BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 11-2FT, Volume 1

20 SEPTEMBER 2011

Incorporating Change 1, 19 AUGUST 2013

EDWARDS AIR FORCE BASE Supplement

6 MAY 2014

Flying Operations

FLIGHT TEST AIRCREW TRAINING

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-publishing website at **www.e-publishing.af.mil** for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: AFMC/A3V

Certified by: AF/A3O-A (Col James W. Crowhurst)

Pages: 208

Supersedes: AFI11-2FTV1, 18 April 2007

(EDWARDSAFB)

OPR: 412 OG/OGV

Certified by: 412 TW/OG (Col Rodney F. Todaro)

Pages:32

Supersedes: AFI 11-2FT Vol1/AFFTC Sup1, 18 July 2012

This instruction implements AFPD 11-2, *Aircraft Rules and Procedures*; AFPD 11-4, *Aviation Service;* and AFI 11-202V1, *Aircrew Training.* It applies to all AFMC units, AFRC units under AFMC OPCON, and AFMC gained units and personnel conducting flying operations. It does not apply to the Air National Guard. Attachments to this instruction prescribe Mission Design Series (MDS) specific operating procedures. Units will maintain all applicable attachments for assigned/possessed aircraft. Field units below MAJCOM level will forward copies of their proposed supplements to this publication to AFMC/A3V for review and approval. Keep supplements current by complying with AFI 33-360, *Publications and Forms Management.* See paragraph 1.3 of this instruction for guidance on submitting comments and suggesting improvements to this publication. The Privacy Act of 1974 affects this instruction. The Privacy Act System Number F011 AF XO A, Aviation Resource Management Systems (ARMS) covers

required information. The authority for maintenance of the system is Title 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 93-294 (Aviation Career Incentive Act of 1974), and Executive Order 9397 as amended. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, Management of Records, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at **https://www.my.af.mil/afrims/afrims/afrims/rims.cfm**

(EDWARDSAFB) This publication supplements Air Force Instruction (AFI) 112FT Volume 1, *Flight Test Aircrew Training*. It establishes minimum requirements for training and qualifying Edwards AFB aircrew. It applies to all Edwards Air Force Base units, AFRC units under Edwards Air Force Base OPCON, and Edwards Air Force Base gained units and personnel conducting flying operations. This supplement does not apply to the Air National Guard or the US Air Force Reserve units and members except those under Edwards Air Force Base OPCON. This publication may not be supplemented or further implemented/extended. This supplement requires the collection and or maintenance of information protected by the Privacy Act of 1974. The applicable Privacy Act System of Records Notice, F011 AF XO A, Aviation Resource Management System (ARMS) applies and is available at **http://dpclo.defense.gov/privacy/SORNs/component/airforce/index.html**. The authority for maintenance of the system is Title 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 93-294 (Aviation Career Incentive Act of 1974), and Executive Order 9397 as amended.Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of IAW Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF IMT 847, *Recommendation for Change of Publication*; route AF IMT 847s from the field through the appropriate functional's chain of command.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. This interim change adds information for USAF School of Aerospace Medicine, Special Departure Procedures, and Special Mission Aviator crew position for certain aircraft. Changes location reference for AFMC training plans, AFMC approved simulators, ARMS event identifiers and aircraft codes. Changes Aerial Photographer training from Phase I to Phase II training and adds NRA Phase I qualification as a prerequisite. Clarifies local Phase I training exception, Flight Engineer/Special Mission Aviator currency and proficiency requirements, FCF/ACF guidance, NRA test equipment operation, and Hi AoA training. Incorporates NRA centrifuge training requirements. Aligns recurring ground training events' requirements with governing regulations (Water Survival, Publications Check, Instrument Refresher Course and Flight Physical). Authorizes currency credit for certain flight events in an AFMC approved simulator. Expands sortie credit guidance for several aircraft. Updates Chase and Ordnance Release Test proficiency requirements. Adds Formation and deletes NVG Go Around currency and proficiency requirements for C-17. Reinstates authorization for C-130 to accomplish NDB in the simulator.

Changes UH-1/TH-1 references to H-1 and adds conversion training guidance. Deletes AL-1 guidance and adds F-35 guidance. Establishes guidance for event currency transferability for multi-qualified aircrew in manned and unmanned aircraft. See paragraph 1.4 of this instruction for guidance on submitting waiver requests for requirements established by this publication.

(EDWARDSAFB) This document has been substantially revised and must be completely reviewed. Major changes include the recinding of Form 5489, OG/CC approval now required for courses listed in paragraph 1.5.2.7., local area orientation instructor guidance updated, and experienced NRA/OSF training requirements updated.

	1.	GENERAL INFORMATION.	5
Table	1.	Personnel Prerequisites for Flight on AFMC Aircraft.	8
	2.	PHASE I - AIRCRAFT QUALIFICATION TRAINING.	12
	3.	PHASE II - MISSION QUALIFICATION TRAINING.	18
Table	2.	Phase II Qualification Matrix.	20
Table	3.	Flying Hour Prerequisites for FCF Aircrew.	26
	4.	PHASE III - CONTINUATION TRAINING.	43
Table	4.	Aircrew Position Identifiers.	43
Table	5.	Recurring Aircrew Requirements Summary.	44
Table	5.	(EDWARDSAFB) Recurring Aircrew Requirements Summary	46
Table	6.	Phase I & II Currency/Recurrency Restriction Matrix.	47
Table	7.	Basic Event Currency Requirements.	50
Table	7.	(EDWARDSAFB) Basic Event Currency Requirements	53
Table	8.	Semiannual Basic Event Proficiency Training Requirements.	54
Table	9.	DELETED.	70
Table	10.	Basic Proficiency Proration Chart.	71
	5.	UPGRADE QUALIFICATION TRAINING.	73
Table	11.	Flying Hour Prerequisites for First Pilot Qualification.	74
Table	12.	Instructor Upgrade Flying Time Prerequisites.	75
	6.	TRAINING RESTRICTIONS.	77
	7.	ADDITIONAL TRAINING.	77
	8.	COMMAND TRAINING PLANS PRESCRIBED.	77
Table	13.	Instructions for Completing AFMC Form 67, Ground Training Record.	80
Table	14.	Instructions for Completing AFMC Form 68, Flying Training Record.	81
Table	14.	(EDWARDSAFB) Instructions for Completing AFMC Form 68, Flying Training Record	82

Table 15. Instructions for Completing AFMC Form 69, Flying Training Comments. 83

Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION 85

Attachment 2—DELETED 106

Attachment 2—(EDWARDSAFB) EDWARDSAFB ARMS EVENT IDENTIFIERS 107

Attachment 3—A-10 TRAINING GUIDELINES 110

Attachment 4—B-1 TRAINING GUIDELINES 111

Attachment 5—B-2 TRAINING GUIDELINES 114

Attachment 6—B-52 TRAINING GUIDELINES 115

Attachment 7—B707/E-3/E-8 TRAINING GUIDELINES 117

Attachment 8—C-5 TRAINING GUIDELINES 121

Attachment 9—C-12 TRAINING GUIDELINES 123

Attachment 10—C-17 TRAINING GUIDELINES 125

Attachment 11—C-130 TRAINING GUIDELINES 128

Attachment 12—C-135 TRAINING GUIDELINES 139

Attachment 13—*F-35 TRAINING GUIDELINES 146

Attachment 14—F-4 TRAINING GUIDELINES 149

Attachment 15—F-15 TRAINING GUIDELINES 151

Attachment 16—F-16 TRAINING GUIDELINES 154

Attachment 17—KC-46 TRAINING GUIDLINES 159

Attachment 18—T-38 TRAINING GUIDELINES 160

Attachment 19—KC-10 TRAINING GUIDELINES 161

Attachment 20—U-2 TRAINING GUIDELINES 167

Attachment 21—H-1 TRAINING GUIDELINES 169

Attachment 22—F-22 TRAINING GUIDELINES 175

Attachment 23—RQ-4 TRAINING GUIDELINES 184

Attachment 24—HH-60 TRAINING GUIDELINES 188

Attachment 25—CSAR-X TRAINING GUIDELINES 189

Attachment 26—V-22 TRAINING GUIDELINES 190

Attachment 27—MQ-1/MQ-9 TRAINING GUIDELINES 196

Attachment 28—DELETED 201

Attachment 29—DHC-8-Q200 TRAINING GUIDELINES 202

Attachment 30—PC-12/U-28 TRAINING GUIDELINES 203

Attachment 31—C-20 TRAINING GUIDELINES 204

Attachment 32—C/RC-26 TRAINING GUIDELINES 205

Attachment 33—FALCON 20 TRAINING GUIDELINES 206

Attachment 34—NON-USAF AIRCRAFT TRAINING GUIDELINES 207

Attachment 35—OTHER AIRCRAFT 208

1. GENERAL INFORMATION.

1.1. **Purpose**. The AFMC aircrew training program objective is to ensure aircrews are trained appropriately to execute AFMC's flight test mission safely and effectively. Ground and flying training requirements established in AFI 11-202 Volume 1, AFMC Sup 1, and this instruction apply to all AFMC aircrew members and AFMC-gained units and personnel conducting flying operations. This instruction does not apply to the Air National Guard or US Air Force Reserve units and members except those under AFMC OPCON.

1.1. **(EDWARDSAFB)** Manpower requirements are based only on higher headquarters directives (MAJCOM or above) and not on local instructions or supplements.

1.1.1. AFMC publishes a three-volume set of Flight Test (FT) instructions containing attachments for each weapon system flown in AFMC. These instructions are numbered AFI 11- 2FT Volume 1, 2, and 3, and will contain the training, evaluation criteria, and operations procedures, respectively, for each weapon system. AFMC uses these instructions in lieu of AFI 11-2 *MD-Specific* volumes for flying operations. In the absence of published guidance AFMC units will coordinate with AFMC/A3V for approval of locally developed guidelines. These guidelines should be consistent with similar guidance specified in the appropriate AFI 11-2 *MD-Specific* volumes. In addition, aircraft on loan to AFMC undergoing short-term flight test programs will be flown according to the lead MAJCOM guidance if no AFMC guidance exists.

1.2. **Supplements.** The flying unit will supplement this instruction if required to include:

1.2.1. Training for aircraft and/or crew positions not specifically covered in this instruction.

1.2.2. Ground and flying training requirements needed to qualify aircrews for the unit's mission.

1.2.3. Ground and flying training requirements needed for conversion and difference training.

1.2.4. Local Area Operating procedures.

1.2.5. The unit may direct additional required training not covered in this instruction in order to meet any unit specific requirements. The unit commander will publish any unit specific training requirements in a supplement to this instruction. All original and any permanent changes to the content of the supplement must be approved by AFMC/A3V using the AFMC Form 73 process. For training plans associated with unit supplements, changes will also be submitted to AFMC/A3V using the AFMC Form 73 process or through MAJCOM approved software.

1.2.6. Unit supplements will be sent to AFMC/A3V, Eglin AFB, FL via email to AFMC/A3V Workflow for review and approval prior to publication. Include AFMC/A3V and AFMC/A3O on the distribution list for approved supplements.

1.2.7. **(Added-EDWARDSAFB)** Refer to the *412th Operations Group Training & Stan/Eval Guide and OGV Process Guide* for a description of all training processes and helpful examples.

1.3. **Changes.** Send recommended changes on AF Form 847, *Recommendation for Change of Publication***,** to AFMC/A3V, Eglin AFB, FL via e-mail to the AFMC/A3V Workflow. AF/A3/5 is the approval authority for interim changes (IC) and revisions to this instruction.

1.3. **(EDWARDSAFB)** Submit suggested improvements on an AF Form 847, *Recommendation for Change of Publication*, through 412 OG/OGV stan/eval channels.

1.4. **Waivers.** Unless otherwise specified in this instruction, HQ AFMC/A3V is the waiver authority for this instruction. All waivers will be routed through appropriate channels to flying unit commanders, and OG/CCs prior to submission to AFMC/A3V for processing. Use an AFMC Form 73, *AFMC Flight Operations Waiver Request*, to process the waiver. Send waiver requests to AFMC/A3V, Eglin AFB, FL via e-mail to the following global address: **afmc.a3v@eglin.af.mil.**

1.4. **(EDWARDSAFB)** Submit training waivers to 412 OG/OGV for 412 OG/CC review. The 412 OG/CC is the waiver authority for the contents of this supplement.

1.5. **Responsibilities.**

1.5.1. Flying unit commanders and supervisors at all levels must monitor the progress of crewmember training to ensure timely progression through the appropriate training phases and to identify areas in which an aircrew member needs more training.

1.5.2. The squadron training office will:

1.5.2.1. Develop and implement programs to carry out required aircrew training.

1.5.2.2. Ensure compliance with training directives specified in paragraph **1.1**

1.5.2.3. Ensure all Education Training Course Announcement (ETCA) formal course prerequisites are completed before requesting formal training or entering a crewmember into any phase of training.

1.5.2.4. Track Phase I and II training progress (entry and training completion dates as a minimum) via a locally developed process.

1.5.2.5. Maintain aircrew training folders by electronic means using MAJCOM approved training software or, if no such means available, by using paper copies for

all assigned/attached flyers. As a minimum, conduct end of half reviews of active training folders and a final review before a training folder becomes inactive. See chapter 8 for training folder administrative procedures.

1.5.2.5.1. Maintain a tracking system that records the date of folder reviews.

1.5.2.6. Maintain an Aircrew Letter of Certification (Letter of Xs) by electronic means using MAJCOM approved training software or, if no such means available, by using paper copies. This letter documents all aircrew mission qualifications and certifications. The Letter of Xs must be updated monthly and certified by the OG/CC, flying squadron commander, or operations officer. The Letter of Xs in conjunction with the AFMC Form 68**,** *Flight Training Record*, signed at the conclusion of training serve to document each crewmembers mission certifications.

1.5.2.6.1. If a training program only requires an AFMC Form 67, *Ground Training Record* (e.g. Evaluator Training), the certification will be documented on the AF Form 1381, *USAF Certification of Aircrew Training***.**

1.5.2.6.2. The Letter of Xs must be updated and made available upon request to AFMC/A3V at the end of each semi-annual training cycle (30 September and 31 March).

1.5.2.7. **(Added-EDWARDSAFB)** Training Requests. Request 412 OG/CC approval through 412 OG/OGV for the following rated (N/A flight surgeon) and CEA aircrew training: initial qualification training, formal courses, requalification training for aircrew unqualified for more than two years, instructor upgrade (N/A mission instructor upgrades), ACBT and FCF training.

1.6. **Training Guidelines.**

1.6.1. Requirements established in this instruction may be more restrictive than AFI 11-202 Volume 1, *Aircrew Training*, and the associated AFMC supplement. If so, the requirement in this instruction takes precedence. Requirements established in attachments to this instruction take precedence over requirements/restrictions in the basic portion of this instruction.

1.6.2. **Table 1** list prerequisites and AFI 48-123, AFMC Sup 1 lists physical and physiological training requirements for personnel flying on AFMC aircraft

Table 1. Personnel Prerequisites for Flight on AFMC Aircraft.

Personnel Category	**Prerequisites**					
	Active AO, or Equivalent AFI 11-401	Physiological Training AFI 11-403	Flight Physical AFI 48-123	Egress Training AFI 11-301, AFMC Sup 1	Initial Qual Training	AF Form 8 Qual AFI 11-202 Vol. 2
Crewmembers (rated, non-rated, CEA)	X	X	X	X	X	X
Indoctrination Fliers		X	X	Note 7		
Ops Support Fliers (ASC 9C)	X	X	X	X	Note 2	
Maintenance Engineering Support Personnel (MESP)	Note 6	Note 1	Note 1	X		
Incentive, Orientation, or Familiarization Fliers		Note 3	Note 4	X		
Mission Essential Personnel (MEP)		Note 5	Note 5	Note 5		

Notes:
1. AFI 48-123, AFMC Sup 1 lists medical recommendation/clearance to fly and physiological training requirements for MESPs. AFMC/SG is the office of primary responsibility for AFI 48-123, AFMC Sup 1.
2. Follow non-rated aircrew training procedures.
3. Incentive, orientation, or familiarization fliers may not require physiological training. See AFI 11-403, *Aerospace Physiological Training Program*, for a complete listing of requirements.
4. Qualified Medical Personnel must clear incentive, orientation, or familiarization flyers prior to flying IAW AFI 48-123, AFMC Sup 1. Flight Surgeon will specify the clearance expiration date.
5. MEPs are a category of passenger (see AFI 11-401 for further guidance).
6. Military and civilian MESPs will be authorized to perform in-flight duties via non-

interference Aeronautical Order (AO) AF Form 1887. Contractor MESPs will be authorized IAW DCMA Inst 8210.1.
7. Appropriate Egress Training and Emergency Parachute Training for the aircraft to be flown.

1.6.3. Unit Developed Training Plans. The MD-specific attachments to this instruction prescribe lesson plans for most aircraft, missions, and aircrew members in AFMC. AFMC flying units will publish ground and flying training programs for those aircraft, missions, and aircrew positions (to include mission crewmembers) that are not included in this instruction. Training plans should include all ground and flying training requirements. Send locally developed training programs to AFMC/A3V for review and approval prior to publication in a unit supplement to this instruction. Unit specified training plans, after approval by AFMC/A3V, are maintained by each respective organization and will be made available on the unit's MAJCOM approved software system.

1.6.3. **(EDWARDSAFB)** Coordinate unit developed training plans through 412 OG/OGV.

1.6.4. Special Aircraft Training Requirements. Units will develop training plans and establish crewmember training requirements for those aircraft designated as developmental, experimental, pre-production, or prototype. Submit proposed plans to AFMC/A3V for approval. If the unit determines adequate crewmember flight currency and proficiency cannot be solely maintained in the test aircraft, then crewmembers will maintain currency and proficiency in an AFMC operational aircraft. This AFMC operational aircraft will be similar, in flight characteristics and handling qualities, to the specific test aircraft. If so designated by the unit, flying proficiency events accomplished in the test aircraft may be credited toward total training requirements.

1.6.4. **(EDWARDSAFB)** Combined/Integrated Test Force (ITF/CTF)/Test Squadrons will develop a comprehensive aircrew training program and coordinate per paragraph 1.6.3. The preferred method for developing aircrew training plans is by embedding them into the test plan.

1.6.4.1. With prior AFMC/A3V approval (staffed on an AFMC Form 73), OG/CCs may request civilian FAA training IAW the Code of Federal Regulations (CFR), section 61 with the goal of being trained to the level of a type certificate and a flight evaluation by an FAA check airman. As a part of approved test program and on a case by case basis, the pilots may receive the extra training and qualifications that will allow the awarding of the Airline Transport Pilot rating which will allow a qualification in either pilot's seat/position.

1.6.4.1.1. Aircrews will maintain currency and proficiency IAW Chapter 4 of this AFI, its attachments, approved unit supplements, and existing waivers. Aircrew who operate additional aircraft not owned by the U.S. military will also adhere to the training and currency requirements as outlined in Title 14, Code of Federal Regulations (CFR), Part 61, *Certification: Pilots, Flight Instructors, and Ground Instructors*, current edition for the category and class aircraft they are qualified in unless guidance is included in this AFI or its attachments. Aircrews must be qualified in their primary USAF aircraft.

1.6.4.1.2. Aircrew will maintain an AF Form 8/8A, *Certificate of Aircrew Qualification*, in a USAF aircraft (preferably of a like Instrument Category (see AFI 11-202 Volume 2/AFMC S1 (added)). Additionally, the annual (17 month) flight evaluation conducted in the primary USAF aircraft can count as the biannual flight review (BFR), IAW the CFR, for the new aircraft.

1.6.4.1.3. Aircrew receiving a FAA certification, IAW the provisions of paragraph 1.6.4.1.**,** will maintain a Form 8/8A for each aircraft qualification.

1.6.4.1.4. Aircrew will attend an annual systems refresher training for the additional aircraft which will include at a minimum simulator and computer-based training academics, if applicable.

1.6.4.1.5. If the aircraft is equipped with a second seat with a set of flight controls, regardless of whether the aircraft is single pilot certified, aircrew will always fly with a safety pilot – IAW the CFR, this safety pilot must hold a certificate commensurate with the class aircraft in which the test is being flown (e.g., Multi-Engine Land for a Citation V flown below FL180 or with an Instrument Rating for flights above FL180).

1.6.5. Accepting Qualifications. Flying unit commanders may accept an individual's basic aircraft qualification, mission, and upgrade training from non-AFMC sources or other AFMC units. Acceptance will be predicated on applicable validation such as the AF Form8/8a, *Certificate of Aircrew Qualification*, AF Form 1381, *USAF Certification of Aircrew Training*, or other appropriate documentation. Use the AF Form 4348, *USAF Aircrew Certifications*, to document MDS qualification certification per AFI 11-202 Vol 2. Document all accepted qualifications, other than MDS qualifications, on AF Form 1381. Annotate acceptance by either 1) annotating “Qual” above the date (if known) in the date block for qualifications accepted or 2) annotating “(Accepted)” next to the accepted qualification. If another unit's qualification training is accepted, the flying unit commander will ensure AFMC-specific training items are covered in adequate detail. If additional training is required, document training via Memo for Record in the individual’s aircrew training folder.

1.6.5.1. GFRs will approve contractor aircrew qualifications and training in accordance with DCMA INST 8210.1 and service guidance.

1.6.6. If a training event listed in AFI 11-202, Volume 1, AFMC Supplement 1, or this instruction has no AFMC or flight manual guidance, units will coordinate with AFMC/A3V for approval of locally developed guidelines. These guidelines should be consistent with similar lead MAJCOM guidance specified in the appropriate AFI 11-2 MD-specific Volumes. Events/maneuvers without established AFMC, flight manual, or lead MAJCOM guidance are prohibited unless they are flown as part of an approved test plan.

1.6.7. The USAF Test Pilot School (TPS) will conduct training for students as directed in the USAF TPS syllabus.

1.6.8. Training Phase Sequencing and Duration Limitations.

1.6.8.1. Crewmembers will not be entered into concurrent Phase I training programs. Pilot Phase I training and flight evaluation must be completed prior to beginning Phase II training. The following exceptions apply:

1.6.8.1.1. Use Table 2 for training items that may be conducted during Phase I training. Additional exceptions will be indicated in MD-specific attachments to this instruction. Comply with training duration restrictions outlined in paragraph **1.6.8.3** of this instruction.

1.6.8.1.2. Pilots may complete Phase I conversion/difference training and Phase II training concurrently. Pilots may complete Phase I conversion/difference training and Phase I initial checkout concurrently with OG/CC approval. Comply with training duration restrictions outlined in paragraph **1.6.8.3** of this instruction. See paragraph **2.5** for conversion/difference training examples.

1.6.8.1.3. Pilots may start Phase II training prior to completing the Phase I night landing/night checkout sortie requirements.

1.6.8.2. AFMC flying units may conduct non-pilot aircrew Phase I initial qualification, requalification, conversion, or difference training and Phase II mission qualification training concurrently. Comply with training duration restrictions outlined in paragraph **1.6.8.3** of this instruction.

1.6.8.3. Required Phase I flying training (qualification, re-qual, or instructor to include a flight evaluation, as applicable) will be completed within six months of the first qualification training event, ground or flight. Phase II required flying training will be completed within six months of the first mission training event, ground or flight. A flight evaluation that ends in a restricted Form 8 which qualifies a pilot as an FP completes this requirement. If training is not complete within the corresponding duration restrictions, the trainee will be removed from training.

1.6.9. Instructor Requirements.

1.6.9.1. An instructor that is fully qualified in the specific system (MD aircraft) and task (Phase I or Phase II event) to be instructed (i.e., pilots instructing pilots) will conduct training. The following exception applies:

1.6.9.1.1. Crew positions that have systems in common may be instructed by unlike crew positions (i.e., WSOs instructing pilots or pilots instructing WSOs), if the tasks are similar in nature. Training may also be conducted by unlike crew specialties if outlined in an HQ AFMC/A3V approved lesson plan. In-flight, the instructor must be in a position to correct or override the student if an action performed is inappropriate.

1.6.9.1.2. **(Added-EDWARDSAFB)** If there are no Edwards AFB current/qualified instructors in an approved EAFB mission, the following methods will be used (listed in priority order); request assistance from another unit (AFMC or other MAJCOMs), request training from a formal school IAW paragraph 1.5.2.3 or submit a requalification/recurrency training plan for AFMC/A3V review/approval. Units should consider using a build up approach to initially qualify only the minimum number of instructors required to form an "initial

cadre." Once qualified these initial cadre instructors will train other aircrew.

1.6.10. The USAF School of Aerospace Medicine (SAM) will conduct training for students as directed in USAF SAM syllabi.

1.7. **Aviation Resource Management System (ARMS).** ARMS, IAW AFIs 11-202 Volume 1 and 11-401 AFMC Supplement 1, will be used to track and manage recurring crewmember training. Flying units will use prescribed USAF ARMS event identifiers listed in AFI 11-202, Volume 1 and the AFMC ARMS event identifiers located on the AFMC/A3V Sharepoints website at: **https://org.eis.afmc.af.mil/sites/HQAFMCA3/a3v/default.aspx**. Maintain end-of-half ITS and Individual Training Reports IAW AFI 11-202 Vol 1, AFMC Sup.

1.7. **(EDWARDSAFB)** Units will coordinate with the 412 OSS/OSOR (HARM) before developing ARMS-Events and Identifiers.

2. PHASE I - AIRCRAFT QUALIFICATION TRAINING.

2.1. **General.** This section outlines training needed to qualify an aircrew member for basic aircrew duties in an assigned position for a specific aircraft. In addition to the training guidance outlined in AFI 11-202, Volume 1 as supplemented, use this instruction when completing qualification training in AFMC. Phase I training includes Initial Qualification, Requalification, Transition, Senior Officer/Test Pilot, and Conversion/Difference training.

2.1.1. All AFMC specified Phase I training plans can be found on the Edwards Center Ops Online (COOL) server. The forms located there are the only ones authorized to execute the Phase I training. EXCEPTION: Unit specific Phase I training forms may be maintained locally after approval by AFMC/A3V. To ensure use of the most current training program, the training office should download the current training form just prior to starting each Phase I qualification.

2.1.2. Formal Qualification Training. Phase I training will be accomplished at the appropriate ETCA formal training course or an AFMC approved contractor run facility. In the event the ETCA training is not available or does not exist, qualification training may be accomplished locally IAW provisions of AFI 11-202, Volume 1, AFMC Supplement 1 and this instruction.

2.1.2. **(EDWARDSAFB)** Squadron commanders/CTF directors or operations officers will make requests for quotas in formal aircrew training courses to 412 OG/OGV semi-annually. Formal training requests will be submitted no later than two months prior (four months desired) to training start date.

2.1.2.1. **(Added-EDWARDSAFB)** If formal training conducted does not include specific training documentation (academics, simulators, contractor facility training, etc.), the flying unit training officer will make an appropriate MFR annotation in the training folder.

2.1.3. Local Qualification Training. Local qualification training will be conducted IAW AFI 11-202 Volume 1. Requests to AFMC/A3V to conduct local qualification training will include the following: Justification for the local training in lieu of formal course training; a summary of the individual's flying experience; the proposed training syllabus and schedule to include training start date and planned completion date; and training

program differences from the ETCA formal course or, if applicable, the MAJCOM authorized program. Courseware need not be converted to standard command formats. In the circumstance that a formal course at a FTU is not completed with an AF Form 8 evaluation, the training officer will annotate in a MFR that all AFMC training requirements were met. If training is incomplete, the MFR will state what training will be accomplished to complete the syllabus. The MFR will be placed on top of the FTU training documentation or in section 5 of the training folder.

2.2. **Training Prerequisites.** Before entering qualification training, each crewmember will meet the requirements outlined in AFI 11-202 Volume 1, Chapter 2. Individual course prerequisites will be IAW the appropriate formal course syllabi and the USAF ETCA.

2.2.1. Centrifuge Training. All crewmembers and flight surgeons assigned to high G aircraft as defined by AFI 11-404, *Centrifuge Training for High-G Aircrew*, will complete centrifuge training IAW 11-404. Waivers to this requirement will be very limited, and must be routed through AFMC/A3V for approval by HQ AFMC/A3 or higher authority as prescribed by AFI 11-404.

2.2.1. **(EDWARDSAFB)** Unit training sections responsible for fighter, fighter trainer (T-38), or attack aircraft will coordinate to obtain centrifuge-training slots in accordance with AFI 11-404.

2.2.1.1. All AFMC and DCMA assigned and attached Military and government civil service Non-Rated aircrew (to include Flight Test Engineers and Aerial Photographers), Operations Support Flyers and Maintenance Engineering Support Personnel (MESP), as well as, Navigators, Electronic Warfare Operators and Weapon System Operators qualified in T-38/F-16 aircraft will also complete centrifuge training IAW AFI 11-404 as a prerequisite to start flying training. The profiles, per AFI 11-404, used for Qualification or Refresher training will be based on the F-16 (AFMC's primary support aircraft).

2.3. **Simulator Training.** Simulator training will be used to augment local qualification training to the maximum extent possible. If required by the MD-specific attachments, simulator training will be completed before beginning flying training. If a simulator training requirement is specified but not practical, the OG/CC may approve an instructor supervised cockpit familiarization that stresses all normal and emergency procedures to include unique procedures normally accomplished in the aircraft. Authorized simulators can be found on the AFMC/A3V Sharepoints website at: **https://org.eis.afmc.af.mil/sites/HQAFMCA3/a3v/default.aspx**.

2.4. **Requalification.** Requalification training requirements are outlined in AFI 11-202 Volume 1, AFMC Supplement 1, and the MD-specific attachments of this instruction.

2.5. **Conversion/Difference Qualification.** Difference training is required when transitioning within (or between) series of the same mission/design aircraft (e.g. KC-135R (Block 30) to KC-135R (Block 40); F-16C (PW Engines) to F-16C (GE Engines)). Conversion training is required when dissimilarities within (or between) series of the same MD aircraft (KC-135R to NKC-135E; F-15A-D to F-15E; T-38A to T-38C) are significant enough to warrant more in-depth training, usually including flight training. See the applicable

MD attachment to this instruction for MD-specific guidance. Unit Commanders will determine the need for open/closed book testing for conversion training.

2.5.1. If characteristics between series of the same MD aircraft are significant enough to warrant conversion training units will conduct this training using AFMC prescribed conversion training. If conversion training is not required in AFI 11-2FT Volume 1, MD-specific attachments and the unit deems conversion training necessary, submit a training plan to AFMC/A3V for approval.

2.5.2. Phase II qualified crewmembers completing conversion/difference training between series of the same mission/design aircraft do not need to re-accomplish Phase II training, in the additional series, unless required by unit supplements to this instruction.

2.5.3. Instructors and flight examiners completing conversion/difference training between series of the same mission/design aircraft may be designated instructors and flight examiners in the new series unless restricted by unit directives.

2.5.4. In the absence of guidance in the MD attachments, when conducting Conversion training, open book testing will be completed. OG/CCs will determine the requirement for closed book testing.

2.6. **Multiple Qualification.** Aircrew may be qualified in more than one MD aircraft IAW AFI 11-202 Volume 2 and the AFMC supplement.

2.7. **AFMC Specialized Training.**

2.7.1. Qualitative and Short-Term Evaluations. Test pilots, test WSOs, test navigators, flight test engineers, and Test Pilot School students may perform qualitative and short-term evaluations of aircraft without completing AFI 11-202 series Phase I qualification training. These missions may be to enhance test aviator career experiences or to accomplish specific test mission requirements. These missions may be accomplished on any operations, test, test support, or training mission per AFI 11-401 flight authorization processes. Logging and crediting flying time must be in accordance with AFI 11-401 and the AFMC Supp. The OG/CC is the approval authority for these flights and the following criteria must be met:

2.7.1.1. Test aircrew may evaluate dual-controlled aircraft if a qualified instructor pilot is at the other set of controls.

2.7.1.2. Test pilots may fly single-place aircraft if a dual controlled model is not available and they are current in a similar type of aircraft (as described in AFI 11-202V2/ AFMC Sup 1). An instructor pilot current in the aircraft being evaluated must be in a chase aircraft. Within 30 days before the flight, the evaluating test pilot will complete the following: qualification open and closed book written tests; appropriate phase I ground training (OG/CC's may determine the extent of training given on local area procedures and on aircraft systems that will not be used on the flight(s)); a simulator training course or at least one hour of supervised cockpit time if the simulator training is not available; and a preflight briefing that includes an oral evaluation of the normal and emergency procedures for the aircraft.

2.7.1.3. Flying unit commanders will review the flight profiles of single-place aircraft and ensure sound safety principles are followed. Flying unit commanders will ensure all flights are thoroughly planned, flown as briefed, and monitored.

2.7.1.4. Flight test navigators, WSOs, EWOs, CSOs and Flight Test engineers may conduct qualitative and short-term evaluations in an aircraft if they complete ground training for non-qualified personnel IAW paragraph **4.13** and a qualified pilot flies the aircraft.

2.7.1.5. USAFTPS students may perform aircraft qualitative and short-term evaluations according to the school curriculum. Test Pilot School student pilots may make takeoffs and landings and occupy either seat when performing qualitative or short-term evaluation flights in AFMC helicopters. A qualified helicopter instructor pilot will be in command and be in a seat with a set of flight controls.

2.7.2. Limited Qualification Status. Limited qualification status is for crewmembers that cannot meet the training requirements of this instruction and MD-specific attachments because of mission requirements or aircraft limitations. The following rules apply to this qualification status:

2.7.2.1. Use of this status is restricted to crewmembers in particular test programs, to crewmembers in units without assigned aircraft, to multiple qualified pilots (who must maintain full qualification in their primary aircraft), and to USAF TPS instructors. OG/CCs must ensure sufficient capability is retained to fly unit aircraft during contingencies or unusual circumstances. Do not use this status to solve problems caused by a temporary shortage of aircraft or flying hours. Personnel in limited qualification status must take care to perform in-flight duties only under conditions for which they are trained and current (for example; day only, VMC only).

2.7.2.2. Personnel in this status will fly the aircraft on the assigned mission only. Only mission- essential personnel will be on the aircraft.

2.7.2.3. All training will be conducted IAW this instruction and the applicable MD-specific attachments with the following exception:

2.7.2.3.1. Limited qualification may be acquired by completing training in the areas aircrew will 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 initial qualification training. Continuation training and currency would consist of sorties and landings only.

2.7.2.4. Full qualification may be acquired by completing all the training requirements of this instruction and applicable MD-specific attachments. Do not use limited qualification as an intermediate qualification level leading to initial qualification.

2.8. **Pilot Training.** The MAJCOM directed Phase I training plans for pilots can be found on the Edwards Center Ops Online (COOL) server.

2.8.1. For the purpose of this instruction, the term "single-pilot aircraft" refers to aircraft with one mandatory crew position, regardless of whether a second seat exists in the aircraft. All existing F-15 and F-16 aircraft, for example, are "single-pilot aircraft".

2.8.2. Single-pilot aircraft ground training requirements. Pilots will complete closed book written qualification and critical action procedures/boldface examinations before the first flight IAW AFI 11-202 Volume 2. Instrument (if applicable) and open book exams must be completed before the qualification flight evaluation.

2.8.3. Flight Training Requirements.

2.8.3.1. First Flight in a single-pilot aircraft. When the first training flight is carried out in a single-pilot aircraft, an instructor pilot (IP) qualified in the same aircraft must fly in and instruct from a second seat in the same aircraft or chase aircraft. Alternatively, an IP (qualified in the same aircraft and in radio contact with the student) must observe landings from a position appropriate for observing the approach and landing. When an instructor is not available for ground observation, the most qualified available pilot (current in the same aircraft) must be used.

2.8.3.2. If an IP cannot be on board the aircraft with the trainee, all Phase I training will be flown in VMC conditions until the instrument evaluation is complete.

2.8.3.3. Night qualification requirements. Night qualification for pilots is optional at the discretion of the OG/CC. The OG/CC may determine the number of night qualified aircrew members necessary to execute the unit(s) mission.

2.8.3.3. **(EDWARDSAFB)** The OG/CC delegates to flying unit commanders/CTF directors the responsibility to determine the required number of night qualified crewmembers.

2.8.3.3.1. Night qualification sortie. A night qualification sortie is flown prior to the qualification flight evaluation, except for single-place aircraft. Pilots of such aircraft will not accomplish required night qualification events until after the Phase I flight evaluation. An IP, in radio contact with the trainee, will observe landings from a chase aircraft or a position appropriate for observing the approach and landing. When observing landings from a chase aircraft, only execute straight-in or instrument approaches. Overhead patterns are prohibited for the purpose of observing night landings from a chase aircraft. IP pattern chase at night is not advisable.

2.8.3.3.2. Unit qualification roster (letter of X's) will reflect the individual's "day only restriction" until night qualification sortie is complete. If the individual is to be designated "day only qualified" the AF Form 8 should also reflect this restriction as per AFI 11-202 Vol 2 and AFI 11-2FT Vol 2.

2.8.3.4. Touch-and-Go Landing Training. Conduct Phase I touch-and-go training IAW chapter 3 guidance.

2.9. **NAV/WSO/EWO Training.**

2.9.1. The MAJCOM directed Phase I training plans for NAV/WSO/EWO aircrew can be found on the Edwards Center Ops Online (COOL) server.

2.9.2. **Navigator/WSO/EWO Qualification for C-12, F-16, and T-38.** Qualification is gained by completion of qualification evaluation which consists of MQF closed book exam only, IRC, an instrument exam, boldface/CAPS, emergency procedures evaluation (EPE), and flight evaluation. The closed book exam is from the full "pilot" MQF (applicable blocks/MDS flight qualification). Open book exam requirements are at unit discretion. The boldface/CAPS are for the rear cockpit only station (F-16/T-38). The IRC exam is necessary because the cockpit duty station provides access to flight instruments. The EPE will emphasize notes, warnings, and cautions, associated with normal and emergency procedures found in Sections 2, 3, and 5 of the flight manual.

2.10. **Career Enlisted Aviator (CEA) Training**. The MAJCOM directed Phase I training plans can be found on the Edwards Center Ops Online (COOL) server.

2.11. **Flight Surgeons Qualification.** Flight surgeons will comply with requirements in AFI 11-202 Volume 1. Units will designate one MD aircraft as primary for Flight Surgeons who fly on more than one of the unit's assigned aircraft. Flight surgeons qualified in COMBAT EDGE equipped aircraft will receive a briefing on limitations, normal/emergency operations, and failure modes/appropriate corrections. Unit commanders may designate trained aircrew (pilots/WSOs), who have flown with the COMBAT EDGE ensemble, as trainers to facilitate future COMBAT EDGE training requirements. Prior to the qualification or requalification flight, the flight surgeon will accomplish the following:

2.11. **(EDWARDSAFB)** The MAJCOM directed Phase I training plans can be found on the Edwards Center Ops Online (COOL) server.

2.11.1. Bomber, Cargo, or Helicopter. A written egress examination and ship-side egress.

2.11.2. Fighter or Trainer. A written examination encompassing cockpit familiarization and egress knowledge, ship-side egress training, and a cockpit familiarization briefing given by a qualified pilot at the aircraft.

2.12. DELETED.

2.12.1. DELETED.

2.12.1.1. DELETED.

2.12.1.2. DELETED.

2.12.1.3. DELETED.

2.12.1.4. DELETED.

2.12.1.5. DELETED.

2.12.1.6. DELETED.

2.12.2. DELETED.

2.12.2.1. DELETED.

2.12.2.2. DELETED.

2.12.2.3. DELETED.

2.12.3. DELETED.

2.13. **Non Rated Aircrew (NRA) Training.** Each unit that operates with non-rated aircrew (e.g., flight test engineers (FTE), in-flight maintenance technicians (IMT)) will use approved NRA training program for Phase I qualifications. As a minimum the training will include basic aircraft systems knowledge, emergency procedures, test equipment orientation and a 20 question MQF Closed Book examination for each aircraft qualification. When implemented, document qualification certification on an AF Form 8a. A NRA qualification must be obtained for each MD aircraft. An instructor qualified in the MD will conduct training. Phase II mission NRA training programs will be published in a unit supplement to this instruction.

2.13.1. Ground Training Requirements. Complete ground training prior to the first flying sortie. If a representative aircraft is unavailable, a cockpit trainer may be substituted. Training will include the following areas as a minimum.

2.13.1.1. Cockpit/flight deck familiarization. Cockpit familiarization will include explanation of aircraft controls, gauges, switches, and checklist preflight items.

2.13.1.2. Aircrew Flight Equipment. Aircrew Flight equipment training will include familiarization with flight equipment location, preflight, limitations, and use.

2.13.1.3. Normal Procedures. Normal procedures training should include crew coordination terminology and checklist (if applicable) use.

2.13.1.4. Emergency Procedures. Emergency procedures training should include ground egress, bailout, ejection procedures, and BOLDFACE/CAPS as applicable.

2.13.1.5. NRA qualified in COMBAT EDGE equipped aircraft will receive a briefing on limitations, normal/emergency operations, and failure modes/appropriate corrections. Unit commanders may designate trained aircrew (pilots/WSOs), who have flown with the COMBAT EDGE ensemble, as trainers to facilitate future COMBAT EDGE training requirements.

2.13.2. Flying Training Requirements. Flying training should simulate a typical profile the crewmember will be allowed to fly. Document training on the NRA qualification flight training grade sheet. Training will include the following areas as a minimum; primary MD familiarization training. NRA should receive a familiarization flight before each of their additional MD qualifications. Familiarization flights on the specific additional qualification MD may be waived by the OG/CC in favor of a sortie on a similar aircraft type if the specific MD is not available prior to the commencement of the flight test for which the NRA is required.

3. PHASE II - MISSION QUALIFICATION TRAINING.

3.1. **General.** In addition to the training guidance outlined in AFI 11-202, Volume 1 as supplemented, use this instruction when completing mission qualification training in AFMC. Units will establish mission ground and flying training requirements for those aircraft, missions, and crewmembers (to include mission and operational support crew) not addressed in this instruction. Upon AFMC/A3V approval, document this training in unit supplements. Simulator requirements, based on availability and applicability, will be included in the unit developed programs. Use AFMC Forms 67/68/69 to document simulator training. When structuring programs, flying units will ensure that mission operational and training areas are compatible.

3.1. **(EDWARDSAFB)** Approval of unit established training plans requires coordination through 412 OG/OGV, the OG/CC and HQ AFMC/A3V. Non-rated Aircrew training guidance applies to operational support fliers.

3.1.1. All AFMC-specified Phase II training plans can be found on the Edwards Center Ops Online (COOL) server. The forms posted are the only ones authorized to execute Command Specified Phase II mission qualification training. To ensure use of the most current training syllabus, the training office should download the current training form just prior to starting each Phase II mission qualification. EXCEPTION: Unit specific Phase II training forms may be referenced on the Edwards Center Ops Online (COOL) server and maintained locally after approval by AFMC/A3V.

3.1.2. If an individual remains non-current in a phase II event for a period exceeding six months, qualification in that event will be lost. Unqualified up to 2 years: Complete requalification training. Use the requalification training column on the AFMC Form 68 training plan(s). Unqualified over 2 years: Complete QUAL training, Use the QUAL training column of the AFMC Form 68 training plan(s). The duration of the unqualified time is from the date the aircrew member became unqualified until the specific retraining start date.

3.1.3. For multi-qualified aircrew maintaining phase II qualifications in two or more aircraft, phase II training is required for each aircraft. Phase II qualifications that are exceptions to this direction are indicated in phase II mission training paragraphs in this chapter.

3.1.4. NAVs/WSOs/EWOs on F-16, T-38, or C-12. No additional training is required in any Phase II “mission” in which the Aircraft Commander is current and qualified.

3.1.5. Unless otherwise specified, all training limits for tilt-rotor aircraft in airplane (APLN) mode equal those cited for fixed wing aircraft. Tilt-rotor aircraft operating in conversion (CONV) or vertical takeoff and landing (VTOL) mode are equal to those cited for helicopters**.**

3.2. **Common Mission Qualification Training.**

Table 2. Phase II Qualification Matrix.

