pilots to land on AMP 4 runways using NVGs. Prerequisite: Assault-Night/NVG.

A10.3.6. Formation. Execute C-130 Visual Formation to log this event.

A10.3.7. Live/Dry Fire. Certifies aircrew to execute C-130 gun employments.

A10.3.7.1. To log currency, Dry Fire is a simulated employment executing all standard procedures and Live Fire is actual employment. Live/Dry Fire is dual logged on any Dry Fire or Live Fire currency solely to aid ARMS currency tracking limitations.

A10.3.7.2. For those aircrew authorized to update currency in the simulator, ensure a crew complement sufficient to complete normal employment procedures and CRM is present.

A10.3.8. Precision Guided Munition (PGM) Employment. Certifies aircrew to execute C- 130 PGM employments.

A10.3.9. C-130 AMP: Any previous phase II mission event qualification will apply to C-130 AMP modified aircraft.

A10.4. Upgrade Training.

A10.4.1. Instructor Qualification. C-130 instructor pilots complete simulated 2-engine out flying training prior to qualification as an AFMC IP. Pilots certified in both C-130H and J categories should complete 2-engine out flying training in each category prior to instructor certification in that category.

A10.5. Training Tables. C-130 aircrew also accomplish:

Table A10.3. Additional C-130 Training Requirements.

Phase	Para	C-130 Event	Crew Pos	Currency (days)	Volume	Multi-Event Credit	Sim Credit	MQ Transfer	Pilot Concurrent Ph I Trng	Multi-Qual Currency/Prof.	X-MD Re-currency Instruction	Regaining Currency
I		No Flap Ldg	P	180	--	Landing	Yes	No	--	No	No	A
Phase II		Airdrop - Vis	P, Nav/CSO	180	--	--	No	No	No	No	No	B
		Airdrop - NVG	P, LM	180	--	--	Yes	No	No	No	No	B
		Assault-Day	P	90	3	Landing	Yes	No	No	No	No	B
		Assault-Night/NVG	P	90	3	Landing Nt Ldg	Yes	No	No	No	No	B
		Assault-AMP 4	P	60	4	Landing Nt Ldg	Yes	No	No	No	No	B
		NVG Form	P	90	--	Form	Yes	No	No	No	No	B
		Live/Dry Fire	P, FE	90	--	--	Yes	No	No	No	No	B
		Dry Fire	P, FE	N/A	3	Live/Dry Fire	Yes	No	No	No	No	--
		Live Fire	P, FE	N/A	3	Live/Dry Fire	No	No	No	No	No	--
		Live Fire	Nav/CSO, SMA	90	6	--	No	No	--	--	No	B
		PGM Employ	P, Nav/CSO	90	3	--	No	Yes	No	No	No	B

Attachment 11

C-135 TRAINING GUIDELINES

A11.1. General.

A11.1.1. Aircrew Training Requirements.

A11.1.1.1. Navigator. Training tables and plans in this AFI address the traditional navigator. Develop CSO/EWO procedures, if applicable, and incorporate into unit supplements IAW [paragraph 1.3.2](#).

A11.1.1.2. Aircraft Categories. For the purposes of certification training, C-135 categories are:

A11.1.1.2.1. Turbofan (135-TF). C-135 with TF33-PW-102 engine derivatives.

A11.1.1.2.2. Hi-Bypass (135-HB). C-135 with F108-CF-100 engine derivatives.

A11.1.1.2.3. Block 40. C-135 with the Block 40 avionics upgrade.

A11.1.1.2.3.1. Block 40 Retrograde. C-135 Block 45 qualified aircrew from the FTU are required to inversely complete training plan for the Block 45 DIFF to familiarize and qualify in the Block 40 aircraft avionics retrograde.

A11.1.1.2.4. Block 45. C-135 with the Block 45 avionics and autopilot upgrade

A11.1.1.2.5. Rivet GLASS (135-RG). C-135 with the Rivet GLASS avionics upgrade.

A11.2. Qualification/Conversion/Difference Training.

A11.2.1. Navigator Qualification. The C-135 and E-3/E-8 may be considered a single qualification upon completion conversion training for the purposes of currency/proficiency and the AFMC Form 80, *Multiple Qualification Request and Authorization*.

A11.2.2. Conversion/Difference Training.

A11.2.2.1. Pilot/FE. Conversion training is required to qualify in another C-135 aircraft category.

A11.2.2.2. Navigator/Boom Operator. Difference training (covering APU and other applicable systems) is required to qualify in another C-135 aircraft category.