Vol 1	Phase II	AFMC Specified Plan (Note 1)	Dual Qual Trans (Note 2)	Concurrent Phase I, II Training allowed (Note 3)
Para	**Qualification**	**(Y/N)**	**(Y/N)**	**(Y/N)**
3.1	**General**			
3.2	**Common Mission Qualifications**			
3.2.1	Local Area Orientation (LAO)	N	Y	Y
3.2.2	ILS Precision Runway Monitoring (ILS PRM)	Y	Y	Y
3.2.3	Theater Indoctrination	N	Y	Y
3.2.4	Touch and Go Landings	Y	N	Y
3.2.5	Special Departure Procedures	Y	Y	Y
3.3	**Tactical and Systems Mission Qualifications**			
3.3.1	Air-to-Air Refueling Tanker	Y	N	Y
3.3.2	Air-to-Air Refueling Receiver	Y	N	Y
3.3.3	Functional and Acceptance Check Flight (FCF/ACF)	Y	N	N
3.3.4	Advanced Handling Characteristics/ Advanced Handling Maneuvers (AHC/AHM)	Y	N	Y
3.3.5	Fighter/Trainer Formation-Flight Lead	Y	Y	Y
3.3.6	Targeting Pod (TGP)			
3.3.6.1	TGP > 2k	N	N	Y
3.3.6.2	TGP =< 2k	N	N	N
3.3.7	Navigation Pod (Fighter Only)	N	N	Y
3.3.8	Night Vision Goggles (NVGs)			
3.3.8.1	NVG Medium Altitude (>= MSA)	Y	N	Y (Note 4)
3.3.8.2	NVG Low Altitude (< MSA)	Y	N	N
3.3.9	Helmet-Mounted Cueing System (HMCS)	Y	Y	Y
3.4	**Air-to-Air Qualifications**			
3.4.1	Intercept	Y	Y	Y
3.4.2	Basic Fighter Maneuvers (BFM)			
3.4.2.1	BFM Wingman	Y	N	N
3.4.2.2	BFM Flight Lead	Y	Y	N

3.4.2.3	BFM Instructor	Y	N	N
3.4.3	Air Combat Training (ACBT)			
3.4.3.1	ACBT Wingman	Y	Y	N
3.4.3.2	ACBT Flight Lead	Y	Y	N
3.4.3.3	ACBT Instructor	Y	Y	N
3.5	**Air-to-Surface Weapon Delivery, Air Drop and/or Low Altitude Qualifications**			
3.5.1	Air-to-Surface Weapon Delivery	Y	N	N
3.5.2	Air Drop	Y	N	N
3.5.3	Low Level Navigation	Y	Y	Y
3.5.4	Low Altitude Step Down Training (LASDT)	Y	N	N
3.5.5	Terrain Following/ Terrain Avoidance (TF/TA)	Y	N	N
3.6	**Flight Test Mission Qualifications**			
3.6.1	Flight Test Orientation	Y	Y	Y
3.6.2	Target	N	Y	Y
3.6.3	Chase	Y	Y	N
3.6.4	Ordnance Release Test	N	Y	N
3.6.5	High Angle of Attack (Hi AoA)			
3.6.5.1	Hi AoA Familiarization IP	N	N	N
3.6.5.2	Hi AoA Test	N	N	N
3.6.5.3	High AoA Test IP	N	N	N
3.6.6	Compatibility Flight Profile (CFP)	Y	N	N
3.6.7	Loads	N	N	N
3.6.8	Flutter	N	N	N
3.6.9	Airstart (Single-Engine Aircraft)	N	N	N
3.6.10	Test Pilot School (TPS) Curriculum	N	N	N
3.6.11	Air-to-Air Refueling Tanker Test	N	N	N
3.6.12	Airdrop Test	Y	N	N
3.7	Aerial Photographer	Y	N	N

NOTES: Information displayed in **Table 2** is further elaborated upon in following paragraphs.

1. A “Y” in this column indicates that the corresponding qualification training plan is specified by the MAJCOM. An “N” indicates the qualification training plan is specified by the individual flying unit (some units may determine certain events in **Table 2** do not apply to their mission).

2. A "Y" in this column indicates that the qualification is transferable across MD platforms for multi-qualified aircrew.

3. A "Y" in this column indicates whether the qualification training can be conducted concurrently with Phase 1 training. Note: Portions of Phase II plans allowed during Phase I may have events that are not allowed during Phase I training.

4. Fighter aircraft only.

3.2.1. Local Area Orientation (LAO).

3.2.1.1. Definition. LAO training qualifies pilots and navigators to perform flying operations in their particular local area. These aircrew will not perform aircrew duties, except under the supervision of an instructor, until they complete this training.

3.2.1.2. Prerequisites: none. Required previous experience: none.

3.2.1.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is transferable for multi-qualified aircrew.

3.2.1.4. Training Requirements. As a minimum local IFR and VFR procedures, restrictions, navigation aids, alternate and emergency airfields and unit aircraft differences will be addressed. It is highly desired that the pilot be exposed to a local alternate airfield. Newly assigned pilots and navigators will not perform aircrew duties, except under the supervision of an instructor, until they complete this training.

3.2.1.4. **(EDWARDSAFB)** For pilots, navigators (N, WSO, EWO, DSO, etc.) and UAS operators (RP, RSO) Edwards Local Area Orientation (LAO) will consist of the ground and flight training items listed in the approved training plan. LAO will consist of ground training only for CEAs and Non-Rated aircrew. If an individual has received a local area orientation in another aircraft, the unit training officer will annotate the USAF Certification of Aircrew Training (AF Form 1381) with the aircraft in which the local area orientation was completed (such as, Local Area Orientation - F-16). If the individual is a recent graduate of the USAF Test Pilot School (USAFTPS), LAO training can be accepted; however, a statement on the AF Form 1381 is required (such as, LAO-TPS).

3.2.1.4.1. Ground training will include, as a minimum, a briefing on the local area instrument flight rules (IFR) and visual flight rules (VFR) procedures, restrictions, navigation aids, and unit aircraft differences (i.e. test instrumentation). LAO training will also include an introduction to AFMC command specific rules and directives if the crewmember is new to AFMC.

3.2.1.5. LAO flying training may be conducted concurrently with Phase I or Phase II training.

3.2.1.6. **(Added-EDWARDSAFB)** Conduct Local Area Orientation in accordance with the LAO training plan. The instructor need not be qualified in the same MDS as

the student, except for MDS-specific items. Instructor weapons systems officers (IWSOs) or Instructor Navigators may conduct LAO training for pilots. See aircraft specific appendix for authorization of instructor weapons systems officers (IWSOs) or Instructor Navigators to conduct training for pilots.

3.2.2. Instrument Landing System Precision Runway Monitoring (ILS PRM).

3.2.2.1. Definition. ILS PRM training qualifies aircrew to fly ILS approaches at airfields where multiple simultaneous ILS approaches violate minimum FAR separation requirements. ILS PRM approach systems permits simultaneous approaches to dual runways with centerlines separated by less than 4,300 feet but at least 3400 ft for parallel approach courses, and at least 3000 ft if one ILS if offset by 2.5 to 3.0 degrees.

3.2.2.2. Prerequisites: none. Required previous experience: none.

3.2.2.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.2.2.4. Training Requirements. All AFMC pilots and Navigators are required ILS PRM training prior to flying ILS PRM approaches. The initial ILS PRM training course can be found on the Edwards Center Ops Online (COOL) server.

3.2.2.5. ILS PRM training may be conducted concurrently with Phase I or Phase II training.

3.2.3. Theater Indoctrination.

3.2.3.1. Definition. Theater indoctrination training qualifies aircrew to operate within a specific theater of operations with particular flight requirements and restrictions.

3.2.3.2. Prerequisites: none. Required previous experience: none.

3.2.3.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is transferable for multi-qualified aircrew.

3.2.3.4. Training Requirements. This training may be accomplished in conjunction with normal pre-mission planning. As a minimum, this training will include a thorough review of ICAO instrument procedures, theater unique instrument requirements and procedures, the use of non-DOD/NOAA instrument approach procedures, required instrumentation for specific approaches, theater weather conditions, local area procedures, host nations agreements, specific theater NOTAMS, and Foreign Clearance Guide.

3.2.3.5. Theatre Indoctrination training may be conducted concurrently with Phase I or Phase II training.

3.2.4. Touch and Go Landings.

3.2.4.1. Definition. Touch and go landing training qualifies pilots to perform touch and go landings at designated airfields.

3.2.4.2. Prerequisites: none. Required previous experience: none.

3.2.4.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.2.4.4. Training Requirements. If the unit allows co-pilot and or mission/first pilots to perform touch-and-go landings, the unit will establish appropriate local qualification training requirements, training restrictions, and designate selected airfields for mission/first pilot touch-and-go landings. For approved test programs requiring touch-and-go landings, the aircraft commander must be touch-and-go current and qualified, however, airfields need not be designated by the unit if designated in an approved test plan. Co-pilots, first pilots, and mission pilots (not qualified as instructors) may accomplish touch-and-go landings once training is completed and proficiency is demonstrated to an instructor pilot, subject to operating procedures and restrictions contained in AFI 11-2FT, Volume 3. This training may be accomplished anytime as a part of phase I or phase II training.

3.2.4.4. **(EDWARDSAFB)** The OG/CC authorizes flying unit commanders/CTF directors to establish mission pilot (MP) touchandgo landing qualification training requirements. OG/CC approved airfields for MP/FP touchandgo landings are listed in AFI 11-2FTv3/EAFB Sup 1. In addition to AF Form 1381, *USAF Certification of Aircrew Training*, documentation, flying units will include MP touchandgo qualifications on unit qualification summaries (LetterofX's). If touch-and-go qualification is included as part of an approved aircraft qualification/re-qualification/instructor upgrade training plan, units are not required to include MP touch-and-go qualifications on the unit qualification summaries (Letter of X's).

3.2.4.4.1. Touch and Go training may be conducted concurrently with Phase I or Phase II training.

3.2.5. Special Departure Procedures (SDP).

3.2.5.1. Definition. SDP training qualifies aircrew to fly published and approved Special Departure Procedures in accordance with AFI 11-202V3.

3.2.5.2. Prerequisites: None. Required previous experience: None.

3.2.5.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.2.5.4. Training Requirements. All AFMC Pilots, Navigators/Combat Systems Officers/WSOs, Flight Engineers and Special Mission Aviators will complete SDP training prior to flying SDPs. The SDP training plan can be found on the Edwards Center Ops Online (COOL) server.

3.2.5.5. SDP training may be conducted concurrently with Phase I or Phase II training.

3.3. **Tactical and Systems Mission Qualifications.**

3.3.1. Air-to-Air Refueling Tanker.

3.3.1.1. Definition. Air-to-Air Refueling Tanker training qualifies tanker aircrew to transfer fuel to receivers.

3.3.1.2. Prerequisites: none. Required previous experience: none.

3.3.1.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.3.1.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server.

3.3.1.5. Air-to-Air Refueling Tanker training may be conducted concurrently with Phase I or Phase II training.

3.3.2. Air-to-Air Refueling Receiver.

3.3.2.1. Definition. Air-to-Air Refueling Receiver training qualifies aircrew to receive fuel from tankers.

3.3.2.2. Prerequisites: none. Previous experience: none.

3.3.2.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.3.2.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server.

3.3.2.5. Air-to-Air Refueling Receiver training may be conducted with a KC-135 or KC-10 aircraft. Proficiency in day refueling and contacts will be demonstrated before night contacts are attempted. Air-to-Air Refueling Receiver training may be conducted concurrently with Phase I or Phase II training.

3.3.2.5. **(EDWARDSAFB)** If a new instructor has never accomplished a back/right seat refueling, he/she must complete a successful hookup from the back/right seat under the supervision of an air refueling qualified IP before giving air-refueling instruction from that position. For fighter type aircraft, the supervising IP may be in another aircraft if the student has refueled before in the same MD and must be a current instructor in the type of aircraft being flown by the student.

3.3.2.5.1. **(Added-EDWARDSAFB)** A stabilized hook up is required for a grade of "P" on the applicable AFMC Form 68. A stabilized hook up is defined as 1 minute on the boom for fighter/trainer aircraft and 5 minutes on the boom for heavy aircraft with no inadvertent disconnects.

3.3.2.5.2. **(Added-EDWARDSAFB)** Qualification for tandem cockpit aircraft will be completed from the front seat. (Exception: pilots upgrading to instructor and not previously RCP air refueling qualified in aircraft type may receive their initial air refueling qualification in the rear seat).

3.3.2.5.3. **(Added-EDWARDSAFB)** Receiver qualification for side-by-side seating aircraft may be conducted from either seat.

3.3.3. Functional Check Flight/Acceptance Check Flight (FCF/ACF).

3.3.3.1. Definition. FCF and ACF training qualifies aircrew to perform FCFs and ACFs in accordance with the appropriate -6 T.O or ACF approved checklist.

3.3.3.2. Prerequisites. Crewmembers possessing the most qualified experience/expertise, as determined by the OG/CC will accomplish check flights. To become a functional check flight/acceptance check flight aircrew member, comply with the flying time minimums in **Table 3**

3.3.3.2. **(EDWARDSAFB)** Submit an EAFB 5110, Training Request, for FCF upgrade. The candidate will receive a briefing from Maintenance Quality Control Division to include FCF procedures, FCF profiles (using the -6CF checklist), and local FCF documentation procedures. The ground training for specific aircraft will be accomplished by an FCF qualified instructor in that aircraft to include preflight items and profile accomplishment.

Table 3. Flying Hour Prerequisites for FCF Aircrew.

AIRCRAFT	CREW POSITION	MINIMUM TOTAL FLYING HOURS	HOURS IN MODEL DESIGN(MD) AIRCRAFT (Notes 1,2,3,4,5)
Fighter/Trainer	MP MN/MW	750 (fighter/trainer) 750 (fighter/trainer)	200 100
Bomber/Cargo/ Reconnaissance/ Tanker	MP MN/MW/MR(4) MB ML MF MA	1000 1000 1000 1000 1000 100	200 100 200 200 200 100
U-2	MP	1000	300
Helicopter	MP/MF	500	300
Tiltrotor	MF/MF	750	200
RPA	RP/RSO	500	100

NOTES:

1. Only primary and secondary time is applicable towards "HOURS IN MODEL DESIGN AIRCRAFT" category.

2. Refers to aircraft groups in applicable MD-specific volumes, i.e., B707 (E-3,E-8), CV-22, and MV-22 are considered the same MD aircraft.

3. For navigators and flight engineers: C-135, B-707, E-3, and E-8 are considered same MD aircraft.

4. Flying time requirements may be waived by the OG/CC up to 50% if added risk is determined acceptable. Document this waiver in section five of the training folder.

5. MA crew position applies when required for mission requirements and minimum crew compliment in accordance with T.O. 1-1-300.

3.3.3.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.3.3.4. Training Requirements. The individual must demonstrate basic competency in all phases of the FCF mission prior to conducting an initial FCF. Basic competency will be accomplished in-flight in an airworthy aircraft. An AFMC approved simulator located on the AFMC/A3V Sharepoints website at: **https://org.eis.afmc.af.mil/sites/HQAFMCA3/a3v/default.aspx**., may be used to demonstrate this competency for dual-controlled aircraft. The phrase "has demonstrated basic competency in FCF procedures." will be documented in Block 6 of the AFMC Form 69. Additional flights required for mission qualification must be accomplished under the supervision of a mission-qualified instructor of like specialty. For single-seat aircraft, all training will be briefed, chased, and debriefed with an FCF-qualified instructor pilot current in the same type aircraft. AFMC waives the T.O.1-1-300 requirement that all crewmembers be FCF qualified in their assigned crew positions if the provisions in this paragraph are met. The MD specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.3.3.5. FCF/ACF training may not begin until satisfactory completion of Phase I flight evaluation or acceptance of Phase I qualification. Other Phase II training may not be conducted on actual (O-8E) FCF/ACF missions, EXCEPTION: LAO.

3.3.4. Advanced Handling Characteristics /Advanced Handling Maneuvers (AHC/AHM).

3.3.4.1. Definition. AHC/AHM training qualifies fighter aircrew to perform MD specific maneuvers to explore the aircraft's flight envelope and reinforce awareness of aircraft performance.

3.3.4.2. Prerequisites: none. Required previous experience: none.

3.3.4.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.3.4.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.3.4.5. AHC/AHM training may be conducted concurrently with Phase I or Phase II training.

3.3.5. Fighter/Trainer-Formation Flight Lead (all F-series, A-series, T-6, and T-38 pilots).

3.3.5.1. Definition. Fighter/Trainer Formation Flight Lead training qualifies pilots to lead fighter/trainer formations. It does not qualify a pilot to lead BFM, ACBT, or any other event with specific flight lead training requirements.

3.3.5.2. Prerequisites: none. Required previous experience: none.

3.3.5.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.3.5.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server.

3.3.5.4.1. At the discretion of the OG/CC, pilots with previous fighter/trainer flight lead experience may be considered qualified if the formation portions of the command sponsored Phase I training plan were accomplished during Phase I training. This consideration will be documented in an MFR and placed in the individual training folder. Alternatively, the Fighter/Trainer - Formation Flight Lead training plan can be accomplished.

3.3.5.5. Fighter/Trainer - Formation Flight Lead training may be conducted concurrently with Phase I or Phase II training.

3.3.6. Targeting Pod (TGP) Pilot. There are 2 certifications within this qualification: Above 2000 ft and At or Below 2000 ft.

3.3.6.1. TGP Above 2000 ft (TGP > 2000 ft AGL).

3.3.6.1.1. Definition. TGP Above 2000 ft training qualifies aircrew to operate specific targeting pods strictly above 2000 ft AGL.

3.3.6.1.2. Prerequisites: none. Required previous experience: none.

3.3.6.1.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.3.6.1.4. Training Requirements. As a minimum, this training will include ground training. Flight training is at the discretion of the unit.

3.3.6.1.5. TGP Above 2000 ft training may be conducted concurrently with Phase I or Phase II training.

3.3.6.2. TGP At or Below 2000 ft (TGP <= 2000 ft AGL).

3.3.6.2.1. Definition. TGP At or Below 2000 ft training qualifies aircrew to operate specific targeting pods at or below 2000 ft AGL.

3.3.6.2.2. Prerequisites: TGP above 2000 ft qualification, Low Level Navigation qualification. Required previous experience: none.

3.3.6.2.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.3.6.2.4. Training Requirements. As a minimum, TGP At or Below 2000 ft training will include ground and flight training.

3.3.6.2.5. TGP At or Below 2000 ft training may not be conducted concurrently with Phase I training.

3.3.7. Navigation Pod (Fighter Only).

3.3.7.1. Definition. Navigation pod training qualifies fighter pilots to operate specific navigation pods while conducting flight operations.

3.3.7.2. Prerequisites: none. Required previous experience: none

3.3.7.3. Training Classification. Individual flying units will determine if this training is required and if so, will establish ground and flying training requirements. This

qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.3.7.4. Training Requirements. As a minimum, Navigation Pod training will include ground and flight training.

3.3.7.5. Navigation Pod training may be conducted concurrently with Phase I training.

3.3.8. Night Vision Goggles (NVGs). There are 2 qualifications: Medium Altitude at or above MSA (>=MSA) and Low Altitude less than the MSA (<MSA).

3.3.8.1. NVG Medium Altitude (>=MSA).

3.3.8.1.1. Definition. NVG Medium Altitude training qualifies aircrews to conduct night flight operations using NVGs at or above the Minimum Safe Altitude (MSA).

3.3.8.1.2. Prerequisites: None. Required previous experience: Minimum experience required for NVG qualification/upgrade is specified in MD-specific attachments.

3.3.8.1.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.3.8.1.4. Training Requirements. The MD specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.3.8.1.4.1. Ground Training. All NVG ground training will reference the NVG courseware developed by the Night Operations Center of Excellence. Each Operations Group or unit that conducts NVG operations will have at least one academic instructor certified IAW AFI 11-202V1 para 1.3.2.4.3. Crewmembers must receive NVG academic training prior to their initial flight with NVGs by certified instructors. If NVG academic training is conducted locally, the NVG academic instructor should be assisted by a flight surgeon or aerospace physiologist familiar with the physiological limitations of NVGs or night flying.

3.3.8.1.4.2. Flying Training. Flying training will be accomplished within 60 days of the NVG ground training. If more than 60 days elapse prior to the NVG-1 flying training, pilots must review the Night Operations Center of Excellence NVG academics. If more than 180 days elapse between completion of NVG ground training and the NVG-1 flying training, pilots will re-accomplish all NVG ground training. Training programs will incorporate the step-down process where altitudes and illumination requirements are commensurate with the experience level of the trainee.

3.3.8.1.4.2.1. Qual/Requal - NVG qualification for fighter aircrew at medium altitude will consist of one dual sortie with an NVG qualified instructor in the rear cockpit.

3.3.8.1.4.2.2. IP Qual/Requal - Medium Altitude instructor upgrade sorties

will be flown in the rear cockpit with an NVG qualified instructor in the front cockpit.

3.3.8.1.5. NVG Medium Altitude training may not be conducted concurrently with Phase I training. EXCEPTION: Fighter aircraft may conduct NVG Medium Altitude training concurrently with Phase I training.

3.3.8.2. NVG at Low Altitude (<MSA).

3.3.8.2.1. Definition. NVG Low Altitude training qualifies aircrews to conduct night flying operations using NVGs below MSA.

3.3.8.2.2. Prerequisites: NVG Medium Altitude qualification, Low Level Navigation qualification. Required previous experience: Minimum experience required for NVG qualification/upgrade is specified in MD-specific attachments as applicable.

3.3.8.2.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.3.8.2.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.3.8.2.4.1. Ground Training. All NVG ground training will reference the NVG courseware developed by the Night Operations Center of Excellence. Each Operations Group or unit that conducts NVG operations will have at least one academic instructor certified IAW AFI 11-202V1 para 1.3.2.4.3.

3.3.8.2.4.2. Flying Training. Training programs will incorporate the step-down process where altitudes and illumination requirements are commensurate with the experience level of the trainee.

3.3.8.2.4.2.1. Qual - NVG qualification training for aircrew at low altitude will consist of a second dual sortie in addition to the NVG Medium training under the direct supervision of a NVG Low Altitude qualified instructor.

3.3.8.2.4.2.2. IP Qual/Requal - Instructors require a minimum of five low altitude NVG sorties and for fighter aircrew must be a medium altitude NVG instructor prior to Low Altitude NVG instructor upgrade. Low altitude instructor upgrade sorties will be flown in the rear cockpit with a Low Altitude NVG qualified instructor in the front cockpit.

3.3.8.2.5. NVG Low Altitude training may not be conducted concurrently with Phase I training.

3.3.9. Helmet-Mounted Cueing System (HMCS).

3.3.9.1. Definition. HMCS training qualifies aircrew to perform HMCS operations while conducting flight operations.

3.3.9.2. Prerequisites: none. Required previous experience: none.

3.3.9.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.3.9.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server.

3.3.9.5. HMCS training may be conducted concurrently with Phase I and Phase II training.

3.4. **Air-to-Air Training.**

3.4.1. Intercept.

3.4.1.1. Definition. Intercept training qualifies pilots to perform the series of maneuvers (up to and including air-to-air limited maneuvering training rules) from beyond visual range which places the aircraft in a position relative to another aircraft to employ ordnance, make a VID, or to initiate a visual engagement.

3.4.1.2. Prerequisites: none. Required previous experience: none.

3.4.1.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.4.1.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server. Aircrew conducting test sorties involving the employment or simulated employment of air-to-air ordnance against an airborne target must be, as a minimum, Intercept qualified.

3.4.1.5. Intercept training may be conducted concurrently with Phase I or Phase II training.

3.4.2. Basic Fighter Maneuvers (BFM). There are three qualifications: Wingman, Flight Lead and Instructor.

3.4.2.1. BFM Wingman.

3.4.2.1.1. Definition. BFM Wingman training qualifies aircrew to apply aircraft handling skills to recognize and solve range, closure, aspect, angle off, and turning room problems in relation to another aircraft with the goal of employing ordnance 1v1 IAW unlimited air-to-air training rules as defined in AFI 11-2FT Vol 3.

3.4.2.1.2. Prerequisites: Intercept qualification. Required previous experience: Previous fighter BFM experience.

3.4.2.1.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.4.2.1.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.4.2.1.5. BFM Wingman training may not be conducted concurrently with Phase I training.

3.4.2.2. BFM Flight Lead.

3.4.2.2.1. Definition. BFM Flight Lead training qualifies pilots to lead BFM sorties.

3.4.2.2.2. Prerequisites: BFM Wingman qualification. Required previous experience: Previous fighter BFM experience.

3.4.2.2.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.4.2.2.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.4.2.2.5. BFM Flight Lead training may not be conducted concurrently with Phase I training.

3.4.2.3. BFM Instructor.

3.4.2.3.1. Definition. BFM Instructor training qualifies pilots to instruct BFM trainees.

3.4.2.3.2. Prerequisites: Basic Instructor, BFM Flight Lead Qualification. Required previous experience: Previous fighter BFM experience.

3.4.2.3.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.4.2.3.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.4.2.3.5. BFM Instructor training may not be conducted concurrently with Phase I training.

3.4.3. Air Combat Training (ACBT). There are 3 qualifications: Wingman, Flight Lead, and Instructor. OG/CCs should select aircrew for ACBT qualification from the most experienced aircrew based on mission needs. ACBT qualification training qualifies aircrew to participate in Air-to-Air engagements of three or more aircraft using unlimited training rules as defined in AFI 11-2FT Vol 3.

3.4.3.1. ACBT Wingman.

3.4.3.1.1. Definition. ACBT Wingman training qualifies aircrew to perform Air Combat Maneuvering and Air Combat Tactics from the wing position.

3.4.3.1.2. Prerequisites: BFM Wingman qualification. Required previous experience: Previous fighter ACBT experience.

3.4.3.1.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.4.3.1.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server.

3.4.3.1.5. ACBT Wingman training may not be conducted concurrently with Phase I training.

3.4.3.2. ACBT Flight Lead**.**

3.4.3.2.1. Definition. ACBT Flight Lead training qualifies pilots to lead ACBT sorties.

3.4.3.2.2. Prerequisites: ACBT Wingman qualification. Required previous experience: Previous fighter ACBT experience.

3.4.3.2.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.4.3.2.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server.

3.4.3.2.5. ACBT Flight Lead training may not be conducted concurrently with Phase I training.

3.4.3.3. ACBT Instructor.

3.4.3.3.1. Definition. ACBT instructor training qualifies pilots to instruct ACBT trainees.

3.4.3.3.2. Prerequisites: ACBT Flight Lead qualification. Required previous experience: previous fighter ACBT experience.

3.4.3.3.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.4.3.3.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server.

3.4.3.3.5. ACBT Instructor training may not be conducted concurrently with Phase I training.

3.5. **Air-to-Surface Weapons Delivery, Air Drop and/or Low Altitude Qualifications.**

3.5.1. Air-to-Surface Weapons Delivery (WD).

3.5.1.1. Definition. Air-to-Surface WD training qualifies 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 qualification is typically required to release ordnance as part of a test program. However, if no abnormal procedures or special equipment is used for delivering ordnance, the Air-to-Surface WD qualification is adequate if OG/CC-approved.

3.5.1.2. Prerequisites: none. Required previous experience: none.

3.5.1.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.5.1.4. Training requirements. Aircraft symbology, release criteria, range procedures, and range safety will be covered. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server. An instructor will supervise the first sortie from the rear cockpit, if applicable. Flying unit commander may authorize instructors to supervise from a chase aircraft. Aircrew conducting test sorties involving release or simulated release of air-to-surface ordnance are required to be current in WD and qualified in Ordnance release test as applicable.

3.5.1.5. Air-to-Surface WD training may not be conducted concurrently with Phase I.

3.5.2. Airdrop.

3.5.2.1. Airdrop training qualifies aircrew in the aerial delivery of personnel, supplies, or equipment from an aircraft in-flight for continuation training. Cargo aircraft such as the C-130 (and variants) or the C-17 are examples of aircraft capable of conducting airdrop operations.

3.5.2.2. Prerequisites. C-130/C-17 Loadmasters must be personnel airdrop qualified prior to completing Dummy Drop, Dummy Retrieval, or Tow Test. See MD attachment. Required previous experience: none.

3.5.2.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification with the following exception: C-130 and C-17 LM Dummy Drop, Dummy Retrieval, and Tow Test. If qualified for personnel airdrop in both the C-17 and C-130, completion of these training plans is applicable to both aircraft and need not be re-accomplished on the second aircraft. For test programs involving airdrops, an Airdrop Test qualification is required.

3.5.2.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.5.2.5. Airdrop training may not be conducted concurrently with Phase I training.

3.5.3. Low Level Navigation.

3.5.3.1. Definition. Low Level Navigation training qualifies aircrew to conduct operations at or below 2000 feet AGL but at or above 500 feet AGL. Exception: C-17, C-130, CV-22 and Helicopter Low Level navigation training qualifies aircrew to at or above 300 feet AGL.

3.5.3.2. Prerequisites: none. Required previous experience: none.

3.5.3.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.5.3.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server. This training does not apply to, or restrict, takeoff and landings, or flight test techniques, such as tower flybys performed within Edwards AFB class D airspace. This training will take place on military training routes or other special use airspace that allows low altitude operations. Proficiency in day low level must be demonstrated before accomplishing night training.

3.5.3.5. Low Level Navigation training may be conducted concurrently with Phase I and Phase II training.

3.5.4. Low Altitude Step- Down Training (LASDT).

3.5.4.1. Definition. LASDT qualifies aircrew for navigational flight below 500 feet AGL and at or above 200 feet AGL without terrain following radar. Exception: LASDT training does not apply to CV-22 or Helicopter aircraft, see MDS attachment.

3.5.4.2. Prerequisites: Low Level Navigation qualification. Required previous experience: none.

3.5.4.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.5.4.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server. In-flight instruction will consist of a minimum of one dedicated (front seat for fighter) sortie with a LASDT instructor (in the rear cockpit or in a chase aircraft for fighter as applicable). Minimum altitude for LASDT mission training events without terrain following radar (TFR) is 200 feet AGL. Minimum altitude for LASDT mission training events using TFR is 200 feet AGL or system limitations, whichever is higher. Initial training is not allowed without a functional radar altimeter. For LASDT-qualified aircrew upgrading to instructor, the upgrade training will be conducted with the upgrading instructor conducting the ground training and instructing from the rear seat, chase aircraft, or instructor position as appropriate. Exception: (weapon delivery minimum recovery altitudes below 500ft AGL are authorized without being LASDT qualified). LASDT is required to support test missions requiring low altitude operations below 500 feet AGL

3.5.4.5. LASDT may not be conducted concurrently with Phase I training.

3.5.5. Terrain Following/Terrain Avoidance (TF/TA).

3.5.5.1. Definition. TF/TA training qualifies aircrew to operate automated aircraft systems for the express purpose of avoiding terrain while flying in the low altitude environment (below 2000 feet AGL).

3.5.5.2. Prerequisites: Low Level Navigation qualification. Required previous experience: none.

3.5.5.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification. Training qualifies aircrew for TF/TA systems operations under any flight condition (day/night, IMC/VMC)

3.5.5.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.5.5.5. TF/TA training may not be conducted concurrently with Phase I training.

3.6. **Flight Test Mission Qualifications.**

3.6.1. Flight Test Orientation (FTO).

3.6.1.1. Definition. FTO training qualifies aircrew to perform airborne flight test duties. It outlines test center, group or wing specific test procedures, equipment, support facilities, decision criteria, and specific test mission requirements.

3.6.1.2. Prerequisites: none. Required previous experience: none.

3.6.1.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.6.1.4. Training Requirements. The MAJCOM training plan can be found on the Edwards Center Ops Online (COOL) server. All AFMC crewmembers must receive Flight Test Orientation Training before performing airborne flight test operations once per PCS or change in group or wing.

3.6.1.4.1. Ground Training. The training outlines the required minimum reviews required for documentation, test equipment, test support, test execution, and decision criteria. Some units may augment this training plan with additional items specific to their test mission. Applicable units will specify such augmentation in their supplements to this instruction.

3.6.1.4.2. Flight Training. Flight training, if unit specified, may be published in MD attachments or unit supplements to this instruction.

3.6.1.5. FTO training may be conducted concurrently with Phase I and Phase II training.

3.6.2. Target.

3.6.2.1. Definition. Target training qualifies aircrew to perform airborne direct support missions that involve radar or visual presentations and do not involve chase events. Previous fighter experienced aircrew may be qualified via ground training only.

3.6.2.2. Prerequisites: None. Required previous experience: none.

3.6.2.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is transferable for multi-qualified aircrew.

3.6.2.4. Training Requirements. The MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.6.2.5. Target training may be conducted concurrently with Phase I and Phase II training.

3.6.3. Chase.

3.6.3.1. Definition. Chase training qualifies aircrew to perform airborne missions that provide test aircraft with mutual support, such as clearing, test point verification, radio relay, etc. See AFI 11-2FT Vol 3 for specific chase roles and duties.

3.6.3.2. Prerequisites: none. Required previous experience: none.

3.6.3.3. Training Classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

3.6.3.4. Training Requirements. The MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server. All AFMC assigned or attached pilots conducting chase test support missions on an approved test plan must possess a Chase qualification.

3.6.3.4.1. Ground Training. This training outlines the general responsibilities and duties to include all chase responsibilities (area chase, photo chase, etc. as defined in AFI 11-2FT Vol 3).

3.6.3.4.2. Flight Training. The intent is to show the pilot various chase missions and different aspects of each particular chase mission. The events will be flown as two-ship formations with the student as the wingman. A specific MD/unit may determine certain maneuvers are not applicable and can delete them with ops officer approval and documentation. For weapons chase events, the test aircraft will act as the simulated weapon/test article and fly a representative profile, adhering to real-world abort altitudes, airspeeds, and dive angle limits.

3.6.3.5. Chase training may not be conducted concurrently with Phase I.

3.6.4. Ordnance Release Flight Test.

3.6.4.1. Definition. Ordinance Release Flight Test training qualifies aircrew to release stores (weapons, fuel tanks, etc) as part of a test program.

3.6.4.2. Prerequisites: Air-to-Surface WD qualification (all aircraft) and Intercept qualification (fighters). Required previous experience: none.

3.6.4.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is transferable for multi-qualified aircrew.

3.6.4.4. Training Requirements. As a minimum, Ordnance Release Flight Test training will include ground Weapon release, separation, jettison, environmental considerations, range safety, aircraft instrumentation, range and test control procedures.

3.6.4.5. Ordnance Release Flight Test training may not be conducted concurrently with Phase I training.

3.6.5. High Angle of Attack (Hi AoA): There are 3 Hi AoA qualifications: Hi AoA Familiarization IP, Hi AoA Test and Hi AoA Test IP.

3.6.5.1. Hi AoA Familiarization IP.

3.6.5.1.1. Definition. Hi AoA Familiarization IP training qualifies pilots to operate an aircraft in AoA regions beyond normal aircraft operations and instruct the Hi AoA Familiarization sortie.

3.6.5.1.2. Prerequisites: None. Required previous experience: TPS graduate.

3.6.5.1.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.6.5.1.4. Training Requirements. As a minimum, Hi AoA Familiarization training will include spin area, engine stall and simulated flameout procedures.

3.6.5.1.5. Hi AoA Familiarization training may not be conducted concurrently with Phase I training.

3.6.5.2. High AoA Test.

3.6.5.2.1. Definition. High AoA Test training qualifies aircrew to conduct test in AoA regions beyond normal aircraft operations.

3.6.5.2.2. Prerequisites: High AoA Familiarization sortie. Required previous experience: TPS graduate.

3.6.5.2.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.6.5.2.4. Training Requirements. As a minimum, Hi AoA Test training will include spin area, engine stall, simulated flameout and control room procedures.

3.6.5.2.5. Hi AoA Test training may not be conducted concurrently with Phase I training.

3.6.5.3. High AoA Test IP.

3.6.5.3.1. Definition. High AoA Test training qualifies aircrew to instruct Hi-AoA Test training beyond normal aircraft operations, and provide specific TPS curriculum instruction.

3.6.5.3.2. Prerequisites: High AoA Test qualification. Required previous experience: TPS graduate.

3.6.5.3.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.6.5.3.4. Training Requirements. As a minimum, Hi AoA Test IP training will include spin area, engine stall, simulated flameout and control room procedures.

3.6.5.3.5. Hi AoA Test IP training may not be conducted concurrently with Phase I training.

3.6.6. Compatibility Flight Profile (CFP).

3.6.6.1. Definition. CFP training qualifies aircrew to conduct test on new aircraft-stores combinations, via a set of flight test techniques, performed at various airspeed, altitude and load factor combinations, designed to expand the aircraft/store operating envelope.

3.6.6.2. Prerequisites: Flight Test Orientation qualification. Required previous experience: TPS graduate.

3.6.6.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.6.6.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.6.6.5. CFP training may not be conducted concurrently with Phase I training.

3.6.7. Loads.

3.6.7.1. Definition. Loads training qualifies aircrew to conduct test on new or modified aircraft, via a set of flight test techniques, performed at various airspeed, altitude and load factor combinations, designed to expand the aircraft operating envelope

3.6.7.2. Prerequisites: CFP qualification. Required previous experience: TPS graduate.

3.6.7.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.6.7.4. Training Requirements. As a minimum, Loads training will include control room procedures.

3.6.7.5. Loads training may not be conducted concurrently with Phase I training.

3.6.8. Flutter.

3.6.8.1. Definition. Flutter training qualifies aircrew to perform testing which investigates new, modified aircraft, or new aircraft configuration's Aero-Servo-Elastic (ASE) phenomena.

3.6.8.2. Prerequisites: Flight Test Orientation qualification. Required previous experience: TPS graduate.

3.6.8.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.6.8.4. Training Requirements. As a minimum, Flutter training will include control room procedures.

3.6.8.5. Flutter training may not be conducted concurrently with Phase I training.

3.6.9. Airstart (Single-Engine Aircraft).

3.6.9.1. Definition. Airstart training qualifies aircrew of single engine aircraft to conduct testing that involves in-flight engine shutdown and restart.

3.6.9.2. Prerequisites: Flight Test Orientation qualification. Required previous experience: none

3.6.9.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is transferable for multi-qualified aircrew.

3.6.9.4. Training Requirements. As a minimum, Airstart training will include spin area, engine stall, simulated flameout and control room procedures.

3.6.9.5. Airstart training may not be conducted concurrently with Phase I training.

3.6.10. Test Pilot School (TPS) Curriculum Sortie.

3.6.10.1. Definition. TPS curriculum sortie training qualifies non-TPS assigned or attached aircrew to instruct various TPS curriculum sorties. Typical sorties include, but are not limited to F-15 Asymmetry, Flutter, or CFP sorties.

3.6.10.2. Prerequisites: Flight Test Orientation qualification. Required previous experience: TPS graduate.

3.6.10.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.6.10.4. Training Requirements. As a minimum, TPS curriculum sortie training will include control room procedures and TPS syllabus requirements.

3.6.10.5. TPS curriculum sortie training may not be conducted concurrently with Phase I training.

3.6.11. Air-to-Air Refueling Tanker Test.

3.6.11.1. Definition. Air-to-Air Refueling Tanker Test training qualifies tanker aircrew to refuel new or modified aircraft.

3.6.11.2. Prerequisites: Air-to-Air Refueling Tanker qualification, Flight Test Orientation qualification. Required previous experience: none.

3.6.11.3. Training Classification Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

3.6.11.4. Training Requirements. As a minimum, Air-to-Air Refueling Tanker Test training will include boom limit procedures.

3.6.11.5. Air-to-Air Refueling Tanker Test training may not be conducted concurrently with Phase I training.

3.6.12. Airdrop Test.

3.6.12.1. Definition. Airdrop Test training qualifies aircrew in the aerial delivery of personnel, supplies, or equipment from an aircraft in-flight. Cargo aircraft such as the C-130 (and variants) or the C-17 are examples of aircraft capable of conducting airdrop operations.

3.6.12.2. Prerequisites. Airdrop qualification, Flight Test Orientation qualification. C-130/C-17 Loadmasters must be personnel airdrop qualified prior to completing Dummy Drop, Dummy Retrieval, or Tow Test. See MD attachment. Required previous experience: none.

3.6.12.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification with the following exception: C-130 and C-17 LM Dummy Drop, Dummy Retrieval, and Tow Test. If qualified for personnel airdrop in both the C-17 and C-130, completion of these training plans is applicable to both aircraft and need not be re-accomplished on the second aircraft.

3.6.12.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.6.12.5. Airdrop Test training may not be conducted concurrently with Phase I training.

3.6.13. **(Added-EDWARDSAFB)** Joint Helmet Mounted Cueing System (JHMCS). Use AFMC/A3V approved JHMCS training plan.

3.6.14. **(Added-EDWARDSAFB)** Tower Fly By (TFB). Use the AFMC A3V approved TFB training plan for this qualification. Unit commanders may accept qualification for pilots who have completed the USAF TPS TFB Flight Test Technique.

3.7. **Aerial Photographer Qualification**.

3.7.1. Unit commanders may authorize aerial photographers to perform airborne photographic duties in support of unit missions. This section outlines the minimum training required for military personnel in the 3V0XX Air Force Specialty Code (AFSC), Government Service personnel, and contractors to perform airborne photographic duties aboard ejection seat (rear cockpit) and non-ejection seat aircraft. Aerial photographers are classified IAW AFI 11-401, *Aviation Management.*

3.7.2. Prerequisites: Non Rated Aircrew (NRA) Phase I training culminating with a qualification certification on an AF Form 8a is a prerequisite to Aerial Photographer training and qualification for each MD. Note: Combat Camera personnel are classified as operational support flyers only and are not considered Non-rated Aircrew and/or Aerial Photographers until respective training and qualification certification is complete.

3.7.3. Training Classification. This training plan is command specified. There are two categories of Phase II training; ejection and non-ejection seat. Once Aerial Photographer ground and flight training is completed in any one ejection seat MD, subsequent Phase II Aerial Photographer training in another MD is limited to ground training only.

3.7.4. Training Requirements. The MD specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

3.7.4.1. Ground Training Requirements. An instructor pilot qualified in the respective aircraft will conduct this ground training. If a representative aircraft is unavailable a cockpit trainer may be substituted. Trainee will wear all applicable flight gear and have a representative camera system for use in this training. In addition to training specified by MD-specific attachments, aerial photographer training will include, as a minimum, the following:

3.7.4.1.1. Cockpit familiarization. This familiarization will include demonstration of equipment stowage; and discussion of any restrictions associated with aerial photography in the applicable aircraft (e.g., limited space in a fighter cockpit).

3.7.4.1.2. Emergency procedures. Emergency procedures training should include ground egress, bailout, ejection procedures with equipment in cockpit, and BOLD FACE/CAPS as applicable.

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

3.7.4.1.4. 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.

3.7.4.1.5. Equipment training will include practicing photography shooting skills on ground with each camera to ensure thorough familiarization prior to first flight with a camera.

3.7.4.1.6. Document completion of ground training on the applicable portion of the Aerial Photographer Qualification ground training syllabus.

3.7.4.2. Flying Training Requirements. Aerial photography flight training qualifies the photographer to carry cameras and associated equipment. Only cameras and associated gear that have been approved IAW AFI 11-202 Volume 3, may be used on board aircraft. Flying training is required only for ejection seat aircraft. This training should simulate a typical profile the crewmember will be required to fly. It will be flown as a dedicated two-ship under day VMC to the maximum extent possible. A Photo/Safety Chase qualified instructor pilot will conduct all flying training. Document training on the Aerial Photographer Qualification flight training grade-sheet.

3.7.4.2.1. The instructor pilot signature on the Aerial Photographer Qualification Ground Training Syllabus signifies that the chief photographer has approved the individual to begin flying training. A minimum of one flight will be accomplished prior to beginning Aerial Photographer qualification training listed below. This flight is strictly a familiarization flight with no camera system. Use the Non-Rated Aircrew Training Plan to train to, and document this familiarization flight.

3.7.4.2.2. Due to limited space and safety considerations, do not take more than two camera systems in fighter/trainer aircraft without prior approval from the unit commander. In addition, photographers may not carry more than one camera until the photographer is familiar and comfortable operating in the flying environment. Document this on the Aerial Photographer Qualification flight training grade sheet and associated AFMC Form 69. Annotate any restrictions on the applicable qualification roster (Letter of Xs).

3.7.4.2.3. Flying training should begin using simplest camera system and should include a representative sample of missions requiring photographic support. Ensure that crews perform inter-cockpit communication, radio calls and equipment management as would be completed during an actual test mission. Ensure mission data is reviewed after each mission and give the trainee feedback.