A11.2.3. Difference Training. Avionics difference training is required for pilots, boom operators, flight engineers and navigators (e.g., Block 40/GATM, Block 45, etc.).

A11.3. Training Events.

A11.3.1. If unable to maintain currency in a variant, the Unit CC, on a case-by-case basis, may authorize currency to be maintained in any C-135 category to log semiannual training requirements if the following requirements are met:

A11.3.1.1. The aircraft used has similar avionics.

A11.3.1.2. Phase I ground training for the aircraft to be flown is administered.

A11.3.1.3. A current and qualified IP is at a set of flight controls.

A11.3.1.4. FP duty code is used on the AFTO Form 781.

A11.3.2. Conversion Sortie.

A11.3.2.1. Pilot and FE. Complete conversion sortie requirements on every C-135 aircraft category in which qualification/certification is held. (T-2)

A11.3.2.2. Navigator. Conversion sortie requirements apply for each C-135, E-3, and E-8 certification. (T-2)

A11.3.2.3. Boom Operators do not have a C-135 conversion sortie training requirement.

A11.3.3. Receiver AAR. Pilots may dual log receiver AAR currency accomplished in any C-135, E-3 or E-8 aircraft they are receiver certified.

A11.3.4. Receiver AAR Instructor. To be a Receiver AAR Instructor:

A11.3.4.1. Be C-135 receiver AAR certified.

A11.3.4.2. Be C-135 basic instructor.

A11.3.4.3. Complete a C-135 Receiver AAR Instructor training course. May be conducted concurrently with basic instructor upgrade.

A11.4. Training Tables. C-135 aircrew also accomplish:

Table A11.1. Additional C-135 Training Requirements.

Phase	Para	C-135 Event	Crew Pos	Currency (days)	Volume	Multi-Event Credit	Sim Credit	MQ Transfer	Pilot Concurrent Ph I Trng	Multi-Qual Currency/Prof.	X-MD Re-currency Instruction	Regaining Currency
I I ^s	--	Manual Contact	BO	90	--	AAR- Tanker	No	No	--	No	No	A

Attachment 12**C-146/NC146A TRAINING GUIDELINES**

A12.1. General. The C-146A is the militarized version of the Dornier Do-328 aircraft, and the NC-146A Sensor Test Bed, similar to current block upgraded C-146s but with significant differences including performance when configured with external pods.

A12.2. Qualification/Conversion Training.

A12.2.1. Training is typically completed through a commercial vendor with pilots receiving a type rating upon completion of an FAA check ride. Complete Form 8 IAW AFMAN 11-202V2. If the requirements for an Instrument Evaluation are met, the FAA simulator check may count for the Instrument Eval.

A12.2.2. If initial qualification training was obtained via a civil Do-328 training program, complete AFMC “Top-off” training and an AFMAN 11-202V2 qualification evaluation prior to C-146 qualification. (T-2)

A12.2.3. Difference Training. The NC-146A requires difference training.

Attachment 13
E-3 TRAINING GUIDELINES

A13.1. General.

A13.1.1. Aircraft Categories. For the purposes of certification training, E-3 categories are:

A13.1.1.1. E-3

A13.2. Qualification/Conversion Training.

A13.2.1. Simulator IQT. Pilots and flight engineers complete at least 4 simulator missions (4 hours/mission) prior to the initial qualification flight evaluation.

A13.2.2. Conversion Training.

A13.2.2.1. Pilot/Flight Engineer.

A13.2.2.1.1. E-3 and E-8 are considered a single qualification upon completion conversion training for the purposes of currency/proficiency and the AFMC Form 80.

A13.2.2.1.2. Open and closed book examinations from each aircraft category certified are requisites to flight evaluations.

A13.2.2.2. Navigator.

A13.2.2.2.1. Difference training is required to certify in the opposite aircraft category.

A13.2.2.2.2. The C-135 and E-3 may be considered a single qualification upon completion conversion training for the purposes of currency/proficiency and the AFMC Form 80.

A13.3. Training Events.

A13.3.1. Conversion Sortie.

A13.3.1.1. Navigator. Conversion sortie requirements apply for each C-135 and E-3 certification.

A13.3.2. Receiver AAR. Pilots may complete training from either seat.

A13.3.2.1. Pilots may dual log receiver AAR currency accomplished in any C-135 or E-3 aircraft they are receiver certified.

A13.3.3. Receiver AAR Instructor. To be a Receiver AAR Instructor:

A13.3.3.1. Be E-3 receiver AAR certified

A13.3.3.2. Be an E-3 basic instructor

A13.3.3.3. Complete an E-3 Receiver AAR Instructor training course. May be conducted concurrently with basic instructor upgrade.

Attachment 14**F-15 TRAINING GUIDELINES****A14.1. General.**

A14.1.1. Aircraft Categories. For the purposes of certification training, F-15 categories are:

A14.1.1.1. F-15A-D

A14.1.1.2. F-15E

A14.1.1.3. F-15 Advanced (ADV--any F-15 with digital flight controls).

A14.1.2. Formation is optional for initial qualification. However, include instruction in basic formation events applicable to the unit in mission certification training.

A14.2. Qualification/Conversion Training.

A14.2.1. Centrifuge Training. F-15 WSOs current and certified with respect to centrifuge requirements (as defined by AFI 11-404) are not required to attend centrifuge training for the higher-g F-15B/D profile as part of their conversion training.

A14.2.2. Pilot Qualification Training. Fly the first qualification training flight in a dual seat F-15 with an instructor pilot. (T-2) All other flights may be accomplished with an instructor pilot providing instruction from a chase aircraft.

A14.2.3. Conversion Training. Enables pilots and WSOs to certify in another F-15 category. No additional open or closed book testing is required for any F-15 conversion.

A14.2.4. TGP. This certification is integrated in the F-15E/ADV Phase I qualification.

A14.2.5. TF. This certification is integrated in the F-15E/ADV Phase I qualification. Additional TF certification is not required for day/VMC. If TF is to be used at night or IMC, additional TF certification is required.

A14.2.5.1. TF below LASDT altitudes. For tests requiring use of the TF system below the LASDT minimum altitude, but at or above 100' AGL, define an OG/CC approved "spin-up" training plan in the test or safety package. (T-2) As a minimum, ensure aircrew are current and certified in LASDT and TF prior to starting "spin-up" training. (T-2)

A14.2.6. AHM. AHM guidance does not apply to F-15ADV.

A14.2.7. FCF. FCF training for F-15A-E and F-15ADV must be completed for each of these two sets of categories prior to conducting FCF missions in non-airworthy aircraft for each of these categories. Crews may be certified in F-15A-E FCF, F-15ADV FCF or both. Currency events in either update both.

A14.2.8. Instructor Requirements. F-15E/ADV Phase I and II training plans and events may be instructed by instructor pilots or instructor WSOs unless restricted in [Table A14.1](#). Additionally, an instructor WSO may instruct flight lead training as well as instrument approach, simulated engine-out approach and AAR re-currency despite not maintaining the qualification/certification.

Table A14.1. F-15 Instructor of Record Requirements.

Training Event	Initial Training	Regain Currency
Phase I Training Plan	IP	N/A
Sortie	IP	IP
Conversion Sortie	IP	IP or IWSO
Landing	IP	IP
Night Landing	IP	IP
AAR - Receiver	IP	IP or IWSO
AHM	IP	IP
CFP (TPS Graduate)	IP	IP
Chase	IP	IP or IWSO

Attachment 15

F-16 TRAINING GUIDELINES

A15.1. General.

A15.1.1. Aircraft Categories. For the purposes of certification training, F-16 categories are:

A15.1.1.1. F-16A/B

A15.1.1.2. F-16AM/BM/C/D

A15.1.1.3. F-16CM/DM

A15.1.2. Formation is optional for initial qualification. However, include instruction in basic formation events applicable to the unit in mission certification training.

A15.2. Qualification/Conversion/Difference Training.

A15.2.1. NAV/EWO/WSO Initial Qualification. To qualify in the F-16 aircrew must have been previously qualified in a fighter (e.g. F-15, F-4, etc.) or be a TPS graduate. (T-3)

A15.2.2. Conversion Training. Required for pilots to certify in another F-16 category. (T-3) For foreign military sales using country specific TOs, the Unit CC determines the level of conversion or difference training required.

A15.2.2.1. Open book testing is not required for F-16 conversion training.

A15.2.3. Difference Training. Ground training is required for pilots to certify on different engines (e.g. PW220, PW229 and GE100/129). Due to the similarity of the GE100 and GE129, training is combined in a single training plan.

A15.2.4. NVG Weapon Delivery. Day WD certification is required prior to NVG WD training.

A15.2.5. High-speed Anti-Radiation Missile (HARM) Targeting System (HTS). Certifies aircrew to operate the HTS during flight. Aircrew without a certification may fly with an HTS on the aircraft as long as it is not used as a sensor or for fulfilling test or mission requirements.