3.7.4.2.4. Once competency is demonstrated during an airborne training mission the aerial photographer will be cleared for "photo desired" missions only. Training officers will clear the aerial photographer for “photo required” missions based on proficiency, experience and instructor pilot/chief photographer concurrence. Document this on the flight training grade sheet and associated AFMC Form 69. Annotate any restrictions on the applicable qualification roster (Letter of Xs).

4. PHASE III - CONTINUATION TRAINING.

4.1. **General.** In addition to the continuation training guidance outlined in AFI 11-202 Volume 1 as supplemented, follow the guidance outlined in this instruction when qualified in AFMC aircraft.

4.1. **(EDWARDSAFB)** Unit commanders/CTF directors will establish test mission continuation training requirements not specified in this supplement or associated aircraft training manuals. These requirements will be specified in a unit operating instruction and coordinated with 412 OG/OGV for review.

4.1.1. Applicable aircrew training (e.g. air refueling contacts, rendezvous, etc.) accomplished during in-unit training establishes currency due dates for subsequent continuation training. Use the date of the flight that results in certification (i.e. flight evaluation or training completion sortie) as the currency initiation date.

Table 4. Aircrew Position Identifiers.

A	Other Aircrew Member (Non-rated)	N	Navigator
B	Boom Operator	O	Air Battle Manager
C	Copilot	P	Pilot
D	Parachutist	R	Navigator-Bombardier
E	Electronic Warfare Officer or DSO	S	Flight Surgeon
F	Flight Engineer	T	Flight Attendant
H	Flight Nurse	U	Unmanned Aerial System Pilot
J	Pararescue Member	V	Sensor Operator
K	Communications System Operator	W	Weapon System Officer
L	Loadmaster	Z	Operational Support or Battle Staff

4.2. **Minimum Aircrew Requirements.** **Table 5** is provided as a management aid in consolidating a list of recurring aircrew requirements. The applicable directive highlighted in parentheses takes precedence over **Table 5** and must be consulted for further information concerning requirements and applicability. **Table 5** doesn't relieve aircrew members from accomplishing additional training required by referenced or other directives. These are the minimum ground training requirements for unit ARMS products. The (**G**) denotes grounding items.

4.2. **(EDWARDSAFB)** An individual who instructs a class receives credit for that academic training requirement (e.g., IRC, CRM, Systems Refresher Training, etc.). All Non-Rated Aircrew and Operational Support Fliers who have maintained uninterrupted qualifications in ejection seat aircraft for 2 years or less will accomplish egress, equipment familiarization and hanging harness training every six months. If the Non-Rated Aircrew member or Operational Support Flier have reached 2 years or greater of uninterrupted qualifications maintained in ejection seat aircraft, Non-Rated Aircrew and Operational

Support Fliers may accomplish egress, equipment familiarization and hanging harness training every 12 months thereafter.

Table 5. Recurring Aircrew Requirements Summary.

Event Description	**Aircrew Position ID (Note 1)**
Every 5 Years	
USAF Physiological Training (**G**) (AFI 11-403, AFI 11-202 V1)	All except U
Every 3 Years	
Water Survival Training (AFI 16-1301)	All except U (Note 7) (Note 8)
Non-Combat Survival Training (AFI 16-1301)	All except U (Note 8)
CRM Academics (AFI 11-290)	All (Note 2)
Emergency Parachuting Training (**G**), (non-ejection seat aircraft) (AFI 11-301 V1, AFI 16-1301) (Prior to first flight)	All except U (Note 4) (Note 8)
Every 17 Months	
Written Instrument Exam (AFI 11-202 Volume 2)	P, N, R, W (Note 5)
Written Qualification Exam Closed Book (AFI 11-202 V2)	All except D,H,J,Z
Written Qualification Exam Open Book (AFI 11-202 V2)	All except A,D,H,J,S,Z (Note 9)
Emergency Procedures Evaluation (AFI 11-202 V2)	All
Night Vision Goggle Refresher (AFI 11-202 V1)	If Qualified
Instrument Refresher Course (AFI 11-202 V2, AFMAN 11-210)	P,C,R,N W,U (Note 6)
Every 12 Months	
Flight Physical Examination (AFI 48-123) (**G**)	All (Note 12)
Flight Records Review (AFI 11-401)	All
Anti-hijack Training (AFI 13-207)	All (Note 3)
CRM Exercise (AFI 11-290)	All (Note 2)
Emergency Egress Training (AFI 11-301 V1) (**G**) (Prior to first flight)	All except U
Aircrew Flight Equipment (AFI 11-301 V1)	All except U
Emergency Parachuting Training (ejection seat aircraft) (AFI 11-301V1, AFI 16-1301) (Prior to first flight) (**G**)	ALL (Note 4) (Note 8)
Aircraft Sim Refresher Training (AFI 11-2FT V1, Paragraph 4.6.1.)	P, C, F, N, R, W
G-Awareness Assessment (AFI 11-2FT V1, Paragraph 4.16)	P, W (Note 11)
Publications Check (AFI 11-215, AFI 11-202 V2)	All

Each Semiannual Training Period	
Aircraft Systems Refresher Training (Paragraph **4.6.3**.)	All except A,D,H,J,S,Z
Upon PCS Inbound	
Aircraft Portable and Fixed Fire Extinguisher Training (AFOSH Std 127-56) (Within 90 days of arrival)	All
Aircraft Marshaling Exam (AFI 11-218) (Prior to first flight)	P, B, C, F, L, N, W
Local Area Survival Training (Prior to first flight) (AFI 16-1301)	All except U
Aircrew Flight Equipment Familiarization (Prior to first flight) (AFI 11-301V1)	All except U
On Scene Commander Training	All

NOTES:

1. In conjunction with **Table 4,** units will use standard aircrew position identifiers listed in AFI 11-401 Table A2.3.

2. Test Parachutists are exempt.

3. All crewmembers whose aircraft frequently carry passengers.

4. All crewmembers that frequently perform duties on parachute equipped aircraft or perform missions requiring parachutes.

5. Required only for navigators/WSOs who have navigational instrument equipment or flight controls at their stations.

6. IRC must be completed before the end of every fourth quarter. See AFMAN 11-210 for details.

7. Personnel arriving from permanent change of station (PCS) or temporary duty (TDY) during a period when combat survival or water survival training is not available (i.e., winter months, pool unavailable) or required (staff assignments) are automatically granted a waiver to this requirement until 60 days following the first available training date. However, individuals will attend the academic portions of training prior to the first flight.

8. AFMC crewmembers will follow guidance outlined in AFI 11-202 Volume 1, this instruction, AFI 11-301 Volume 1, *Aircrew Flight Equipment* and AFI 16-1301, *Survival, Evasion, Resistance, Escape Program.* Contact AFMC/A3V for resolution of any perceived conflicts between these publications.

9. Open book exam requirements are at unit commander discretion for F-16, T-38, and C-12 NAVs/WSOs/EWOs.

10. On scene Commander Training is located on the AFMC/A3V Sharepoints website at: https://org.eis.afmc.af.mil/sites/HQAFMCA3/a3v/default.aspx..

11. Fighter/Trainer units only.

12. Flight Physical expiration is 455 days following examination IAW AFI 48-123 and AFI 44-170. Every effort should be made to complete recurring examinations within 12 months.

Table 5. (EDWARDSAFB) Recurring Aircrew Requirements Summary

Event Description	Aircrew Position ID (Note 1)
Upon PCS Inbound	
Aircraft Marshaling Exam (AFI 11-218) (complete within 30 days of EAFB arrival)	

4.3. **Continuation Training Management:** Aircrew members' continuation and additional training requirements will be managed IAW AFI 11-202 Volume 1 and this instruction using MAJCOM approved software

4.4. **Currency and Proficiency Requirements.** Specific restrictions involving currencies and proficiencies for Phase I and II qualifications are indicated in **Table 6** below. Crewmembers will maintain flying currency and proficiency in their assigned aircraft and crew position by accomplishing the requirements outlined in **Table 7** and **Table 8**. Each currency only applies to aircrew who are qualified in the event. The OG/CC or unit commander has the authority to determine which aircrew will maintain qualification in the listed events. Additional currencies may be specified in MD attachments and/or unit supplements to this instruction.

4.4. **(EDWARDSAFB)** NASA aircrew who fly with EAFB units may credit currency and proficiency requirements accumulated at NASA towards the requirements of this AFI provided the NASA and EAFB aircraft are the same (e.g., Beach 200/C-12), and the events are identical such as landing, instrument approach, etc.

Table 6. Phase I & II Currency/Recurrency Restriction Matrix.

Paragraph	Phase I Qualification	Multi-Qualification Currency (Note 1)	Cross MD Recurrency (Note 2)	Multi-Event Credit (Note 3)
4.5	**Currency/Proficiency Events & Req.**			
4.5.1	Sortie	N	N	N
4.5.2	Takeoff	N	N	N
4.5.3	Formation Takeoff	N	N	N
4.5.4	Formation Landing	N	N	N
4.5.5	Landing	N	N	N
4.5.6	Night Landing	N	N	N
4.5.7	Right or Rear Seat Landing (IP only)	N	N	N
4.5.8	Instrument Approach	Y	Y	N
4.5.9	Circling Approach	N	N	N
4.5.10	Simulated Engine Out Approach	N	N	N
4.5.11	Conversion Sortie	N	N	N
4.5.12	Touch and Go Landing	N	N	N
Paragraph	**Phase II Qualification**	**Multi-Qualification Currency (Note 1)**	**Cross MD Recurrency (Note 2)**	**Multi-Event Credit (Note 3)**
4.5	**Currency/Proficiency Events & Req.**			
	Common Mission Qualifications			
N/A	LAO	N/A	N/A	N/A
N/A	ILS PRM	N/A	N/A	N/A
N/A	Theater Indoctrination	N/A	N/A	N/A
	Tactical and Systems Mission Qualifications			
4.5.13	Air-to-Air Refueling Tanker	Y	N	N
4.5.14	Air-to-Air Refueling Receiver	N	Y	N
4.5.15	FCF/ACF	N	N	N
4.5.16	AHC/AHM	N	N	N
N/A	Fighter /Trainer Formation-Flight Lead	N/A	N/A	N/A
	Targeting Pod (TGP) (Pilot)			
4.5.17	TGP > 2k	N/A	N/A	N/A
4.5.18	TGP =< 2k	N/A	N/A	N/A
4.5.19	Navigation Pod (Fighter Only)	N/A	N/A	N/A
4.5.20	NVG Medium Altitude (>= MSA)	Y	Y	N
4.5.21	NVG Low Altitude (< MSA)	N	N	Y
4.5.22	Helmet-Mounted Cuing System	N/A	N/A	N/A

	(HMCS)			
4.5.23	Placeholder for future growth	N/A	N/A	N/A
	Air-to-Air Training Qualifications			
4.5.24	Intercept	Y	Y	N
4.5.25	Basic Fighter Maneuvers (BFM)	Y	Y	N
4.5.26	Air Combat Training (ACBT)	Y	Y	Y
	Air-to-Surface Weapon Delivery and Low Altitude Training Qualifications			
4.5.27	Air-to-Surface WD	Y	Y	N
4.5.28	Low Level Navigation	Y	Y	N
4.5.29	LASDT	N	Y	Y
4.5.30	TF/TA	N	N	Y
	Flight Test Mission Training			
N/A	Flight Test Orientation	N/A	N/A	N/A
N/A	Target	N/A	N/A	N/A
4.5.31	Chase	Y	Y	N
4.5.32	Ordnance Release Test	Y	Y	N
4.5.33	Hi AoA Familiarization	N	N	N
4.5.34	Hi AoA Test	N	N	Y
4.5.35	CFP	N	N	N
4.5.36	Loads	N	N	N
4.5.37	Flutter	N	N	N
4.5.38	Airstart (Single-Engine Aircraft)	N	N	N
4.5.39	Test Pilot School Curriculum	N	N	N
4.5.40	Air-to-Air Refueling Tanker Test	N	N	N
4.5.41	Airdrop	N	N	N

NOTES:

1. Multi-Qualification Currency. A "Y" in this column indicates that the accomplishment of this event updates currency in all aircraft in which the crewmember is qualified. EXCEPTION for aircrew who are multi-qualified in a combination of manned and unmanned aircraft (i.e., MQ-1/9 and C-12): If event is accomplished in a manned aircraft, aircrew may update currency in all manned and unmanned aircraft in which they are qualified. However, if event is accomplished in an unmanned aircraft, currency may only be updated in other unmanned aircraft.

2. Cross MD Recurrency. A "Y" in this column indicates that an IP from another MD can provide in-flight instruction to update this currency, provided that IP possesses this qualification in their respective MD.

3. Multi Event Credit. A "Y" in this column indicates that a currency update of this qualification may update the currency of other qualification(s). See individual paragraphs for more details.

4.4.1. Currency/proficiency due for all events listed in **Table 7** and **Table 8** is established upon successful completion of an Air Force Form 8 evaluation or the

applicable Phase II training plan. Currency/proficiency requirements begin the day of the successful flight evaluation or after the final upgrade sortie is completed.

4.4.1. **(EDWARDSAFB)** When not specifically addressed in AFI 11-2FTv1 aircraft MDS specific attachments, Aircrew, Non-rated Aircrew and Operational Support Fliers who are non-current for any mission currency event listed in the aircraft MDS specific attachments, will not perform the non-current event unless under the supervision of an instructor.

4.4.2. Currency. **Table 7** outlines AFMC basic currency requirements by crew position. Crewmembers non-current for requirements listed with an asterisk (*) will not perform any aircrew duties unless under the supervision of an instructor. For non-asterisk events, crewmembers will not perform those particular events until currency is regained.

4.4.2. **(EDWARDSAFB)** Non-Rated Aircrew who become non-current for a sortie will fly with a rated or CEA instructor. Non-Rated Aircrew who become unqualified will complete initial qualification or requalification training.

4.4.2.1. The currency period ends when the aircrew member fails to accomplish the required events in the applicable time periods; (e.g., the currency period for pilot landings ends 45 days after the last landing event). Aircrew will regain currency by accomplishing delinquent items under the supervision of an instructor.

4.4.2.2. Some MD attachments contain the phrase “Loss of currency exceeding “x” months requires the applicable training.” Applicable training is defined as the training event ground and flight requalification training for that qualification.

Table 7. Basic Event Currency Requirements.

Position	Training Item	Number/Frequency
Pilot (Except RPA Pilots) Phase I Event Currency.	Sortie*	1/45
	Formation Takeoff (Fighter/Trainer)	1/180
	Formation Landing (Fighter/Trainer)	1/180
	Landing*	1/45 (Notes 7 & 8)
	Night Landing	1/180 (Notes 1, 7 & 8)
	Instrument Approach*	1/45 (Note 7)
	Simulated Engine Out Approach*	1/90 (1/60 F-16) (Notes 2 & 7)
	Conversion Sortie	1/180 (Note 7)
Pilot (Except RPA Pilots) Phase II Event Currency.	Air-to-Air Refueling Tanker	1/180
	Air-to-Air Refueling Receiver	1/180 (Notes 7 & 8)
	FCF/ACF	1/180 (Notes 7 & 9)
	AHC/AHM (F-15 & F-22 only)	1/120
	TGP	(Note 6)
	Navigation Pod Operations	(Note 6)
	NVG (Med Altitude)	1/180 (Note 7)
	NVG (Low Altitude)	1/90 (Notes 4 & 7)
	HMCS	(Note 6)
	HARM Targeting System	(Note 6)
	Intercept (Fighter/Trainer)	1/180 (Note 7)
	BFM (Fighter/Trainer)	1/90
	ACBT (Fighter/Trainer)	1/60
	Air-to-Surface Weapon Delivery	1/180 (Note 7)
	Low Level Navigation	1/180 (Notes 7 & 11)
	LASDT	1/90
	TF/TA (Night IMC/VMC or Day IMC)	1/90 (Notes 7 & 12)
	Chase	1/180
	High AoA Familiarization	(Note 6)
	High AoA Test	(Note 6)
	CFP	1/90
	Loads	(Note 6)
	Flutter	(Note 6)
	Airstart	(Note 6)
	Airdrop	(Note 6)
RPA Pilot	Phase 1 and phase 2 events	(Note 6)
Weapon System Operator Phase I Currency	Sortie*	1/45 (Note 5)
Weapon System Operator Phase II currency	Air-to-Air Refueling RDZ (B-1 only)	1/180 (Note 7)
	FCF/ACF	1/180 (Notes 7 & 9)
	NVG (Med Altitude)	1/180 (Note 7)

	NVG (Low Altitude)	1/90 (Note 4)
	Air-to-Surface Weapon Delivery	1/180 (Note 7)
	Low Level Navigation	1/180 (Notes 7 & 11)
	LASDT	1/120
	TF/TA (Night IMC/VMC or Day IMC)	1/90 (Notes 7 & 12)
	Intercept (Fighter/Trainer)	1/180 (Note 7)
	BFM (Fighter/Trainer)	1/180
	ACBT (Fighter/Trainer)	1/90
Navigator Phase I Currency	Sortie *	1/60 (Note 5)
	Conversion Sortie	1/180 (Note 7)
Navigator Phase II Currency	Air Refueling RDZ	1/180 (Note 7)
	Airdrop	(Note 6)
	FCF/ACF	1/180 (Notes 7 & 9)
	Low Level Navigation	1/180 (Notes 7 & 11)
	LASDT	1/120
	Air-to-Surface Weapon Delivery	1/180 (Note 7)
Electronic Warfare Officer	Sortie*	1/60 (Note 5)
Air Battle Manager	Sortie*	1/90
Remote Sensor Operator	Phase 1 and Phase 2 Events	(Note 6)
Career Enlisted Aviator	Sortie*	1/60
	Air-to-Air Refueling Tanker (Boom Operator contact)	1/60 (Note 7)
	Air-to-Air Refueling Receiver (Flight Engineer, Special Mission Aviator)	1/180 (Notes 7 & 8)
	Airdrop (Loadmaster)	(Note 6)
	FCF/ACF	1/180 (Notes 7 & 9)
Flight Surgeon	Sortie*	1/60
Non-Rated Aircrew or Active Operational Support Crewmembers (ejection seat aircraft)	Sortie*	1/60 (Note 3)
Non-Rated Aircrew or Active Operational Support Crewmembers (non-ejection seat aircraft)	Sortie*	1/90 (Note 3)

NOTES:

(*) Crewmembers non-current for requirements listed with an asterisk (*) will not perform any aircrew duties unless under the supervision of an instructor. For non-asterisk events, crewmembers will not perform those particular events until currency is regained.

1. Maintaining a cadre of night qualified aircrew members is at the discretion of the OG/CC. If a night qualification is maintained, the night currency requirements in **Table 7** apply**.** The night

qualification will be maintained on the letter of Xs. Lack of a night qualification will be annotated on the AF Form 8 as “Day Only” restriction, even if the restriction will be lifted at a later date. Pilots may credit a night landing for currency for landings accomplished at night as defined in AFI 11-202 Vol 3.

2. Applies to each MD that performs airborne simulated engine out patterns as outlined in specific MD attachments. Simulator credit is allowed for Multi-Engine aircraft only (see Note 7). EXCEPTION: Reference Attachment 13, for F-35 Training Guidelines and SFO currency in simulators.

3. For operational support crewmembers, currency requirements do not mandate flying or approved man-months. Man-months of approved hazardous duty pay must be pre-approved.

4. Applies to aircrew members who accomplish NVG flight below MSA (including landings) without the aid of TF/TA systems. See MD attachments for additional NVG currencies. Simulator credit is allowed for C-Design aircraft only (see Note 7).
type

5. WSO/NAV/EWO positions for F-16 and T-38 aircraft have a sortie currency requirement of 1/45 days. The equivalent position in C-12 aircraft has a sortie currency requirement of 1/60 days.

6. No currency requirement encompassing all MDs exists for this qualification. See MD attachments for more specific requirements.

7. Event may be accomplished for credit in an AFMC approved flight simulator (with motion active) if accomplished while flight current; before flight currency expiration. Multiple simulator currency updates for the same event may be performed for credit within the flight currency period; however, once the flight currency period expires, events performed in the simulator may not be credited for currency extension. If event currency is lost by going beyond flight currency expiration date without a simulator duration extension, regaining currency is per standard AFI 11-2FTv1 processes, such as flying (not simulator) with an instructor supervising the accomplishment of the non-current event to a proficient level.
Example: Flight currency for an event with a 45 day duration expires 30 Jun. Event is performed in the simulator on 15 Jun (before flight expiration). Event currency is extended to 30 July (45 days from 15 Jun sim date). If event is performed again in the simulator on 30 Jun, event currency would then be extended to 14 Aug (45 days from 30 Jun sim date). To extend the currency beyond 14 Aug would require accomplishing the event in flight.

8. Simulator credit for C & E-Design aircraft only.

9. For Simulator credit, accomplish complete -6CF profile, within simulator capability and/or crew construct.

10. Simulator credit allowed only for Distributed Mission Operations (DMO)/Mission Training Center (MTC), or equivalent.

11. Simulator must have Terrain visual presentation.

12. Simulator conditions must be Night and/or IMC.

Table 7. (EDWARDSAFB) Basic Event Currency Requirements

Position	Training Item	Number/Frequency
Pilot	Tower Fly By	1/365

4.4.2.3. Conversion/Difference Requirements. Unless otherwise directed by the applicable MD-specific attachment or associated unit supplements, conversion/difference training is current as long as qualification is held for the mission/design aircraft in which training was accomplished. Conversion/difference training must be re-accomplished when crewmember's become unqualified as per AFI 11-202 Vol 1. Training events accomplished during conversion/difference training can be credited toward basic currency/proficiency flying requirements.

4.4.3. Proficiency. **Table 8** lists the AFMC proficiency requirements to be accomplished semi-annually (1 Oct- 31 Mar and 1 Apr-30 Sep) by crew position. Events accomplished during Phase I initial qualification or requalification training will not be credited toward these requirements except those accomplished on a successful AF Form 8 evaluation. Training events accomplished during conversion/difference training can be credited toward basic proficiency flying requirements. After successful completion of Phase I qualification, training events accomplished during Phase II training may be credited toward Phase 1 currency and proficiency requirements. Flying units will establish procedures so commanders and supervisors can monitor crewmember progress toward accomplishing an approximately proportionate share of proficiency requirements. Proficiency requirements, to the maximum extent possible, should be accomplished uniformly throughout the semiannual training period.

4.4.3. **(EDWARDSAFB)** When not specifically addressed in AFI 11-2FTv1 aircraft MDS specific attachments, Aircrew, Non-rated Aircrew and Operational Support Fliers who are overdue for any flying mission proficiency event will not perform the event unless under the supervision of an instructor. 412 OG/CC is waiver authority for permitting flight without instructor supervision.

4.4.3.1. Each proficiency requirement only applies to aircrews that are qualified in the event. The OG/CC or unit commander has the authority to determine which aircrews are qualified in the listed events. Additional proficiency requirements may be specified in MD attachments and/or unit supplements to this instruction.

4.4.3.2. At the conclusion of each semi-annual training period the training office will provide the commander a list (in the form of an End of Half (EOH) report) of those personnel that did not meet proficiency requirements. The OG/CC will determine the corrective action. Corrective action may range from no action required to mission requalification. Forward a copy of the EOH report with corrective actions to AFMC/A3V.

Table 8. Semiannual Basic Event Proficiency Training Requirements.

Line	Position	Aircraft	Training Item	Months Available 6 5 4 3 2 1 Number Required
1	Pilot	Bomber Cargo Recon Tanker Tiltrotor	Sorties: API-1 API 6/8 (Note 6)	15 13 11 9 6 3 12 10 8 6 4 2
			Precision Approaches (Notes 1 & 2)	6 5 4 3 2 1
			Non-precision Approaches (Notes 1 & 2)	6 5 4 3 2 1
			Total Landings	12 10 8 6 4 2
			Takeoffs (either seat) (Note 2) (Tiltrotor)	6 5 4 3 2 1 (12 10 8 6 4 2)
			Circling Approach	1 1 1 1 1 1
			Touch and Go Landings (Note 4) (N/A for Tiltrotor)	4 4 3 2 1 1
		Fighter Trainer	Sorties: API-1 API-6/8 (Note 6)	45 38 30 22 15 7 30 25 20 15 10 5
			Precision Approaches (Notes 1 & 2)	6 5 4 3 2 1
			Non-precision Approaches (Notes 1 & 2)	6 5 4 3 2 1
			Total Landings	15 13 10 8 5 3
			Circling Approach	1 1 1 1 1 1
			Touch and Go Landings (Note 4)	4 4 3 2 1 1
			Right or Rear Seat Landings (IP only)	4 4 3 2 1 1
			Chase	3 3 2 2 1 1
		Helicopter	Sortie	18 15 12 9 6 3
			Precision Approaches (Notes 1 & 2)	6 5 4 3 2 1
			Non-precision Approaches (Notes 1 & 2)	6 5 4 3 2 1
			Total Landings	18 15 12 9 6 3
			Takeoffs (either seat) (Note 2)	18 15 12 9 6 3
			Circling Approach	1 1 1 1 1 1
2	WSO	Fighter Trainer	Sorties (F-16, T-38, C-12, see Note 5)	30 25 20 15 10 5
		Bomber	Sorties	6 5 4 3 2 1
3	Navigator EWO Air Battle Manager	Cargo Recon Tanker Tiltrotor Bomber	Sorties (F-16, T-38, C-12, see Note 5)	6 5 4 3 2 1

4	Career Enlisted Aviator	Helicopter	Sorties	18	15	12	9	6	3
		All other aircraft	Sorties	6	5	4	3	2	1
5	RP RSO	RPA	See MD Specific Attachment						
6	Flight Surgeon	All Aircraft	Sorties	6	5	4	3	2	1
			Night sortie (Note 3)	1	1	1	1	1	1

NOTES:

Each proficiency requirement only applies to aircrews that are qualified in the event. The OG/CC or unit commander has the authority to determine which aircrews are qualified in the listed events. Additional proficiency requirements may be specified in MD attachments and/or unit Supplements to this Instruction.

1. In order to log an instrument approach, primary instrument or primary simulated instrument time must be logged on the AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*.

2. Up to 50 percent of this requirement may be logged in a AFMC/A3V approved simulator. The most current list of AFMC approved simulators is located on the AFMC/A3V Sharepoints website at: https://org.eis.afmc.af.mil/sites/HQAFMCA3/a3v/default.aspx.

3. Flight surgeons may credit a night sortie for sorties that meet requirements IAW AFI 11-401 accomplished at night as defined in AFI 11-202 Vol 3.

4. A Touch and Go Landing can be credited as both a takeoff event and a landing event. The Touch and Go Landing requirement for MP/FPs applies only to pilots trained and certified to perform touch & go landings.

5. WSO/NAV/EWO positions for F-16, T-38 require 30 sorties per half and C-12 aircraft require 6 sorties per half

6. Contractor pilots will be considered API 6, for the purpose of proficiency requirements, regardless of level of assignment/attachment.

4.5. **Currency/Proficiency Events and Requirements**. In order to update event currency or credit proficiency (as applicable) aircrew must perform events as described in the following paragraphs. In addition, MD attachments to this instruction identify specific ground and flying continuation training requirements necessary to ensure mission readiness. In the absence of guidance, the unit OG/CC will determine which training is needed for aircrew members to regain mission currency/proficiency when established mission requirements are not met. If all qualified instructors have lost currency in a mission event, the flying unit commander will request support of a current instructor from another AFMC unit

or the lead command. In the absence of such support, the OG/CC will submit a training plan to AFMC/A3V for approval that allows select instructors to regain currency without supervision.

4.5.1. Sortie.

4.5.1.1. Pilot Sortie Requirements. Pilot sortie currency may be updated and proficiency may be credited when the following minimums are met:

4.5.1.1.1. Unless otherwise specified in a specific MD attachment, an authorized Mission pilot must perform two of the events listed in **Table 7** or **Table 8** or MD attachment currency or proficiency events list. EXCEPTION: Pilots flying a single-piloted aircraft may receive sortie credit if they perform authorized flight test events in conjunction with an approved test plan and log at least .5 hours of primary flight time.

4.5.1.1.2. An authorized Instructor pilot may perform two of the events listed in **Table 7** or **Table 8**, or perform one event and instruct one event listed in **Table 7, Table 8** or appropriate attachment. Exception: A USAF TPS IP/EP on a USAF TPS student curriculum sortie may perform a single event of **Table 7** or **Table 8** for sortie credit. This event may be credited when a crew position is occupied and instructor time is logged.

4.5.1.1.3. An authorized Evaluator pilot may complete the Mission pilot criteria, Instructor pilot criteria or evaluate two events listed in **Table 7** or **Table 8** This event may be credited when evaluator time is logged.

4.5.1.1.4. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD aircraft IP.

4.5.1.1.5. Proficiency requirements- this event is not transferable across multiple MDs, does not count for multiple event credit.

4.5.1.2. Navigator/WSO/EWO/CSO Sortie Requirements. Sortie currency may be updated and proficiency may be credited when a crew position is occupied and the duties associated with that position are performed or when evaluating/instructing if evaluator or instructor time is logged. If mission requirements require OCONUS flight, flying units must ensure continuation training supports over-water navigator proficiency training.

4.5.1.2.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and can be updated with an instructor.

4.5.1.2.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit.

4.5.1.3. Air Battle Manager (ABM) Sortie Requirements. ABMs may update sortie currency by occupying a mandatory crew position and perform the duties associated with that position or when evaluating or instructing if they log evaluator or instructor time.

4.5.1.3.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and can be updated with an instructor.

4.5.1.3.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit.

4.5.1.4. Career Enlisted Aviator Sortie Requirements.

4.5.1.4.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and can be updated with an instructor.

4.5.1.4.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit.

4.5.1.5. Flight Engineer and Special Mission Aviator Sortie Requirements.

4.5.1.5.1. Currency requirements. The individual must perform "primary" flight engineer or Special Mission Aviator duties to include accomplishment of the preflight and all normal checklists, as applicable, to log a currency sortie. The "primary" flight engineer is defined as the single individual that occupies the flight engineer station. Additional flight engineers or Special Mission Aviators required for mission accomplishment are not considered "primary" flight engineers/Special Mission Aviators for crediting a currency sortie.

4.5.1.5.2. Proficiency requirements. This sortie requirement may be met by accomplishing any of the following: 1) Accomplishment of a currency sortie. 2) Accomplishment of the duties required of additional flight engineers (scanner crew position) on aircraft requiring two flight engineers (minimum crew as defined in the applicable flight manual). Duties must include preflight and accomplishment of procedures as specified in the flight manual. 3) Accomplishment of duties as the "primary" flight engineer or Special Mission Aviator when the flight begins with an engine running crew change (ERCC). 4) Accomplishment as an instructor/evaluator when instructing/evaluating an individual at the primary flight engineer or Special Mission Aviator position (Instructing an individual in scanner duties does not meet this requirement).

4.5.1.6. Loadmaster Sortie Requirements.

4.5.1.6.1. Currency requirements. The individual must perform the flight manual required preflight, flight, and post flight, as well as accomplish those duties required for aircraft on/off loading or aerial delivery of cargo or personnel.

4.5.1.6.2. Proficiency requirements. This sortie requirement may be met by: 1) Accomplishment of a currency sortie. 2) Completion of flight manual required loadmaster duties in flight. 3) Instructing or evaluating an individual conducting loadmaster duties in flight. If the mission requires two loadmasters (i.e. airdrop) then both may credit sorties.

4.5.1.7. Boom Operator Sortie Requirements. The individual must accomplish, instruct, or evaluate the flight manual required preflight, flight and post flight duties.

4.5.1.7.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and can be updated with an instructor.

4.5.1.7.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit.

4.5.1.8. All other CEAs (Gunners, Flight Attendants, Communication System Operators, Sensor Operators, Linguists) Sortie Requirements. The individual must accomplish, instruct, or evaluate the flight manual required preflight, flight and post flight duties.

4.5.1.8.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and can be updated with an instructor.

4.5.1.8.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit.

4.5.1.9. Flight Surgeon Sortie Requirements. Any airborne event constitutes a sortie.

4.5.1.9.1. Currency requirements. Currency may be updated in any aircraft in which they are qualified. This event is transferable across multiple MDs, does not count for multiple event credit and must be regained with an instructor.

4.5.1.9.2. Proficiency requirements. This event is transferable across multiple MDs, does not count for multiple event credit. Flight surgeon training requirements will be completed IAW AFI 11-202 Volume 1 and this paragraph. At least 50 percent of their semi-annual training requirements will be accomplished in their primary aircraft.

4.5.1.10. Non-rated Aircrew Sortie Requirements. Any airborne event constitutes a sortie. Units may define additional sortie requirements for non-rated aircrew in their supplements to this AFI.

4.5.1.10.1. Currency Requirements. Non-rated crew members will meet the Basic Event Currency Requirements in Table 7 for each category aircraft (i.e., ejection seat vs. non-ejection seat) in which they are qualified. Example: NRA qualified in both an ejection seat aircraft (F-16) and a non-ejection seat aircraft (C-130) are required to complete an ejection seat sortie 1/60 days, and a non-ejection seat sortie 1/90 days – or sortie currency will be lost. To regain currency, a sortie must be accomplished with an MDS instructor on-board.

4.5.1.10.2. Proficiency Requirements. None.

4.5.2. Takeoff. To log this event, accomplish a takeoff in accordance with flight manual procedures.

4.5.2.1. Currency requirements. There is no currency requirement associated with this specific event.

4.5.2.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

4.5.3. Formation Takeoff. To log this event, accomplish a formation takeoff from the lead or wing position.

4.5.3.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an IP.

4.5.3.1. **(EDWARDSAFB)** A grade of "P" on the applicable AFMC Form 68 is sufficient to qualify aircrew in this event. The unit-training officer may use these performance dates to establish initial currency in ARMS. Regain currency under the supervision of an instructor occupying the right seat/rear cockpit of the student's aircraft or from an element aircraft. A pilot upgrading to instructor who is current will be current as an instructor. In those aircraft training manuals where formation takeoffs are not required in Phase I Training, a satisfactory wing takeoff under the supervision of a current instructor will qualify the individual. If there is no formation take off Form 68 in the aircraft specific supplement document this training on any Phase II AFMC Form 68.

4.5.3.2. Proficiency requirements. None.

4.5.4. Formation Landing. To log this event, accomplish a formation landing from the lead or wing position.

4.5.4.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an IP.

4.5.4.1. **(EDWARDSAFB)** A grade of "P" on the applicable AFMC Form 68 is sufficient to qualify aircrew in this event. The unit-training officer may use these performance dates to establish initial currency in ARMS. Regain currency under the supervision of an instructor occupying the right seat/rear cockpit of the student's aircraft or from an element aircraft. A pilot upgrading to instructor who is current will be current as an instructor. In those aircraft training manuals where formation landings are not required in Phase I Training, a satisfactory wing landing under the supervision of a current instructor will qualify the individual. If there is no formation landing Form 68 in the aircraft specific supplement document this training on any Phase II AFMC Form 68.

4.5.4.2. Proficiency requirements. None.

4.5.5. Landing. To log this event, accomplish a full stop, stop and go, or touch and go landing.

4.5.5.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD aircraft IP.

4.5.5.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit.

4.5.6. Night Landing. To log this event, accomplish a night (as defined in AFI 11-202 Vol 3) full stop, stop and go or touch and go landing.

4.5.6.1. Currency requirements. This event is not transferable across multiple MDs, does credit night landing and total landing currency and must be regained with an appropriate MD aircraft IP.

4.5.6.2. Proficiency requirements. None.

4.5.7. Right or Rear Seat Landing (IP only). To log this event, accomplish a right or rear seat touch and go, stop and go, or full stop landing.

4.5.7.1. Currency requirements. This event is not transferable across MDs, does not count for multiple event credit and must be regained with an appropriate MD aircraft IP.

4.5.7.2. Proficiency requirements. This event is not transferable across MDs, does not count for multiple event credit.

4.5.8. Instrument Approach. To log this event, accomplish a non-precision or precision approach from the final approach fix to a missed approach, touch and go, stop and go, or full stop landing.

4.5.8.1. Currency requirements. This event is transferable across MDs. EXCEPTION for aircrew who are multi-qualified in a combination of manned and unmanned aircraft (i.e., MQ-1/9 and C-12): If event is accomplished in a manned aircraft, aircrew may update currency in all manned and unmanned aircraft in which they are qualified. However, if event is accomplished in an unmanned aircraft, currency may only be updated in other unmanned aircraft. This event does not count for multiple event credit and must be regained with an appropriate MD aircraft IP.

4.5.8.2. Proficiency requirements. This event is transferable across MDs, does not count for multiple event credit.

4.5.9. Circling approach. To log this event, accomplish a circling approach to a missed approach, touch and go, stop and go, or full stop landing.

4.5.9.1. Currency requirements. There is no currency requirement associated with this specific event.

4.5.9.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit.

4.5.10. Simulated Engine Out Approach. To log this event, accomplish a simulated engine-out approach in accordance with flight manual procedures, to a go around, touch and go, stop and go, or full stop landing.

4.5.10.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD aircraft IP.

4.5.10.2. Proficiency requirements. This event is not transferable across MDs, does not count for multiple event credit. See MD attachment for specific guidance.

4.5.11. Conversion Sortie.

4.5.11.1. Pilot Conversion Sortie. To log this event, accomplish a minimum of 2 events as specified in **Table 6** for the aircraft to which the pilot has completed conversion training.

4.5.11.1.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD aircraft IP.

4.5.11.1.2. Proficiency requirements. None.

4.5.11.2. Navigator/WSO/EWO/CSO Conversion Sortie. To log this event, the crewmember must perform duties in a mandatory crew position while accomplishing a sortie as defined above in the aircraft to which the individual has completed conversion training.

4.5.11.2.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD aircraft instructor.

4.5.11.2.2. Proficiency requirements. None.

4.5.11.3. CEA Conversion Sortie. To log this event, accomplish a sortie as defined above in the aircraft to which the individual has completed conversion training.

4.5.11.3.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD aircraft instructor.

4.5.11.3.2. Proficiency requirements. None.

4.5.12. Touch and Go Landing. To log this event, accomplish a Touch and Go Landing in accordance with flight manual procedures.

4.5.12.1. Currency requirements. There is no currency requirement associated with this specific event.

4.5.12.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

4.5.13. Air-to-Air Refueling Tanker.

4.5.13.1. Pilot Air-to-Air Refueling Tanker. To log this event, the pilot must perform duties in a mandatory crew position while a receiver is in the contact position.

4.5.13.1.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD aircraft instructor.

4.5.13.1.2. Proficiency requirements. None.

4.5.13.2. Boom Operator Air-to-Air Refueling Tanker. To log this event, operate the tanker boom for one contact with a receiver aircraft.

4.5.13.2.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an

appropriate MD aircraft instructor.

4.5.13.2.2. Proficiency requirements. None.

4.5.14. Air-to-Air Refueling Receiver.

4.5.14.1. Pilot Air-to-Air Refueling Receiver. To log this event, pilot the receiver aircraft in the contact position. Refueling from any flight control equipped seat may be utilized to accomplish this event.

4.5.14.1.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD IP. Each receiver pilot scheduled to fly a preplanned overseas deployment, which includes air refueling, will accomplish a refueling event within the 90-day period before the scheduled deployment date. This refueling should be done at night if there is any planned night refueling.

4.5.14.1.2. Proficiency requirements. None.

4.5.14.2. Navigator/WSO /CSO Air-to-Air Refueling Receiver Rendezvous. To log this event, accomplish a rendezvous per flight manual and ATP-56(B) procedures.

4.5.14.2.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with a same MD aircraft instructor.

4.5.14.2.2. Proficiency requirements. None.

4.5.14.3. CEA (Flight Engineer, Special Mission Aviator) Air-to-Air Refueling Receiver. To log this event, accomplish duties per flight manual procedures.

4.5.14.3.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD instructor.

4.5.14.3.2. Proficiency requirements. None.

4.5.15. FCF/ACF.

4.5.15. **(EDWARDSAFB)** Qualified FCF crewmembers will log an FCF sortie on any O-8 sortie. In addition, qualified crewmembers may log an FCF sortie when accomplishing the required events using the appropriate T.O. –6CL-1/2/3/4/5 checklists as applicable. For fighter/trainer aircraft, when conducting FCF qualification or proficiency training on non-FCF sorties, all crewmembers are required to be FCF qualified. For heavy aircraft, only those crewmembers who are FCF qualified will accomplish or instruct the events. In all cases, individuals who are FCF qualified and noncurrent will be supervised by an FCF qualified/current instructor. Exception: If a specific event is restricted to “FCF only”, then all crewmembers are required to be FCF current and qualified or under the supervision of an FCF qualified instructor.

4.5.15.1. Pilot FCF/ACF. To log this event, accomplish the following events as a minimum: Any one preflight event (check) and at least three in-flight events (system operations checks) from the pilot procedures in T.O. 1X-1X-6CF-1. Aircrew may

update FCF/ACF currency by completing only part of the FCF or ACF profile if the minimum required events as specified in the unit supplement are accomplished.

4.5.15.1.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

4.5.15.1.2. Proficiency requirements. None.

4.5.15.2. Navigator/WSO/EWO FCF/ACF. To log this event, accomplish any three in-flight events (total) from the WSO/EWO procedures in T.O. 1X-1X-6CF-1. Aircrew may update FCF/ACF currency by completing only part of the FCF or ACF if the minimum required events as specified in the unit supplement are accomplished.

4.5.15.2.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

4.5.15.2.2. Proficiency requirements. None.

4.5.15.3. CEA FCF/ACF. To log this event, accomplish any three in-flight events (total) from the CEA procedures in T.O. 1X-1X-6CF-1. Aircrew may update FCF/ACF currency by completing only part of the FCF or ACF if the minimum required events as specified in the unit supplement are accomplished.

4.5.15.3.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an Instructor qualified in a different MD.

4.5.15.3.2. Proficiency requirements. None.

4.5.16. Advanced Handling Characteristics/Advanced Handling Maneuvers. To log this event, accomplish at least two advanced handling maneuvers.

4.5.16.1. Currency requirements. See MD attachment.

4.5.16.2. Proficiency requirements. See MD attachment.

4.5.17. TGP Above 2000 ft.

4.5.17.1. Currency requirements. See MD attachment.

4.5.17.2. Proficiency requirements. See MD attachment.

4.5.18. TGP at or Below 2000 ft.

4.5.18.1. Currency requirements. See MD attachment.

4.5.18.2. Proficiency requirements. See MD attachment.

4.5.19. Navigation Pod Operations.

4.5.19.1. Currency requirements. See MD attachment.

4.5.19.2. Proficiency requirements. See MD attachment.

4.5.20. NVG Medium Altitude (>= MSA).

4.5.20.1. Pilot NVG Medium Altitude. To log this event, accomplish a sortie at night with at least 10 minutes of NVG usage above the MSA.

4.5.20.1.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.20.1.2. Proficiency requirements. None.

4.5.20.2. Navigator/WSO/EWO NVG Medium Altitude. To log this event, accomplish a night sortie with at least 10 minutes of NVG usage above the MSA.

4.5.20.2.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.20.2.2. Proficiency requirements. None.

4.5.21. NVG Low Altitude (< MSA).

4.5.21.1. Pilot NVG Low Altitude. To log this event, accomplish a night sortie with at least 15 minutes of NVG usage below the MSA.

4.5.21.1.1. Currency requirements. This event is not transferable across multiple MDs, does count (low Level) for multiple event credit and cannot be updated with an IP in a different MD.

4.5.21.1.2. Proficiency requirements. None.

4.5.21.2. Navigator/WSO/EWO NVG Low Altitude. To log this event, accomplish a night sortie with at least 15 minutes of NVG usage below the MSA.

4.5.21.2.1. Currency requirements. This event is transferable across multiple MDs, does count (low Level) for multiple event credit and can be updated with an IP in a different MD.

4.5.21.2.2. Proficiency requirements. None.

4.5.22. Helmet-Mounted Cuing System (HMCS).

4.5.22.1. Currency requirements. See MD attachment.

4.5.22.2. Proficiency requirements. See MD attachment.

4.5.23. Placeholder.

4.5.23.1. Currency requirements. See MD attachment.

4.5.23.2. Proficiency requirements. See MD attachment.

4.5.24. Intercept.

4.5.24.1. Pilot Intercept. To log this event, accomplish at least one Beyond Visual Range (BVR) engagement using current tactics and conclude in terminal maneuvering by briefing and flying an intercept event as blue air or training aid/target that exercises at least limited air-to-air training rules.