A15.3. Training Tables. F-16 aircrew also accomplish:

Table A15.1. Additional F-16 Training Requirements.

Phase	Para	F-16 Event	Crew Pos	Currency (days)	Volume	Multi-Event Credit	Sim Credit	MQ Transfer	Pilot Concurrent Ph I Trng	Multi-Qual Currency/Prof.	X-MD Re-currency Instruction	Regaining Currency
I	A15.2.5	HTS	P	--	--	No	No	No	No	No	No	B

Attachment 16

F-22 TRAINING GUIDELINES

A16.1. General.

A16.2. Qualification/Mission Training.

A16.2.1. Night Qualification. Fly the night checkout sortie after the Phase I flight evaluation.

A16.2.2. NVG. Training may be accomplished concurrently with the night qualification if the student had a previous NVG certification in any fighter aircraft.

A16.2.3. AHC. Certification is incorporated into the basic aircraft Phase I qualification training.

A16.2.4. BFM. If two F-22s are not available for training, allocation of aircraft is Unit CC discretion; however, ensure at least one aircraft is an F-22.

A16.2.4.1. F-22 BFM IPs may instruct from any jet in which they are BFM current and certified or from the RCP of a different jet.

A16.2.5. ACBT. F-22 ACBT IPs instruct from another F-22 in the element for ACBT upgrade training. ACBT IPs may instruct from any jet in which they are current and certified or from the RCP of a different jet for the purposes of a member regaining currency.

Table A16.1. Additional F-22 Training Requirements.

Regaining Currency	
X-MID Re-currency Instruction	
Multi-Qual Currency/Prof.	
<u>Pilot</u> Concurrent Ph I Trng	
MQ Transfer	See Para A16.2.6
Sim Credit	
Multi-Event Credit	
Volume	
Currency (days)	365
Crew Pos	P
F-22 Event	ROBD
Para	A16.2.6
Phase	I

Attachment 18

H-1 TRAINING GUIDELINES

A18.1. General. Training items logged in any H-1 count toward currency of any H-1 the member is certified in unless annotated otherwise. Qualified H-1 pilots require applicable Differences or Conversion Training for certification in other H-1 mission/series.

A18.2. Qualification/Conversion/Mission Training.

A18.2.1. NRA Qualification. The preferred method is to have an instructor SMA administer training; however, any instructor aircrew may administer training.

A18.2.2. Conversion Training. Certifies aircrew in another mission/series (e.g. UH-1N, TH-1H).

A18.2.3. Low Level Navigation. Certifies aircrew to conduct enroute ops below 300' AGL down to 100' AGL. With Unit CC approval, minimum altitudes may be reduced to 50' AHO when training or testing necessities exist. Limit time below 100' AGL to the min required for mission objectives. Certification not required for terminal area maneuvering (e.g. water bucket). **Exception:** Aircrew conducting a flight test on an approved test plan with low level requirements (operating below 300' AGL) do not require certification, however, the restrictions and limitations of the test plan and safety annex will be followed.

A18.2.4. Emergency Procedures (EP) Sortie. To log currency, aircrew accomplish: **(T-3)**

A18.2.4.1. Review of all boldface EPs.

A18.2.4.2. Autorotations: straight ahead, turning (UH-1N).

A18.2.4.2.1. Additional Autorotations: low level, hovering (TH-1H).

A18.2.4.3. Boost-off approach and landing.

A18.2.4.4. Simulated fuel control failure approach and landing (UH-1N).

A18.2.4.5. Simulated single-engine approach and landing (UH-1N).

A18.2.4.6. Hydraulics Off approach and landing (TH-1H).

A18.2.5. FCF/ACF Certification Training.

A18.2.5.1. The Pilot and SMA on an FCF/ACF aircraft are required to be FCF certified or in FCF training IAW [paragraph 6.17.3](#) (**Exception:** Reference AFMAN 11-202V2 AFMC Supplement.) The Co-Pilot does not need to be FCF certified.

Attachment 19

HH-60 TRAINING GUIDELINES

A19.1. General. Training items logged in any H-60 count toward currency of any H-60 the member is certified in unless annotated otherwise (e.g., coupled approach). Attached aircrew and units operating under cross command MOU/MOA will follow the host flying unit training guidance unless MOU/MOA provisions dictate otherwise.

A19.2. Qualification/Mission Training/Continuation Training.

A19.2.1. Conversion/Differences Training. Requirements for Conversion or Differences training are defined in **Table A19.1**. *For example, HH-60G to UH-60M requires conversion training. UH-60M to HH-60W requires differences training.* Training for variants not listed will be adjudicated by A3V based on derivation from either A/L or M based models.

A19.2.2. Ready Aircrew Program (RAP). AFMC does not participate in the lead MAJCOM's Ready Aircrew Programs. Additionally, AFMC does not require Combat Mission Ready (CMR) Aircrew certification.

A19.2.3. Aircrew Experience. AFMC aircrew are generally graduates of Test Pilot School or experienced aircrew members (> 1000 flight hours).

Table A19.1. Conversion/Differences Training Required.

Differences Training			Conversion Training
Mission	Design	Series	
H/M/S/U	H-60	A/B/L/G/K	
H/S/U	H-60	M/V/W	
M	H-60	M	

A19.2.4. Low Level Navigation Certification. Certifies aircrew to conduct enroute ops below 300' AGL down to 100' AGL. With Unit CC approval, minimum altitudes may be reduced to 50' AHO when training or testing necessities exist. Limit time below 100' AGL to the min required for mission objectives. Certification not required for terminal area maneuvering (e.g. water bucket). **Exception:** Aircrew conducting a flight test on an approved test plan with low level requirements (operating below 300' AGL) do not require certification, however, the restrictions and limitations of the test plan and safety annex will be followed.

A19.2.5. Emergency Procedure (EP) Sortie.

A19.2.5.1. To log currency, aircrew accomplish the following at a minimum: **(T-3)**

A19.2.5.1.1. Review of all boldface EPs.

A19.2.5.1.2. Autorotations (straight ahead). Low Altitude Autorotation also required if maintaining Low Level currency.

A19.2.5.1.3. Stability Augmentation System and Boost off approach to a hover and landing.

A19.2.5.1.4. Simulated single-engine approach and landing (Roll on)

A19.2.5.2. At the discretion of the instructor pilot or evaluator pilot (during evaluations), the following EPs may be performed:

A19.2.5.2.1. Stabilator Failure (simulated by using the cyclic mounted stabilator slew up switch to slew the stabilator up and out of Auto mode)

A19.2.5.2.2. DEC/EDCU Lockout. DEC/EDCU Lockout may be performed on the ground. (The goal is that pilots are proficient in placing the engine in lockout and then out of lockout.)

A19.2.5.3. Up to 50 percent of this requirement may be logged in a HQ AFMC/A3V approved simulator. The H-60 Command Chief Pilot (CCP) will provide AFMC/A3V with a list of simulators deemed adequate for training. Both USAF (e.g. HH-60G, HH60W) and US Army approved simulators may be used (UH-60A/L for HH-60G or H60M TBOS/BAT or other US Army approved H-60M Simulator for HH-60W).

A19.2.5.4. Instructors may credit one sortie per quarter when supervising an emergency procedures sortie.

A19.2.5.5. All EPs may be accomplished at night/NVG except for autorotations. **(T-2)** An EP sortie conducted at night/NVG may be credited for currency, however the next EP sortie must be accomplished during the day and include autorotation requirements. **(T-3)**

A19.3. Pyramid Training. The interfly/guest help provisions of AFMAN 11-202V3 and DAFMAN 11-401 allow H-60 crew members to temporarily occupy a crew position on a different series H-60, of which they are not qualified, to provide pyramid training on events for which no unit instructor exists (e.g. Shipboard Ops).

A19.3.1. The “student” must be a current and qualified instructor (except for the mission area in which training is being received), and the “instructor” must comply with [paragraph 2.5.7](#), and be briefed on series specific instrument/checklist procedures and USAF CRM (if non-USAF). **(T-2)**

A19.4. FCF/ACF Training.

A19.4.1. The Pilot on a FCF/ACF aircraft is required to be FCF/ACF certified. The FCF Pilot will be designated the aircraft commander. The Co-Pilot and SMA/Flight Engineer are not required to be FCF certified. **(Exception:** Reference AFMAN 11-202V2 AFMC Supplement.)

A19.4.2. Pilots will receive FCF/ACF training from a FCF/ACF certified instructor pilot, IAW [paragraph 6.17.3](#).