4.5.24.1.1. Currency requirements. This event is transferable across multiple

MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.24.1.2. Proficiency requirements. None.

4.5.24.2. Navigator/WSO Intercept. To log this event, accomplish at least one Beyond Visual Range (BVR) engagement to Within Visual Range (WVR) terminal maneuvering by briefing and flying an intercept event as blue air or training aid/target that exercises at least limited air-to-air training rules.

4.5.24.2.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.24.2.2. Proficiency requirements. None.

4.5.25. Basic Fighter Maneuvers (BFM).

4.5.25.1. Pilot BFM. To log this event, accomplish at least two BFM engagements.

4.5.25.1.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.25.1.2. Proficiency requirements. None.

4.5.25.2. Navigator/WSO/EWO BFM. To log this event, accomplish at least two BFM engagements.

4.5.25.2.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.25.2.2. Proficiency requirements. None.

4.5.26. Air Combat Training (ACBT).

4.5.26.1. Pilot ACBT. To log this event, accomplish at least 2 engagements, as blue air or training aid/target, with three or more aircraft, implementing unlimited air-to-air training rules as defined in AFI 11-2FT Vol 3.

4.5.26.1.1. Currency requirements. This event is transferable across multiple MDs, may count (BFM, Intercept) for multiple event credit and can be updated with an IP in a different MD.

4.5.26.1.2. Proficiency requirements. None.

4.5.26.2. Navigator/WSO/EWO ACBT. To log this event, accomplish at least 2 engagements, as blue air or training aid/target, with three or more aircraft, implementing unlimited air-to-air training rules as defined in AFI 11-2FT Vol 3.

4.5.26.2.1. Currency requirements. This event is transferable across multiple MDs, may count (BFM, Intercept) for multiple event credit and can be updated with an IP in a different MD.

4.5.26.2.2. Proficiency requirements. None.

4.5.27. Air to Surface WD**.**

4.5.27.1. Pilot Air-to-Surface WD**.** To log this event, accomplish a simulated, or an actual air-to-surface weapon release. MD-specific procedures and restrictions for weapons delivery are outlined in the applicable MD attachment to this instruction. Actual or simulated A/A weapon employment does not update Air-to-Surface WD currency.

4.5.27.1.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit, and can be updated with an IP in a different MD.

4.5.27.1.2. Proficiency requirements. None.

4.5.27.2. Navigator/WSO Air-to Surface WD. To log this event, accomplish a simulated, or an actual weapon release. MD-specific procedures and restrictions for weapons delivery are outlined in the applicable attachment to this instruction. Actual or simulated A/A weapon employment does not update WD currency.

4.5.27.2.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

4.5.27.2.2. Proficiency requirements. None.

4.5.28. Low Level Navigation.

4.5.28.1. Pilot Low Level Navigation. To log this event, accomplish a minimum of 10 minutes at an altitude below 2000 ft AGL and at or above 500 ft AGL (300 ft for H-1, C-130 and C-17; CV-22 see MD-specific attachment).

4.5.28.1.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.28.1.2. Proficiency requirements. None.

4.5.28.2. Navigator/WSO Low Level Navigation. To log this event, Accomplish a minimum of 10 minutes at an altitude below 2000 ft AGL and at or above 500 ft AGL (300 ft for C-130).

4.5.28.2.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.28.2.2. Proficiency requirements. None

4.5.29. LASDT.

4.5.29.1. Pilot LASDT**.** To log this event, accomplish a minimum of 10 minutes of flight below 500’ AGL. The 10 minutes need not be continuous but should allow sufficient time to experience and operate in the low altitude environment. This flight should be conducted along a pre-planned route/flyby line in restricted airspace. (Does not apply to C-130, C-17, CV-22 or H-1).

4.5.29.1.1. Currency requirements. This event is not transferable across multiple MDs, does count (Low Level) for multiple event credit and can be updated with an IP in a different MD unless the event is being performed in a bomber, in which case the currency cannot be updated from a different MD.

4.5.29.1.2. Proficiency requirements. None.

4.5.29.2. Navigator/WSO LASDT. To log this event, accomplish a minimum of 10 minutes of flight below 500' AGL. The 10 minutes need not be continuous but should allow sufficient time to experience and operate in the low altitude environment. This flight should be conducted along a pre-planned route/flyby line in restricted airspace (does not apply to C-130, C-17, or helicopter).

4.5.29.2.1. Currency requirements. This event is not transferable across multiple MDs, does count (low Level) for multiple event credit and can be updated with an IP in a different MD unless the event is being performed in a bomber, in which case the currency cannot be updated from a different MD.

4.5.29.2.2. Proficiency requirements. None.

4.5.30. TF/TA (Night IMC/VMC or Day IMC).

4.5.30.1. Pilot TF/TA. To log this event, accomplish a minimum of 10 minutes of flight below the altitudes specified in para 3.5.5. using the TF/TA system, day or night, IMC or VMC. There is no Day VMC currency or proficiency requirement.

4.5.30.1.1. Currency requirements. This event is not transferable across multiple MDs, does count (low Level) for multiple event credit and cannot be updated with an IP in a different MD.

4.5.30.1.2. Proficiency requirements. None.

4.5.30.2. Navigator/WSO/EWO TF/TA. To log this event, accomplish a minimum of 10 minutes of flight below the altitudes specified in para 3.5.5. using the TF/TA system, day or night, IMC or VMC. There is no Day VMC currency or proficiency requirement.

4.5.30.2.1. Currency requirements. This event is not transferable across multiple MDs, does count (low Level) for multiple event credit and cannot be updated with an IP in a different MD.

4.5.30.2.2. Proficiency requirements. None.

4.5.31. Chase. To log this event, perform photo, safety or IP/SEFE chase of one event in **Table 7** or **Table 8**.

4.5.31.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.31.2. Proficiency requirements. Three sorties.

4.5.32. Ordnance Release Test. To log this event, perform an actual or simulated release of air-to-air or air-to-ground ordnance or suspension equipment.

4.5.32.1. Currency requirements. This event is transferable across multiple MDs, does not count for multiple event credit and can be updated with an IP in a different MD.

4.5.32.2. Proficiency requirements. See MD attachment.

4.5.33. High AoA Familiarization.

4.5.33.1. Currency requirement. See MD attachment.

4.5.33.2. Proficiency requirements. See MD attachment.

4.5.34. High AOA Test.

4.5.34.1. Currency requirements. See MD attachment.

4.5.34.2. Proficiency requirements. See MD attachment.

4.5.35. CFP. To log this event, accomplish at least two sets of CFP flight test techniques (wind up turns, loaded and unloaded rolls, and balanced symmetric pushovers) and speed soak.

4.5.35.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

4.5.35.2. Proficiency requirements. None.

4.5.36. Loads. To log this event, accomplish at least two sets of loads flight test techniques (wind up turns, loaded and unloaded rolls, and balanced symmetric pushovers, stick raps, sideslips, etc.).

4.5.36.1. Currency requirements. See MD attachment.

4.5.36.2. Proficiency requirements. See MD attachment.

4.5.37. Flutter. To log this event, accomplish at least two sets of flutter flight test techniques (see MD attachment).

4.5.37.1. Currency requirements. See MD attachment.

4.5.37.2. Proficiency requirements. See MD attachment.

4.5.38. Airstart (Single-Engine Aircraft).

4.5.38.1. Currency requirements. See MD attachment.

4.5.38.2. Proficiency requirements. See MD attachment.

4.5.39. Test Pilot School Curriculum.

4.5.39.1. Currency requirements. See MD attachment.

4.5.39.2. Proficiency requirements. See MD attachment.

4.5.40. Air-to-Air Refueling Tanker Test.

4.5.40.1. Currency requirements. See MD attachment.

4.5.40.2. Proficiency requirements. See MD attachment.

4.5.41. Airdrop.

4.5.41.1. Pilot Airdrop. To log this event, accomplish a successful airdrop (must land within 300 meters of the aim point). An off drop zone drop is not a successful drop. Pilots can also update currency with all actual or standard airdrop training bundle (SATB) airdrops. If circumstances prevent the drop release, the currency may be credited provided all applicable checklists are completed.

4.5.41.1.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

4.5.41.1.2. Proficiency requirements. None

4.5.41.2. Navigator/WSO/EWO Airdrop. To log this event, accomplish a successful airdrop (must land within 300 meters of the aim point). An off drop zone drop is not a successful drop. Navigators can also update currency with all actual or standard airdrop training bundle (SATB) airdrops. Navigators must determine a computed air release point or a high altitude release point to update the currency. If circumstances beyond the control of the aircrew prevent the drop release after the 1-Minute warning, the currency may be credited provided all applicable checklists are completed.

4.5.41.2.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

4.5.41.2.2. Proficiency requirements. None

4.5.41.3. CEA (Loadmaster) Airdrop. To log this event, accomplish a successful actual airdrop. An off drop zone drop is not a successful drop.

4.5.41.3.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an Instructor qualified in a different MD.

4.5.41.3.2. Proficiency requirements. None

4.5.41.3.3. CEA (Other) See MD attachment for other crew position requirements.

4.5.42. **(Added-EDWARDSAFB)** Tower Fly By. To log this event, accomplish a TFB event.

4.5.42.1. **(Added-EDWARDSAFB)** To regain currency, aircrew will perform a TFB under the supervision of a TFB qualified IP. If no MDS qualified IPs are available, unit commanders may utilize any TFB IP for recurrency requirements.

4.5.42.2. **(Added-EDWARDSAFB)** Proficiency requirements. None

4.6. **Ground Training**. The training office will document ground training accomplished and maintain records for the current and previous semiannual training period. Retain the ARMS individual training summary to meet this requirement.

4.6.1. Aircraft Simulator Refresher Training. Pilots, flight engineers, Special Mission Aviators, and navigators (if the simulator has a navigator position) must attend aircraft

simulator refresher training at least once every 12 months. For Annual Simulator refresher training, an AFMC approved simulator is one that, as a minimum, can simulate instrument and emergency instrument patterns at an Instructor's direction.

4.6.1. **(EDWARDSAFB)** F-16 pilots must accomplish this training every semi-annual training period. If a pilot has accomplished the EP sim in a simulator in the last year, training may be accomplished via a table-top EP training session.

4.6.1.1. If there is no simulator support, formal or contractor supported, for a particular MDS aircraft, simulator training is not required. If a crewmember is qualified in several series of the same mission design aircraft, simulator training is required in only one series.

4.6.1.2. If the OG/CC considers other MAJCOM lesson plans inappropriate for Annual Simulator Refresher Training, AFMC flying units will develop simulator lesson plans that complement their local missions. In constructing simulator lesson plans, emphasis should be placed on aircraft systems, emergency procedures training, and cockpit/crew resource management.

4.6.1.3. Failure to complete required simulator refresher training in the prescribed period is not grounding. Notify the unit commander in writing with specific details including when simulator refresher training went overdue and the projected completion date. Notification will be routed through the appropriate training channels to the flying unit commander and intermediate level training offices.

4.6.1.3. **(EDWARDSAFB)** Place the notification in the MFR section of the training folder.

4.6.2. Proficiency Events Logged in Simulator. In order to log any currency or proficiency events from **Table 7 or Table 8** in a simulator, an AFMC approved simulator must be used. The most current list of AFMC approved simulators is located on the AFMC/A3V Sharepoints website at: **https://org.eis.afmc.af.mil/sites/HQAFMCA3/a3v/default.aspx**. Event currency may only be updated in a simulator for certain specified events listed in **Table 7**, with some additional constraints. For B-757 operations, HQ AFMC allows the use of a "D-level" simulator to update all currency and proficiency events (up to 50% of the semiannual proficiency requirements). See MD attachments for additional simulator currency and proficiency requirements.

Table 9. DELETED.

4.6.3. Systems Refresher Training. Flying units will develop a training program that ensures crewmembers maintain familiarity with aircraft systems. As a minimum, this training will include aircraft systems, subsystems, components, and critical and non-critical emergency procedures. Crewmembers will complete a minimum of three training sessions throughout the semiannual training period. Annual aircraft simulator refresher training may be credited as one event toward this requirement.

4.6.3. **(EDWARDSAFB)** Flying units will provide monthly ground training opportunities for each assigned aircraft type.

4.7. **Proration of Training.** When determining training requirements, prorate an aircrew member not available for flying duties IAW AFI 11-202 Volume 1 and this paragraph. The following guidance applies:

4.7.1. All aircrew must complete a proportionate share of training requirements outlined in **Table 8** starting with the first day of the month after the qualification flight evaluation.

4.7.2. Crewmembers are not considered available for training if they are absent for more than 15 consecutive days because of one of the following or a combination of the following: PCS move, non-flying TDY, duty not involving flying (DNIF), Phase 1 training, or emergency leave.

4.7.3. Flying units may reduce requirements when the cumulative total of periods that exceed 15 consecutive days of non-availability results in changing the months available according to the following table:

Table 10. Basic Proficiency Proration Chart.

Days Available	Months Available
166 through remaining days	6
136 through 165	5
106 through 135	4
76 through 105	3
46 through 75	2
16 through 45	1
0 through 15	0

4.7.4. Units may prorate training of PCS inbound personnel who come from commands with different semi-annual training periods.

4.8. **Failure to Complete Continuation Training Requirements.** Comply with guidance outlined in AFI 11-202 Volume 1. Waiver authority for this paragraph is AFMC/A3V.

4.8. **(EDWARDSAFB)** Refer to the *412 OG/OGV Training & Stan/Eval Guide* for the end of half process description. Individuals who do not meet their end of half requirements for any event will fly with an instructor while performing those events until the OG/CC approves the end of half "get well" plan for that individual. Supervised events accomplished during the letter review/approval process may be credited towards the OG/CC corrective actions. Once the electronic approval is made, unit training offices will follow up to see that items are completed.

4.9. **Requirements Before PCS or TDY Members on Active Flying Status.** Comply with guidance in AFI 11-202 Volume 1 when determining training requirements for flying personnel departing PCS from their previous station or TDY from their permanent station.

4.10. **Requirements Before Removal From Active Flying.** Comply with guidance in AFI 11-202 Volume 1 when determining training requirements for flying personnel being retired, separated, placed in inactive status, or reassigned to non-flying positions.

4.11. **Requirements While in Inactive Flying Status.** Comply with guidance in AFI 11-202 Volume 1 when determining training requirements for flying personnel being placed in inactive status.

4.12. **Retraining.** Flying personnel retraining in another mission/design aircraft will incur and ADSC IAW with AFI 11-202 Volume 1 and AFI 36-2107.

4.13. **Aircrews Flying in Non-US Air Force Aircraft and with Non-US Air Force Units.** When determining training requirements for aircrews flying in Non-US Air Force Aircraft or with Non-US Air Force units comply with guidance in AFI 11-202 Volume 1 and AFI 11-401.

4.14. **Non-qualified Personnel Requirements.**

4.14.1. Personnel who fly in an AFMC aircraft, in which they are not qualified, at a crew position with a set of flight controls will complete the Ground Training for Nonqualified Personnel form found on the Edwards Center Ops Online (COOL) server. This requirement does not apply to crewmembers in initial qualification or requalification training. A trainee signature is not necessary on the form when training is given to nonqualified VIP personnel. If an instructor is unavailable to accomplish syllabus items 2, 3, 4, and 5, then the aircrew member primarily responsible for the position being occupied may accomplish and sign off this training. Qualified helicopter flight engineers or Special Mission Aviators occupying the left seat need not accomplish this training.

4.14.1. **(EDWARDSAFB)** Brief all non-qualified personnel from Unit Briefing Guide, III: *Special Mission Briefing for Non-Qualified Aircrew*. This deletes the requirement for Nonqualified Personnel training, for those who occupy a crew position with a set of flight controls. If an approved EAFB briefing guide is not available, use the Nonqualified Personnel training plan, (Available in electronic media on the AFMC/A3V SharePoint page).

4.14.2. Training is valid for 30 days if all prerequisites on the AFMC Ground Training for Nonqualified Personnel form are current. File the record of completed training with the appropriate flight authorization.

4.15. **Multiple Qualification Requirements.**

4.15.1. See AFI 11-202 Volume 2/AFMCS 1 for AFMC multiple qualification policy.

4.15.1. **(EDWARDSAFB)** The unit to which the crewmember is assigned will notify 412 OSS/OSOR and 412 OG/OGV if an aircrew member's primary aircraft has been changed. AFMC Form 80 changes will be made by 412 OG/OGV with approval from the OG.

4.15.2. Currency Requirements. Requirements in **Table 7** will be performed in each aircraft in which the crewmember is qualified. The following exception applies:

4.15.2.1. Mission Requirements. Mission currency will be maintained in each aircraft in which currency is maintained unless specified in this instruction or unit supplements to this instruction. Units may invoke the 50 percent rule outlined in paragraph **4.15.3** to accomplish mission proficiency requirements.

4.15.2.2. The instrument approach required of pilots every 45 days may be performed in any similar aircraft, as specified in AFI 11-202 Volume 2, AFMC Supplement 1, in which the pilot is qualified.

4.15.3. Proficiency Requirements. At least 50 percent of the proficiency flying requirements in **Table 8** must be performed in each aircraft in which an individual is qualified. However, the total basic proficiency flying event requirements must not be less than aircraft qualification requiring the most sorties. The total basic proficiency flying event requirements must be at least equal to the highest requirement of all the aircraft in which the aircrew is qualified. For example, if API-1 qualified in a bomber and a fighter (15 and 45 sortie requirement), then a total sortie requirement of 45 exists.

4.16. **G-Awareness Assessment (Fighter/Trainer).** Flying units will develop a program to ensure in-flight AGSM is reviewed for BFM and/or ACBT qualified aircrew at least once every 12 months by the squadron Flight Surgeon, Aerospace Physiologist, or squadron supervisor (SQ/CC, SQ/DO, SQ/ADO, Flt/CC). Emphasis will also be placed on briefing, debriefing, and assessing the proper AGSM during flight debriefs. The assessment should be done as a normal part of video review after every flight.

4.16.1. Aircrew identified as having poor AGSM technique or low G-tolerance will be identified to the appropriate SQ supervisor. SQ supervision will determine what action is required to improve the aircrew's G-tolerance. The SQ/CC will determine if Commander-Directed Acceleration Training is required IAW AFI 11-404, *Centrifuge Training for High-G Aircrew*.

5. UPGRADE QUALIFICATION TRAINING.

5.1. **General.** In addition to the training guidance outlined in AFI 11-202 Volume 1, AFMC Supplement 1, use this instruction when completing upgrade qualification training in AFMC. All instructor upgrades will complete appropriate training as outlined in this paragraph and the MD-specific attachments.

5.2. **Copilot to First Pilot (Aircraft Commander) Upgrade.** **Table 11** outlines first pilot flying hour requirements for specified aircraft. The prerequisite flying time experience levels required for upgrade are based on the copilot having gained the knowledge and judgment required to effectively accomplish the unit's mission. This training will be accomplished via formal course or in-unit unless otherwise directed by MD-specific attachments. Use formal courseware for in-unit upgrade training.

Table 11. Flying Hour Prerequisites for First Pilot Qualification.

AIRCRAFT	MINIMUM TOTAL FLYING HOURS	MINIMUM HOURS IN BASIC DESIGN AIRCRAFT (Note 1)
Bomber/Cargo Reconnaissance Tanker	1500	None
	750	100
	Less Than 750	Not upgrade eligible.
TILT ROTOR	1000	100
	750	200
	300	300
HELICOPTER	300	300
NOTES: 1. Only primary and secondary time is applicable towards "HOURS IN BASIC DESIGN AIRCRAFT" category.		

5.3. **Instructor Upgrade.** The squadron commander selects instructors based on the crewmember's experience, judgment, flying skill, technical knowledge, and airmanship. Minimum flying time experience requirements for upgrade to instructor for all aircrew specialties are outlined in **Table 12** Flying time requirements may be waived by the OG/CC on a case by case basis.

5.3.1. Formal Training. Aircrew members who have never been instructor qualified in any aircraft will attend the lead MAJCOM instructor upgrade school. Aircrew members who have been instructor qualified in another type aircraft should attend the aircraft's lead MAJCOM formal school but may be upgraded locally with OG/CC's approval. OG/CCs may authorize instructor upgrade training in conjunction with requalification training. When concurrent instructor/requalification is accomplished, concurrent phase I and Phase II training is authorized. Accomplish training in at least one primary unit mission area so that the upgrading instructor can demonstrate that instructional area during the requalification instructor evaluation. Document OG/CC approvals in section X of the individual's training folder.

Table 12. Instructor Upgrade Flying Time Prerequisites.

AIRCRAFT	CREW POSITION	MINIMUM TOTAL FLYING HOURS	MINIMUM HOURS IN BASIC DESIGN AIRCRAFT (Notes 1,2,4)
FIGHTER/TRAINER	Pilot	500 (Note 5)	100
	WSO	500	100
BOMBER/CARGO (Note 3)	Pilot - or-	1500 750	200 300
	Nav, OSO, DSO, EWO, CSO, FE, BO, LM	500	200
	Other Aircrew	300	200
TILT ROTOR	Pilot Flight Engineer, SPMA	1500 500	200 300
HELICOPTER	Pilot	500	200
	Flight Engineer, SPMA	500	100
U-2	Pilot	500	300 (Note 6)
RPA	Pilot/Sensor Operator	500	100

NOTES:

1. Only primary and secondary time is applicable towards "HOURS IN BASIC DESIGN AIRCRAFT" category.

2. There is no "HOURS IN BASIC DESIGN AIRCRAFT" requirement for new and experimental aircraft in AFMC. The OG/CC will designate an "initial cadre" of instructors and follow documentation guidance in AFI 11-202 Volume 2, AFMC Sup 1.

3. USAF TPS staff instructors require only 50 hours "HOURS IN BASIC DESIGN AIRCRAFT" to upgrade to instructor in the C-12 aircraft.

4. Flying time requirements may be waived by the OG/CC up to 50% if added risk is determined acceptable. Document this waiver in section five of the training folder.

5. For fighter/trainer instructor upgrade, 200 hours of the 500 required will be in high performance fighter type aircraft.

6. For U-2 Instructor pilot upgrade, 300 hours in the U-2R/S is required.

5.3.2. Ground Training. Prospective Instructors must have knowledge of aircraft systems, procedures, unit primary missions, and other areas in which instructional duties apply. Instructor ground training is mandatory and will include, as a minimum, Instructor Upgrade Ground Training. AFI 11-2FT Volume 1 MD-specific attachments may include additional instructor upgrade ground training.

5.3.2.1. Prospective instructors will be familiar with the proper forms and procedures for documenting student training, including the prerequisites and ground training for nonqualified personnel outlined on the Non-qualified Personnel Ground Training syllabus.

5.3.2.2. When accepting instructor status from another MAJCOM, the Instructor Upgrade Ground Training lesson plan must be accomplished to familiarize the crewmember with AFMC policy, instructions and regulations. The lesson plan will be completed prior to instructor certification and filed in section three of the crewmember's training folder. Upon completion of AFMC instructor training an individual is a basic instructor and will not instruct Phase II missions until qualified.

5.3.3. Flying Training. Conduct instructor upgrade training in the crew position from which instruction will normally be performed. Instructor lessons will consist of demonstrations and practice of procedures and techniques used in accomplishing instructor duties. In addition to accomplishing the individual items on the instructor grade sheet during the course of the upgrade, the upgrading instructor will brief/instruct/debrief elements of the unit's primary mission. One or more of these mission elements will be evaluated during the instructor evaluation.

5.3.4. Instructor Certification. An instructor candidate will receive an instructor upgrade flight evaluation according to AFI 11-202 Volume 2/AFMCS 1. The instructor flight evaluation may be accomplished prior to completion of night training events but the individual will not perform instructor duties at night until completion of these events.

5.3.5. Instructor Requalification. When an instructor loses aircraft qualification for 2 years or less, the flying unit commander will determine what instructor requalification training is required. When concurrent instructor/requalification is accomplished, the limitation of not conducting Phase II training during Phase I training is not in effect. When an instructor loses aircraft qualification for greater than two years, the instructor training syllabus, as established in AFI 11-2FT Volume 1 MD-specific attachments, must be accomplished. In either case, an instructor requalification evaluation must be accomplished which includes all instructor evaluation requirements.

5.3.5.1. When completing concurrent requalification and Instructor training place the Forms 67, 68, and 69 in Section I of the training folder. The requalification quantity of events required by the syllabus takes precedence over the quantity of required Instructor events. When proficient as an instructor in a training event, annotate the number in the events accomplished column(s).

5.3.6. Mission Instructor. An instructor qualified in the aircraft, crew position and mission will conduct mission training, unless otherwise directed by MD-specific attachments. Instructors and flight examiners completing mission training may be designated/considered mission instructors upon completion of mission training unless restricted by MD-specific attachments.

5.3.6.1. Upon qualification as an instructor, aircrew members will be considered instructor qualified in all mission types in which they are currently qualified unless a specific instructor training plan exists for a specific mission (e.g. ACBT instructors must specifically accomplish ACBT instructor requalification training).

5.4. **Flight Examiner Certification.** Squadron commanders will select and designate flight examiners as prescribed in AFI 11-202 Volume 2, AFMC Sup 1. Flight Examiner Upgrade Ground Training will be accomplished by the upgrade candidate with a flight examiner qualified crewmember prior to designation as a flight examiner. When accepting flight examiner status from another MAJCOM, the Flight Examiner Upgrade Ground Training lesson plan must be accomplished to familiarize the aircrew member with AFMC policy, instructions, and regulations. The lesson plan will be completed prior to accomplishing examiner duties and filed in section three of the crewmember's training folder.

6. TRAINING RESTRICTIONS. Training restrictions are incorporated throughout this volume and attachments. AFMC operating procedures and restrictions are located in AFI 11-2FT Volume 3.

7. ADDITIONAL TRAINING. MD-specific attachments will specify any additional training not considered aircraft, mission, upgrade, or continuation training.

8. COMMAND TRAINING PLANS PRESCRIBED. AFMC prescribed training forms and the overprints maintained on the Edwards Center Ops Online (COOL) server will be used by all flying units as directed in this instruction. Training plans tailored to specific aircraft, crew position, and/or mission are contained in the MD-specific attachments of this instruction.

8.1. The training folder is used to organize and track training. It also serves to document completed training. Training folders will thoroughly document how aircrew received qualifications through acceptance of qualification paperwork, formal course documentation or completed training plans. Units will maintain training folders electronically using MAJCOM approved software, if possible. Otherwise, they are authorized to maintain training folders manually (in paper format). Electronic signatures on training forms are authorized. Construct and maintain folders IAW paragraph **8.5**

8.2. Training folders are required to document training for all crewmembers performing inflight duties aboard aircraft. For multi-qualified aircrew (rated, career enlisted aviators, and non-rated aircrew (NRA), flight surgeons, and operational support aircrew) training folders may contain multiple aircraft training documentation. If hardcopy training folders are maintained instead of using MAJCOM-approved software, comply with paragraph 8.5 requirements.

8.3. Access to electronic training folders will be restricted via a password or other means. Active training folders will be readily accessible to instructors and trainers, supervisory personnel, and the individual crewmembers in training. Instructors and trainees will review training folders for each specific training session. Upon completion of the session, the appropriate training folder documentation must be promptly completed.

8.4. Unit training managers may file completed training folders in an inactive status as long as an individual is assigned to the unit. If the individual changes units, the training office will ensure the training folder (in electronic and/or paper format) is forwarded to the gaining unit. If an individual separates/retires from the USAF or is assigned to a non-flying position, the unit will give the training folder (in electronic and/or paper format) to the individual.

8.5. Organize training folders as follows:

8.5.1. Title the training folder with the trainee's name, grade, aircraft, and crew position.

8.5.2. Divide the folder into six separate sections as described below. Use training plans as documentation in these sections. File completed training plans as a set (applicable AFMC Forms 67, 68, and 69) with the most recent set on top. The set should be ordered with the AFMC Form 67 on top, the AFMC Form 68 in the middle, and the AFMC Forms 69 last.

8.5.2.1. Summary - Maintain a current AFMC Form 1381(on the inside cover if in paper form). Multiple qualified aircrew members must have an AFMC Form 1381 in both training folders. Annotate all completed Phase I and Phase II training completion items. Also annotate acceptance of non-AFMC qualification(s), AFMC qualifications, and other than MDS qualifications, IAW paragraph **1.6.4**

8.5.2.2. Section One (Phase 1-Basic Aircraft Qualification) - Contains ground and flying training documentation for Phase I training including: initial qualification, requalification, conversion, and difference training (to include documentation provided through formal course instruction).

8.5.2.3. Section Two (Phase 2-Mission Qualification) - Contains ground and flying training documentation for Phase II mission qualification or mission requalification training. When conducting multiple, simultaneous qualifications the instructor is only required to complete one AFMC Form 69. A photocopy of the Form 69 should be placed with each ongoing qualification. Alternatively, a blank AFMC Form 69 may be placed with each qualification that references the "primary" Form 69.

8.5.2.4. Section Three (AC/IP/EP qualification) - Contains ground and flying training upgrade documentation for copilot to first pilot (aircraft commander), instructor (phase 1 and phase 2), and flight examiner upgrade training.

8.5.2.5. DELETED.

8.5.2.6. Section Four (Other) - Contains training plans not considered part of sections 1, 2, or 3.

8.5.2.7. Section Five (Training/MFR Documentation) - Contains all training correspondence to include entry into training letters, commander approvals/authorization, waiver approvals, email coordination, acceptance of aircraft, mission, and/or upgrade qualifications, and memorandums for record. Memos for Record (MFRs) and associated attachments may be kept in the specific Sections of the training folder to which they apply in order to clarify and document qualifications.

8.5.2.7.1. Entry into Training. Prior to beginning each phase I or phase II qualification, the flying unit commander or operations officer must authorize the training. The training may be authorized on the Letter of Xs or with an Entry into Training letter maintained in Section five of the training folder. In either case the training office must track training start and completion due dates.

8.6. Training Plans:

8.6.1. AFMC/A3V specified training plans used to document all AFMC aircrew training are provided in electronic format on the Edwards Center Ops Online (COOL) server. AFMC Forms 67, 68, and 69 are the only authorized training plans. If the training plan for a unique mission is not specified by AFMC/A3V, units may develop a unique training

plan for AFMC/A3V approval. After approval, the plan must be referenced in a unit supplement to this instruction. Unit supplements should also include appropriate continuation training requirements for the unique qualification. Units will maintain electronic training plans using MAJCOM approved software, if possible.

8.6.2. Training Plan Usage. To ensure the most current syllabus is used, training officers should only download the forms when phase I or phase II training is initiated as training forms frequently change and previous editions of training forms are obsolete. Training plans will be identified by name, approval date, and version number level, aircraft, phase, aircrew position, and version number.

8.6.3. Training Plan Update Cycle. Phase I training forms will be updated in April of each year. Phase II training forms will be updated in September of each year.

8.6.3.1. Mid-cycle update of a training plan. Occasionally training forms will be updated in-between annual reviews/updates. If that is the case, the updated form will be annotated with the date of the change at the bottom the form. AFMC/A3V will notify the affected units via email.

8.6.4. The AFMC Form 67, *Ground Training Record*, is used to record all ground training required before the trainee's first flight. This form provides for the overprint of required ground training tasks. Any additional ground training (simulators, cockpit procedural trainers, etc.) accomplished during the flying training phase will be documented on the AFMC Form 68. **Table 13** provides detailed instructions for completing the AFMC Form 67.

Table 13. Instructions for Completing AFMC Form 67, Ground Training Record.

A	B	C
Item	**Description**	**Entry**
1	Name/Rank	Self-explanatory.
2	Aircraft	Specific MDS of aircraft for which training is being accomplished.
3	Crew Position	The crew position to which the individual is upgrading. For example, if training is for upgrade to IP, list IP in this item.
4	Type of Training	Enter the exact type of training being performed IAW HQ AFMC standard nomenclature: (Unit, Phase 1 or 2 qual, Event). For instance, the AFMC command specified F-16 BFM wing training plan would be titled (AFMC, Phase 2, BFM wing)
5	Training Events	The left column will list the tasks and subtasks requiring specific trainee knowledge. In the right columns, the instructor conducting the training will print his name and date that the specific training event was completed.
6	Trainee's Signature/Date	The trainee will sign and date when the last training item is completed.
7	Instructor's Signature/Date	The instructor completing the last required training item on the form will sign and date. The instructor's signature certifies that the all required ground training events have been accomplished.
8	Remarks	Record any pertinent comments or direction regarding specific training.

8.6.5. The AFMC Form 68, *Flying Training Record*, is used to record all flying training. This form provides for the overprint of required training tasks and end-of-course proficiency levels for each ground/flying training task. It also records the number of events accomplished and proficiency level attained by the trainee. AFMC Form 68 lesson plans establish the minimum required training events to be completed for initial qualification (QUAL), requalification (REQUAL), and instructor upgrade (INST). The AFMC Form 68 is the official certifying document for each Phase II qualification. **Table 14** provides detailed instructions for completing the AFMC Form 68.

8.6.5.1. Grading and grade definitions. Each AFMC syllabus training event must be graded. Unless noted otherwise (with a "D" in the events required column) all training events on the AFMC Form 68 must be accomplished until Proficiency, "P", is achieved. The AFMC Form 68 indicates the required events and grades for each training event. A grade of "P", Proficient, "T", Training Required, or "D", Discussed will be given at the instructor's discretion using the following definitions:

8.6.5.1.1. -(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.

8.6.5.1.2. -(T) Training required. The student did not demonstrate the knowledge and skill necessary to successfully complete the event. The student must continue training in that event until a grade of "P" is achieved.

8.6.5.1.3. -(D) Discussed. The event requires instructor discussion only. A "P" or "T" grade is not assigned. Not every event may be satisfied with a "D".

Table 14. Instructions for Completing AFMC Form 68, Flying Training Record.

A	B	C
Item	**Description**	**Entry**
1	Name/Rank	Self-explanatory.
2	Aircraft	Specific MDS of aircraft for which training is being accomplished.
3	Crew Position	The crew position to which the individual is upgrading. For example, if training is for upgrade to IP, list IP in this item.
4	Type of Training	Enter the exact type of training being performed IAW HQ AFMC standard nomenclature: (Unit, Phase 1 or 2 qual, Event). For instance, the AFMC command specified F-16 BFM wing training plan would be titled (AFMC, Phase 2, BFM wing)
5	Training Events	The left column will list the tasks and subtasks requiring a specific trainee proficiency standard. All listed events require a proficiency level "P" or must be identified with a "D". Break the tasks out by general areas (i.e., discussion topics, ground operations, emergency procedures, etc.). The right 6 columns (excluding the far right, total events) correspond to the sorties accomplished. Record in each of these columns the number of events accomplished and proficiency level attained (#/P, #/T, or #/D) during the sortie. The training events required have been established or approved by AFMC/A3V. The trainee must attain a proficiency level of "P" on the accomplishment of the last event; otherwise he or she remains in a training status until proficiency is attained. If two lesson plans are conducted concurrently, i.e., requalification training and instructor upgrade, and similar events are required on both; the highest minimum requirement listed will be accomplished. Indicate the type of training to be accomplished by circling it or highlighting the appropriate column.
	Qual	Minimum number of events per task required to complete this lesson plan.
	Requal	Minimum number of events per task required to complete this lesson plan.
	Inst	Minimum number of events per task required to complete this lesson plan.

6	Flight Evaluation/ Training Due Date	Date flight evaluation or training completion is due. See paragraph **1.6.8.3.** for time limits.
7	Reviewing/ Certifying Officer and Date	Printed name, signature, and date of OG/CC, squadron commander, or operations officer signifying completion of training prior to administering flight evaluation. If flight evaluation is not required, the signature certifies all training is complete and individual is certified to perform the particular mission for which training was accomplished.
8	Instructor/Date	Date and signature of instructor upon completion of specific sorties.
9	Remarks	Record any pertinent comments or direction regarding specific training.

Table 14. (EDWARDSAFB) Instructions for Completing AFMC Form 68, Flying Training Record

A	B	C
Item	**Description**	**Entry**
5	Training Events	If the training situation makes an item not applicable and there is specific allowance in the plan, select "N/A" on the AFMC Form 68. Document the reason(s) the item(s) was/were "N/A", where appropriate, in the Training Comments portion of the AFMC Form 69.
7	Reviewing/ Certifying Officer and Date	Flying unit commanders/CTF directors may authorize (in writing) their detachment commanders or detachment operations officers reviewing/certifying officer authority.

8.6.5.2. Proficiency Advancement. If the student demonstrates proficiency in at least 50 percent of the minimum required events, the instructor, with training officer concurrence, may proficiency advance that item. For example: if the minimum number of required air refueling contacts was 4 and the student is proficient for at least two contacts, then the instructor may recommend advancing that training item. Comments on the associated AFMC Form 69 will describe which items were advanced. Training officer/NCO initials/ signature in Block 9 serves as concurrence for proficiency advancement. If training is complete, the number of required sorties may also be reduced using these same guidelines. If the student reaches proficiency and then regresses, proficiency must be regained before training is complete.

8.6.5.3. Training events listed may be completed in any order. The instructor will be responsible for constructing a profile for each training flight based on the student's proficiency and the minimum number of events to be completed.

8.6.6. The AFMC Form 69, *Flying Training Comments*, is used to document flying training. This form is used in conjunction with AFMC Form 68, or can be used independently to document training (e.g. re-currency training). It provides for narrative descriptions of the trainee's progress and a means for documenting the training office review. Maintain with AFMC Form 68 in the appropriate section of the training folder. A separate AFMC Form 69 should accompany each type of flight training received (i.e. each AFMC Form 68). The instructor will document any significant problems the student has in completing a training event in enough detail so that subsequent instructors

can provide appropriate training. **Table 15** provides detailed instructions for completing the AFMC Form 69.

Table 15. Instructions for Completing AFMC Form 69, *Flying Training Comments*.

A	B	C
Item	**Description**	**Entry**
1	Name/Rank	Self-explanatory.
2	Type Of Training	Enter the exact type of training being performed. (i.e., F-15A to F-15E conversion training.
3	Flight Number	Consecutive sortie number to agree with corresponding sortie number on AFMC Form 68. Units may consider a preflight/ground abort a sortie if any training is accomplished (may not credit a sortie for currency or proficiency). Units may also use an abbreviation such as LAO 1, as long as the same designation is used on the AFMC Form 68.
4	Date	Date of the specific sortie.
5	MDS	Mission, design and series of aircraft in which training was accomplished.
6	Comments	MISSION OVERVIEW: Describe the mission scenario, including mission profile, and any events that impacted the mission (i.e., tanker MX cancel, weather, etc.). STRENGTH: Comments should elaborate on trainee's strengths and indicate student progress. AREAS FOR IMPROVEMENT: Describe the trainee's weaknesses, identify problem areas, and areas requiring student self study, and record unusual circumstances. RECOMMENDATIONS: Recommendations should include tasks requiring further training and the type of training required. Local overprints are authorized. If more space is needed, use the next blank section. Upon completion of all training requirements, a statement such as "Recommended for evaluation" or "All training requirements for weapons delivery completed" are appropriate. However, a statement such as "cleared for weapons delivery mission" is not appropriate as only OG/CC, squadron commander, or operations officer may certify an individual for a mission.
7	Instructor	Instructor will sign at completion of sortie.
8	Student/Date	Trainee will sign and date at completion of sortie.
9	Training Office Review/Date	The training officer/NCO, or individual in the trainee's chain of command, will review the comments before the next training sortie. He or she should

		highlight any comments that are pertinent to follow-on training. Annotate this review by initials of training officer/NCO conducting review and date of review. When conditions preclude a timely review, the instructor will explain in remarks.

8.6.7. The AF Form 1381, *Certification of Aircrew Training*, is used to document Phase 1qualifications, Phase 2 qualifications and other than MDS qualifications (SOF, SUP, ODO, etc.). It may be signed by the OG/CC, unit commander, operations officer (electronic "signatures" are permitted). Units may document any other special certifications other than MDS qualifications that are tracked on the qualification roster (Letter of Xs). For multiple qualified aircrew members, document training received in one aircraft, which qualifies him/her in additional aircraft (i.e. LAO) by annotating the specific training being credited and the aircraft in which the training was completed. The AF Form 1381 is filed in the summary section of the training folder.

8.6.7. **(EDWARDSAFB)** The qualification roster (Letter of Xs) will not include aircraft qualifications not documented on the AF Form(s) 1381.

8.6.7.1. AF Form 1381 Documentation.

8.6.7.1.1. The AF Form 1381 may be maintained electronically and updated as qualifications are attained.

8.6.7.1.2. For Phase I training, the date of the successful Form 8 evaluation will be placed in the "Date Completed" block. For Phase II training, the date the training was completed (last sortie or last ground training class if only ground training is required) will be placed in the "Date Completed" block.

HERBERT J. CARLISLE, Lt Gen, USAF
DCS, Operations, Plans and Requirements

(EDWARDSAFB)

MICHAEL T. BREWER, Brigadier General, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 10-2, *Readiness*, 30 Oct 2006

AFPD 10-9, *Lead Command Designation and Responsibilities for Weapon Systems*, 8 Mar 2007

AFPD 10-21, *Air Mobility Lead Command Roles and Responsibilities*, 1 May 1998

AFI 10-220 (I), *Contractor's Flight and Ground Operations*, 1 Mar 2007

AFPD 11-2, *Aircraft Rules and Procedures*, 14 Jan 2005

AFPD 11-4, *Aviation Service*, 01 Sep 2004

AFI 11-2FT-Volume 2, *Flight Test Aircrew Evaluation Criteria*, Pending

AFI 11-2FT- Volume 3, *Flight Test Operations Procedures*, Pending

AFMCI 11-201, *Supervision of Flight Operations*, 1 Aug 2007

AFI 11-202V1, *Aircrew Training*, 22 Nov 2010

(Added-EDWARDSAFB) AFI 11-2FT-Volume 1, *Flight Test Aircrew Training, 20 September 2011, IC1 19 August 2013*

AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, 13 Sep 2010

AFI 11-202V3, *General Flight Rules*, 22 Oct 2010

AFH 11-203V1, *Weather for Aircrews*, 1 Mar 1997

AFI 11-205, *Aircraft Cockpit and Formation Flight Signals*, 19 May 1994

AFI 11-207, *Combat Aircraft Delivery*, 24 Oct 2007

AFI 11-209, *Aerial Event Policy and Procedures*, 4 May 2006

AFMAN 11-210, *Instrument Refresher Course (IRC) Program*, 3 Feb 2005

AFI 11-214, *Air Operations Rules and Procedures*, 22 Dec 2005

AFI 11-215, *USAF Flight Manuals Program (FMP)*, 22 Dec 2008

AFPAM 11-216, *Air Navigation*, 1 Mar 2001

AFI 11-218, *Aircraft Operations and Movement on the Ground*, 11 May 05

AFMAN 11-217V1, *Instrument Flight Procedures*, 22 Oct 2010

AFMAN 11-217V2, *Instrument Flight Procedures*, 22 Oct 2010

AFI 11-230, *Instrument Procedures*, 30 Mar 2010

AFI 11-290, *Cockpit/Crew Resource Management Training Program*, 11 Apr 2001

AFI 11-301V1, *Aircrew Flight Equipment (AFE) Program*, 25 Feb 2009

AFI 11-401, *Aviation Management*, 10 Dec 2010

AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Aviation Badges*, 13 Dec 2010

AFI 11-403, *Aerospace Physiological Training Program*, 20 Feb 2001

AFI 11-404, *Centrifuge Training for High-G Aircrew*, 28 Oct 2005

AFI 11-405, *The Pilot-Physician Program*, 2 Oct 2000

AFI 11-410, *Personnel Parachute Operations*, 4 Aug 2008

AFI 11-412, *Aircrew Management*, 10 Dec 2009

AFI 11-418, *Operations Supervision*, 21 Oct 2005

AFPAM 11-419, *G-Awareness for Aircrew*, 1 Dec 1999

AFI 11-421, *Aviation Resource Management*, 1 Nov 2004

AFI 13-201, *Airspace Management*, 1 Dec 2006

AFI 13-202, *Overdue Aircraft*, 11 Mar 2010

AFI 13-212, *Munitions Requirements for Aircrew Training*, 8 Apr 2010

AFI 16-1301, *Survival, Evasion, Resistance and Escape (SERE) Program*, 6 Sep 2006

AFMAN 36-2234, *Instructional System Development*, 1 Nov 1993

AFI 24-101, *Passenger Movement*, 27 Oct 2004

AFI 33-360, *Publications and Forms Management*, 18 May 2006

AFMAN 33-363, *Management of Records*, 1 Mar 2008

AFI 36-2201, Volume 1, *Training Development, Delivery, and Evaluation*, 1 Oct 2002

AFI 36-2251, *Management of Air Force Training Systems*, 20 Mar 2003

AFI 44-170, *Preventive Health Assessment*, 10 Dec 2009

AFI 48-123, *Medical Examinations and Standards*, 24 Sep 2009

AFI 65-503, *US Air Force Cost and Planning Factors*, 4 Feb 1994

DCMA INST 8210.1, Contractor Flight and Ground Operations, 1 Mar 2007

DOD 7000.14-R, *Department of Defense Financial Management Regulations (FMRs)*, Volume 7A, *Military Pay Policy and Procedures – Active Duty and Reserve Pay*, 5 Sep 2010

DODI 7730.57, *Aviation Career Incentive Act of 1974 and Required Annual Report*, 18 Jul 2003

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

NOTES:

1. The entire AFTTP3-1 and 3-3 series of instructions contains useful reference information for areas not specifically covered in the instruction and may be used to enhance safe operations.