A19.4.3. The FCF/ACF Pilot should occupy the left seat during engine running ground runs and FCF/ACFs with a Co-Pilot in the right seat. This provides the FCF/ACF Pilot the ability to monitor the collective with his/her left hand while manipulating throttles/Power Control Levers (PCLs). **(Exception:** An instructor pilot that is FCF/ACF certified and providing instruction to a non-certified FCF/ACF Pilot will occupy the right seat and the Pilot in training will occupy the left seat.

A19.4.4. SMA/Flight Engineers will receive FCF/ACF training to perform engine running ground runs with a certified FCF/ACF pilot. The SMA/Flight Engineer will occupy the right seat during engine running ground runs and training.

Attachment 20

KC-10 TRAINING GUIDELINES

A20.1. General.

A20.2. Qualification/Mission Training.

A20.3. Training Tables. KC-10 aircrew also accomplish:

Table A20.1. Additional KC-10 Training Requirements.

Phase	Para	KC-10 Event	Crew Pos	Currency (days)	Volume	Multi-Event Credit	Sim Credit	MO Transfer	Pilot Concurrent Ph I True	Multi-Qual Currency/Prof.	X-MD Re-currency Instruction	Regaining Currency
Phase I	A17.3	Boom Operator Trainer (simulator)	BO	180	--	No	Yes	No	--	No	No	A

Attachment 21**KC-46 TRAINING GUIDELINES**

A21.1. General. No additional KC-46 training requirements are defined for AFMC

Attachment 22**MH-139 TRAINING GUIDELINES**

A22.1. General. Training items logged in any H-139 (AW-139/MH-139) count toward currency of the MH-139 the member is certified in unless annotated otherwise.

A22.2. Qualification/Conversion/Mission Training.

A22.2.1. **NRA Qualification.** The preferred method is to have an instructor SMA administer training; however, any instructor aircrew may administer training.

A22.2.2. **Differences Training** . Qualified MH-139 aircrew require applicable Differences Training for certification in the H-139 mission/series.

A22.2.3. **Low Level Navigation.** Certifies aircrew to conduct enroute ops below 300' AGL down to 100' AGL. With SQ/CC approval, minimum altitudes may be reduced to 50' AHO when training or testing necessities exist. Limit time below 100' AGL to the min required for mission objectives. Certification not required for terminal area maneuvering (e.g. water bucket).

A22.2.4. Emergency Procedure (EP) Sortie.

A22.2.4.1. To log currency, aircrew accomplish the following at a minimum: **(T-3)**

A22.2.4.1.1. Review of all BOLDFACE EPs.

A22.2.4.1.2. Stability Augmentation System (SAS) Mode - OFF takeoff to hover, land from hover, or approach to hover.

A22.2.4.1.3. Simulated One Engine Inoperative (OEI). Perform at least one of the following: OEI rejected takeoffs, OEI approach, or roll-on landing. Use of the OEI training mode switch is desired but not required; the instructor pilot may authorize practicing the maneuver by limiting the Power Index (PI) to single-engine PI available.

A22.2.4.1.4. Instructors may credit one sortie per quarter when supervising an emergency procedures sortie. Aircrew can perform the requirements of an EP sortie over multiple sorties but they will only log the EP sortie on the flight the last requirements were completed.

A22.2.4.1.5. The MH-139 Command Chief Pilot (CCP) will provide AFMC/A3V with a list of simulators deemed adequate for training. Contracted FAA FFS Level B equivalent simulators, or better, may be approved for use.

A22.2.4.1.6. Up to 50 percent (100% for Emergency Procedures) of continuation training requirements may be logged in a HQ AFMC/A3V approved simulator.

Attachment 23

MQ-9 TRAINING GUIDELINES

A23.1. General.

A23.2. Qualification/Mission Training.

A23.2.1. **Missile/Bomb Delivery.** To log currency, accomplish a weapons delivery IAW flight manual procedure. Event does not require actual ordnance.

A23.3. Training Tables. MQ-9 aircrew also accomplish:

Table A23.1. Additional MQ-9 Training Requirements.

Phase	Para	MQ-9 Event	Crew Pos	Currency (days)	Volume	Multi-Event Credit	Sim Credit	MQ Transfer	Pilot Concurrent Ph I Ymg	Multi-Qual Currency/Prof.	X-MID Re-currency Instruction	Regaining Currency
Phase I Training	--	Nose Camera <u>Ldg</u>	L&R P	60	6	Landing	No	No	--	No	No	A
	--	MTS Camera <u>Ldg</u>	L&R P	60	6	Landing	No	No	--	No	No	A
	--	IR Nose Camera <u>Ldg</u>	L&R P	90	3	Landing, Nose Cam <u>Ldg</u>	No	No	--	No	No	A
	--	IR MTS Camera <u>Ldg</u>	L&R P	90	3	Landing, MTS Cam <u>Ldg</u>	No	No	--	No	No	A
Phase II Training	A23.2	Missile Delivery	P	90	--	No	Yes	No	Yes	No	No	B
	A23.2	Bomb Delivery	P, SO	90	--	No	Yes	No	Yes	No	No	B

Attachment 24

PC-12/U-28 TRAINING GUIDELINES

A24.1. General. The U-28A is the militarized version of the Pilatus PC-12 aircraft.