2. Guidance in aircraft Flight Manuals, performance manuals, weapons delivery manuals, air refueling manuals and Technical Orders are the primary references for operation of the corresponding aircraft.

Prescribed Forms

AFMC Form 67, *Ground Training Record*. Mar 99

AFMC Form 68, *Flying Training Record,* 31 May 2007

AFMC Form 69, *Flying Training Comments,* 12 Jan 2004

(Added-EDWARDSAFB) EDWARDSAFB Form 5110, Training Request

Adopted Forms

AF Form 847, *Recommendation for Change of Publication,* 22 Sep 2009

AF Form 1381, *USAF Certification of Aircrew Training,* 01 Mar 1976

(Added-EDWARDSAFB) AF Form(s) 1381, *USAF Certification Of Air Crew Training*

AF Form 8, *Certificate of Aircrew Qualification,* 08 Dec 2006

AF Form 8A, *Certificate of Aircrew Qualification (Multiple Aircraft),* 08 Dec 2006

(Added-EDWARDSAFB) AFMC Form 68, *Flying Training Record*

(Added-EDWARDSAFB) AFMC Form 69, *Flying Training Comments*

(Added-EDWARDSAFB) AFMC Form 80, *Multiple Qualification Request and Authorization*

AF Form 4348 *USAF Aircrew Certifications,* 08 Dec 2006

AFTO 781, *ARMS Aircrew/Mission Flight Data Document,* 11 Sep 2008

AFMC Form 73, *AFMC Flight Operations Waiver Request,* 07 Nov 2006

Abbreviations and Acronyms

A/A—Air to Air

AAC—Air Armament Center

AAI—Air to Air Intercept

AB—Afterburner

AC—Aircraft Commander

ACF—Acceptance Check Flight

ACBT—Air Combat Training

ACC—Air Combat Command

ACCI—Air Combat Command Instruction

ACCMAN—Air Combat Command Manual

ACCR—Air Combat Command Regulation

AC2ISRC—Aerospace Command and Control & Intelligence, Surveillance and Reconnaissance Center

ADI—Attitude Director Indicator

ADS—Aerial Delivery System/Support

AFAC—Air Forward Air Controller

AFE—Aircrew Flight Equipment

AFFTC—Air Force Flight Test Center

AFI—Air Force Instruction

AFM—Air Force Manual

AFMC—Air Force Materiel Command

AFMCI—Air Force Materiel Command Instruction

AFMSS—Air Force Mission Support System

AFPAM—Air Force Pamphlet

AFRC—Air Force Reserve Command

AFSATCOM—Air Force Satellite Communication

AFTO—Air Force Technical Order

AFTTP—Air Force Tactics, Techniques, and Procedures

AGL—Above Ground Level

AGM—Air to Ground Missile

AHC—Aircraft Handling Characteristics

AHRS—Attitude Heading Reference System

AIM—Air Intercept Missile

AIRMET—Airman's Meteorological Information

ALCM—Air Launched Cruise Missile

ALTRV—Altitude Reservation

AMC—Air Mobility Command

AOA—Angle of Attack

API—Aircrew Position Indicator

APU—Auxiliary Power Unit

AR—Air Refueling

ARA—Airborne Radar Approach

ARCP—Air Refueling Control Point

ARCT—Air Refueling Control Time

ARDA—Airborne Radar Directed Approach

ARIP—Air Refueling Initial Point

ARMS—Aviation Resource Management System

ARTCC—Air Route Traffic Control Center

ASL—Above Sea Level

ASR—Airport Surveillance Report

ATC—Air Traffic Control

ATD—Aircrew Training Device

AVTR—Aircraft Video Tape Recorder

AWACS—Airborne Warning and Control System

BASH—Bird Aircraft Strike Hazard

BFM—Basic Fighter Maneuver

BIT—Built-in Test

BMC—Basic Mission Capable

BRA—Bomb Rack Assembly/Bearing-Range-Altitude

BRL—Bomb Release Line

BW—Bomb Wing

BQ—Basic Qualified

CADC—Central Air data Computer

CAPS—Critical Action Procedures

CATM—Captive Air Training Missile

CARA—Combined Altitude Radar Altimeter

CBI—Computer Based Instruction

CC—Commander

CCB—Configuration Control Board

CCP—Command Chief Pilot

CDS—Container Delivery System

CE—Combat Edge

CEA—Career Enlisted Aviator

CFIC—Central Flight Instructor Course

CFL—Critical Field Length

CFP—Compatibility Flight Profile

CFPS—Combat Flight Planning System

CFT—Cockpit Familiarization Trainer

CFTR—Combined Force Training

CG—Center of Gravity

CHUM—Chart Update Manual

COMSEC—Communications Security

CPT—Cockpit Procedures Trainer

CRM—Crew Resource Management

CSS—Control Stick Steering

CT—Continuation Training

CTP—Companion Trainer Program

CW—Chemical Warfare

DACBT—Dissimilar Air Combat Training

DACT—Dissimilar Air Combat Tactics

DAFIF—Digital Aeronautical Flight Information File

DCPPI—Displaced Center Plan Position Indicator

DFO—Director of Flight Operations

DH—Decision Height

DMPI—Designated Mean Point of Impact

DNIF—Duty Not Involving Flying

DO—Director of Operations

DOD—Department of Defense

DR—Dead Reckoning

DSO—Defensive Systems Officer

DTC—Data Transfer Cartridge

DTUC—Data Transfer Unit Cartridge

DTU—Data Transfer Unit

DT&E—Developmental Test and Evaluation

DZ—Drop Zone

EA—Electronic Attack

EADI—Electronic Altitude Director Indicator

EC—Electronic Combat

ECM—Electronic Countermeasures

EEFI—Essential Elements of Friendly Information

EMCON—Emission Control

EO—Electro-Optical

EMI—Electromagnetic Interference

EOD—Explosive Ordinance Disposal

EOR—End of Runway

EP—Evaluator Pilot/Emergency Procedure

EPE—Emergency Procedures Evaluation

EPR—Exhaust Pressure Ratio

EPU—Emergency Power Unit

ERCC—Engine Running Crew Change

ESA—Emergency Safe Altitude

ETA—Expected Time of Arrival

ETCA—Education Training Course Announcement

EVS—Electro-Optical Viewing System

EWO—Electronic Warfare Officer

FAA—Federal Aviation Administration

FAAH—Federal Aviation Administration Handbook

FAF—Final Approach Fix

CFR—Code of Federal Regulations

FENCE—Fuel, Emissions, Navigation, Communications, Expendables

FEO—Flight Equipment Officer

FCD—Flight Characteristic Demonstration

FCF—Functional Check Flight

FCIF—Flight Crew Information File

FCS—Flight Control System

FE—Flight Engineer

FEB—Flight Evaluation Board

FIC—Flight Instructor Course

FIE—Fighter Inceptor Exercise

FL—Flight Level; Flight Lead

FLIP—Flight Information Publications

FLIR—Forward Looking Infrared

FM—Field Manual/Frequency Modulation

FOD—Foreign Object Damage/Debris

FQIS—Fuel Quantity Indicating System

FRL—Fuselage Reference Line

FSS—Flight Service Station

FTU—Formal Training Unit

FTT—Flight Test Technique

FVR—Flight Vector Reference

FWS—Fighter Weapons School

GCAS—Ground Collision Avoidance System

GCC—Graduated Combat Capability

GCI—Ground Control Intercept

GFAC—Ground Forward Air Controller

GFR—Government Flight Representative

GPS—Global Positioning System

GS—Ground Station (LRE or MCE)

GSS—Gyro Stabilization System

GRM—Gate Release Mechanism

HA—Absolute Altitude

HAA—Height Above Aerodrome

HAHO—High Altitude High Opening Technique

HALO—High Altitude Low Opening Technique

HAT—Height Above Touchdown

HDBK—Handbook

HF—High Frequency

HHD—Higher Headquarters Directed

HHQ—Higher Headquarters

HQ—Headquarters

HUD—Heads-up Display

IAF—Initial Approach Fix

IAW—In Accordance With

ICAO—International Civil Aviation Organization

ID—Identification

IF—Instructor Aerial Photographer

IFF—Identification Friend or Foe

IFR—Instrument Flight Rules

ILS—Instrument Landing System

IMC—Instrument Meteorological Conditions

INS—Inertial Navigation System

INU—Initial Navigation Unit

IOS—Instructor Operator Station

IP—Instructor Pilot or Initial Point

IQC—Initial Qualification Course

IQT—Initial Qualification Training

IR—IFR Military Training Route

IRC—Instrument Refresher Course

JDAM—Joint Direct Attack Munition

JOAP—Joint Oil Analysis Program

KCAS—Knots Calibrated Airspeed

KGS—Knots Ground Speed

KIAS—Knots Indicated Airspeed

KTAS—Knots True Airspeed

LAAF—LANTIRN Altitude Advisory Function

LANTIRN—Low Altitude Navigation and Targeting Infrared for Night

LASDT—Low Altitude Step Down

LASTE—Low Altitude Safety and Targeting Enhancement

LAWS—Low Altitude Warning System

LOWAT—Low Altitude Training Below 5000 Ft

LASTE—Low Altitude Safety and Targeting Enhancement

LC—Lost Communications

LG—Logistics Group

LIS—Line in the Sky

LAO—Local Area Orientation

LPU—Life Preserver Units

LRE—Launch and Recovery Element

LZ—Landing Zone

MAC—Mean Aerodynamic Chord

MAJCOM—Major Command

MAP—Missed Approach Point

MARSA—Military Assumes Responsibility for Separation of Aircraft

MAU—Miscellaneous Armament Unit

MC—Mission Capable/Mission Commander

MCE—Mission Control Element

MCH—Multi-Command Handbook

MCM—Multi-Command Manual

MCOPR—MAJCOM Office of Primary Responsibility

MCR—Multi-Command Regulation

MD—Mission Design

MDS—Mission Design Series

MDA—Minimum Descent Altitude

MEA—Minimum Enroute Altitude

MEL—Minimum Equipment List

MEP—Mission Essential Personnel

MESP—Maintenance Engineering Support Personnel

MFD—Multi-Functional Display

MIL—Military

MITO—Minimum Interval Takeoff

ML—Mission Lead

MLG—Main Landing Gear

MOA—Military Operating Area

MP—Mission Pilot

MQT—Mission Qualification Training

MRR—Minimum Runway Required

MS—Mission Support

MSA—Minimum Safe Altitude

MSL—Mean Sea Level

MT—Mission Trainer

MTR—Military Training Route

MP—Mission Pilot

MPS—Mission Planning Software/Mission Planning System

MVR—Maneuver

N/A—Not Applicable

NDI—Non-Destructive Inspection

NM—Nautical Miles

NMR—Non Mission Ready

NORDO—No Radio

NOTAM—Notice to Airmen

NSS—Navigation System

NVG—Night Vision Goggles

NVIS—Night Vision Imaging System

OAS—Offensive Avionics System

OFP—Operational Flight Program

OG—Operations Group

OG/CC—Operations Group Commander

OMR—Optical Mark Reader

ONC—Operational Navigation Charts

OPR—Office of Primary Responsibility

OPSEC—Operations Security

OSO—Offensive Systems Officer

OSS—Operations Support Squadron

OWS—Overload Warning System

OT&E—Operational Test and Evaluation

PAR—Precision Approach Radar

PIC—Pilot in Command

PDM—Programmed Depot Maintenance

PDS—Parachute Deployment System

PECP—Primary Entry Control Point

PF—Pilot Flying

PFD—Primary Flight Display

PFPS—Portable Flight Planning Software

PIC—Pilot in Command

PIREP—Pilot Report (Weather)

PMSV—Pilot to Metro Service

PNF—Pilot Not Flying

POC—Point of Contact

PPI—Plan Position Indicator

PTA—Planned Time of Arrival

PTAIP—Primary Terrain Avoidance Initiation Point

RAA—Route Abort Altitude

RAPCON—Radar Approach Control

RCO—Range Control Officer

RCR—Runway Conditions Reading

RCS—Radar Cross Section

RDT&E—Research Developmental Test and Evaluation

RIA—Recovery Initiation Altitude

RLA—Rotary Launcher Assembly

RNAV—Enroute Area Navigation

ROE—Rules of Engagement

RP—Remote Pilot

RPI—Rated Position Identifier

RPM—Revolutions Per Minute

RSO—Remote Sensor Operator

RTB—Return to Base

RVR—Runway Visual Range

RQC—Requalification Course

RWR—Radar Warning Receiver

RZ—Rendezvous

SA—Situational Awareness or Surface Attack

SAR—Search and Rescue or Synthetic Aperture Radar

SARCAP—Search and Rescue Combat Air Patrol

SAT—Surface Attack Tactics

SCA—Self Contained Approach

SD—Spatial Disorientation

SEFE—Stan/Eval Flight Examiner

SELO—Stan/Eval Liaison Officer

SERE—Survival, Evasion, Resistance, and Escape

SFO—Simulated Flame Out

SIF—Selective Identification Feature

SIGMET—Significant Meteorological Information

SILS—Synthetic Instrument Landing System

SKE—Station Keeping Equipment

SMA—Start Maneuver Area

SOF—Supervisor of Flying

SPINS—Special Instructions

SPD—System Program Director

SPR—Single Point Refueling

SQ—Squadron

SRB—Safety Review Board

SSE—Simulated Single Engine

SSM—System Support Manager

STAN/EVAL—Standardization & Evaluation

STV—Steerable Television

SUU—Bomb Suspension and Release Unit

TA—Terrain Avoidance

TACAN—Tactical Air Navigation

TAL—Transfer Alignment

TAS—True Air Speed

TBD—To Be Determined/Developed

TDY—Temporary Duty

TDZ—Touch Down Zone

TERPS—Terminal Instrument Procedures

TF—Terrain Following

TFR—Terrain Following Radar

TOLD—Take Off Landing Data

TOT—Time Over Target

TPC—Tactical Pilotage Chart

TPS—Test Pilot School

TR—Transit Route

TRB—Technical Review Board

TSO—Target Study Officer

TTR—Tactics and Training Range

UAS—Unmanned Aerial System

UDLM—Unscheduled Depot Level Maintenance

UHF—Ultra High Frequency

UMD—Unit Manning Document

USAF—Unit States Air Force

USAFTPS—United States Air Force Test Pilot School

UTD—Unit Training Device

VASI—Visual Approach Slope Indicator

VDP—Visual Descent Point

VOR—VHF Omni Range

VFR—Visual Flight Rules

VHF—Very High Frequency

VLD—Visual Level Delivery

VMC—Visual Meteorological Conditions

VR—VFR Military Training Route

VRD—Vision Restricting Device

VTR—Video Tape Recorder

WD—Weapons Delivery

WSO—Weapons Systems Officer

WST—Weapons Systems Trainer

Terms

Additional Crew Member (ACM)—Mobility aircrew members and authorized flight examiners possessing valid aeronautical orders who are authorized to accompany the normal crew complement required for that mission.

Airlift—Aircraft is considered to be performing airlift when manifested passengers or cargo are carried.

Allowable Cabin Load (ACL)—The maximum payload that can be carried on a individual sortie.

Alternate Entry Control Point (Alternate Entry Fix)—The route point(s) upon which a control time for an alternate entry into the route is based.

Assault Landing Zone (ALZ)—A paved or semi-prepared (unpaved) airfield used to conduct operations in an airfield environment similar to forward operating locations. ALZ runways are typically shorter and narrower than standard runways.

Augmented Crew—Basic aircrew supplemented by additional qualified aircrew members to permit in-flight rest periods.

Bingo Fuel—The computed fuel remaining at a point in flight that will allow safe return to the point of intended landing with required fuel reserve.

Block Time—Time determined by the scheduling agency responsible for mission accomplishment for the aircraft to arrive at (block in) or depart from (block out) the parking spot.

Category I Route—Any route that does not meet the requirements of a category II route, including tactical navigation and over-water routes.

Category II Route—Any route on which the position of the aircraft can be accurately determined by the overhead crossing of a radio aid (NDB, VOR, TACAN) at least once each hour with the positive course guidance between such radio aids.

Circular Error Average (CEA)—Indicator of the accuracy of an airdrop operation. It is the radius of a circle within which half of the air-dropped personnel and items or material have fallen.

Combat Control Team (CCT)—A small task-organized team of Air Force parachute and combat diver qualified personnel trained and equipped to rapidly establish and control drop, landing, and extraction zone air traffic in austere or hostile conditions. They survey and establish terminal airheads as well as provide guidance to aircraft for airlift operation. They provide command and control, and conduct reconnaissance, surveillance, and survey assessments of potential objective airfields or assault zones. They also can perform limited weather observations and removal of obstacles or unexploded ordinance with demolitions. Also called CCT.

Command Chief Pilot—An aircrew assigned to AFMC/A3V or an appointee that assists the HQ Stan/Eval team and conducts flight evaluations on behalf of the headquarters.

Command Specified—Created, authored and approved by AFMC/A3V. Configuration control rests with AFMC/A3V.

Conference HOTEL—Communication conference available to help aircrews solve in-flight problems that require additional expertise.

Continuation requirements—Those pertaining to currency and proficiency requirements.

Critical Phase of Flight—Takeoff, low level (below MSA), airdrop, weapon delivery, air refueling, approach, and landing.

Deadhead Time—Duty time for crewmembers positioning or de-positioning for a mission or mission support function and not performing crew duties.

Deviation—A deviation occurs when takeoff time is not within –20/+14 minutes of scheduled takeoff time.

Difference (conversion) Evaluation—An evaluation administered to an aircrew qualified in a variant of a particular aircraft. For example, variants of the B-707 airframe, different series of a particular M/D, or different block versions. Difference training is considered Phase I (initial qualification) training.

Direct Instructor Supervision—Supervision by an instructor of like specialty with immediate access to controls (for pilots, the instructor must occupy either the pilot or copilot seat).

Drop Zone (DZ)—A specified area upon which airborne troops, equipment, or supplies are air-dropped.

Due Regard—Operational situations that do not lend themselves to International Civil Aviation

Organization (ICAO) flight procedures, such as military contingencies, classified missions, politically sensitive missions, or training activities. Flight under "Due Regard" obligates the military aircraft commander to be his or her own air traffic control (ATC) agency and to separate his or her aircraft from all other air traffic. (See FLIP General Planning, section 7)

DZ Entry Point—A fixed point on DZ run-in course where an aircraft or formation or aircraft may safely begin descent from IFR en route altitude to IFR drop altitude. The DZ entry point is a maximum of 40 NM prior to the DZ exit point according to Federal Aviation Administration FAR exemption 4371C. Formation descent will not begin until the last aircraft in formation is at or past the DZ entry point.

DZ Exit Point—A fixed point on the DZ escape flight path centerline, established during pre-mission planning, at which the formation will be at the minimum IFR en route altitude. Calculate the exit point based upon three-engine performance at airdrop gross weight. This point will be planned no less than four NM track distance beyond the DZ trailing edge.

Earliest Descent Point (EDP)—Earliest point in the DZ run-in course where the lead aircraft may begin IFR descent to IFR drop altitude and be assured of terrain clearance for the entire formation. Compute EDP by subtracting formation length from the computed DZ entry point.

Equal Time Point—Point along a route at which an aircraft may either proceed to destination or first suitable airport or return to departure base or last suitable airport in the same amount of time based on all engines operating.

End Maneuver Area (EMA)—A control point terminating the bomb run area.

Entry Control Time—The scheduled time over the Primary/Alternate Entry Control Point.

Entry Track—A track, usually associated with a bomber IR and beginning at the Primary or alternate Entry Point, along which descent is made to the low altitude portion of the route.

Estimated Time In Commission (ETIC)—Estimated time required to complete required maintenance.

Evaluation Form—Worksheet used to document any evaluation to prepare the AF Form 8.

Execution—Command-level approval for initiation of a mission or portion thereof after due consideration of all pertinent factors. Execution authority is restricted to designated command authority.

Familiar Field—An airport in the local flying area at which unit assigned aircraft routinely perform transition training. Each operations group commander will designate familiar fields within their local flying area.

Fix—A position determined from terrestrial, electronic, or astronomical data.

Fuel:—

Normal Fuel—Fuel state on initial or at the final approach fix such that the aircraft can land with the fuel reserves specified in 11-202 Vol. 3.

Minimum Fuel—Fuel state, where, upon reaching the destination, the aircraft can accept little or no delay. This is not an emergency situation but merely indicates an emergency situation is possible should any undue delay occur.

Emergency Fuel—Fuel state requires immediate traffic priority to safely recover the aircraft. An emergency will be declared and the aircraft immediately recovered at the nearest suitable field.

Ground Collision Avoidance System (GCAS)—Automated system which actively or semi-actively warns aircrew of impending ground collision.

Global Decision Support System (GDSS)—AMC primary execution command and control system. GDSS is used to manage the execution of AMC airlift and tanker missions.

Hazardous Cargo or Materials (HAZMAT)—Articles or substances that are capable of posing significant risk to health, safety, or property when transported by air and classified as explosive (class 1), compressed gas (class 2), flammable liquid (class 3), flammable solid (class 4) oxidizer and organic peroxide (class 5), poison and infectious substances (class 6), radioactive material (class 7), corrosive material (class 8), or miscellaneous dangerous goods (class 9). Classes may be subdivided into divisions to further identify hazard (i.e., 1.1, 2.3, 6.1, etc.).

Initial Cadre—Those personnel assigned to conduct flight testing of experimental, developmental, or new aircraft for which there are no established formal training programs nor standardized evaluation criteria. Initial Cadre designations are appropriate through Initial Operational Capability.

Instructor Supervision—Supervision by an instructor of like specialty (see also Direct Instructor Supervision).

Inter-fly—The exchange and/or substitution of aircrews and aircraft between Mobility Air Forces (MAF) including crewmembers and/or aircraft from AETC, ACC, PACAF, USAFE, AMC, ANG and AFRC forces not gained by AFMC.

Jumpmaster—The assigned airborne qualified individual who controls parachutists from the time they enter the aircraft until they exit.

Knock-it-Off—A term any crewmember may call to terminate a training maneuver. Upon hearing "knock-it-off" the crew should establish a safe altitude, airspeed and return the aircraft power and flight controls to a normal configuration.

Landing Zone (LZ)—An area of sufficient size to allow discharge or pickup of passengers or cargo by touchdown or low hover.

Low Altitude Safety Targeting Enhancement (LASTE)—A-10 avionics system.

Latest Descent Point—Latest planned point on the DZ run-in course where the formation plans to initiate descent to drop altitude. This is planned to ensure all aircraft in the formation are stabilized (on altitude and airspeed) prior to the drop.

Lead Crew—A crew consisting of a lead qualified aircraft commander and a lead qualified navigator.

Letter of "X"s—A document used in AFMC, signed by an appropriate authority, that lists each assigned/ attached aircrew's aircraft designation, crew position, and mission qualifications.

Local Training Mission—A mission scheduled to originate and terminate at home station (or an off-station training mission), generated for training or evaluation and executed at the local level.

Low Altitude Navigation Leg—The route segments of a bomber IR between the TA Initiation Point and TA Termination Point. For non-bomber IR, the low altitude navigation leg is that portion of the route designed primarily for low altitude flight; does not include segments intended for descent into and climb-out from the route.

Maintenance Status—

Code 1—No maintenance required.

Code 2 (Plus Noun)—Minor maintenance required, but not serious enough to cause delay. Add nouns that identify the affected units or systems, i.e. hydraulic, ultra high frequency (UHF) radio, radar, engine, fuel control, generator, etc. Attempt to describe the nature of the system malfunction to the extent that appropriate maintenance personnel will be available to meet the aircraft. When possible, identify system as mission essential (ME) or mission contributing (MC).

Code 3 (Plus Noun)—Major maintenance. Delay is anticipated. Affected units or systems are to be identified as in Code 2 status above.

Manmade Obstructions—Structures which present a hazard to flight. Structure height is measured from the ground-base.

Mark—The time when an aircraft passes over the landing zone or ground party.

Mission—1. The task, together with the purpose, that clearly indicates the action to be taken and the reason therefore. 2. In common usage, especially when applied to lower military units, a duty assigned to an individual or unit; a task. 3. The dispatching of one or more aircraft to accomplish one particular task.

Mission Contributing (MC)—Any degraded component, system, or subsystem which is desired, but not essential to mission accomplishment.

Mission Essential (ME)—An degraded component, system, or subsystem which is essential for safe aircraft operation or mission completion.

Modified Contour—Flight in reference to base altitude above the terrain with momentary deviations above and below the base altitude for terrain depressions and obstructions to permit a smooth flight profile.

Off Station Training Flight—A training flight that originates or terminates at other than home station that is specifically generated to provide the aircrew experience in operating away from home station. Off station trainers will not be generated solely to transport passengers, cargo, or position/deposition crewmembers.

Operational Risk Management (ORM)—A logic-based common sense approach to making calculated decisions on human, material, and environmental factors before, during, and after Air Force operations. It enables commanders, functional managers and supervisors to maximize operational capabilities while minimizing risks by applying a simple systematic process appropriated for all personnel and Air Force functions.

Operational Site—An LZ that has (1) been surveyed by an instructor pilot (IP) experienced in remote operations to ensure no hazards exist, (2) a photograph available for aircrews to study the site prior to landing and (3) approval from the DFO to be designated an operational site. Whenever practical, operational sites should have permanently installed and properly maintained wind indicators (wind sock, streamer, etc.).

Opportune Airlift—Transportation of personnel, cargo, or both aboard aircraft with no expenditure of additional flying hours to support the airlift.

Originating Station—Base from which an aircraft starts on an assigned mission. May or may not be the home station of the aircraft.

Over Water Flight—Any flight that exceeds power off gliding distance from land.

Phase I Training—For primary crewmembers includes qualification, requalification, and instructor training.

Phase II Training—Includes mission training outside the scope of basic qualification training. Examples include: ACBT, air refueling, chase, low level, and LASDT.

Phase III Training—Includes training mission/event currency and proficiency to maintain qualifications obtained in Phase I and Phase II Training.

Primary /Alternate Exit Point—The final way-point published in FLIP for the primary or alternate exit route. For bomber IR, the final point on the climb-out track. For other routes, may coincide with the final TA Termination Point.

Primary/Alternate TA Initiation Point (Initial/Start TA)—The way-point at which aircrew are authorized to begin TA operations.

Primary/Alternate TA Termination Point (Final/End TA)—The point which denotes the end of TA operations.

Primary Entry Control Point (PECP)—Referred to as the Entry Fix. The route point upon which a control time for route entry is based.

Provisions—A statement on the front of the AF Form 8 indicating conditions for which the evaluation may satisfy recurring evaluation requirements, usually used for no-notice or out-of-the-eligibility-period evaluation. For example: "Provision: Open and closed book exams due NLT 30 Apr 97."

Reentry Track—A track, commencing at the end of a Maneuver Area, on which low altitude re-entry to the route can be achieved to execute additional bomb/ECM/AGM runs.

Restriction—A statement on the front of the AF Form 8 that places limitations on the duties that may be performed by an aircrew, usually as a result of a failed ground or flight phase event. For example, "Restriction: Examinee will not fly unless under the supervision of an instructor pilot, Day Only, Conus Only."

Route Width (Route Perimeter)—The route boundary limits within which aircraft are restricted to conduct operations.

Senior Flight Examiner—A commander authorized to conduct SPOT evaluations for assigned/attached aircrews.

Significant Meteorological Information (SIGMET)—Area weather advisory issued by an ICAO meteorological office relayed to and broadcast by the applicable ATC agency. SIGMET advisories are issued for tornadoes, lines of thunderstorms, embedded thunderstorms, large hail, sever and extreme turbulence, severe icing, and widespread dust or sand storms. SIGMET frequently covers a large geographical area and vertical thickness. They are prepared for general aviation and may not consider aircraft type or capability.

Single-Pilot Aircraft—Aircraft that require a minimum crew of only one pilot as defined the aircraft's flight manual (i.e. F-16, F-15A-E).

Single-Place Aircraft—Aircraft that possess only one seat in all versions (i.e. A-10, F-22, F-35).

Squadron Top 3—Squadron ADO, DO, CC.

Stabilization Point—Point on the DZ run-in course at which the lead aircraft should plan to be stabilized at drop altitude and airspeed. This point will be planned to be at least 6 NM prior to the point of impact.

Station Time—In air transport operations, the time at which crews, passengers, and cargo are to be on board and ready for the flight.

Start Maneuver Area (SMA)—The point that defines the start of the bomb run area. Timing control must be within applicable tolerances.

Suitable Airfield (C-130)—Normally, suitable airfields are those that meet C-130 weather, fuel, and runway requirements (chapter 6) are within 50 NM of flight plan course centerline.

Temporary-2 (T-2) Modification—T-2 modifications are temporary modification required to support research, development, test, and evaluation (RDT&E), in service testing of potential replacement items (form, fit, and function), and for aircraft/stores compatibility testing.

Tactical Event (C-130)—Airdrop, low level, formation, and threat avoidance approaches/ departures.

TA Visual Conditions (B-52)—Weather conditions that permit aircraft operations clear of clouds, provide the pilots visual contact with the ground, and three miles forward visibility.

Terminal Fuel Flow (TFF) (C-130)—The fuel flow rate expected during the last hour at cruise altitude. It is the difference between the fuel required for en-route time plus one hour and fuel required for en-route time. TFF may also be computed using the T.O. 1C-130X-1-1 fuel flow table and the estimated aircraft weight at destination. Estimated gross weight is determined by subtracting fuel burn off from takeoff gross weight.

Terrain Avoidance (TA) (B-52)—Method of maintaining ground clearance by Terrain Trace, EVS, or Radarscope Interpretation as close to the terrain as equipment, command directives, and crew judgment allow.

Time Out—See definition for "Knock it Off."

Training Mission—Mission executed at the unit level for the sole purpose of aircrew training for upgrade or proficiency. Does not include operational missions as defined in this AFI.

Unilateral—Operations confined to a single service.

Unit Specified—Developed, published and maintained at the unit level. Approval required from HQ AFMC.

Visual Contour Flight—Operation at a predetermined altitude above the ground, following contours visually using the radar altimeter to crosscheck altitude. An operating radar altimeter is required.

Visual Reconnaissance—Aerial survey of areas, routes, or LZs.

Zero Fuel Weight—Weight, expressed in pounds, of a loaded aircraft not including wing and body tank fuel. All weight in excess of the maximum zero fuel weight will consist of usable fuel.

Attachment 2

DELETED

A2.1. Deleted.

Attachment 2 (EDWARDSAFB)

EDWARDSAFB ARMS EVENT IDENTIFIERS

Figure A2.1. EdwardsAFB Arms Event Identifiers

FLYING TRAINING TASKS		
DESCRIPTION	**TASK NAME**	**TASK ID**
SORTIES		
ELEVATED RISK SORTIE	ELEVTD RISK	ER86
TYPE CONVERSION SORTIE	BEHNP CONV	SC02
TYPE CONVERSION SORTIE	AD CONV	SC03
TYPE CONVERSION SORTIE	J CONV	SC04
C-130 AMP SORTIE	C-130 AMP	SC05
C MODEL SORT	C MOD SORT	SC21
TYPE CONVERSION SORTIE	TURBO FAN	SC41
TYPE CONVERSION SORTIE	HI-BYPASS	SC42
FUNCTIONAL CHECK FLIGHT TRAINING	FCF TRNG	SF10
EXECUTIVE AIRLIFT SORTIE	EX ALFT SRT	SF20
FCP LANTIRN SORTIE	FCP LANT SORT	SL20
TYPE PROFICIENCY	SERIES PROF	SP22
TYPE PROFICIENCY	AD PROF	SP42
TYPE PROFICIENCY	OSO SORTY	ST20
FRONT AND SINGLE SEAT SORTIE	FNT/SGL ST SORT	ST21
BACK SEAT SORTIE	BACK SEAT SORT	ST22
THIRD SEAT SORTIE	3RD SEAT SORT	ST23
LOW ALTITUDE NIGHT VISION GOGGLES SORTIE	L/ALT NVG SORT	VV02
MEDIUM ALTITUDE NIGHT VISION GOGGLES SORTIE	M/ALT NVG SORT	VV03
AIR EVENT		
SPIN CHASE	SPIN CHASE	AC12
STRAIGHT IN SIMULATED FLAME OUT	STR IN SFO	AC17
BIG CROW MISSION	BIG CROW	AC20
OVERHEAD SIMULATED FLAME OUT	OVERHEAD SFO	AC27
CRUISE MISSILE MISSION	CRUISE MISSILE	AC30
DAY VISUAL RESTRICTIVE DEVICE LANTIRN	DAY VRD LNT	AC40
LVAD/CDS DROP	LVAD DROP	AD30
AIR EVENT CONTINUED		
HEAVY EQUIPMENT AIRDROP	HE AIRDROP	AD40
VISUAL FORMATION	FORM VISUAL	AF01
FORMATION CAP/STATION KEEPING EQUIPMENT	FRM CAP/SKE	AF02

AIR-LAND DAY	AIRLND DAY	AL20
AIR-LAND NIGHT	AIRLND NGT	AL21
NAVIGATOR MANUAL GEAR AND FLAPS	NV GEAR/FL	AN20
CROSS COUNTRY NAVIGATION LEG	XC NAV LEG	AN21
LANTIRN NIGHT	NIGHT LANT	AN40
HIGH ANGLE OF ATTACK FAMILIARIZATION TRAINING	HI AOA FAM	AO20
HIGH ANGLE OF ATTACK FAMILIARIZATION TRAINING INSTRUCTOR PILOT	HI AOA F IP	AO30
HIGH ANGLE OF ATTACK TEST	HI AOA TEST	AO40
AIR START	AIRSTART	AS00
OVER WATER NAVIGATION	OVERWATER NAV	OW22
MISSION CONTROL ELEMENT PAYLOAD MISSION	MCE PAYLOAD MSN	PS01
TERRAIN FOLLOWING	T/F	TF20
TERRAIN FOLLOWING NIGHT	T/F NT	TN21
TOWER FLY BY	TOWER FLY BY	XTFB
WEAPONS DELIVERY		
ENHANCED ENVELOPE GUNNERY SIGHT	EEGS	EG97
AIR TO GROUND STRAFE RUN	STRAFE (A/G)	SF80
AIR TO AIR GUNNERY	A/A GUNFIRE	WD21
PARACHUTIST TRAINING TASKS		
TOTAL JUMPS PER MISSION	TOT JMP PER MSN	JT00
TOTAL EQUIPMENT JUMPS PER MISSION	TOT EQ PER MSN	JT01
DROP ZONE CONTOLLER	DZC	PC00
STATIC LINE COMBAT EQUIPMENT JUMP	SL CBT EQP JUMP	PJ11
MILITARY HIGH ALTITUDE LOW OPENING JUMP	MIL HALO JUMP	PJ12
ADVANCED FREE FALL MANEUVERING JUMP	ADV FFM JUMP	PJ13
JUMP EQUIPMENT USED	B18/B22/C12J	PJ17
STATIC LINE MISSION JUMP	SL MSN JM	PJ18
HALO COMBAT EQUIPMENT JUMP	HALO CBT EQ JMP	PJ22
	AMF TRAINER	PJ23
	F/A EQUIP JMP	PJ27
FREE FALL MISSION JUMP	FF MSN JM	PJ28
HALO OXYGEN COMBAT EQUIPMENT	HALO O2 CMBT EQ	PJ32
JUMP EQUIPMENT USED	ACES 2 SEAT KT	PJ37
PARACHUTIST TRAINING TASKS CONTINUED	MIL SYS HAHO	PJ42

MILITARY HIGH ALTITUDE HIGH OPENING JUMP		
EMERGENCY PROCEDURES	EMERGENCY PROC	PJ50
TANDEM LINE EMEMRGENCY PROCEDURES LAB	TANDEM EP LAB	PJ51
TANDEM LINE JUMP	TANDEM JUMP	PJ52
	A/C PARA EP LAB	PJ53
MANEUVERING FREE FALL PHOTGRAPHY JUMP	MFF PHOTOG	PJ62
	L/EP CUT/A JMP	PJ72
	L/EP R/H DEP	PJ82
OTHER GROUND AIRCREW TRAINING		
END OF HALF IS COMPLETE	EOH COMPLETE	EH01
SUPERVISOR OF FLYING EVALUATION	SUPER EVAL	EV84
AFMC FORM 81 (CONTRACTOR/GOVERNMENT) AO	FORM 81	FM81
PHYSICAL FITNESS\	PHYS FITNESS	GT20
FLIGHT TEST GROUND TRAINING	F/TST GND TG	GX02
NIGHT VISION GOGGLES ACADEMICS	NVG ACADEMICS	GX03
EMERGENCY EGRESS SIMULATOR	EMER EGRESS SIM	GX20
SAFETY MEETING	SAFETY MEETING	SM60
ON SCENE COMMANDER TRAINING	CMDR TRNG	CC01

Attachment 3

A-10 TRAINING GUIDELINES

A3.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the A-10 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all A-10 aircraft.

A3.2. Phase I Training.

A3.2.1. Conversion Training. A-10 A-C conversion training is required for pilots qualified in the A-10A to qualify in the A-10C.

A3.3. Phase II Training. No additional requirements.

A3.4. Continuation Training.

A3.4.1. The A-10A and A-10C are considered the same series for the purpose of maintaining currency.

A3.5. Upgrade Qualification Training. No additional requirements.

A3.6. Training Restrictions. No additional requirements.

A3.7. Additional Training. No additional requirements.

Attachment 4

B-1 TRAINING GUIDELINES

A4.1. General Information This attachment, in conjunction with other governing directives, outlines procedures for operation of the B-1 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all B-1 aircraft.

A4.1. (EDWARDSAFB)General Information. AFI 11-202 Volume 1, AFMC Supplement 1, this instruction and approved training plans will be used to qualify AFMC crewmembers in B-1 aircraft (initial, requalification, conversion, difference, mission, and upgrade training) as applicable.

A4.1.1. WSO requirements. The flying unit commander will determine the aft station crew complement for training to include qualified Weapon Systems Officers (WSOs) based on flight manual and unit training requirements. "Nontraditional" crew procedures, if applicable, must be developed by the unit and incorporated into the unit's supplement upon approval from AFMC/A3V.

A4.1.2. IFAST Simulator. The B-1 aft station trainer located in the Integrated Avionics Software Training Facility (IFAST) at Edwards AFB, CA is considered an approved simulator for completing B-1 WSO qualification/requalification simulator training events and flying events that specify "May be accomplished in the simulator." The IFAST simulator is also considered an approved simulator for accomplishing the Electronics Countermeasures additional currency requirement for WSOs specified in Table A4.3. However, it is not adequate for completing annual simulator training required by AFI 11-2FTV1 chapter 4.

A4.2. Phase I Training. No additional requirements

A4.3. Phase II Training.

A4.3.1. The nature of low altitude flight in the B-1, combined with the AFMC mission to regularly test and evaluate terrain following systems below 500' AGL, requires aircrew to be both Low Level Navigation and LASDT qualified. B-1 aircrew members conduct Low Level Navigation, TF, and LASDT as a single training program. Pilots will demonstrate proficiency at 500' AGL before accomplishing flight maneuvers below 500' AGL. At the discretion of the instructor, this step down may occur on the same sortie. While the majority of low level flight is conducted using the TF system, aircrews need to be knowledgeable of aircraft handling and performance characteristics to safely conduct operations at these lower altitudes.

A4.3.1.1. Ground Training. The following outline is applicable to all Low Level Navigation/LASDT training. Training should incorporate appropriate portions of AFFTP 3-1 and AFTTP 3-3 Volume 20, *Combat Aircraft Fundamentals—B-1*.

A4.3.1.1.1. Aircraft Handling Qualities. Discuss aircraft performance as it applies to the low altitude environment, to include: 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.

A4.3.1.1.2. Environmental Factors. Discuss out-of-cockpit visibility and Field of View restrictions, sun angle, shadows/illusions (radar/visual).

A4.3.1.1.3. Low Altitude Awareness Training. Academics should consist of a discussion of low altitude tasks and task management/prioritization concepts and the importance of frequent cross check of aircraft attitude relative to the horizon. An Air Combat Command (ACC) LAAT refresher course satisfies this requirement. Unless previously LASDT qualified, pilots and WSOs will view the video "How Low Can You Go?"

A4.3.2. Electronic Countermeasures (ECM) Training. ECM training is used to qualify WSOs to a level of proficiency in operating B-1 defensive system equipment to include receive and transmit functions as well as tail warning, towed decoy, and expendable countermeasure functions. ECM training will be used to train and WSOs to perform ECM in support of test programs requiring such operations. A B-1 instructor of like specialty, who is current and qualified in ECM, will administer the ground and flying training.

A4.3.2.1. NEAJAM, EAJAM, expendable countermeasures, tail warning function and the TDS system training may be accomplished in the simulator or IFAST. The TDS system training may also be accomplished in simulated or actual modes, as appropriate.

A4.4. Continuation Training.

A4.4.1. In addition to the minimum requirements in chapter 4 of this instruction, B-1 aircrew members will also accomplish the requirements in Table A.4.1. and Table A4.2.

A4.4.2. Air-to-Air Refueling Breakaway. Log breakaway per ATP-56.

Table A4.1. Additional B-1 Currency Requirements.

POSITION	TRAINING ITEM	NUMBER/FREQUENCY
Pilot	Low Level (Visual Contour or TF)	1/120
WSO	Low Level (Visual Contour or TF) ECM (Notes1, 2)	1/120 1/90
NOTES: 1. As Applicable to the unit mission. 2. May be accomplished in the simulator.		

Table A4.2. Additional B-1 Proficiency Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot	Low level (Visual Contour or TF)	3	3	3	2	1	1
	Air to Air Refueling Receiver	2	2	2	1	1	1
	Air to Air Refueling Breakaway	1	1	1	1	1	1
	No flap Approach and Landing	1	1	1	1	1	1
OSO/WSO	Low Level (Visual Contour or TF)	2	2	2	1	1	1

A4.4.3. Low Level Navigation/LASDT Requirements. Pilots and WSOs exceeding low level currency requirements in Table A4.1. may regain currency by accomplishing a low level navigation event under the direct supervision of an instructor. Loss of currency exceeding 2 months requires requalification training.

A4.5. Upgrade Qualification Training.

A4.5.1. Copilot to Aircraft Commander Upgrade. The primary method to accomplish this training is at a formal school. If this is not practical, local upgrade training will consist of the ground, simulator, and flying training events specified in the "Qual" column of the AFMC Phase I qualification syllabus.

A4.5.2. Instructor Upgrade. Instructor OSO upgrade must be flown from the DSO seat.

A4.6. Training Restrictions. No additional requirements.

A4.7. Additional Training. No additional requirements.

Attachment 5

B-2 TRAINING GUIDELINES

A5.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the B-2 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all B-2 aircraft.

A5.1.1. Crew Requirements. The flying unit commander will determine the crew complement to include two pilot crews and pilot / WSO crews based on unit training requirements. Mission qualification training qualifies pilots to perform mission events from either seat. There is no requirement to log mission qualification or continuation training events in relation to the seat occupied.

A5.2. Phase I Training. No additional requirements.