A24.2. Qualification/Difference Training.

A24.2.1. PC-12 and U-28A aircraft do not require separate pilot qualifications.

A24.2.2. **Difference Training.** Required for the PC-12NG due to flight deck variations.

Attachment 25**T-6 TRAINING GUIDELINES****A25.1. General.**

A25.1.1. Undergraduate Pilot Training (UPT) does not constitute sufficient training for a pilot to be considered T-6 qualified.

A25.1.2. Formation is optional for initial qualification. However, mission certification training includes instruction in basic formation events applicable to the unit mission. **(T-3)**

A25.2. Qualification/Mission/Continuation Training.

A25.2.1. Qualification Ground Training. Prior to flying training, accomplish ground training in one of the following methods in order of preference: **(T-3)**

A25.2.1.1. Cockpit Procedures Trainer (CPT).

A25.2.1.2. On aircraft.

A25.2.1.3. Aircrew Training Device.

A25.2.1.4. Table-top.

A25.2.2. Nav/EWO/WSO Initial Qualification. To qualify in the T-6, the aircrew must have been previously qualified in a fighter (e.g. F-15, F-4, F-111 etc.) or a TPS graduate. **(T-3)**

A25.2.3. Conversion Training. Required to certify in another T-6 series (e.g. T-6A to T-6B)

Attachment 26**T-38 TRAINING GUIDELINES****A26.1. General.**

A26.1.1. UPT does not constitute sufficient training for a pilot to be considered T-38 qualified.

A26.1.2. Formation is optional for initial qualification. However, mission certification training includes instruction in basic formation events applicable to the unit mission. **(T-3)**

A26.2. Qualification/Mission/Continuation Training.

A26.2.1. Qualification Ground Training. Prior to flying training, accomplish ground training in one of the following methods in order of preference: **(T-3)**

A26.2.1.1. CPT.

A26.2.1.2. On aircraft.

A26.2.1.3. Aircrew Training Device.

A26.2.1.4. Table-top.

A26.2.2. Nav/EWO/WSO Initial Qualification. To qualify in the T-38, aircrew must have been previously qualified in a fighter (e.g. F-15, F-4, F-111 etc.) or be a TPS graduate. **(T-3)**

A26.2.3. Conversion Training. Required to certify in another series (e.g. T-38A to T-38C). Open book testing is not required for T-38 conversion training.

Attachment 27

U-2 TRAINING GUIDELINES

A27.1. General. Unless specifically stated otherwise, U-2 is a Fighter/Trainer for this AFMAN.

A27.2. Qualification/Mission/Continuation Training.

A27.2.1. AFMC-assigned U-2 units will not perform requalification training.

A27.2.2. Unit Mission Orientation. Accomplish training during a dedicated low sortie if possible. Alternatively, the Unit CC may approve UMO in another aircraft.

A27.2.3. FCF. Flying training may be conducted under the supervision of an FCF instructor from the mobile vehicle or control room in lieu of airborne chase.

A27.2.4. Photo/Safety Chase/Formation. Formation flights require safety chase certification. Photo, Chase, and Formation missions will be approved by Unit CC. Chase is a cross-MDS qualification and will be tracked on the unit's LOX. All Chase certified U-2 pilots are also Formation Flight Leads. U-2 Formation takeoffs and landings are prohibited.

A27.3. Training Tables. U-2 aircrew also accomplish:

Table A27.1. Additional U-2 Training Requirements.

Phase	Para	U-2 Event	Crew Position	Currency (Days)	EOH Volume	Multi-Event Credit	Sim Credit	MQ Transfer	Pilot Concurrent Ph I Trng	Multi-Qual Currency/Prof.	X-MD Re-currency Instruction	Regaining Currency
III	--	No Flap Landing	P	120	2	Landing	No	No	--	No	No	A
III	--	Landing (Note)	P	45	10	--	No	No	--	No	No	A
III	--	Sortie	P	45	20	--	No	No	--	No	No	A

Note: U-2 pilots will abide by 45-day landing currency IAW AFI 11-2U-2v1 rather than the currency listed in Table 3 of this publication.