A5.2. (EDWARDSAFB)Flight Test training may be accomplished in conjunction with Phase 1 and/or instructor training.

A5.3. Phase II Training.

A5.3.1. Weapons Delivery Training. Pilots may complete training from either seat. Air-to-surface weapons delivery qualification automatically includes Ordnance Release Flight Test and Compatibility Flight Profile (if a TPS grad) qualifications.

A5.4. Continuation Training. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, B-2 aircrew members will also accomplish the following requirements.

A5.4.1. Additional B-2 Currency Requirements. The currency requirement for air refueling is 1/120 days.

A5.4.1. **(EDWARDSAFB)** Weapons Delivery may be accomplished on a captive carry weapon release (guided or unguided).

Table A5.1. Additional B-2 Proficiency Training Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot	Air to Air Refueling Receiver	2	2	2	1	1	1
	Air to Air Refueling Breakaway	2	2	2	1	1	1

A5.5. Upgrade Qualification Training. No additional requirements.

A5.6. Training Restrictions. No additional requirements.

A5.7. Additional Training. No additional requirements.

Attachment 6

B-52 TRAINING GUIDELINES

A6.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the B-52 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all B-52 aircraft.

A6.1.1. Navigator. The navigator position referenced in this attachment refers to both the B-52 navigator and radar navigator crew positions. Log mission qualification or continuation training events in either the navigator or radar nav seat. EWOs will complete the B-52 NRA/Ops Support Phase I syllabus. Currency and proficiency requirements for B-52H EWOs are the same as B-52 Navigators.

A6.2. Phase I Training. No additional requirements.

A6.2. (EDWARDSAFB)Flight Test training may be accomplished in conjunction with Phase 1 and/or instructor training.

A6.3. Phase II Training.

A6.3.1. LASDT. Currently B-52's only fly LASDT as part of the FCF mission and training is incorporated into the FCF training program. If the flying unit commander determines that LASDT (operations below 500' AGL) is a mission requirement, non-FCF qualified aircrews must complete the LASDT training program.

A6.4. Continuation Training. In addition to the minimum requirements in chapter 4 of this instruction, B-52 aircrew members will also accomplish the requirements in **Table A6.1** and **Table A6.2**

Table A6.1. Additional Currency Requirements.

POSITION	TRAINING EVENT	NUMBER/FREQUENCY
Pilot	Air to Air Refueling Receiver	1/120
Pilot/Navigator	Low-level (EVS/Visual or TA) Weapons Delivery (2)	1/120 1/180
Navigator	Air to Air Refueling Rendezvous (2)	1/180
EWO	B-52 EA Threat Activity (1,2)	1/60

NOTES:

1. As Applicable to the unit mission.
2. May be accomplished in the simulator
3. **(EDWARDSAFB)**Weapons Delivery may be accomplished on a captive carry weapon release (guided or unguided).

Table A6.2. Additional Proficiency Training Requirements

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot	Simulated Engine Failure on Takeoff	1	1	1	1	1	1
	Low Level (EVS/Visual or TA)	3	3	2	2	1	1
	Air to Air Refueling Receiver	2	2	2	1	1	1
	Air to Air Refueling Breakaway	1	1	1	1	1	1
	6-Engine Approach and Landing	2	2	2	1	1	1
	No Flap Touch and Go Landing	2	2	2	1	1	1
	6-Eng Missed Approach	2	2	2	1	1	1
	Pattern Proficiency Sortie	1	1	1	1	1	1
Navigator	Low Level (EVS/Visual or TA)	2	2	2	1	1	1

A6.4.1. Pattern Proficiency Sortie. Pilots may log proficiency sortie, as required in **Table A6.2** provided they actively control the aircraft for a minimum of 0.5 hours of primary time and accomplish, as a minimum, the events listed; Two instrument approaches (precision and non-precision), Visual pattern, Landing, and Missed approach. Emphasize system malfunctions and asymmetric thrust operations (e.g., 6-engine approach, flaps up approach, engine loss on takeoff).

A6.4.2. Low Level/LASDT Navigation Requirements. Pilots and navigators exceeding Low Level/ LASDT currency requirements exceeding 2 months requires the applicable requalification ground and flight training.

A6.5. Upgrade Qualification Training. No additional requirements.

A6.6. Training Restrictions. No additional requirements.

A6.7. Additional Training. No additional requirements.

Attachment 7

B707/E-3/E-8 TRAINING GUIDELINES

A7.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the B707/E-3/E-8 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all B707/E-3/E-8 aircraft.

A7.1.1. B-707. For the purpose of training required by this instruction, B-707 encompasses the category of all four engine military and civil aircraft based on the B-707-100/300 or 720 series aircraft to include the E-3, and E-8, etc.

A7.2. Phase I Training.

A7.2.1. Ground Training Requirements. All systems and components not covered in training due to differences between the simulator and the B-707 being trained on will be covered in detail by an instructor during the aircraft visit.

A7.2.1.1. Simulator Training. Pilots and flight engineers will perform at least four simulator missions (4 hours/mission) prior to the initial qualification flight evaluation.

A7.2.2. Conversion Training.

A7.2.2.1. B-707 conversion training requirements are outlined in Phase I training plans. B-707 conversion training is required for pilots/flight engineers to qualify in another B-707 category to include the E-3/E-8, etc. Pilots/flight engineers seeking qualification in multiple categories must have an experience level of 2,000 hours total flying time with a combined total of 1,000 hours in a B-707 category.

A7.2.2.2. The pilot and flight engineer positions in all B-707 aircraft are considered a single qualification upon completion of a qualification flight evaluation in each aircraft or upon completion of conversion training. Pilots and flight engineers maintaining qualification in two or more B-707 variants must take the qualification open and closed book examinations from each B-707 qualified as a requisite to the flight evaluation in their primary B-707, and complete MDS-specific egress training.

A7.2.2.3. Navigator Qualification. The C-135 and B-707 (E-3, E-8, etc) are considered a single qualification upon completion of a flight evaluation in each aircraft or upon completion of applicable conversion training.

A7.2.2.4. B-707 conversion training is not required for navigators to qualify in another B-707 aircraft to include the E-3/E-8, etc. However, C-135 navigators may qualify in the B-707 by completing a flight evaluation in each aircraft or upon completion of B-707 conversion training Navigators maintaining qualification in both the C-135 and B-707 must take the qualification open and closed book examinations for both aircraft as a requisite to a flight evaluation in either aircraft and comply with MDS-specific egress training requirements.

A7.2.3. Flying Training Requirements. Flight training requirements have been established for pilots, navigators, and flight engineers. Complete Phase I Flight Training IAW AFMC/A3V syllabi for each applicable crew position. Initial qualification flying training will

be accomplished within the same B-707 category to maximum extent practical. Copilots will accomplish Phase I training in the right seat. However, those items accomplished in the left seat, such as engine start, taxi, etc., may be demonstrated to the student.

A7.3. Phase II Training.

A7.3.1. Air Refueling Training. Pilots may complete qualification training from either seat. A contact may be credited for each 5 minutes of toggles engaged time on the boom. Proficiency in day refueling and contacts will be demonstrated before night contacts are attempted.

A7.3.1.1. To be a receiver AR qualified instructor, a pilot, flight engineer, or navigator must be instructor qualified in the basic aircraft. Only pilots require instructor upgrade training. Basic aircraft instructor pilot upgrade and air refueling instructor pilot upgrade training may be conducted concurrently. In this instance, the pilot must be air to air refueling receiver qualified prior to beginning instructor upgrade training. Receiver qualified pilots in the C-135 becoming qualified only need accomplish one training flight with a qualified AR instructor.

A7.4. Continuation Training.

A7.4.1. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, B-707 aircrew members will also accomplish the requirements in **Table A7.1**

A7.4.2. For navigators, qualification in the C-135, and B-707 aircraft is considered a single qualification for the purposes of currency and proficiency requirements upon completion of the applicable conversion training, or qualification flight evaluation.

A7.4.2.1. For pilots and flight engineers, qualification in all B-707 variants are considered a single qualification for currency and proficiency requirements upon completion of the applicable conversion training or qualification flight evaluation.

Table A7.1. Semi Annual Basic Proficiency Training Requirements.

AIRCRAFT	POSITION	TRAINING ITEM	MONTHS AVAILABLE					
			6	5	4	3	2	1
			NUMBER REQUIRED					
B-707 E-3/E-8	Pilot	Sim Eng Fail on T/O (**Note 1**)	2	2	2	1	1	1
		Sim Eng Out Missed Approach	2	2	2	1	1	1
		Sim Eng Out Landing	2	2	2	1	1	1
		Night Air to Air Receiver	1	1	1	1	1	1
		Air to Air Refueling Breakaway	1	1	1	1	1	1
		Proficiency Sortie	2	2	2	1	1	1
	Navigator	Air to Air Receiver Rendezvous	1	1	1	1	1	1

NOTE 1: Less E-3 if accomplished during annual simulator refresher training.

A7.4.3. Pilot Proficiency Sortie. Pilots may log a proficiency training sortie if they actively control the aircraft for a minimum of 0.5 hours of primary time and accomplish at least five different events from the following list: Takeoff or departure, Penetration or Enroute Descent, Precision Approach Non-precision approach, Simulated emergency procedure, VFR pattern, Landing or touch-and-go, Holding, Airwork, Receiver Air Refueling, Circling Approach, Missed Approach.

A7.4.4. Conversion Currency Requirements. Pilot and flight engineer conversion training currency is maintained by logging a sortie every 180 days in each B-707 variant they are qualified. Navigator conversion training currency is maintained by logging a sortie every 180 days in each aircraft (C-135, B-707) in which the qualification is held.

A7.4.4.1. If B-707 pilots/flight engineers cannot maintain AFMC prescribed currency requirements in their variant, the squadron commander or operations officer, on a case-by-case basis, may authorize currency to be maintained in any B-707 variant. The following requirements must be met:

A7.4.4.1.1. The aircraft to be used must have similar avionics equipment.

A7.4.4.1.2. Accomplish pilot Phase I ground training applicable to the aircraft to be flown.

A7.4.4.1.3. Be supervised by a qualified IP at a set of flight controls.

A7.4.4.1.4. Use FP duty code on the AFTO Form 781.

A7.4.4.1.5. These events can be counted toward semiannual training requirements.

A7.4.4.2. The flying unit commander or operations officer, on a case-by-case basis, may authorize a C-135 airframe be used. If the pilot is not qualified in the C-135 airframe, the following requirements must be met:

A7.4.4.2.1. The pilot must have 2000 hours total flying time with at least 1000 hours in the B-707 or C-135.

A7.4.4.2.2. Accomplish pilot Phase I ground training applicable to the aircraft to be flown.

A7.4.4.2.3. Be supervised by a qualified IP at a set of flight controls.

A7.4.4.2.4. Use an XP duty code on the AFTO Form 781.

A7.4.4.2.5. Not log events toward semiannual training requirements.

A7.4.5. Air to Air Refueling Receiver Currency. Pilots may update air to air refueling receiver currency in any C-135/B-707 aircraft in which qualified. However, if the pilot is not qualified in the C-135, the following restrictions apply:

A7.4.5.1. Complete pilot qualification ground training.

A7.4.5.2. Under direct supervision of a receiver qualified instructor pilot.

A7.4.5.3. Access to flight controls only during receiver refueling training.

A7.4.5.4. Navigator air refueling currency is maintained by accomplishing a tanker or receiver rendezvous. Either rendezvous satisfies the requirements of chapter 4.

A7.4.6. E-3 Simulator Training. An attempt must be made to update aircraft currency in an aircraft before use of simulator. The use of a level "D" simulator is allowed to update E-3 aircraft currency in the following categories: Sortie, Instrument Approach, Landing, Night Landing, Touch and Go Landing, Air Refueling and Night Air Refueling, for which the Class "D" simulator has FAA approval. The last simulator currency update within the actual flight currency window can be used to calculate the new currency date. Currency cannot be updated in two consecutive currency periods in the simulator. Lost currency must be regained in the E-3 aircraft. This instruction allows up to 50% of the proficiency requirements for Precision Approaches, Non-Precision Approaches, and Takeoffs in a Class "D" simulator. Other currency items updated in the simulator do not count towards cycle proficiency requirements of this instruction.

A7.5. Upgrade Qualification Training. No additional requirements.

A7.6. Training Restrictions. No additional requirements.

A7.7. Additional Training. No additional requirements.

Attachment 8

C-5 TRAINING GUIDELINES

A8.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the C-5 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all C-5 aircraft.

A8.2. Phase I Training.

A8.2.1. Ground and Flying Training Requirements. Copilots will accomplish Phase I training in the right seat. However, those items accomplished in the left seat, such as engine start, taxi, etc., may be demonstrated to the student.

A8.3. Phase II Training.

A8.3.1. Pilots must be aircraft commander qualified prior to entering mission qualification training.

A8.3.2. Air Refueling Training. Air Refueling training will be conducted IAW paragraph **3.2** Pilots may complete qualification training from either seat. A contact may be credited for each 5 minutes of toggles engaged time on the boom. Proficiency in day refueling and contacts will be demonstrated before night contacts are attempted. Day and night qualification requires separate training. Instructor qualification requires the sortie be flown from the right seat.

A8.4. Continuation Training. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, C-5 aircrew members will also accomplish the requirements in **Table A8.1**

Table A8.1. Additional Proficiency Training Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot	Air to Air Refueling Receiver	1	1	1	1	1	1
	Simulated Engine Out Missed Approach	1	1	1	1	1	1
	Simulated Engine Out Landing	1	1	1	1	1	1
	Holding	1	1	1	1	1	1
	No Flap Pattern and Landing	1	1	1	1	1	1

A8.4.1. Air to Air Receiver Refueling Requirements. Loss of currency exceeding two months requires the applicable requalification ground and flight training.

A8.4.2. FCF Recurrency Requirements. Loss of currency exceeding 4 months requires FCF requalification ground and flight training.

A8.5. Upgrade Qualification Training.

A8.5.1. Instructor Pilot Upgrade. Instructor pilot candidates will receive training while occupying the right seat.

A8.6. Upgrade Qualification Training. No additional requirements.

A8.7. Training Restrictions. No additional requirements.

A8.8. Additional Training. No additional requirements.

Attachment 9

C-12 TRAINING GUIDELINES

A9.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the C-12 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all C-12 aircraft.

A9.2. Phase I Training.

A9.2.1. Copilots will accomplish Phase I training in the right seat. However, those items accomplished in the left seat, such as engine start, taxi, etc., may be demonstrated to the student.

A9.2.2. Conversion Training. C-12 conversion training is required for pilots/flight engineers to qualify in another C-12 aircraft category to include: C-12C/D/E/F, C-12J, MC-12, and B-1900. Pilots seeking qualification in all categories must have an experience level of 2,000 hours total flying time with a combined total of 1,000 hours in one or more C-12 categories.

A9.3. Phase II – Training.

A9.4. Continuation Training. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, C-12 aircrew members will also accomplish the requirements in **Table A9.1** and **Table A9.2**

Table A9.1. Additional C-12 Currency Requirements.

POSITION	TRAINING ITEM	NUMBER/FREQUENCY
Pilot, Copilot	Simulated Engine Out Missed Approach	1/180
	Simulated Engine Out Landing	1/180
	Simulated Engine Out Takeoff	1/180
	Personnel Airdrop	1/180

Table A9.2. Additional C-12 Proficiency Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot, Copilot	Simulated Engine Out Missed Approach	1	1	1	1	1	1
	Simulated Engine Out Landing	1	1	1	1	1	1
	Engine Failure immediately after takeoff	1	1	1	1	1	1
	Photo/Safety Chase	3	3	2	2	1	1
	Personnel Airdrop	1	1	1	1	1	1

A9.4.1. Conversion Currency Requirements. Pilot conversion training currency is maintained by logging a sortie every 180 days in each C-12 category (C-12C/DE/F, C-12J, MC-12, or B1900) they are qualified.

A9.4.1.1. If C-12 pilots cannot maintain AFMC prescribed currency requirements in their variant, the squadron commander or operations officer, on a case-by-case basis, may

authorize currency to be maintained in any C-12 category. The following requirements must be met:

A9.4.1.1.1. The aircraft to be used must have similar avionics equipment.

A9.4.1.1.2. Accomplish pilot Phase I ground training applicable to the aircraft to be flown.

A9.4.1.1.3. Be supervised by a qualified IP at a set of flight controls.

A9.4.1.1.4. Use FP duty code on the AFTO Form 781.

A9.4.1.1.5. These events can be counted toward semiannual training requirements.

A9.5. Upgrade Training. Instructor Pilot Upgrade. Pilots will receive training while occupying the right seat.

A9.6. Upgrade Qualification Training. No additional requirements.

A9.7. Training Restrictions. No additional requirements.

A9.8. Additional Training. No additional requirements.

Attachment 10

C-17 TRAINING GUIDELINES

A10.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the C-17 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all C-17 aircraft.

A10.1.1. Aircrew Requirements. The flying unit commander will determine the requirement for the aircrew complement to include an additional qualified loadmaster that may be required on personnel, CDS, heavy equipment and HALO airdrops.

A10.2. Phase I Training.

A10.2.1. Items accomplished in the left seat, such as engine start, taxi, etc., may be demonstrated to the student.

A10.2.2. Simulator Training. If a simulator is not available, the aircraft cockpit can be used if the displays are powered and functioning. Simulator training will be accomplished prior to completion of Phase I training.

A10.3. Phase II Training.

A10.3.1. Air Refueling Training. A contact may be credited for each 5 minutes of toggles engaged time on the boom. Proficiency in day refueling and contacts will be demonstrated before night contacts are attempted. Day and night qualification requires separate training. Instructor qualification requires the sortie be flown from the right seat.

A10.3.2. Airdrop. An approved training plan has been developed for each Airdrop subarea: Personnel (including Dummy, Bundle, Dummy Retrieval, and HALO) and Equipment (including CDS, Dual Row, Type I and Tow). Use the appropriate syllabus for each qualification.

A10.3.3. Formation. Separate sorties are not required to qualify in both types of formation. Visual formation qualification may be limited to day only if night formation requirements are not met.

A10.3.4. Night Vision Goggles (NVG). NVG areas are subdivided into Airland and Airdrop, however only one form will be used for qualification. NVG qualification will be restricted to Airland only operations if the crewmember is not Airdrop qualified. If the Airdrop qualification is added subsequently, the NVG Airdrop portion of the forms will be accomplished.

A10.4. Continuation Training. In addition to the minimum currency and proficiency requirements in Chapter 4 of this instruction, C-17 aircrew members will also accomplish the requirements in Table A10.1 and Table A10.2.

Table A10.1. Additional C-17 Currency Requirements

POSITION	TRAINING ITEM	NUMBER/FREQUENCY
Pilot	Airdrop - Dummy, Retrieval, HALO, Bundle, or Personnel	1/180
	Airdrop - Tow, Equipment, or CDS	1/180
	Formation – SKE/FFS or Vis	1/180
	NVG Airland (Takeoff and Landing)	1/90
	NVG Airland (Takeoff and Landing) - 90' Wide Runway	1/120
	NVG Low Level	1/180
	NVG Airdrop (Any Type)	1/180
Loadmaster	Personnel – Dummy Drop, Dummy Retrieval,	1/180
	CDS –Dual Row	1/180
	Heavy Equipment Airdrop – Type I, Tow Test, Dual Row	1/180
	NVG Airdrop - Any Type	1/180
	NVG Ground Ops – Backing and Combat Offload or ERO	1/180

Table A10.2. Additional C-17 Proficiency Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot	Air to Air Refueling Receiver	1	1	1	1	1	1
	Airdrop - Dummy, Retrieval, HALO, Bundle, or Personnel	1	1	1	1	1	1
	Airdrop - Tow, Equipment, or CDS	1	1	1	1	1	1
	Formation – SKE/FFS or Vis	1	1	1	1	1	1
	NVG Sortie	2	2	2	1	1	1
	NVG Airland (Takeoff and Landing)	4	4	3	3	2	1
	NVG Airdrop (Any Type)	2	2	2	1	1	1
	NVG Low Level	2	2	2	1	1	1
Loadmaster	Personnel – Dummy Drop, Dummy Retrieval	1	1	1	1	1	1
	CDS – Dual Row	1	1	1	1	1	1
	Heavy Equipment Airdrop – Type I, Tow Test, Dual Row	1	1	1	1	1	1
	NVG Airdrop - Any Type	1	1	1	1	1	1
	NVG Ground Ops - Backing and Combat Offload or ERO	1	1	1	1	1	1

A10.4.1. Air to Air Refueling Requirements. Loss of currency exceeding two months requires the applicable requalification ground and flight training.

A10.4.2. Air Drop Requirements. Pilots and loadmasters exceeding NVG low level currency requirements in **Table A10.1** may regain currency by accomplishing an airdrop event under the direct supervision of an instructor.

A10.4.3. Dual Row may be logged as CDS or Heavy Equipment.

A10.4.4. NVG ground ops must be logged by completing a backing with a combat offload or ERO.

A10.5. Upgrade Qualification Training. Instructor pilot candidates will receive training while occupying the right seat.

A10.6. Training Restrictions.

A10.6.1. The following training restrictions apply to all aircrew members:

A10.6.1.1. All aircrew members will be trained using AFRL Night Vision Device courseware. Academic instructors must have completed one of the following courses: AFRL Instructor Course, Advanced Airlift Tactical Training Center (AATTC) NVG Training Course, or a Weapons Instructor Course (WIC).

A10.6.1.2. NVG ground and simulator training must be completed prior to beginning NVG flight training. Simulator training must be accomplished under the supervision of a current and qualified NVG instructor. Loadmasters do not need simulator training prior to beginning flight training.

A10.6.1.3. NVG flight training will be conducted under the supervision of a certified NVG instructor of like specialty. Pilots require an additional pilot in the ACM seat to act as a safety observer for all training conducted in the aircraft.

A10.6.1.4. Isolate cargo compartment lighting from the flight deck.

A10.6.1.5. NVG 90’ wide runway training may be conducted on a wider landing surface as long as the 90’ wide landing zone is clearly marked.

A10.7. Additional Training. No additional requirements.

Attachment 11

C-130 TRAINING GUIDELINES

A11.1. General Information. This attachment in conjunction with other governing directives outlines procedures for operation of the C-130 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operations of all C-130 aircraft. Training procedures not specifically addressed may be accomplished if they enhance safe, effective mission accomplishment.

A11.1.1. Aircraft Categories. For the purpose of C-130 qualification training, the following C-130 aircraft categories are defined:

A11.1.1.1. C-130A. C-130 aircraft series derived from the C-130A (i.e., NC-130A).

A11.1.1.2. C-130J. C-130 aircraft series derived from the C-130J (i.e., EC-130J).

A11.1.1.3. C-130 E/H. All other C-130 aircraft series (i.e., C-130B through AC-130U).

A11.1.1.4. C-130 AMP - Any C-130 from the E/H category that has undergone AMP modification.

A11.1.2. Aircrew Requirements and Qualifications.

A11.1.2.1. Navigator Requirements. The flying unit commander will determine the requirement for the navigator crew complement, to include Electronic Warfare Officer (EWO) and Fire Control Officer (FCO), based on flight manual and unit training requirements. Training tables and lesson plans in this instruction address the traditional navigator crew position. EWO and FCO procedures, if applicable, must be developed by the unit and incorporated into the unit's supplement.

A11.1.2.2. Loadmaster Requirements. The flying unit commander will determine the need for loadmaster crew complement based on flight manual and unit training requirements. A Loadmaster is required for all C-130J operations.

A11.1.2.3. Scanner Requirements. In general Scanners possess a 1Axxx AFSC, must be current and qualified as a C-130 crewmember, and have completed C-130 scanner training. On a case by case basis, other current/qualified crewmembers may complete scanner training. Training will be documented in the individual's training folder and annotated on the AF Form 1381. C-130 Flight Engineers performing scanner duties do not require additional training. (N/A for C-130J)

A11.1.2.4. Instructor Requirements. Instructor Flight Engineers may complete any aircraft systems for Qualification, Conversion, or Differences Ground Training. Instructor Flight Engineers may complete all phases of FCF Scanner Training.

A11.2. Phase I Training.

A11.2.1. Ground Training Requirements. Ground and flight training has been established for C-130 pilots, navigators, flight engineers, and loadmasters. With the exception of the open and closed book examinations (if required), ground training will be completed prior to starting Phase I flying training.

A11.2.1.1. Pilot and flight engineer local qualification training will follow ETCA formal course syllabi to the maximum extent possible. Emphasis should be placed on a thorough review of aircraft systems/equipment, cockpit orientation, and normal/emergency procedures. All systems and components not covered in training due to differences between the simulator and the C-130 being trained in, will be covered in detail by an instructor during the aircraft visit.

A11.2.1.2. Simulator Training. Pilots and flight engineers will accomplish required simulator training prior to the initial qualification flight evaluation.

A11.2.2. Flying Training Requirements. Initial qualification flying training will be accomplished within the same C-130 category (i.e., C-130A, C-130J, or C-130E/H series). Copilots will accomplish Phase I training in the right seat. Required left seat items, such as engine start, taxi, etc., may be demonstrated to the student.

A11.2.3. Conversion/Difference Training. C-130 conversion training is required for pilots/flight engineers to qualify in another C-130 aircraft category to include: C-130A, C-130J, C-130E/H, and the C-130 AMP. Pilots/flight engineers seeking qualification in three or more categories must have an experience level of 2,000 hours total flying time with a combined total of 1,000 hours in the C-130. (Exception for C-130 AMP, contact AFMC/A3V for case by case approval) Difference ground training (using a representative aircraft) is required to qualify in different series of the same category aircraft. Difference flying training requirements are per **Table A11.1** 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 the LC-130 unless previously qualified for ski operations). Instructors will focus training on systems, emergencies and operations limits differences for special mission equipment. AMP modified aircraft in the MC-130E/H/P/W, HC-130H (N)/N/P, and the AC-130H/U MDS require additional training for mission events (i.e., terrain following, helicopter air refueling, dry/live fire operations). Open and/or closed book tests are not required when completing conversion/difference training within the same C-130 category. Testing is not required when transitioning into the C-130 AMP category. Testing will be completed for the first entry into the C-130A or the C-130J category, or if transitioning from the C-130J category into the C-130E/H category.

A11.2.3.1. For C-130J pilots only, once initial qualification is complete in any C-130J variant, only ground difference training is required to convert to other variants. Exception: A flight is required to gain qualification in the CC-130J (Stretch). Training requirements are IAW HQ AFMC/A3V syllabi.

A11.2.3.2. Navigator conversion/difference training procedures will be established and incorporated into a unit supplement to this instruction. Conversion/Difference training may be grouped by navigation systems and/or radar installation. Exception: Navigators must attend formal training to qualify in Combat Talon I or II.

A11.2.3.3. For C-130 Loadmasters, once initial qualification is complete in any C-130J or C130E/H category variant, only ground difference training is required to convert to other variants within that category.

Table A11.1. C-130E/H Difference/Conversion Training Requirements.

MDS	Pilot	Flight Engineer	Navigator
C-130B	Flight N/R if KC-130F or LC-130F qual	Flight N/R Flight	N/R
C-130E	N/A if initial qual gained at LRF	Same as pilot	Flight N/R (6)
C-130E(E)	Flight N/R if qual on -15 variant	Flight N/R	Flight N/R
C-130H (1)	Flight N/R if qual on -15 variant	Same as pilot	Flight N/R (6)
C-130H1 (1)	Flight N/R if H2 qual	Same as pilot	Flight N/R (6)
C-130H2/2.5 (1)	One flight (minimum) required. Include H1 differences (Qualification will be for H1, H2 and H2.5)	Flight N/R if H3 qual	Flight N/R (6)
C-130H3 (1)	One flight (minimum) required	Same as pilot	Flight N/R (6)
C-130 AMP (Combat Delivery)	Complete Conversion Training Plan	Same as pilot	N/A
C-130T (USN)	Flight N/R if KC-130T	Same as pilot	Flight N/R
AC-130H	One flight (minimum) required	Same as pilot	Flight N/R
AC-130U (4)	AFSOC training One flight (minimum) required	Same as pilot	Same as pilot
EC-130H (Compass Call)	One flight (minimum) required	Flight N/R	Flight N/R
HC-130H/P/N	Flight N/R if tanker qual (2)	Same as pilot	Flight N/R (6)
HC-130(H)N	Flight N/R if Tanker (2) and H3 Qual	Same as pilot	Flight N/R (6)
HC-130H (USCG)	Flight N/R if H2 qual	Same as pilot	Flight N/R
KC-130F (USMC)	Flight N/R if B and tanker (2) qual	Same as pilot	Flight N/R
KC-130R/T USMC)	Flight N/R if H2 and tanker (2) qual	Same as pilot	Flight N/R
KC-130T-30	T/O and landing required	Flight N/R if KC-130R/T qual	Flight N/R
LC-130H(L1)	Flight N/R if SKI (3), H2, and H3 qual	Same as pilot	Flight N/R (6)
LC-130H (L2)	Flight N/R if SKI (3) and H3 qual	Same as pilot	Flight NR (6)
MC-130E (4)	AFSOC training. Flight(s) Required. Additional FCF and OCF ground/flight training required	Same as pilot	Same as pilot
MC-130H (4)	AFSOC training. Flight(s) Required. Additional FCF and OCF ground/flight training required	Same as pilot	Same as pilot
MC-130P	One flight (minimum) required	Flight N/R if HC-P/N qual	Flight N/R
MC-130W	One flight (minimum) required	Same as pilot	Flight N/R
NC-130H (5)	One flight (minimum) required	Flight N/R	Flight N/R
TC-130H (7)	One flight (minimum) required	Flight N/R	Flight N/R

C-130FMS	Contact A3V	Contact A3V	Contact A3V
C-130 (Retired Variants)	Contact A3V	Contact A3V	Contact A3V

NOTES:

1. C-130H (73-1580 thru 73-1599)
   C-130H1 (74-1658 thru 74-2134)
   C-130H2 (78-0806 thru 91-9144 and 92-3021 thru 92-3024)
   C-130H3 (92-0547 thru 92-1538 and 92-3281 and up)

2. Tanker qual refers to any of the following variants: HC-130H/P/N; MC-130E/P; HC-130(H)N; KC-130F/R/T/T-30 (MCARS pods on MC-130H/W do not fulfill this requirement)

3. SKI equipped LC-130 aircraft require a flight only once. Complete difference training between USN and USAF ski systems.

4. Gain qualification after attending AFSOC formal schools (with prior AFMC/A3V coordination and approval, may be abbreviated to tailored academics and simulator training). With approval from AFMC/A3V flight qualification requirements may be completed in-unit if conducted by prior AFSOC crewmembers qualified in the aircraft.

5. ATL and ASETS equipment required additional training for all crew positions

6. Differences training may include all aircraft as grouped below. If included, no further training is required. Training may be grouped as follows:
   SCNS navigation system and APN-59 radar
   SCNS navigation system and APN-241 radar

7. Training may be combined with EC-130H. Complete differences training for both. Flight not required if completed in the EC-130H concurrently.

A11.2.3.4. Pilot/Loadmaster conversion to the C-130B/E/H/P/N/K/R/T/U must complete the appropriate syllabus labeled “E/H Conversion” found on the AFMC/A3V website under C-130 Phase I training. Conversion to these models is applicable when converting from a C-130A or C-130J. This conversion training is allowed only if the individual has previously attended a C-130 initial qualification formal course.

A11.2.3.5. Pilot/Loadmaster conversion from any C-130 to the C-130J must complete the appropriate syllabus labeled “J Model” found on the AFMC/A3V website under C-130 Phase I training.

A11.3. Phase II Training. C-130 AMP: Any previous phase II mission event qualification will apply to C-130 AMP modified aircraft. Gain mission event qualification IAW published/approved training plans. Aircrew attached to AFSOC or AFSOC gained units will complete mission qualification training IAW AFSOC guidance. AFMC flying organizations will honor mission qualification status when flying with AFMC units. Exception: Aircrew will comply with AFMC requirements for FCF mission qualification.

A11.3.1. Touch and Go. Once training is complete, Copilots or Mission/First Pilots may conduct flight idle touch and go landings at any time. Ground idle touch and go landings will only be conducted when under the supervision of an instructor in the other seat.

A11.3.2. Air Refueling – Tanker. This qualification is defined as Helicopter Air Refueling (HAR) or Tiltrotor Air Refueling (TAR). Contact A3V for guidance if actual refueling qualification is required. (N/A for aircrew attached and mission qualified with AFSOC flying units)

A11.3.3. Air Refueling – Receiver. Contact A3V for guidance if actual refueling qualification is required. (N/A for aircrew attached with AFSOC flying units)

A11.3.4. Functional Check Flight (FCF) Training. Pilots will complete qualification training from both left and right seats.

A11.3.4. **(EDWARDSAFB)** FCF/ACF Qualification. Pilots, Navigators, Flight Engineers, and C-130J Loadmasters will complete ground/flight training according to AFI 11-2FTV1. Legacy C-130 loadmasters will complete the scanner FCF training events of the legacy C-130 FCF training plan in AFI 11-2FTV1. Training may be accomplished in a simulator if no aircraft are available; however, if completed in a simulator, the crewmember's first FCF flight must be accomplished with an FCF qualified instructor.

A11.3.5. NVG at Low Altitude Training. NVG Low Level Operations are conducted at 300 ft contours over level/rolling terrain and 500 ft in designated mountainous terrain. NVG Medium Altitude is N/A for C-130 operations. No additional training is required to be an NVG Low Altitude instructor.

A11.3.6. Low Level Navigation Training. C-130 Low Level Operations are conducted at 300 ft AGL day and 500 feet above the highest terrain or obstacle within 3NM of route centerline or the planned flight path for night. (N/A for aircrew attached and mission qualified with AFSOC flying units)

A11.3.7. Terrain Following/Terrain Avoidance (TF/TA). TF/TA operations for the MC-130 may be conducted in day VMC in any set clearance. Night VMC or Day/Night IMC requires additional training. Contact A3V for guidance. (N/A for aircrew attached and mission qualified with AFSOC flying units)

A11.3.7.1. Depot aircrews qualified on the MC-130E/H for OCF operations do not require any additional TF/TA training nor are they considered TF/TA qualified. TF/TA OCF operations are restricted to day/VMC only.

A11.3.8. Chase Training. C-130 aircrew are not normally required to maintain chase qualification. If the C-130 acts as chase for another C-130, the aircrew will be C-130 visual formation qualified. If the C-130 aircrew is required to chase any other aircraft, Chase qualification training will be completed IAW 2FT Vol 1 and the Procedures in Chap 3 of this Instruction will be complied with.

A11.3.9. Test Pilot School (TPS) Curriculum. Any curriculum profile will be flown IAW the procedures and limitations of the applicable C-130 and IAW all guidance in this Instruction. An IP will be in the seat for all TPS curriculum events. No additional training is required.

A11.3.10. **(Added-EDWARDSAFB)** Airland Qualification (maximum effort/assault takeoff/landing). Day and night airland are separate qualifications. Complete a separate AFMC Form 68 for each qualification. Night airland training objectives may also be used to qualify for day airland training.

A11.3.11. **(Added-EDWARDSAFB)** Formation Qualification. Visual formation and SKE (CAPS) formation are considered separate qualifications. Visual formation qualified pilots may fly day or night VMC SKE (CAPS) formation operations as long as visual contact is maintained with the other aircraft. During an approved test plan, visual formation qualified pilots may build up to IMC SKE (CAPS) as long as the buildup is specified in the test plan.

A11.4. Continuation Training. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, C-130 aircrew members will also accomplish the requirements in **Table A11.2** and **Table A11.3** (Note: The NDB Approach may be completed using VOR RMI only procedures when an NDB approach is not available). The flying unit commander may specify additional requirements necessary to ensure aircrew members maintain proficiency and mission readiness. Include these requirements in a supplement to this instruction.

A11.4.1. Aircrew attached to AFSOC or AFSOC gained units will maintain currency and/or proficiency IAW AFSOC guidance. AFMC flying organizations will honor currency/proficient status when flying with AFMC units. Exception: Aircrew will comply with AFMC requirements for FCF and Conversion sortie items.

Table A11.2. Additional C-130 Currency Requirements.

AIRCRAFT	CREW POS	TRNG ITEM	Num/Freq
C-130	Pilot	Conversion Sortie (1)	1/180
		FCF Sortie (2)	1/180
		Low Level (3) (4)	1/180
		Vis Form	1/180
		Airdrop (Actual)	1/90
		CDS/CRS Airdrop (5)	1/180
		HE Airdrop (5)	1/180
		Pers Airdrop (5)	1/180
		NVG Airdrop (6)	1/180
		NVG Event (7)	1/180
		NVG Low Level (8)	1/90
		NVG Airland AMP 1-3 (9)	1/90
		NVG Airland AMP 4 (10)	1/60
		NVG Airland Assault (11)	1/90
		NVG Form (16)	1/90
MC-130E/H		Terrain Following (12)	1/90
MC-130E/H/P/W or HC-130H/P/N		Helo Air Refueling (13)	1/180
MC-130E/H/P/W		Tiltrotor Air Refueling (13)	1/180
AC-130H/U		Live/Dry Fire	1/60
C-130	Navigator	FCF Sortie (2)	1/180

		Low Level (3) (14)	1/180
		Vis Form	1/180
		Airdrop (5)	1/90
		Vis Airdrop (15)	1/180
		NVG Event (7)	1/180
		NVG Low Level (8)	1/90
MC-130E/H		Terrain Following (12)	1/90
MC-130E/H/P/W or HC-130H/P/N		Helo Air Refueling (13)	1/90
MC-130E/H/P/W		Titlrotor Air Refueling (13)	1/180
AC-130H/U		Live/Dry Fire	1/60
C-130	FE	Conversion Sortie (1)	1/180
		FCF Sortie (2)	1/180
		Airdrop (5)	1/90
		NVG Event (7)	1/180
MC-130E/H		Terrain Following (12)	1/180
MC-130E/H/P/W or HC-130H/P/N		Helo Air Refueling (13)	1/180
MC-130E/H/P/W		Tiltrotor Air Refueling (13)	1/180
AC-130H/U		Dry/Live Fire	1/60
C-130	LM	Conversion Sortie (1)	1/180
		FCF Sortie (2)	1/180
		Airdrop	1/90
		CDS/CRS Airdrop	1/180
		HE Airdrop	1/180
		Pers Airdrop	1/180
		NVG Airdrop (6)	1/180
		NVG Event (7)	1/180
MC-130E/H/P/W or HC-130H/P/N		Helo Air Refueling (13)	1/180
MC-130E/H/P/W		Tiltrotor Air Refueling (13)	1/180

NOTES:

1. May be completed in any C-130J Variant or C-130 AMP Variant. If C-130J or C-130 AMP is primary aircraft designation, then Conversions sortie may be completed in any E/H Variant.
2. May be completed in any C-130 Variant
3. FCF GCAS/GPWS does not update this currency
4. Requires 30 mins hands on flying at 500 AGL or less
5. May be completed on any actual/simulated (TTB) airdrop
6. If NVG Airdrop Qualified
7. For NVG Light Eval only – Any NVG event may update this event
8. If NVG LL qualified – requires 30 mins hands on at 500 AGL or lower
9. If NVG Airland AMP 1-3 qualified – requires takeoff/app/landing (in marked zone)
10. If NVG Airland AMP 4 qualified – requires takeoff/app/landing (Updates all NVG Airland events)
11. If NVG Airland Assault qualified – requires takeoff/app/landing (Updates NVG Airland

AMP 1-3 or AMP 4 events as appropriate) 12. Not required for MC-130E/H FCF/OCF operations following PDM 13. If qualified 14. Requires 30 mins at 500 AGL or less 15. Navigator directed visual release – Any type actual airdrop 16. If NVG Formation Qualified

Table A11.2. (EDWARDSAFB) Additional C-130 Currency Requirements

AIRCRAFT	CREW POS	TRNG ITEM	Num/Freq
C-130	Pilot	Airland, Day	1/90 days
		Airland, Night	1/90 days

Table A11.3. Additional C-130 Proficiency Requirements.

Position	Item	Months Available					
		6	5	4	3	2	1
		Number Required					
P/CP	Conversion Sortie	2	2	2	1	1	1
	Sim Eng(s) Out App (Note 1)	1	1	1	1	1	1
	Sim Eng(s) Out Missed App (Note 1)	1	1	1	1	1	1
	Sim Eng (s) Out Land (Note 1)	1	1	1	1	1	1
	Holding	1	1	1	1	1	1
	No Flap Landing	1	1	1	1	1	1
	NDB Approach (Note 2)	1	1	1	1	1	1
	Low Level	1	1	1	1	1	1
	Vis Form	1	1	1	1	1	1
	Actual Airdrop (Any Type)	2	2	2	1	1	1
	NVG Airdrop	1	1	1	1	1	1
	NVG Event	2	2	2	2	2	2
	NVG Low Level	2	2	2	1	1	1
	NVG Formation	2	2	2	1	1	1
	NVG Airland (AMP 1-3)	3	3	2	2	1	1
	NVG Airland (AMP 4)	4	4	3	2	1	1
	NVG Airland Assault	4	4	2	2	1	1
	Terrain Following (30 mins)	2	2	2	1	1	1
	Helo Air Refueling	1	1	1	1	1	1
	Dry Fire	3	3	2	2	1	1
	Live Fire	3	3	2	2	1	1
Nav	Celestial Obs & Resolution	2	2	2	1	1	1
	Low Level	2	2	2	1	1	1
	Vis Form	1	1	1	1	1	1
	Vis Airdrop	1	1	1	1	1	1
	Actual Airdrop	2	2	2	1	1	1
	CDS/CRS (Actual or TTB)	1	1	1	1	1	1
	HE (Actual or TTB)	1	1	1	1	1	1
	Pers Actual	1	1	1	1	1	1
	NVG Event	2	2	2	2	2	2
	NVG Low Level	2	2	2	1	1	1
	Terrain Following	2	2	2	1	1	1
	Helo Air Refueling	1	1	1	1	1	1
	Dry Fire	3	3	2	2	1	1
	Live Fire	3	3	2	2	1	1
FE	Airdrop (any type)	2	2	2	1	1	1
	NVG Event	2	2	2	2	2	2
	Terrain Following	1	1	1	1	1	1

	Helo Air Refueling	1	1	1	1	1	1
	Dry/Live Fire	3	3	2	2	1	1
LM	Airdrop (any type)	4	4	3	2	1	1
	CDS/CRS (Actual)	1	1	1	1	1	1
	HE (Actual)	1	1	1	1	1	1
	Pers (Actual)	1	1	1	1	1	1
	NVG Airdrop	1	1	1	1	1	1
	NVG Event	2	2	2	1	1	1
	Helo Air Refueling	1	1	1	1	1	1

NOTES:

1. Instructors will complete this event using simulated two engine-out procedures. The 90 Currency may be completed on either simulated one or two-engine out events.

2. May be accomplished in an AFMC approved simulator.

Table A11.3. (EDWARDSAFB) Additional C-130 Proficiency Requirements.

Position	**Item**	**Months Available**					
		6	5	4	3	2	1
Pilot	Formation (CAPS/SKE)	1	1	1	1	1	1
	Airland, Day	4	4	3	2	1	1
	Airland, Night	4	4	3	2	1	1
Navigator	Formation (SKE)	1	1	1	1	1	1
	NVG Airland Takeoff	2	2	2	1	1	1
	NVG Airland Landing	2	2	2	1	1	1
	NVG Takeoff	2	2	2	1	1	1
Flight Engineer	NVG Airland Takeoff	2	2	2	1	1	1
	NVG Airland Landing	2	2	2	1	1	1
	NVG Takeoff	2	2	2	1	1	1

A11.4.2. Conversion Currency/Proficiency Requirements. Pilots, flight engineers, and Loadmasters conversion training currency is maintained by accomplishing a sortie IAW **Table A11.2** in each C-130 category aircraft (C-130A, C-130J, C-130 AMP, and all other C-130 variants) in which qualification is held. Proficiency is maintained IAW **Table A11.3**

A11.4.3. Conversion Recurrency Requirements. Aircrew members who exceed conversion currency requirements in **Table A11.2** may regain currency by flying with an instructor on the applicable aircraft. Loss of currency exceeding 6 months requires requalification ground and flight conversion training in a representative aircraft from that category.

A11.4.3.1. Aircrew members who do not meet proficiency requirements in **Table A11.3** must accomplish one training flight in the applicable category under the supervision of an instructor.