A27.4. U-2 Volume Training.

A27.4.1. U-2 EOH Sortie count = 20

Attachment 28**CV-22 TRAINING GUIDELINES**

A28.1. General. Unless specifically stated otherwise as CV-22 or Tiltrotor, Helicopter/Rotorcraft requirements apply to the CV-22 in this AFMAN.

A28.2. Qualification/Mission/Continuation Training. See also [Chapter 6](#) and [Chapter 7](#).

A28.2.1. Conversion Training. Required to certify in another mission aircraft (e.g. MV-22 to CV-22). Open and closed book testing is not required.

A28.2.2. Transition Sortie. Requirements to log this event are defined in the CV-22 Ready Aircrew Program (RAP) Tasking Memo (RTM). There is no currency requirement associated with this event.

A28.2.3. EP Sortie. This event is accomplished in the simulator. Requirements to log this event are defined in the CV-22 RTM.

A28.2.4. Low Level Navigation. Certifies aircrew to conduct ops below 500' AGL in APLN mode and 300' AGL in CONV/VTOL mode. Limit Low Level Navigation to 200' AGL in APLN mode and 100' AGL in CONV/VTOL; this may be reduced, with Unit CC approval, to 100' AGL in APLN mode and 50' AGL in CONV/VTOL mode when training or testing necessities exist. Limit time below 200' AGL in APLN mode and 100' AGL in CONV/VTOL mode to the minimum required for mission objectives.

Attachment 29

YQ-11 TRAINING GUIDELINES

A29.1. General.

A29.2. Qualification/Mission Training.

A29.2.1. **Missile/Bomb Delivery.** To log currency, accomplish a weapons delivery IAW flight manual procedure. Event does not require actual ordnance.

A29.3. Training Tables. YQ-11 aircrew also accomplish:

Table A29.1. Additional YQ-11 Training Requirements.

Phase	Para	YQ-11 Event	Crew Pos	Currency (days)	Volume	Multi-Event Credit	Sim Credit	MQ Transfer	Pilot Concurrent Ph I Trng	Multi-Qual Currency/Prof.	X-MD Re-currency Instruction	Regaining Currency
Phase I Training	--	Nose Camera Ldg	L&R P, SO	60	6	Landing	No	No	--	No	No	A
	--	MTS Camera Ldg	L&R P, SO	60	6	Landing	No	No	--	No	No	A
	--	IR Nose Camera Ldg	L&R P, SO	90	3	Landing, Nose Cam Ldg	No	No	--	No	No	A
	--	IR MTS Camera Ldg	L&R P, SO	90	3	Landing, MTS Cam Ldg	No	No	--	No	No	A

Attachment 30**NON-USAF AIRCRAFT TRAINING GUIDELINES**

A30.1. USAF TPS. DAFMAN 11-401 AFMC Supplement designates the TPS Commandant as the approval authority for curriculum missions conducted in non-USAF aircraft.

A30.2. USAF TPS Glider Operations. TPS operates contractor-owned glider aircraft in support of the TPS curriculum. Aircrew consist of military, civil service and contractor pilots trained and qualified under 14 CFR 61and 91.

Attachment 31**OTHER AIRCRAFT**

A31.1. General. AFMC guidance applies to numerous aircraft operations that do not have a specific AFMAN 11-2FTV1 MD attachment. This includes aircraft on loan for short-term flight test programs, modifications and flights associated with depot maintenance. When no AFMAN 11-2FTV1 MD attachment exists, flying units use lead MAJCOM currency and proficiency guidance. However, underlying AFMC training and documentation processes must be complied with, and AFMC retains approval and waiver authority for the flights. (T-2) This attachment applies to the following aircraft, noting this list is not all-inclusive:

A31.1.1. C-20

A31.1.2. C-21

A31.1.3. C-22 (B727)

A31.1.4. C/RC-26

A31.1.5. C-32 (B757)

A31.1.6. C-38 (Gulfstream G100)

A31.1.7. C-40 (B737)

A31.1.8. DHC-8-Q200

A31.1.9. E-4

A31.1.10. T-1 Jayhawk

A31.1.11. T-41

A31.1.12. T-43

A31.1.13. UV-18

A31.1.14. VC-25

A31.1.15. CC-19

A31.1.16. DC-9