A11.4.4. NVG Low Altitude. If NVG LL qualified – Pilots require 30 minutes hands on at 500 AGL or lower. Navigators require 30 minutes at 500 AGL or lower.

A11.4.5. Low Level Navigation. If Low Level qualified – Pilots require 30 minutes hands on at 500 AGL or lower. Navigators require 30 minutes at 500 AGL or lower.

A11.4.6. TF/TA If TF/TA qualified – Pilots require 30 minutes hands on at any set clearance. Navigators require 30 minutes at any set clearance.

A11.4.7. Test Pilot School (TPS) Curriculum. There are no currency/proficiency requirements for the C-130.

A11.4.8. Airdrop. See Tables A11.2 and A11.3 for detailed guidance on C-130 airdrop operations.

A11.5. Upgrade Qualification Training. In addition to C-130 specific training, upgrading crewmembers must complete General Instructor Ground Training.

A11.5.1. Instructor Upgrade. C-130 Pilot instructor candidates will complete simulated two-engine out training prior to certification as an AFMC C-130 IP. This training may be "accepted" if the pilot was an IP with an AFSOC or AFSOC gained unit.

A11.6. Training Restrictions. No additional requirements.

A11.7. Additional Training. No additional requirements.

Attachment 12

C-135 TRAINING GUIDELINES

A12.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the C-135 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all C-135 aircraft.

A12.1.1. Aircraft Categories. For the purpose of C-135 qualification training, the following C-135 aircraft categories are defined.

A12.1.1.1. Turbofan (TF). C-135 aircraft series powered by turbofan engines (TF33-PW-102 or derivative).

A12.1.1.2. Hi-Bypass (HB). C-135 aircraft series powered by high bypass turbofan engines (F108-CF-100 or derivative).

A12.1.1.3. Block 40. Any model of C-135 with the Block 40 avionics upgrade.

A12.1.1.4. Rivet GLASS (RG). Any model of C-135 with the Rivet GLASS avionics upgrade.

A12.1.2. Aircrew Requirements and Qualifications.

A12.1.2.1. Navigator Requirements. The flying unit commander will determine the requirement for the unit navigator crew complement, to include Electronic Warfare Officer (EWO), based on flight manual and unit training requirements. Training tables and lessons outlined in this instruction address training required for the traditional navigator crew position.

A12.1.2.1. **(EDWARDSAFB)** Navigators are required for all Precision Navigation and Cruise Missile Mission Control Aircraft (CMMCA) missions. The squadron operations officer will determine the need for navigators on all other missions.

A12.1.2.2. Navigator Qualification. The C-135 and B-707 (E-3, E-8, etc) are considered a single qualification upon completion of a flight evaluation in each aircraft or upon completion of applicable conversion training.

A12.1.2.3. **(Added-EDWARDSAFB)** Communications Systems Operator. A Speckled Trout primary aircrew member is required to operate and conducts tests of communication systems.

A12.1.2.4. **(Added-EDWARDSAFB)** Flight Attendant (FA). A Speckled Trout primary aircrew member is required for the safe handling and care of passengers, including emergency egress and inflight emergencies. He/She prepares meals and ensures aircrew and passenger compliance with worldwide customs, diplomatic, and agriculture requirements.

A12.2. Phase I Training.

A12.2.1. Pilot local qualification training will follow ETCA formal course syllabi to the maximum extent possible. Emphasis should be placed on a thorough review of aircraft systems/equipment, cockpit orientation, and normal/emergency procedures. All systems and

components not covered in training due to differences between the simulator and the C-135 being trained in, will be covered in detail by an instructor during the aircraft visit.

A12.2.2. Flight Engineer Qualification Training: Since there is no C-135 ETCA formal school, all new C-135 flight engineers must have been qualified as a flight engineer in another weapon system. Flight engineers never qualified or unqualified over 2 years in the C-135 must attend a simulator event in addition to the specified syllabus. The simulator event must be completed prior to the qualification.

A12.2.3. Flying Training Requirements. For student continuity, qualification flying training will be accomplished within the same C-135 aircraft category to the maximum extent practical. Copilots will accomplish Phase I training in the right seat. However, those items accomplished in the left seat, such as engine start, taxi, etc., may be demonstrated to the student.

A12.2.3. **(EDWARDSAFB)** Non-rated aircrew and flight surgeons will complete aircraft/cockpit familiarization ground training (within 30 days preceding first flight). This briefing may be given by any crewmember maintaining an instructor qualification on that aircraft. An instructor pilot, instructor navigator, or instructor flight engineer may administer all aspects of Non-rated aircrew and flight surgeon training.

A12.2.4. Conversion Training. C-135 conversion training is required for pilots/flight engineers to qualify in another C-135 aircraft category to include: turbofan (TF) or hi-bypass (HB).

A12.2.4.1. Conversion training is not required for navigators or boom operators to qualify in another C-135 aircraft engine category to include turbofan (TF) and hi-bypass (HB). However, navigators and boom operators will complete difference training covering APU (and other applicable systems) operation using unit developed training.

A12.2.4.1. **(EDWARDSAFB)** Conversion training is not applicable to communication systems operators, flight attendants, Non-rated Aircrew or flight surgeons.

A12.2.4.2. A C-135 Conversion training program is established. The syllabus enables conversion to TF/HB airframes and is labeled “Conversion” under C-135 Phase I training on the HQ AFMC/ A3V website.

A12.2.4.3. **(Added-EDWARDSAFB)** KC-135R 63-7980 Conversion Training. Pilots, navigators, flight engineers and boom operators already qualified in a KC-135R will accomplish the KC-135R 63-7980 Conversion training**.** Crew members initially trained on 63-7980 shall accomplish this training plan in reverse order to become qualified in a standard KC-135R.

A12.2.5. Difference Training. Difference training includes avionics difference associated with GATM and other upgrade programs (e.g. KC-135R (Block 30) to KC-135R (Block 40)). Avionics difference training is required for pilots, flight engineers, and navigators. The syllabus is labeled “Avionics” under C-135 Phase I training on the AFMC/A3V website.

A12.2.5. **(EDWARDSAFB)** Difference training is not applicable for communications systems operators, Non-rated Aircrew or flight surgeons.

A12.2.6. **(Added-EDWARDSAFB)** Speckled Trout communications systems operators will complete C-135 Communications Systems Operator Qualification or Requalification

training. Note: An ETCA C-135 Communications Systems Operator initial qualification course does not exist.

A12.2.7. **(Added-EDWARDSAFB)** Speckled Trout flight attendants will complete C-135 Flight Attendant Qualification or Requalification training. For an individual who arrives at the unit as a qualified flight attendant in some other aircraft, use the FA Differences training plan. For an individual who has never been a flight attendant before, use the Trout FA-2 Qualification plan. Note: An ETCA C-135 flight attendant initial qualification course does not exist.

A12.3. Phase II Training.

A12.3.1. Air to Air Refueling Receiver: To be a Air to Air Refueling Receiver qualified instructor; a pilot, flight engineer, or navigator must be instructor qualified in the basic aircraft first. Only pilots require instructor upgrade training. Basic aircraft instructor pilot upgrade and Receiver instructor pilot upgrade training may be conducted concurrently. In this instance, the pilot must be receiver air refueling qualified prior to beginning instructor upgrade training. Receiver qualified pilots in the B-707 becoming qualified only need accomplish one training flight with a qualified AR instructor.

A12.3.2. **(Added-EDWARDSAFB)** Gear and Flap Certification Training: This training is designed to certify pilots to fly missions without a navigator, flight engineer, and boom operator. Ground training will be accomplished using a locally developed A3V approved lesson plan.

A12.3.3. **(Added-EDWARDSAFB)** Multi-Point Refueling System (MPRS) Certification Training: This training is designed to certify pilots and boom operators to fly missions using MPRS. Certification training will be conducted IAW the A3V approved plan.

A12.3.4. **(Added-EDWARDSAFB)** Air Refueling Flight Test Qualification Training: This mission training is designed to prepare a boom operator for aerial refueling proximity flight test and aerial refueling flight test (envelope expansion). For boom operators qualified in both the KC135 and the KC10, the requirements for Air Refueling Testing qualification can be accomplished in either aircraft. Training will be conducted IAW the A3V approved plan.

A12.3.5. **(Added-EDWARDSAFB)** Speckled Trout Executive Airlift Mission Qualification: Complete training IAW the A3V approved plan. The Executive Airlift mission qualification is unique to the Speckled Trout. Crewmembers must complete applicable ground and flight qualification training prior to performing any EAFB mission. Executive airlift training is not applicable for Non-rated Aircrew and flight surgeons unless tasked to fly on an executive airlift mission.

A12.3.6. **(Added-EDWARDSAFB)** Airborne Icing Tanker (AIT): Pilot and boom operator AIT qualification will be conducted using the C-135 AIT Qualification training plan. Pilots must be Tanker Air Refueling qualified and boom operators must be flight test qualified prior to starting this training.

A12.4. Continuation Training. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, C-135 aircrew members will also accomplish the requirements in **Table A12.1** and **Table A12.2** The flying unit commander may specify additional mission specific events. For navigators, qualification in the C-135, and B-707 aircraft

is considered a single qualification for the purposes of currency and proficiency requirements upon completion of the applicable conversion training, or qualification flight evaluation.

A12.4. (EDWARDSAFB)Additional C-135 Currency and Proficiency Requirements are listed in Table A12 1. and **A12.2** respectively.

Table A12.1. Additional C-135 Currency Requirements.

AIRCRAFT	CREW POSITION	TRAINING ITEM	NUMBER/FREQUENCY
C-135		Air to Air Refueling Receiver	1/120

Table A12.1. (EDWARDSAFB) Additional C-135 Currency Requirements.

AIRCRAFT	POSITION	TRAINING ITEM	NUMBER/FREQ
C-135	Pilot/Boom Operator	Ice/Water Spray (Actual)	1/365
C-135	Flight Attendant	Egress Simulator	1/365
C-135	Flight Attendant	Hazardous Cargo Training	1/365
C-135	Pilot	PST Tactical Training	1/180
C-135	ALL	7980 Egress	1/365
C-135	P/N/FE/BO	7980 Sortie	1/180
C-135	Communications Systems Operator	NIPRNET Connect	1/60
C-135	Communications Systems Operator	SIPRNET Connect	1/60
C-135	Communications Systems Operator	ARC-210 Radio	1/60

Table A12.2. Additional C-135 Proficiency Flying Training Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot	Sim Eng Fail on Takeoff	2	2	2	1	1	1
	Sim Eng Out Missed Approach	2	2	2	1	1	1
	Sim Eng Out Landing	2	2	2	1	1	1
	Night Air to Air Refueling Receiver	1	1	1	1	1	1
	Tanker Air to Air Refueling Breakaway	1	1	1	1	1	1
	Receiver Air to Air Refueling Breakaway	1	1	1	1	1	1
	Proficiency Sortie	1	1	1	1	1	1
Boom Operator	Manual Contacts	2	2	2	1	1	1
	Contacts	5	4	3	2	1	1
Navigator	Air Refueling Rendezvous	1	1	1	1	1	1

Table A12.2. (EDWARDSAFB) Additional C-135 Proficiency Flying Training Requirements

POSITION	TRAINING ITEM	MONTHS AVAILABLE 6 5 4 3 2 1 NUMBER REQUIRED					
Pilot	Proficiency Sortie	2	2	2	1	1	1

A12.4.1. Pilot Proficiency Sortie. Pilots may log a proficiency training sortie if they actively control the aircraft for a minimum of one half hour of primary time and accomplish at least five different events from the following list:

A12.4.1.1. Takeoff or departure

A12.4.1.2. Penetration / Enroute Descent

A12.4.1.3. Precision approach

A12.4.1.4. Non-precision approach

A12.4.1.5. Simulated emergency procedure

A12.4.1.6. VFR pattern

A12.4.1.7. Landing or touch-and-go

A12.4.1.8. Holding

A12.4.1.9. Airwork

A12.4.1.10. Receiver AR

A12.4.1.11. Circling approach

A12.4.1.12. Autopilot - off tanker air refueling

A12.4.2. Conversion Currency Requirements. Pilot and Flight Engineer conversion training currency is maintained by accomplishing a sortie every 180 days in each C-135 category aircraft (TF, HB) in which qualification is held. Navigator conversion training currency is maintained by accomplishing a sortie every 180 days in each aircraft (C-135, B-707) in which qualification is held. Boom operators do not have a conversion training currency requirement.

A12.4.2.1. If C-135 pilots cannot maintain AFMC mandated currency requirements within aircraft category, the squadron commander or operations officer, on a case-by-case basis, may authorize currency to be maintained in any C-135 aircraft category. The following requirements must be met:

A12.4.2.1.1. The aircraft to be used must have similar avionics equipment.

A12.4.2.1.2. Accomplish pilot phase 1 ground training applicable to the aircraft to be flown.

A12.4.2.1.3. Be supervised by a qualified IP at a set of flight controls.

A12.4.2.1.4. Use FP duty code on the AFTO Form 781.

A12.4.2.1.5. These events can be counted toward semiannual training requirements.

A12.4.3. The flying unit commander or operations officer, on a case-by-case basis, may authorize a B-707 airframe be used. If the pilot is not qualified in the B-707 airframe, the following requirements must be met:

A12.4.3.1. Pilot must have 2000 hours total flying time with at least 1000 hours in the C-135.

A12.4.3.2. Accomplish pilot Phase I Ground Training applicable to the aircraft to be flown.

A12.4.3.3. Be supervised by a qualified IP at a set of flight controls.

A12.4.3.4. Use an XP duty code on the AFTO Form 781.

A12.4.3.5. Not log events toward semiannual training requirements.

A12.4.4. Receiver Air Refueling Currency Requirements. Pilots may accomplish receiver air refueling currency requirements in any C-135/B-707 aircraft in which qualified. However, if the pilot is not qualified in the C-135, the following restrictions apply:

A12.4.4.1. Complete pilot qualification ground training.

A12.4.4.2. Under direct supervision of a receiver qualified instructor pilot.

A12.4.4.3. Access to flight controls only during receiver refueling training.

A12.4.4.3.1. Pilots dual qualified in the C-135/B-707 aircraft and also receiver air refueling qualified in both aircraft may accomplish currency and proficiency receiver air refueling training events in either aircraft.

A12.4.4.3.2. Navigator air refueling currency is maintained by accomplishing a tanker or receiver rendezvous. Either rendezvous satisfies the requirements in **A12.1** and **A12.2**

A12.4.5. **(Added-EDWARDSAFB)** C135 Flight Engineers should receive annual simulator refresher training. This training may be conducted in any AFMC approved C135 simulator and will include a review of systems operations and emergency procedures.

A12.4.6. **(Added-EDWARDSAFB)** Speckled Trout Flight Attendants will attend an annual refresher egress simulator specifically tailored to flight attendants. They are also required to receive annual hazardous cargo training similar to requirements of EAFB loadmasters via a locally developed training plan approved by HQ AFMC/A3V. **Table A12.1** displays additional currency requirements.

A12.5. Upgrade Training. No additional requirements.

A12.5.1. **(Added-EDWARDSAFB)** All crewmembers selected to attend the Combat Flight Instructor Course (CFIC) at Altus AFB, Oklahoma, will complete the PreCFIC training requirements listed in AFI 11-2KC-135V1. Transcribe the Pre-CFIC events listed in AFI 11-2KC-135V1 onto an AFMC Form 67 and 68. Speckled Trout crewmembers will complete the additional training listed in IAW the A3V approved plan. Note: ETCA C135 specific flight instructor upgrade courses do not exist for flight engineers, Flight Attendants and Communications systems operators. Instructor Upgrade training is not applicable to the mission crew, and operational support flyer positions.

A12.5.2. **(Added-EDWARDSAFB)** Pilot receiver air refueling will require a separate instructor upgrade.

A12.5.3. **(Added-EDWARDSAFB)** Instructor Boom Operator (IBO). Boom Operators qualified in the KC-135 who have previously qualified as instructor boom operators in the KC10 may upgrade to instructor boom operators in the KC135 by completing the following training:

A12.5.3.1. **(Added-EDWARDSAFB)** Ground training will include a briefing on instructor techniques, a review of Phase I ground training, and a review of AFI 112FT Vol. 1/EAFB Sup 1 for establishing and maintaining training folders. Instructor candidates will complete applicable items on AFMC Form 67.

A12.6. Training Restrictions. No additional requirements.

A12.7. Additional Training. No additional requirements.

Attachment 13

*F-35 TRAINING GUIDELINES

A13.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the F-35 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with the operation of all F-35 aircraft.

A13.1.1. Key Terms and Definitions

A13.1.1.1. Variants. The F-35 has three variants:

A13.1.1.1.1. CTOL (Conventional Takeoff and Landing). F-35A

A13.1.1.1.2. STOVL (Short takeoff and Vertical Landing). F-35B.

A13.1.1.1.3. CV (Carrier Variant). F-35C.

A13.1.1.2. Experienced Pilot (EXP)

A13.1.1.2.1. An experienced pilot has 50 hours PAI and 6 months in the ITF. Pilots will be designated as such by the Sq/DO.

A13.2. Phase I Training.

A13.2.1. Ground Training Requirements

A13.2.1.1. Aircrew will complete the F-35 ground training prescribed in **Table A13.1** Non- AFMC F-35 ground training may be conducted by command-certified instructors (i.e., an AETC F-35 academic instructor may not be an instructor pilot, but is qualified to teach academics). A qualified F-35 instructor pilot will administer all AFMC conducted ground training.

A13.2.2. Flying Training Requirements.

A13.2.2.1. Aircrew will complete the F-35 flying training prescribed in **Table A13.1** A formal school will be the primary means of accomplishing initial and requalification training. Initial and requalification training will only be conducted by AFMC when a formal school is not available.

A13.2.2.2. Initial qualification will be accomplished in any variant of Mission Systems aircraft. Pilots are responsible for understanding aircraft differences as identified in the Flight Series Data (flight manual) and program avionics.

Table A13.1. F-35 Qualification Training Requirements.

	REQUIREMENTS
Ground Training	a. F-35 Systems Academics (ITC academic instructors preferred) b. F-35 Qualification Simulators (Eglin simulators preferred) c. Egress Training (may be accomplished locally by qualified instructor) d. F-35 Engine Run
Flying Training	Flying Training in accordance with either an F-35 Formal Training Qualification Syllabus or an AFMC-approved F-35 Qual Training Plan

A13.2.2.3. Flight Lead Qualification. F-35 aircraft qualification is considered qualification as an F-35 flight lead. An F-35 pilot qualified in a mission element is qualified as a flight lead in that mission element.

A13.3. Phase II Training.

A13.3.1. General. Unless a mission element's section includes a specific Instructor Qualification section, an F-35 IP current and qualified in a mission element is automatically qualified to instruct in that mission.

A13.3.2. Flight Test Orientation (FTO).

A13.3.2.1. F-35 pilots who are not graduates of TPS can complete FTO training to enable participation in low risk flight test sorties on a case-by-case basis. The 461 FLTS Squadron Commander is the approval authority for entry into FTO training for those pilots who are not TPS graduates.

A13.4. Continuation Training. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, F-35 aircrew members will also accomplish the requirements in **Table A13.2**

Table A13.2. Additional F-35 Currency Requirements.

EVENT	To update fly:	INEXP	EXP	To regain currency:
LANDING	Ref 4.5.5	21	45	Sim Landing (Note 1)
SFO	Actual FO or Sim Event	45	90	Sim Event (Note 1)
AAR	Day or Night AAR	60	180	Event
FLUTTER	Ref 4.5.37	30	180	Sim Event (Notes 1 & 2)
LOADS	Ref 4.5.36	30	90	Sim Event (Notes 1 & 2)
AIRSTART	Event	30	30	Sim Event (Note 2)
ORDNANCE RELEASE TEST	Event	180	180	Sim Event (Note 2)
HI AOA	Event	30	30	Sim Event (Notes 1 & 2)

NOTES:
1. Accomplish in an AFMC-approved simulator only (exception: Edwards Mission Systems sim).
2. Sim event must be accomplished with MCR personnel.

A13.5. Upgrade Training. No additional requirements.

A13.6. Training Restrictions. No additional requirements.

A13.7. Additional Training. No additional requirements.

A13.8. (Added-EDWARDSAFB) Definitions

A13.8.1. **(Added-EDWARDSAFB)** Mission Ready. Completion of Flight Test Orientation and the Instrument/Qualification Check constitutes Mission Ready (MR) status in the F-35.

Attachment 14

F-4 TRAINING GUIDELINES

A14.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the F-4 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all F-4 aircraft.

A14.1.1. Aircraft Categories. For the purpose of qualification training, the following F-4 aircraft categories are defined:

A14.1.1.1. F-4C/D. F-4C/D (to include the RF-4C) aircraft series has leading edge flaps for landing and a "hard wing" that allows for maneuvering up to 19.2 units AOA. These aircraft have more pronounced adverse yaw during maneuvering than F-4s with slats. These aircraft also contain a leading edge Boundary Layer Control (BLC) system on the wings. This system provides extra lift with hot engine bleed air over the wings when the flaps are down. Emergency steps were added for malfunctions in this system. These aircraft have a deployable Ram Air Turbine (RAT) in case of double generator failures.

A14.1.1.2. F-4E/G. F-4E/G aircraft series has leading edge slats that allow for improved maneuvering up to 25 units AOA. The BLC system is removed from these models. The electrical system is reconfigured to the aircraft battery and removes the requirement for the RAT. The 'G' model is a converted 'E' model that includes the Wild Weasel avionics.

A14.1.1.3. QF-4 aircraft are models that contain the drone modification. A separate QF-4 checklist is used when this aircraft is a manned flyer

A14.2. Phase I Training.

A14.2.1. Pilot Training. The first requalification training flight for the F-4 will be flown with an instructor pilot on board the aircraft. All other F-4 flights may be accomplished with an instructor pilot providing instruction from a chase aircraft. Instructor WSOs will not perform instructional duties for pilots during Phase I training.

A14.2.2. Conversion Training. F-4 conversion training is required for pilots and WSOs to qualify in another F-4 aircraft category to include the (R) F-4C/D or F-4E.

A14.2.2.1. Ground Training Requirements. Conversion training for all model aircraft will consist of completion of the appropriate ground and CPT training as specified in the Initial Qualification section of this volume. Emphasis of training will be placed upon the differences between the models of the F-4.

A14.3. Phase II Training.

A14.3.1. Basic formation skills are not required for initial qualification in the F-4. Therefore, mission qualification training will include instruction in basic formation (fingertip, route, tactical, chase, formation takeoffs and landings, cross-unders, and rejoins) as applicable to the unit mission.

A14.4. Continuation Training. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, F-4 aircrew members will also accomplish the requirements in **Table A14.1** and **Table A14.2**

A14.4.1. The (R)F-4 C/D and F-4E/G are considered the same series for the purpose of maintaining currency. Recurring qualification and instrument evaluations may be taken in either airframe. The flying unit commander may specify additional currency and proficiency requirements upon aircrews for specific categories of the F-4.

Table A14.1. Additional Currency Requirements.

AIRCRAFT	POSITION	TRAINING ITEM	NUMBER/FREQUENCY
F-4	Pilot	FCF Sortie	1/90
	WSO	FCF Sortie	1/90

Table A14.2. Additional Proficiency Training Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot	Simulated Single Engine (SSE) Approach	3	3	2	2	1	1
	No Slat/Flap Approach	3	3	2	2	1	1

A14.5. Upgrade Training. No additional requirements.

A14.6. Training Restrictions. No additional requirements.

A14.7. Additional Training. No additional requirements.

Attachment 15

F-15 TRAINING GUIDELINES

A15.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the F-15 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all F-15 aircraft.

A15.2. Phase I Training.

A15.2.1. Centrifuge Training. F-15E WSOs current and qualified 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.

A15.2.2. Ground Training Requirements. During local qualification training, cockpit procedures training (CPT), at the aircraft, in an aircrew training device, or in a table-top forum, will be accomplished prior to any flying training.

A15.2.3. Flying Training Requirements. F-15 flight training syllabi are divided into two categories: 1) F-15 A-D and 2) F-15E. Aircrew will complete the appropriate F-15 flying training prescribed in the syllabus.

A15.2.3.1. Pilot Training. The first qualification training flight for F-15A/B/C/D or F-15E models will be flown in an F-15 B/D or F-15E with an instructor pilot on board the aircraft. All other F-15A/B/C/D or F-15E flights may be accomplished with an instructor pilot providing instruction from a chase aircraft. Instructor WSOs will not perform instructional duties for pilots during Phase I training.

A15.2.4. Weapon System Officer (WSO) Training. WSO initial qualification and requalification training must consist of the following: Ground training as outlined in the QUAL or REQUAL column of the appropriate syllabus, simulator training for F-15E WSO initial/requalification will be completed before beginning flying training. No simulator training is required for F-15 B/D WSO requalification.

A15.2.5. Conversion Training. F-15 conversion training is required for pilots and WSOs to qualify in another F-15 aircraft category to include the F-15B/D or F-15E.

A15.2.5.1. Ground Training Requirements. Local conversion training for all model aircraft will consist of completion of the appropriate ground, CPT, and simulator training. WSOs converting from the F-15E to an F-15B/D require ground training only. Additional open book/closed book testing is not required for any F-15 conversion training.

A15.2.5.2. Flying Training Requirements. For local conversion training aircrew will use the requalification requirements specified on the applicable AFMC Form 67/68. Additional training requirements will be as outlined by the flying unit commander. WSOs converting from the F-15E to an F-15B/D do not require flying training.

A15.3. Phase II Training.

A15.3.1. General. Minimum aircrew qualifications and additional unit specific mission training and associated will be established by the flying unit commander and included in the unit supplement to this instruction.

A15.3.2. Mission training for the F-15E may be accomplished using either an instructor pilot or instructor WSO who is qualified for the specific mission/tasks to be instructed.

Table A15.1. F-15 Instructor of Record Requirements.

Phase II Qualification/Currency Requirements	Instructor of Record for Initial Qualification	Instructor of Record to Regain Currency
Sortie	Phase I training requirements	IP
Formation T/O and Land	Phase II training requirements	IP
Landing	Phase I training requirements	IP
Night Landing	Phase I training requirements	IP
Instrument Approach	Phase I training requirements	IP or IWSO
Simulated Engine Out Approach	Phase I training requirements	IP or IWSO
ILS PRM	IP or IWSO	N/A
Touch and Go Landing	IP	N/A
Air-to-Air Refueling Receiver	IP	IP or IWSO
FCF/ACF	IP	IP or IWSO
AHC/AHM	IP	IP
Formation Flight Lead	IP	N/A
NVG Medium Altitude	IP	IP or IWSO
NVG Low Altitude	IP	IP or IWSO
HMCS	IP	N/A
Intercept	IP or IWSO	IP or IWSO
BFM	N/A	IP or IWSO
BFM Wingman	IP	N/A
BFM Flight Lead	IP	N/A
BFM Instructor	IP for Pilot / IP or IWSO for WSO	N/A
ACBT	N/A	IP or IWSO
ACBT Wingman	IP	N/A
ACBT Flight Lead	IP	N/A
ACBT Instructor	IP for Pilot / IP or IWSO for WSO	N/A
Air-to-Surface Weapon Delivery	IP for Pilot / IP or IWSO for WSO	IP or IWSO
Low Level Navigation	IP or IWSO	IP or IWSO
LASDT	IP	IP or IWSO
TF (Night IMC/VMC or Day IMC)	IP or IWSO	Flight in Day VMC
Flight Test Orientation	IP or IWSO	N/A
Chase	IP	IP
Ordnance Release Test	IP or IWSO	N/A
Compatibility Flight Profile	IP (TPS Graduate)	IP

A15.3.3. Basic formation skills are not required for initial qualification in the F-15. Therefore, mission qualification training will include instruction in basic formation (fingertip, route, tactical, chase, formation takeoffs and landings, cross-unders, rejoins) as applicable to the unit mission.

A15.3.4. Targeting Pod (TGP) Pilot. Due to the division of tasks in the F-15E between the pilot and WSO and the integral part the TGP plays in basic aircraft qualification, TGP Pilot qualification is not required in the F-15E.

A15.3.5. Navigation Pod. Due to the integrated and integral part the Navigation Pod plays in TF operations, Navigation Pod qualification is not required in the F-15E.

A15.3.6. Night Vision Goggles. All sorties requiring an instructor will be flown in two seat F-15s. A minimum of 50 hours total time in the F-15 is required prior to beginning NVG training. Daytime Air-to-Surface Weapon Delivery qualification is required prior to accomplishing NVG weapon delivery events. Aircrew that are NVG Medium Altitude Qualified may fly below the MSA while wearing NVGs during low level navigation if using the TF system for terrain avoidance.

A15.4. Continuation Training.

A15.4.1. General. The F-15A-D and F-15E are considered the same series for the purpose of maintaining currency. Recurring qualification and instrument evaluations may be taken in either airframe. The flying unit commander may specify additional currency and proficiency requirements upon aircrews for specific categories of the F-15.

A15.4.2. NVG Currency. NVG IPs may update NVG currency from the rear cockpit.

A15.5. Upgrade Qualification Training.

A15.5.1. Instructor pilot upgrade training may be accomplished in either single seat or two-seat aircraft. Rear-cockpit landing proficiency must be demonstrated before the IP upgrade flight evaluation.

A15.6. Training Restrictions. No additional requirements.

A15.7. Additional Training.

A15.7.1. TF system below LASDT qualification altitudes. For test plans requiring use of the TF system below the LASDT minimum altitude as described in chapter 3, but at or above 100 feet AGL, the OG/CC will direct/approve “spin-up” training for the involved aircrew. Prerequisite for this training; the aircrew will be current and qualified in LASDT and TF.

Attachment 16

F-16 TRAINING GUIDELINES

A16.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the F-16 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all F-16 aircraft.

A16.1.1. Aircraft Categories. For the purpose of F-16 qualification training, the following F-16 aircraft categories are defined.

A16.1.1.1. F-16C/CG/CJ aircraft series to include Block 25-52 upgrades.

A16.1.1.2. MMC. F-16 aircraft series equipped with the Modular Mission Computer.

A16.1.1.3. MLU. F-16A/B aircraft series retrofitted with the Mid-Life Update hardware/software enhancements and are equivalent to F-16 MMC aircraft for training, currency and proficiency requirements.

A16.2. Phase I Training.

A16.2.1. Conversion Training. F-16 conversion training is required for pilots to qualify in another F-16 aircraft category to include the F-16C/CG/CJ/ or F-16MLU/MMC.

A16.2.2. Ground Training Requirements. Local conversion training for all model aircraft will consist of completion of the appropriate ground, CPT, and simulator training.

A16.2.3. Flying Training Requirements. One sortie (minimum) is required to complete conversion training.

A16.2.4. Difference Training. F-16 difference training is required for pilots to qualify in a different engine to include the PW200/220/229 or the GE100/129. Each engine requires separate ground training.

A16.2.5. NAV/EWO/WSO. Initial qualification WSO training in the F-16 will be accomplished using the approved training plan. All WSOs qualifying in the F-16 must have been previously qualified in a fighter weapon system (i.e. F-15E, F-4, F-111 etc.).

A16.2.5. **(EDWARDSAFB)** One sortie (minimum) is required for requalification.

A16.3. Phase II Training.

A16.3. (EDWARDSAFB)F16 Phase II flying training conducted by Test Squadrons: May be accomplished in conjunction with test missions. However, if this occurs, the appropriate Operations Officer will ensure that neither the test mission objectives nor the training mission are compromised.

A16.3.1. Basic formation skills are not required for initial qualification in the F-16. Therefore, mission qualification training will include instruction in basic formation (fingertip, route, tactical, chase, formation takeoffs and landings, cross-unders, rejoins) as applicable to the unit mission.

A16.3.1. **(EDWARDSAFB)** Initial qualification for wing takeoffs and landings will be accomplished under the supervision of a current IP in the same aircraft or in the element.

A16.3.2. Night Vision Goggle (NVG) Training. The first training sortie of NVG Qual/Requal will be flown in two seat F-16s. A minimum of 50 hours total time in the F-16 is required prior to beginning NVG training. Daytime air-to-ground qualification is required prior to accomplishing NVG weapon delivery events.

A16.3.3. High-speed Anti-Radiation Missile (HARM) Targeting System (HTS).

A16.3.3.1. Definition. HTS training qualifies aircrew to operate the HARM targeting system while conducting flight operations.

A16.3.3.2. Prerequisites: none. Required previous experience: none.

A16.3.3.3. Training Classification. Individual flying units will establish ground and flying training requirements. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification.

A16.3.3.4. Training Requirements. As a minimum, HTS training will include ground training. Flight training is at the discretion of the unit.

A16.3.3.5. HTS training may not be conducted concurrently with Phase I training.

A16.3.4. **(Added-EDWARDSAFB)** Air Refueling. Unless previously qualified in a fighter aircraft, the first training event must be accomplished in the F-16D.

A16.3.5. **(Added-EDWARDSAFB)** General WSO Phase II. WSOs may fly any sortie they are qualified for provided the pilot is also current and qualified. WSOs will not instruct or provide upgrades for F-16 pilots.

A16.3.6. **(Added-EDWARDSAFB)** Range Control Officer (RCO) Training: Training will be IAW locally developmed AFMC/A3V approved plan. Prior to assuming RCO duties, the upgrading RCO will accomplish a supervised range tour with a qualified RCO.

A16.3.7. **(Added-EDWARDSAFB)** AGTS-36 Tow. Training will be IAW locally developed AFMC/A3V approved plan.

A16.3.8. **(Added-EDWARDSAFB)** Ground Avionics Power-Up Training: This training qualifies flight test engineers to operate the avionics using ground power. Training consists of a briefing IAW the locally developed AFMC/A3V approved ground training and a cockpit familiarization with an F16 pilot. This is a one time training requirement. Unit training officers will maintain the completed grade sheets.

A16.3.9. **(Added-EDWARDSAFB)** Airstart Training

A16.3.9.1. **(Added-EDWARDSAFB)** General. This training is required for pilots to conduct airstart flight test. This training will familiarize pilots with airstart test techniques and procedures. Training will be IAW a locally developed AFMC/A3V approved plan.

A16.3.9.2. **(Added-EDWARDSAFB)** Restrictions:

A16.3.9.2.1. **(Added-EDWARDSAFB)** This training may be accomplished with any production representative engine, JFS, and EPU.

A16.3.9.2.2. **(Added-EDWARDSAFB)** The jet will be configured clean or with a centerline tank; wingtip missiles are optional.

A16.3.10. **(Added-EDWARDSAFB)** Touch and Go Training.

A16.3.10.1. **(Added-EDWARDSAFB)** Initial Qualification Training. A pilot must fly with an instructor in the RCP on the first sortie in which touch and go landings (normal or SFO) or SFO full stop landings are performed. These events will be documented on AFMC Forms 67 and 68.

A16.3.11. **(Added-EDWARDSAFB)** JHMCS Training.

A16.3.11.1. **(Added-EDWARDSAFB)** General. Training will be IAW a locally developed AFMC/A3V approved plan.

A16.3.12. **(Added-EDWARDSAFB)** BFM Requirements. Pilots will complete the High AOA Familiarization Sortie concurrently with initial or requalification upgrades in F-16 BFM. The TPS High AOA syllabus sortie or a High AOA FAM sortie flown in the last 3 years fulfils this requirement. The squadron commander/CTF director may waive/delay this requirement based on prior F-16 experience/jet availability.

A16.3.13. **(Added-EDWARDSAFB)** Pilots will complete the High AOA Test IP upgrade before instructing High AOA Test Upgrade sorties beyond the High AOA Familiarization IP upgrade.

A16.3.13.1. **(Added-EDWARDSAFB)** To fly in the front cockpit (FCP), pilots must meet one of the following criteria:

A16.3.13.1.1. **(Added-EDWARDSAFB)** Be current and qualified in the F16.

A16.3.13.1.2. **(Added-EDWARDSAFB)** Be a test pilot (graduate of a test pilot school).

A16.3.13.1.3. **(Added-EDWARDSAFB)** Be a pilot enrolled in a test pilot school.

A16.3.13.2. **(Added-EDWARDSAFB)** To fly in the rear cockpit (RCP), personnel will be current in F16 egress and hanging harness, have a current medical clearance, and current altitude chamber training.

A16.3.13.3. **(Added-EDWARDSAFB)** Training. Training will have the following additional restrictions:

A16.3.13.3.1. **(Added-EDWARDSAFB)** The airstart familiarization sortie must be accomplished prior to performing High AOA IP duties.

A16.3.13.3.2. **(Added-EDWARDSAFB)** Fly all upgrade training and familiarization sorties with a current High AOA IP in the aircraft except as stated in the local syllabus or an approved by safety package for test pilot upgrade.

A16.3.13.3.3. **(Added-EDWARDSAFB)** Fuel balancing to obtain the desired training CG will not be initiated until internal wing tanks are dry.

A16.3.13.3.4. **(Added-EDWARDSAFB)** Any compressor stall or stagnation requiring engine restart procedures to clear the condition will require an immediate return to base via an SFO full-stop landing.

A16.3.13.3.5. **(Added-EDWARDSAFB)** If a stall or stagnation causes the EPU to activate, the mission will be aborted.

A16.3.13.3.6. **(Added-EDWARDSAFB)** The missions will be flown in day VMC conditions with a discernible horizon. Flight above a broken deck is permissible if sufficient ground references and vertical cloud clearance exist to recover and visually navigate to a suitable runway and fly a flameout pattern from high key or high final while remaining clear of clouds.

A16.3.13.3.7. **(Added-EDWARDSAFB)** A dedicated mission frequency is desired.

A16.3.13.3.8. **(Added-EDWARDSAFB)** All maneuvers will be flown above 35,000 ft MSL in case of an inadvertent or intentional departure.

A16.3.14. **(Added-EDWARDSAFB)** Targeting (TGP) and Navigation pod (NVP) Aircrew Qualification Training and Currency.

A16.3.14.1. **(Added-EDWARDSAFB)** NVP Terrain Following Radar (TFR) training and flying is defined as the use of TFR with fly-up protection. NVP TFR qualification will be limited to day, VMC, at or above 500 ft AGL. At a minimum, pilots will receive NVP ground academics derived from the Foreign LANTIRN NVP Course at Luke AFB combined with inputs from local EAFB NVP engineers and pilots. No flying training is required. No currency is associated with the use of the NVP TFR. The use of the NVP Forward-Looking Infrared (FLIR) requires ground training only.

A16.4. Continuation Training.

A16.4.1. The F-16C/CG/CJ and MLU/MMC are considered the same series for the purpose of maintaining currency. Recurring qualification and instrument evaluations may be taken in either airframe. The flying unit commander may specify additional currency and proficiency requirements upon aircrews for specific categories of the F-16. NVG IPs may update NVG currency from the rear cockpit.

A16.4.2. **(Added-EDWARDSAFB)** BFM Advanced Handling Characteristics (AHC) Requirements. Accomplish at least one HARTS (HARTS #3 or greater)/BFM/ACBT event every 90 days. If current, any HARTS/BFM/ACM event may be used to update currency. If noncurrent in AHC, a HARTS maneuver must be accomplished to regain currency and this may be accomplished as the first event of a BFM/ACM sortie. See Table A16.1.

A16.4.3. **(Added-EDWARDSAFB)** High AOA FAM IP/Test Currency/Recurrency Requirements. Currency is for 180 days. Any High AOA sortie fulfills this requirement. To regain currency, must fly with a High AOA IP on a High AOA sortie. See Table A16.1.

Table A16.1. (Added-EDWARDSAFB) Additional Currency Requirements

TRAINING ITEM	EVENTS WHICH UPDATE	NUMBER /FREQUENCY (DAYS)	TO REGAIN CURRENCY:
High AOA Fam IP/Test	High AOA Fam IP/Test	1/180	One High AOA event under IP supervision
AHC	HARTS (#3 or greater) or BFM/ACM event	1/90	One HARTS (# 3 or greater) event under IP supervision.

A16.5. Upgrade Training.

A16.5.1. Instructor pilot upgrade training may be accomplished in either single seat or two-seat aircraft. Rear-cockpit landing proficiency must be demonstrated before the IP upgrade flight evaluation.

A16.6. Training Restrictions. No additional requirements.

A16.7. Additional Training. No additional requirements.

A16.7.1. **(Added-EDWARDSAFB)** NVG Orientation Flights. The Operations Officer may authorize NVG orientation flights for Non-Rated aircrew. The following restrictions apply:

A16.7.1.1. **(Added-EDWARDSAFB)** Individuals will have completed NVG ground training from a qualified NVG academic instructor prior to the initial flight.

A16.7.1.2. **(Added-EDWARDSAFB)** The orientation flight will be under the supervision of an NVG IP.

A16.7.1.3. **(Added-EDWARDSAFB)** Preflight briefing/training will include: NVG preflight/adjustment, cockpit lighting setup, NVG donning/stowing, and emergency procedures.

Attachment 17

KC-46 TRAINING GUIDLINES

A17.1. General. AFI 11-202 Volume 1, AFMC Supplement 1, this instruction and approved test plans will be used to qualify AFMC crewmembers in KC-46 aircraft (initial, requalification, conversion, difference, mission, and upgrade training) as applicable. KC-46 training will be conducted in accordance with the KC-46 Initial Pilot Cadre Training Plan.

Attachment 18

T-38 TRAINING GUIDELINES

A18.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the T-38 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all T-38 aircraft.

A18.2. Phase I Training. Undergraduate Pilot Training (UPT) does not constitute sufficient training for a pilot to be considered qualified in the T-38. At the flying unit commander's discretion, qualification from another T-38 using command (i.e. AETC, ACC) or service (Navy) may constitute sufficient qualification training.

A18.2.1. Ground and Flying Training Requirements. Qualification ground training will be accomplished 1) in a cockpit procedures trainer (CPT), 2) at the aircraft, 3) in an aircrew training device, or 4) in a table-top forum, prior to any flying training.

A18.2.2. Simulator training will be accomplished for pilots before beginning flying training. (Exception: If a T-38 is flown to the simulator location, these missions can count as training sorties.)

A18.2.3. NAV/EWO/WSO T-38 Initial qualification. All WSOs qualifying in the T-38 must have been previously qualified in a fighter weapon system (i.e. F-15E, F-4, F-111 etc.) or a graduate of the USAF Test Pilot School or another service equivalent school.

A18.2.4. Conversion Training. T-38 conversion training is required for aircrew to qualify in another T-38 series (i.e. conversion from T-38A/B to T-38C).

A18.3. Phase II Training.

A18.3.1. Basic formation skills are not required for initial qualification in the T-38. Therefore, mission qualification training will include instruction in basic formation (fingertip, route, tactical, chase, formation takeoffs and landings, cross-unders, rejoins) as applicable to the unit mission.

A18.3.2. **(Added-EDWARDSAFB)** BFM & ACBT. T-38 BFM/ACBT training will be done only for mission (test) requirements. It is approved on a case-by-case basis. Creation of these plans must be coordinated through OGV and OG/CC for HQ AFMC/A3V approval.

A18.4. Continuation Training. The T/AT-38A/B and T-38C are considered the same series for the purpose of maintaining currency. Recurring qualification and instrument evaluations may be taken in either airframe. The flying unit commander may specify additional currency and proficiency requirements upon aircrews for specific series of the T-38.

A18.5. Upgrade Training. No additional requirements.

A18.6. Training Restrictions. No additional requirements.

A18.7. Additional Training. No additional requirements.

Attachment 19

KC-10 TRAINING GUIDELINES

A19.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the KC-10 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all KC-10 aircraft.

A19.1.1. The term "Test Boom Operator" refers to a fully qualified AFMC AFFTC Boom Operator.

A19.2. Phase I Training.

A19.2.1. Ground Training Requirements. Unqualified crew members, including flight test engineers, who perform temporary aircrew duties in the KC10, will complete the KC-10 Unqualified Crewmember training.

A19.3. Phase II Training.

A19.3.1. Air to Air Refueling Tanker Training. An IP qualified in tanker refueling will administer ground and flying training. Training is not required for pilots with current KC-10 tanker air refueling AF Form 8, Certification of Aircrew Qualification, and who are current in KC-10 tanker AR.

A19.3.2. Air to Air Refueling Receiver Training. In the event that receiver air refueling was not accomplished in initial qualification training, accomplish receiver refueling training requirements outlined on the KC-10 Receiver Air Refueling syllabus. A contact may be credited for each 5 minutes of toggles engaged time on the boom. Proficiency in day refueling and contacts will be demonstrated before night contacts are attempted.

A19.3.3. Air to Air Refueling Flight Test Qualification Flight Training. This training is designed to prepare a boom operator for aerial refueling proximity flight test and aerial refueling envelope expansion. Designated Air Refueling "Flight Test Boom Operators" will accomplish the KC-10 Boom Operator Flight Test syllabus. For "Flight Test Boom Operators" qualified in both the KC135 and the KC10, the requirements can be accomplished in either aircraft.

A19.3.4. FCF Training. FCF Flight training is not required for boom operators.

A19.4. Continuation Training. In addition to the basic currency and semiannual proficiency training requirements in chapter 4 of this instruction, KC10 aircrew members will also accomplish the requirements in **Table A19.1**

A19.4.1. Pilot Proficiency Sortie. Pilots may log a proficiency training sortie, as established in **Table A19.1**, if they actively control the aircraft for a minimum of one half hour of primary time and accomplish at least five different events from the following list:

A19.4.1.1. Takeoff or Departure

A19.4.1.2. Penetration or Enroute Descent

A19.4.1.3. Precision Approach

A19.4.1.4. Non-precision Approach

A19.4.1.5. VFR Pattern.

A19.4.1.6. Landing or Touch-and-go

A19.4.1.7. Holding

A19.4.1.8. Airwork

A19.4.1.9. Receiver AR

A19.4.1.10. Circling Approach

A19.4.1.11. Missed Approach

A19.4.2. Simulator Requirements. Crew members will complete simulator training at least once every 12 months, three month phase. This training will be based on AMC quarterly refresher simulator lesson plans.

Table A19.1. Additional KC10 Proficiency Flying Training Requirements.

CREW POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	**5**	**4**	**3**	**2**	**1**
PILOT	Air to Air Refueling Receiver	1	1	1	1	1	1
	Air to Air Refueling Breakaway (Receiver & Tanker)	1	1	1	1	1	1
	Proficiency Sortie	2	2	2	1	1	1
BOOM OPERATOR	Contacts	5	4	3	2	1	1

A19.5. Upgrade Training.

A19.5.1. Basic aircraft instructor upgrade and instructor receiver AR qualification training may be conducted concurrently. In this instance, the pilot must be receiver AR qualified prior to beginning instructor upgrade training.

A19.6. Training Restrictions. No additional requirements.

A19.7. Additional Training. No additional requirements.

A19.7. (EDWARDSAFB)Airwork Procedures.

A19.7.1. **(Added-EDWARDSAFB)** This chapter will be used as a guide when information is not covered in the specific aircraft flight manual. The techniques outlined in this section are only suggested methods of performing the maneuvers. All flight manual procedures take precedence over this instruction and will be reviewed prior to accomplishing any maneuvers in fight. This guidance is to accomplish training and instructor pilot demonstration maneuvers in the KC10. Return the aircraft to a safe configuration after each training scenario. Instructor supervision is defined as a current and qualified instructor pilot at a set of flight controls. The AC or IP will ensure all crewmembers are advised of the maneuver and procedures to be followed. During all airwork and flight maneuver training, the IP or pilot in command, as applicable, will ensure that actions taken follow these priorities.

A19.7.1.1. **(Added-EDWARDSAFB)** Fly–the-Aircraft. Pilot should establish attitude and power settings that will control aircraft performance and flight path.

A19.7.1.2. **(Added-EDWARDSAFB)** Direct Crew Actions. While continuing to fly aircraft, pilot will initiate necessary checklist actions and coordinate crew activity as necessary to accomplish maneuver or demonstration.

A19.7.2. **(Added-EDWARDSAFB)** Slow Speed Tanker Refueling Demonstration:

A19.7.2.1. **(Added-EDWARDSAFB)** Purpose. Demonstrate slow speed flying characteristics of KC10 aircraft and proper pitch and power inputs required to maintain an effective tanker platform. Maneuver also demonstrates proper computation of minimum allowable air refueling (AR) speed (1.2g buffet onset plus additives).

A19.7.2.2. **(Added-EDWARDSAFB)** Conditions. Slow speed tanker refueling demonstration will be practiced only under direct IP supervision. Slow speed tanker refueling demonstration will be conducted at a minimum altitude of 10,000 feet (AGL). All crew members will be briefed on maneuver and procedures to be used.

A19.7.2.3. **(Added-EDWARDSAFB)** Procedures.

A19.7.2.3.1. **(Added-EDWARDSAFB)** Compute and record the following data (units will develop procedures to compute and record the following data):

A19.7.2.3.1.1. **(Added-EDWARDSAFB)** Aircraft gross weight (GW)

A19.7.2.3.1.2. **(Added-EDWARDSAFB)** Aircraft center of gravity (CG)

A19.7.2.3.1.3. **(Added-EDWARDSAFB)** Pressure altitude

A19.7.2.3.1.4. **(Added-EDWARDSAFB)** Temperature deviation

A19.7.2.3.1.5. **(Added-EDWARDSAFB)** 0/RET minimum maneuver speed

A19.7.2.3.1.6. **(Added-EDWARDSAFB)** 0/EXT minimum maneuver speed

A19.7.2.3.1.7. **(Added-EDWARDSAFB)** Minimum AR speed (0/RET)

A19.7.2.3.1.8. **(Added-EDWARDSAFB)** Minimum AR speed (0/EXT)

A19.7.2.3.2. **(Added-EDWARDSAFB)** Set airspeed reference bugs to 0/RET minimum maneuver speed, minimum AR speed (0/RET).

A19.7.2.3.3. **(Added-EDWARDSAFB)** Turn on FASTEN SEAT BELTS and RETURN TO CABIN signs.

A19.7.2.3.4. **(Added-EDWARDSAFB)** Thrust rating computer—set MCT.

A19.7.2.3.5. **(Added-EDWARDSAFB)** Decelerate to minimum AR speed (0/RET). Trim aircraft to maintain level flight.

A19.7.2.3.6. **(Added-EDWARDSAFB)** Perform a series of 15-degree bank turns in level flight. Emphasize importance of controlling airspeed and minimizing load factor. Note pitch required to maintain level flight.

A19.7.2.3.7. **(Added-EDWARDSAFB)** Return to wings-level condition.

A19.7.2.3.8. **(Added-EDWARDSAFB)** If at any time stick shaker or buffet onset occurs, recover using the following procedures:

A19.7.2.3.8.1. **(Added-EDWARDSAFB)** Pitch—as required.

A19.7.2.3.8.2. **(Added-EDWARDSAFB)** Power—maximum continuous thrust.

A19.7.2.3.8.3. **(Added-EDWARDSAFB)** Flap and slat handle—0/EXT.

A19.7.2.3.8.4. **(Added-EDWARDSAFB)** Accelerate to minimum AR speed (0/RET) speed.

A19.7.2.3.8.5. **(Added-EDWARDSAFB)** Retract slats and push SLAT RESET switch light. **NOTE: If stick shaker occurred, observe SLAT DISAGREE light on, SLAT RESET switch light on, and 1-3 or 23 HYDRAULIC PUMP VALVE OPEN lights on.**

A19.7.2.3.9. **(Added-EDWARDSAFB)** Set airspeed reference bugs to 0/RET minimum maneuver speed, 0/EXT minimum maneuver speed, minimum AR speed (0/EXT).

A19.7.2.3.10. **(Added-EDWARDSAFB)** Slats—extend.

A19.7.2.3.11. **(Added-EDWARDSAFB)** Decelerate to minimum AR speed (0/EXT). Trim aircraft to maintain level flight.

A19.7.2.3.12. **(Added-EDWARDSAFB)** Perform a series of 15-degree bank turns in level flight. Emphasize importance of controlling airspeed and minimizing load factor. Note pitch required to maintain level flight.

A19.7.2.3.13. **(Added-EDWARDSAFB)** If at any time stick shaker or buffet onset occurs, recover using the following procedure:

A19.7.2.3.13.1. **(Added-EDWARDSAFB)** Pitch—as required.

A19.7.2.3.13.2. **(Added-EDWARDSAFB)** Power—maximum continuous thrust.

A19.7.2.3.13.3. **(Added-EDWARDSAFB)** Accelerate to 0/EXT minimum maneuver speed.

A19.7.2.3.13.4. **(Added-EDWARDSAFB)** Slats—retract.

A19.7.2.3.13.5. **(Added-EDWARDSAFB)** Accelerate to 0/RET minimum maneuver speed.

A19.7.2.3.14. **(Added-EDWARDSAFB)** Turn off FASTEN SEAT BELTS and RETURN TO CABIN lights.

A19.7.2.3.15. **(Added-EDWARDSAFB)** Reset thrust rating computer as required.

A19.7.3. **(Added-EDWARDSAFB)** Steep Turns Demonstration:

A19.7.3.1. **(Added-EDWARDSAFB)** Purpose. To demonstrate pitch, power, and bank relationships during turning maneuvers.

A19.7.3.2. **(Added-EDWARDSAFB)** Conditions.

A19.7.3.2.1. **(Added-EDWARDSAFB)** Perform steep turns at an altitude between 10,000 feet AGL and FL250 in VMC conditions. Direct IP supervision is required.

A19.7.3.2.2. **(Added-EDWARDSAFB)** Maximum aircraft GW—450,000 pounds.

A19.7.3.2.3. **(Added-EDWARDSAFB)** Maximum bank angle—45 degrees.

A19.7.3.2.4. **(Added-EDWARDSAFB)** Minimum airspeed—180 KIAS or cruise buffet-onset boundary speed (clean configuration) for a 55-degree bank, whichever is greater. Recommended airspeed is AR orbit speed or 195 KIAS, whichever is greater.

A19.7.3.2.5. **(Added-EDWARDSAFB)** A 2000-foot block altitude is required for this demonstration. Plan to begin demonstration in the middle of the block.

A19.7.3.2.6. **(Added-EDWARDSAFB)** Clean configuration**.**

A19.7.3.2.7. **(Added-EDWARDSAFB)** Set thrust rating computer to climb thrust.

A19.7.3.3. **(Added-EDWARDSAFB)** Procedure. Perform a 360-degree turn to the left and to the right using a maximum bank angle of 45 degrees. Note pitch, power, and trim changes compared to level flight settings. Attempt to control altitude to within + 100 feet, airspeed + 5 knots, and bank + 5 degrees. N1 settings must be monitored carefully to prevent exceeding climb thrust N1. If at any time aircraft enters a spiral turn or if control of any parameter is lost, recover to level flight and restart maneuver if desired. **NOTE:** EGPWS will callout “BANK ANGLE, BANK ANGLE” above 40 of bank. When bank angle increases by 20% (to 48) the callout will be repeated. When the bank angle increases by 40% (to 56), the callout will repeat continuously.

A19.7.4. **(Added-EDWARDSAFB)** Vertical "S" Demonstration:

A19.7.4.1. **(Added-EDWARDSAFB)** Purpose. This series of maneuvers is designed to improve pilot’s instrument cross-check and aircraft control.

A19.7.4.2. **(Added-EDWARDSAFB)** Procedures. Perform vertical "S" series of maneuver described in AFMAN 11217. Observe flight manual restrictions and limitations. Request at least three consecutive altitudes (2000-foot blocks).

A19.7.5. **(Added-EDWARDSAFB)** Landing Attitude Demonstration:

A19.7.5.1. **(Added-EDWARDSAFB)** Purpose. To establish and maintain landing attitude picture long enough to observe all visual cues so that consistent, correct landing attitude can be learned.

A19.7.5.2. **(Added-EDWARDSAFB)** Conditions. Spoilers disarmed. Normal touch-and-go restrictions apply, except that ground contact is optional. Go-around procedures should be initiated after climb-out is established. Direct IP supervision is required.

A19.7.5.3. **(Added-EDWARDSAFB)** Procedure.

A19.7.5.3.1. **(Added-EDWARDSAFB)** Flare aircraft into landing attitude at the normal point, adjusting power to maintain level flight just above the runway surface in the landing attitude (7- to 8-degree pitch).

A19.7.5.3.2. **(Added-EDWARDSAFB)** Hold level flight attitude pitch constant, noting relative movement, peripheral and horizon cues, at the end of the runway.

A19.7.5.3.3. **(Added-EDWARDSAFB)** No later than 2000-foot runway remaining, advance power and initiate normal climbout, including go-around procedures.

A19.7.6. **(Added-EDWARDSAFB)** Abnormal Configuration Approaches:

A19.7.6.1. **(Added-EDWARDSAFB)** Purpose. Demonstrate visual illusions and the power and pitch required to maintain proper airspeed and glide slope during approaches in abnormal aircraft configurations. Maneuver also demonstrates level of crew coordination required and importance of proper pacing during abnormal configuration approaches.

A19.7.6.2. **(Added-EDWARDSAFB)** Conditions: FLOWN TO LOW APPROACH ONLY.

A19.7.6.3. **(Added-EDWARDSAFB)** Procedure. Refer to Asymmetric Flaps or No Flap Landing with Slats Checklist or the Asymmetric Slats or No Slat Landing with Flaps checklist.

Attachment 20

U-2 TRAINING GUIDELINES

A20.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the U-2 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all U-2 aircraft.

A20.2. Phase I Training.

A20.2.1. Local requalification training, if approved, may only be conducted using a U-2 RT/ST.

A20.2.2. Local Area Orientation. Pilots should accomplish local area training flying requirements during a dedicated low sortie (if available). The flying unit commander can approve LAO in another aircraft.

A20.3. Phase II Training.

A20.3.1. Prior to the mission qualification, an instructor will supervise all mission preparation activities, aircraft preflight, launch, and recovery.

A20.3.2. Functional Check Flight (FCF) Training. Flying training will be conducted under the supervision of an FCF qualified instructor from the mobile vehicle or control room in lieu of airborne chase.

A20.3.3. Photo/Safety Chase Training. Planned formation flights in the U-2 require U-2 safety chase mission qualification.

A20.3.4. Specialized Training. At the discretion of the unit operations officer some specific test plans, test programs, or on-board systems may require unique specialized training. Normally this will consist of specialized ground training. Security classification may prevent full documentation.

A20.4. Continuation Training. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, U-2 aircrew members will also accomplish the requirements in **Table A20.1**. and **Table A20.2**.

Table A20.1. Additional Currency Requirements.

AIRCRAFT	POSITION	TRAINING ITEM	NUMBER/FREQUENCY
U-2	Pilot	Touch and Go	1/120
		No Flap Landing	1/120
		SFO	1/120

Table A20.2. Additional U-2 Proficiency Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6 1	5	4	3	2	
		NUMBER REQUIRED					
Pilot	Sortie	20	17	14	10	7	4
	Proficiency Sortie	2	2	2	1	1	1
	Night Sortie	1	1	1	1	1	1
	Touch and Go	6	5	4	3	2	1
	Night Landing	3	3	2	2	1	1
	Missed Approach	2	2	2	1	1	1
	No-flap landing	3	3	2	2	1	1
	SFO	6	5	4	3	2	1

A20.4.1. Proficiency Sortie. Proficiency training sorties are not flown with Primary Mission Equipment (PME) on-board. A qualified SOF in the mobile vehicle will monitor these sorties. A transition proficiency sortie is credited when a pilot accomplishes a minimum of the following: 1) 3 Touch and Go Landings 2) 2 SFOs 3) 1 No Flap Landing.

A20.4.2. FCF Currency/Recurrency Requirements. Aircrew members who exceed FCF currency requirements may regain currency by reviewing an FCF profile with an FCF qualified instructor pilot and accomplishing an FCF sortie with a current/qualified FCF instructor. Loss of currency exceeding 6 months requires FCF mission qualification training.

A20.4.3. Chase Currency/Recurrency Requirements. Pilots with prior U-2 chase experience may maintain and regain chase currency in any aircraft (i.e., T-38), but must accomplish the appropriate training.

A20.5. Upgrade Training.

A20.5.1. The 1st RS, 9th RW, will normally accomplish instructor pilot checkout ground and flying training, Beale AFB, CA.

A20.6. Training Restrictions. No additional requirements.

A20.7. Additional Training. No additional requirements.

Attachment 21

H-1 TRAINING GUIDELINES

A21.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the H-1 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all H-1 aircraft. Training procedures not specifically addressed may be accomplished if they enhance safe, effective mission accomplishment.

A21.2. Phase I Training.

A21.2.1. Non-rated aircrew (NRA) training: Any instructor-qualified crewmember may instruct NRA, however the preferred method of instruction is by an instructor-qualified Special Mission Aviator.

A21.2.2. For FTE, Flight Surgeon, and Aerial Photographer aircrew water Survival and UET are only required if a particular mission requires over water flight for an extended period of time, not within auto-rotational distance from land.

A21.2.3. Conversion Training. H-1 conversion training is required for aircrew to qualify in another H-1 Mission/Series (i.e., conversion from UH-1N to TH-1H.

A21.3. Phase II Training.

A21.3.1. Remote Site Operations.

A21.3.1.1. Definition. This training qualifies aircrews to operate into and from unprepared surfaces and confined areas, day or night.

A21.3.1.2. Prerequisites: None.

A21.3.1.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.1.4. Remote site operations may be conducted concurrently with Phase I training.

A21.3.2. Search Patterns.

A21.3.2.1. Definition. This training certifies aircrews to conduct aerial searches.

A21.3.2.2. Prerequisites: None.

A21.3.2.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.2.4. Search operations may be conducted concurrently with Phase I training.

A21.3.3. Low Altitude Step Down Training (LASDT) for enroute flight below 300 feet AHO. (The Low Level Navigation definition from Paragraph **3.5.3.1** applies to H-1 aircraft. Unit commanders may accept a crewmember's H-1 Qualification Evaluation as the equivalent of the Low Level Navigation qualification, as H-1 aircrew routinely operate between 2,000 ft AGL and 300 ft AGL under VFR.)

A21.3.3.1. Definition. LASDT training qualifies H-1 aircrews to navigate and operate continuously below 300 feet AHO down to a minimum of 50 feet AHO during enroute operations.

A21.3.3.2. Prerequisites: Acceptance of Low Level Navigation Qualification.

A21.3.3.3. Training classification. This training plan is command specified. This qualification is transferable for multi-qualified aircrew.

A21.3.3.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server. Low level operations (below 2,000 ft/above 300ft AGL) may be conducted concurrently with Phase I training.

A21.3.4. Night Vision Goggles (NVGs) Low Altitude. For NVG Phase II training completed within AFMC, the NVG Low Altitude (below MSA; the inadvertent IMC MSA or the VFR route leg MSA, as applicable) training program will be completed. Unit commanders may accept a crewmember's NVG curriculum completed at pilot training and/or the formal schoolhouse as the equivalent of the NVG Medium Altitude qualification.

A21.3.4.1. Definition. This training qualifies H-1 aircrew to operate with NVGs down to 300 ft AGL enroute, including NVG remote operations.

A21.3.4.2. Prerequisites: Day remote site operations, acceptance of NVG Medium Altitude Qualification.

A21.3.4.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.4.4. NVG operations may not be conducted concurrently with Phase I training.

A21.3.5. Controlled Burn Operations.

A21.3.5.1. Definition. This training certifies aircrew in the use of the PRIMO MK III aerial ignition system during aerial controlled burn operations in support of the forest conservation program. Controlled burn training instructs FEs on the operation of the ignition system and teaches pilots the proper techniques for delivering the ignition spheres. Controlled burn operations are considered remote operations for the purposes of altitude selection.

A21.3.5.2. Prerequisites: Acceptance of Low Level Navigation Qualification; day remote operations and search patterns.

A21.3.5.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.5.4. Controlled burn operations may not be conducted concurrently with Phase I training.

A21.3.6. Cargo Sling/External Load Operations.

A21.3.6.1. Definition. This training certifies H-1 aircrew in the transport of external cargo.

A21.3.6.2. Prerequisites: None.

A21.3.6.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.6.4. Cargo sling/external load operations may not be conducted concurrently with Phase I training.

A21.3.7. Water Bucket Operations.

A21.3.7.1. Definition. This training certifies aircrew in aerial firefighting/suppression operations.

A21.3.7.2. Prerequisites: Cargo sling/external load operations.

A21.3.7.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.7.4. Fire bucket operations may not be conducted concurrently with Phase I training.

A21.3.8. Alternate Insertion Extraction (AIE).

A21.3.8.1. Definition. This training qualifies H-1 aircrew to conduct over-land insertions and extractions using the rescue hoist with forest penetrator, stokes litter, rescue basket; and to conduct extractions using the rope ladder.

A21.3.8.2. Prerequisites: Remote site operations.

A21.3.8.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.8.4. AIE may not be conducted concurrently with Phase I training.

A21.3.9. Day Water Operations.

A21.3.9.1. Definition. This training certifies H-1 aircrew members to conduct over-water insertions and extractions using the rescue hoist/forest penetrator, stokes litter, rope ladder, and or low and slow operations.

A21.3.9.2. Prerequisites: Remote site operations and AIE.

A21.3.9.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.9.4. Day water operations may not be conducted concurrently with Phase I training.

A21.3.10. Shipboard Operations/Deck Landings.

A21.3.10.1. Definition. This training certifies H-1 aircrews to operate on or around USN or USCG vessels at sea.

A21.3.10.2. Prerequisites: Remote site operations.

A21.3.10.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.10.4. Shipboard operations/deck landings may not be conducted concurrently with Phase I training.

A21.3.11. Parachute Drop Operations.

A21.3.11.1. Definition. This training certifies H-1 aircrews to perform parachute drop operations of personnel.

A21.3.11.2. Prerequisites: None.

A21.3.11.3. Training classification. This training is command specified. This certification is transferable for multi-qualified aircrew.

A21.3.11.4. Parachute drop operations may not be conducted concurrently with Phase I training.

A21.4. Continuation Training.

A21.4.1. If qualified in any of the events in **Table A21.1** and **Table A21.2**, H-1 aircrew will accomplish the following additional continuation training.

Table A21.1. Additional Currency Requirements.

Position	Training Item	Number / Frequency
Pilot	Emergency Procedures	1/90
	Remote Operations	1/90
	Night Remote Operations	1/90
	AIE	1/180
	Water Operations	1/180
	Cargo Sling Operations	1/180
	Fire Bucket Operations	1/180
	NVG Sortie	1/90
	NVG Remote Operations	1/90
	Low Level	1/90
	Shipboard Operations 1SS	1/180
	Shipboard Operations MSS*	1/180
Special Mission Aviator	Emergency Procedures	1/90
	Remote Operations	1/90
	Night Sortie	1/90
	Night Remote Operations	1/90
	AIE	1/180
	Hoist	1/180
	Rope Ladder	1/180
	Water Operations	1/180
	Cargo Sling Operations	1/180
	Fire Bucket Operations	1/180
	NVG Sortie	1/90
	NVG Remote Operations	1/90
	Low Level	1/90
	Shipboard Operations 1SS	1/180
	Shipboard Operations MSS*	1/180
* 1SS satisfies MSS currency		

Table A21.2. Additional H-1 Proficiency Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot	Emergency Procedures	2	2	2	1	1	1
	AIE	2	2	2	1	1	1
	Water Operations	2	2	2	1	1	1
	Shipboard Operations 1SS	5	5	4	3	2	1
Special Mission Aviator	Emergency Procedures	2	2	2	1	1	1
	AIE	2	2	2	1	1	1
	Water Operations	2	2	2	1	1	1
	Shipboard Operations 1SS	5	5	4	3	2	1
	Shipboard Operations MSS*	5	5	4	3	2	1

A21.4.2. Emergency Procedures (EP) Sortie Requirements. Crewmembers must accomplish the following events to complete an EP sortie:

A21.4.2.1. Review of all boldface procedures (either on the ground, in-flight, or some combination of ground or in-flight).

A21.4.2.2. A minimum of one straight-ahead and one turning autorotation.

A21.4.2.3. Boost-off approach and landing.

A21.4.2.4. Simulated fuel control failure approach and landing.

A21.4.2.5. Simulated single-engine approach and landing.

A21.4.2.6. At least one 90° or one 180° autorotation.

A21.4.2.7. EP sortie events should be accomplished on a single flight.

A21.4.2.8. Up to 50 percent of this requirement may be logged in a AFMC/A3V approved simulator.

A21.4.2.9. Instructors may credit one sortie per quarter when supervising an emergency procedures sortie.

A21.4.3. Remote Operations.

A21.4.3.1. To credit a remote operations sortie, a crewmember must complete a remote take-off and landing, a simulated max-performance takeoff and terminal area operation considerations.

A21.4.4. Night Sorties.

A21.4.4.1. Night sortie requirements include all events of a basic sortie. Additionally, a night sortie requires one hour of night time. Pilots must log ½ hour of primary time.

A21.4.4.2. Night Remote Operations Sortie. Night remotes include all the requirements of remote operations, flown in night conditions.

A21.4.4.3. NVG Sortie. An NVG sortie consists of a basic sortie and requires 1 hour of NVG time, of which ½ hour must be primary.

A21.4.4.3.1. NVG events may satisfy night unaided requirements.

A21.4.4.3.2. Sortie/event accomplishment at night may be credited toward day requirements after night requirements are met.

A21.4.5. Alternate Insertion Extraction (AIE).

A21.4.5.1. For pilot currency, any of the AIE devices meet semi-annual currency requirements. Special Mission Aviators must accomplish at least one of each event in which they maintain qualification, semi-annually.

A21.4.5.2. AIE events accomplished at night may be credited toward similar day requirements.

A21.4.5.3. Crewmembers must accomplish the following events to complete an AIE sortie: mission planning (P,FE), equipment preparation (FE), pattern (P), approach to a hover (P,FE), verbal direction (FE), departure/takeoff procedures (P,FE).

A21.4.6. Day Water Operations.

A21.4.6.1. Day Water Operations will include overwater hover work, a minimum of one AIE, and actual or simulated swimmer deployment.

A21.4.7. Cargo Sling/External Load Operations.

A21.4.7.1. Crewmembers must accomplish the following events to complete a Cargo Sling/External Load Operations sortie: pattern, load release, cargo hook functional check, verbal direction, load hook-up.

A21.4.7.2. Water bucket events may satisfy cargo sling requirements after fire bucket requirements have been met.

A21.4.8. Low Level Navigation.

A21.4.8.1. Low Level Navigation events will be logged IAW Paragraph **4.5.28**

A21.4.9. Shipboard Operations.

A21.4.9.1. 1SS (Single Spot Ship).

A21.4.9.2. MSS (Multi-Spot Ship).

A21.4.9.3. Crewmembers must accomplish the following events to log a sortie: mission planning, landing and takeoff, terminal operations considerations.

A21.4.9.4. Single spot landings count toward multi-spot requirements; however a multi-spot landing *does not* count satisfy single spot requirements.

A21.4.9.5. Reference Memorandum of understanding between the Department of the Navy and the Departments of the Army and Air Force.

A21.5. Upgrade Training. No additional requirements.

A21.6. Training Restrictions. No additional requirements.

A21.7. Additional Training. No additional requirements.

Attachment 22

F-22 TRAINING GUIDELINES

A22.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the F-22 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all F-22 aircraft.

A22.1.1. Key Terms and Definitions

A22.1.1.1. Aircraft Categories. For the purpose of F-22 qualification training, the following aircraft categories are defined:

A22.1.1.1.1. F-22 EMD. Engineering Manufacturing Development (EMD) aircraft produced for flight test, lacking production representative avionics, and containing specialized flight test instrumentation.

A22.1.1.1.2. F-22 EMDAV. Engineering Manufacturing Development Avionics (EMDAV) aircraft produced for flight test with production representative avionics.

A22.1.1.1.3. F-22 A. Production model F-22 without specialized flight test equipment.

A22.1.1.2. F-22s that have undergone modifications to install flight test equipment could be included in any of the three aircraft categories depending on the type of equipment and modifications. Flight test squadron commanders will decide which category the aircraft fits into for the purpose of compliance with this regulation.

A22.2. Phase 1 Training.

A22.2.1. Ground Training Requirements.

A22.2.1.1. Aircrew will complete the F-22 ground training prescribed in **Table A22.1** Formal courses and established ground and simulator training will be used to the maximum extent possible. Non-AFMC F-22 ground training may be conducted by command-certified instructors (i.e., an AETC F-22 academic instructor may not be an instructor pilot, but is qualified to teach academics). A qualified F-22 instructor pilot will administer all AFMC conducted ground training.

A22.2.2. Flying Training Requirements.

A22.2.2.1. Aircrew will complete the F-22 flying training prescribed in **Table A22.1** A formal school will be the primary means of accomplishing initial and requalification training. Initial and requalification training will only be conducted by AFMC when a formal school is not available.

A22.2.2.2. Initial qualification training will be accomplished in either F-22 EMDAV or F-22A aircraft. Pilots are responsible for understanding aircraft differences as identified in the flight manual and program avionics.

Table A22.1. F-22 Qualifications and Requalification Training Requirements.

	REQUIREMENTS
Ground Training	1) Formal School 2) a. F-22 Systems Academics (must be accomplished first) b. F-22 Qualification Simulators c. Egress Training d. F-22 Engine Run (must be accomplished last)
Exams	Open & Closed Book (must be accomplished before first flight)
Flying Training	1) Formal School 2) F-22 Qualification Flights

A22.2.2.3. Night Upgrade Sortie. The night checkout sortie will be flown after the Phase I flight evaluation. NVG training may be accomplished concurrently with the night upgrade if the student had a previous NVG qualification in any other fighter aircraft. IPs may use NVGs if they are current and qualified NVG pilots in the aircraft they are using to chase the sortie.

A22.2.2.4. AHC Qualification. AHC qualification will be accomplished concurrently with the aircraft qualification training sorties under the supervision of a qualified F-22 IP.

A22.2.2.5. Flight Lead Qualification. F-22 aircraft qualification is considered qualification as an F-22 flight lead. An F-22 pilot qualified in a mission element is qualified as a flight lead in that mission element.

A22.3. Phase II Training.

A22.3.1. General. **Table A22.3, Table A22.4, Table A22.5, Table A22.6 and Table A22.7**. prescribe the minimum ground and flying training needed to qualify pilots in F-22 mission elements. AFMC prescribed missions include Air Refueling (AR), Functional Check Flight (FCF), Flight Test, Basic Fighter Maneuvers (BFM), Air Combat Maneuvers (ACM), Air Combat Training (ACBT), Loads, and Night Vision Goggles (NVG). Unless a mission element's section includes a specific Instructor Qualification section, an F-22 IP current and qualified in the mission element is automatically qualified to instruct that mission (see paragraph **A22.5** Upgrade Qualification Training).

A22.3.2. Common Mission Qualification Training. **Table A22.2** modifies **Table 2** of this instruction for all AFMC F-22 pilots.

Table A22.2. F-22 Phase II Qualification Matrix.

Vol 1	**Phase II**	**AFMC Specified Plan (Note 1)**	**Dual Qual Trans (Note 2)**	**Concurrent Phase I, II Training allowed (Note 3)**
Para	Qualification	(Y/N)	(Y/N)	(Y/N)
3.3	**Tactical and Systems Mission Qualifications**			
3.3.8.1	NVG Med Altitude (>= MSA)	Y	N	Y
3.4	**Air-to-Air Qualifications**			
3.4.3.2	ACBT Flight Lead	Y	N	N
3.4.3.3	ACBT Instructor	Y	N	N

NOTE: Information displayed in **Table A22.2.** is clarified in following paragraphs.

1. A "Y" in this column indicates that the corresponding qualification training plan is specified by the MAJCOM. An "N" indicates the qualification training plan is specified by the individual flying unit.

2. A "Y" in this column indicates that the qualification is transferable across MD platforms for multi-qualified aircrew.

3. A "Y" in this column indicates whether the qualification training can be conducted concurrently with Phase 1 training.

A22.3.3. Flight Test Orientation (FTO).

A22.3.3.1. F-22 qualified pilots who are not graduates of TPS can complete the flight test orientation training to enable participation in low risk flight test sorties on a case-by-case basis. The 411th FLTS Squadron Commander is the approval authority for entry into FTO training for those pilots who are not TPS graduates.

A22.3.3.2. Ground training. Prior to their first test sortie, pilots will receive Flight Test academics under the supervision an F-22 IP qualified in the Flight Test mission.

A22.3.3.3. Flying training. The student's first test mission will be supervised by an F-22 IP in another test, chase, or target aircraft.

A22.3.4. Functional Check Flight (FCF) Training.

A22.3.4.1. There is no specific training for the ACF mission, any F-22 pilot who is FCF qualified will also be qualified to execute the ACF mission. An F-22 IP qualified in the FCF mission will administer ground and flying training.

A22.3.4.2. Ground training. Prior to their first FCF flight, pilots will receive FCF academics and practice events in the simulator under the supervision an F-22 FCF IP.

A22.3.4.3. Flight training. Pilots will accomplish FCF flight training chased by an F-22 IP current and qualified in the FCF mission. The training may be accomplished on an actual FCF or ACF as long as the individual has demonstrated basic competency in all phases of the FCF mission. Basic competency may be accomplished in a simulator and the phrase "has demonstrated basic competency in FCF procedures" will be annotated in Block 6, AFMC Form 69.

Table A22.3. AR, Flight Test Orientation, and FCF Training Requirements.

	AR	Flight Test	FCF
Prerequisites	None	Graduate of TPS*	1) 200 hours F-22 flight time or 2) 100 hours F-22 flight time and graduate of TPS
Ground Training	F-22 AR Academics	F-22 Flight Test Academics	a. F-22 FCF Academics b. F-22 FCF Simulator
Flying Training	F-22 AR Flight	*See A22.3.3.3	F-22 FCF Flight
* See Paragraph **A22.3.3.1** for exceptions.			

A22.3.5. Tactical Mission Training.

A22.3.5.1. F-22 Tactical Mission Training includes Basic Fighter Maneuvers (BFM), Air Combat Maneuvers (ACM), and Air Combat Training (ACBT). Tactical Mission Training is a building-block approach from two-ship (BFM) to three-ship (ACM) to multi-ship (ACBT) employment. The three tiers allow for progressive levels of tactical qualification to maximize training opportunities with extremely limited numbers of F-22 aircraft. The change in F-22 element (two-ship) tactics from legacy fighters also dictates a separate ACM qualification.

A22.3.5.2. Tactical Mission Training will be conducted to the maximum extent possible at a formal course. If a formal course is not available, then Tactical Mission Training will be conducted IAW the unit supplement to this instruction (for BFM and ACBT).

A22.3.5.3. All pilots entering the next phase of Tactical Mission Training will be qualified in the previous level.

A22.3.5.4. Ground Training. Prior to their first flight in each phase of Tactical Mission Training, pilots will receive academics and simulators under the supervision of an appropriately-qualified F-22 IP.

A22.3.5.5. Flying training. Pilots will accomplish Tactical Mission flight training under the supervision of an F-22 IP current and qualified to instruct that mission element.

A22.3.5.5.1. For BFM training, the F-22 BFM IP may instruct from any jet in which he/she is BFM current and qualified or from the RCP of a different jet.

A22.3.5.5.2. For ACM training, the F-22 ACM IP will instruct from the other F-22 in the element.

A22.3.5.5.3. For ACBT training, the F-22 ACBT IP may instruct from any jet in which he/she is ACBT current and qualified or from the RCP of a different jet.

A22.3.5.6. Instructor Qualification. Pilots upgrading as a Tactical Mission IP will be a current and qualified F-22 IP and meet the requirements specified in unit supplements to this instruction.

A22.3.5.6.1. An IP entering the next phase of Tactical Mission Training must be qualified in the previous level.

A22.3.5.6.2. Ground training. The upgrading IP will receive the Instructor portion of F-22 BFM, ACM, or ACBT Academics (as appropriate) from a qualified F-22 IP in that mission element. The upgrading IP will also act as instructor for the corresponding simulator scenarios under the supervision of an appropriately-qualified F-22 IP.

A22.3.5.6.3. Flying training. Pilots will accomplish Tactical Mission IP training under the supervision of an F-22 IP current and qualified to instruct that mission element.

A22.3.5.6.4. For BFM training, the upgrading IP may instruct from any jet in which he/she is BFM current and qualified. The F-22 BFM IP administering the training will fly in an F-22.

A22.3.5.6.5. For ACM training, the upgrading IP and the F-22 ACM IP administering the training will both fly in an F-22.

A22.3.5.6.6. For ACBT training, the upgrading IP will fly in an F-22. The F-22 ACBT IP administering the training may fly in any jet in which he/she is ACBT current and qualified.

Table A22.4. Tactical Mission (BFM, ACM, and ACBT) Training Requirements.

	BFM	**ACM**	**ACBT**
Prerequisites	F-22 qualified	F-22 BFM qualified	1) F-22 ACM qualified 2) Prior ACBT experience
Ground Training	a. BFM Academics b. BFM Simulator	a. ACM Academics b. ACM Simulator	a. ACBT Academics b. ACBT Simulator
Flying Training	F-22 BFM Flight	F-22 ACM Flight	F-22 ACBT Flight

Table A22.5. Tactical Mission Instructor Training Requirements.

	BFM	**ACM**	**ACBT**
Prerequisites	1) F-22 IP 2) F-22 BFM qualified	1) F-22 BFM IP 2) F-22 ACM qualified	1) F-22 ACM IP 2) F-22 ACBT qualified
Ground Training	a. BFM IP Academics b. BFM IP Simulator	a. ACM IP Academics b. ACM IP Simulator	a. ACBT IP Academics b. ACBT IP Simulator
Flying Training	F-22 BFM IP Flight	F-22 ACM IP Flight	F-22 ACBT IP Flight

A22.3.6. Loads Training.

A22.3.6.1. Only graduates of Test Pilot School can be qualified in the loads test mission. All loads training will be accomplished IAW the F-22 Combined Test Force Loads Syllabus.

A22.3.6.2. Ground Training. Prior to their first Loads flight, pilots will receive Loads academics and practice events in the simulator under the supervision an F-22 Loads IP. The simulator training will also include Loads qualified Mission Control Room personnel.

A22.3.6.3. Flying Training. Pilots will accomplish Loads flight training chased by an F-22 IP current and qualified in the Loads mission. Flying training will also include Loads qualified Mission Control Room personnel.

Table A22.6. Loads Training Requirements.

	Loads
Prerequisites	TPS Graduate
Ground Training	a. F-22 Loads Academics b. F-22 Loads Simulator
Flying Training	F-22 Loads Flight

A22.3.7. Night Vision Goggle (NVG) Training.

A22.3.7.1. NVG training in the F-22 is designed to qualify pilots in NVG operations at or above the minimum safe altitude (MSA).

A22.3.7.2. Only pilots with previous NVG experience may accomplish the NVG upgrade concurrently with the night upgrade.

A22.3.7.3. Ground Training. Prior to their first F-22 NVG flight, pilots will receive NVG Academics from trained NVG academic instructors and from an F-22 NVG IP.

A22.3.7.4. Flying Training. Pilots will accomplish NVG flight training under the supervision of a current and qualified F-22 NVG IP. The F-22 NVG IP may instruct from any jet in which he/she is NVG current and qualified or from the RCP of a different jet.

A22.3.7.5. Instructor Qualification. Pilots upgrading as an F-22 NVG IP will be F-22 NVG qualified and a current and qualified F-22 Night IP.

A22.3.7.5.1. Ground training. The upgrading IP will receive the Instructor portion of F-22 NVG Academics from a qualified F-22 NVG IP.

A22.3.7.5.2. Flying training. Pilots will accomplish NVG IP flight training under the supervision of a current and qualified F-22 NVG IP. The upgrading IP may instruct from any jet in which he/she is NVG current and qualified. The F-22 NVG IP administering the training will fly in an F-22.

Table A22.7. Night Vision Goggle Training Requirements.

	NVG	NVG IP
Prerequisites	1) F-22 Night qualified or 2) Prior NVG experience to conduct concurrently with F-22 night upgrade	1) F-22 IP 2) F-22 Night qualified 3) F-22 NVG qualified
Ground Training	1) NVG Academics 2) F-22 NVG Academics	F-22 NVG IP Academics
Flying Training	F-22 NVG Flight	F-22 NVG IP Flight

A22.4. Continuation Training.

A22.4.1. General. In addition to the minimum currency and proficiency requirements in chapter 4 of this instruction, F-22 pilots will accomplish the requirements in **Table A22.8** and **Table A22.9** if qualified in the specific mission event (some requirements from the basic instruction are included for clarity).

A22.4.2. F-22 EMDAV, and F-22A are considered the same series for the purpose of maintaining currency according to AFI 11-202, Volume 1. Recurring qualification and instrument evaluations may be taken in either the F-22 EMDAV or F-22A.

Table A22.8. F-22 Additional Currency and Semiannual Proficiency Requirements.

	CURRENCIES	PROFICIENCY REQUIREMENTS					
TRAINING ITEM	**NUMBER/FREQUENCY**	**MONTHS AVAILABLE**					
		6	5	4	3	2	1
		NUMBER REQUIRED					
BFM	See Chapter 4	4	4	3	3	1	1
ACM	1/90	3	3	2	1	1	1
ACBT	See Chapter 4	4	4	3	3	1	1
Loads	1/60						
* From **Table 7** or **Table 8** of basic instruction.							

Table A22.9. Updating / Regaining Currency.

TRAINING ITEM	EVENTS WHICH UPDATE	TO REGAIN CURRENCY
FCF	FCF sortie or sim	FCF sortie or sim with F-22 FCF IP
AHC	4 AHC maneuvers from 411 FLTS Raptor Guide	4 AHC maneuvers with F-22 IP
BFM	BFM, ACM or ACBT	BFM w/ F-22 BFM IP
ACM	ACM or ACBT	ACM w/ F-22 ACM IP
ACBT	ACM or ACBT	ACM or ACBT with F-22 ACM or ACBT IP
Loads	Loads sortie or sim (with MCR personnel)	Loads sortie or sim (with MCR personnel) with F-22 IP
NVG	NVG sortie	NVG sortie with F-22 NVG IP

Table A22.10. Phase II Currency/Recurrency Restriction Matrix.

Phase II Qualification	Multi-Qualification Currency (Note 1)	Cross MD Recurrency (Note 2)	Multi-Event Credit (Note 3)
Air-to-Air Training Qualifications			
Basic Fighter Maneuvers (BFM)	Y	N	N
Air Combat Training (ACBT)	Y	N	Y
Flight Test Mission Training			
Loads	N	N	N

NOTES:

1. Multi-Qualification Currency. A "Y" in this column indicates that an update to the qualification currency updates that currency for all aircraft aircrew are qualified in.

2. Cross MD Recurrency. A "Y" in this column indicates that an IP from another MD can provide in-flight instruction to update this currency, provided that IP possesses this qualification in their MD.

3. Multi Event Credit. A "Y" in this column indicates that a currency update of this qualification may update the currency of other qualification(s). See individual paragraphs for more details.

A22.5. Upgrade Qualification Training.

A22.5.1. Pilots selected for upgrade training to instructor status will complete the requirements in **Table A22.11** Ground training will be completed prior to flying training.

A22.5.1.1. Completion of the training program prescribed in **Table A22.11** will qualify pilots for basic F-22 Instructor Pilot duties. Some mission elements require completion of additional instructor training before a pilot is qualified to instruct those missions. These elements are identified in Section **A22.3**. by the addition of an Instructor Qualification section. If no Instructor Qualification section exists for a mission element in Section **A22.3**, then a basic F-22 Instructor Pilot is authorized to provide instruction in that mission element. The AF Form 1381 USAF Certification of Aircrew Training will also reflect completion of any mission element requiring additional qualification training by listing the individual as an IP in that mission element.

Table A22.11. Instructor Upgrade Training Requirements.

REQUIREMENTS	INSTRUCTOR
Ground Training	F-22 Instructor Academics
Flying Training	F-22 Instructor Qualification Flight

A22.6. Training Restrictions. No additional requirements.

A22.7. Additional Training. No additional requirements.

A22.8. (Added-EDWARDSAFB) Definitions.

A22.8.1. **(Added-EDWARDSAFB)** Mission Ready. Completion of the following events constitutes Mission Ready (MR) status in the F-22:

A22.8.1.1. **(Added-EDWARDSAFB)** Flight Test Orientation

A22.8.1.2. **(Added-EDWARDSAFB)** Advanced Handling Characteristics (AHC) flight

A22.8.1.3. **(Added-EDWARDSAFB)** Instrument/Qualification Check.

Attachment 23

RQ-4 TRAINING GUIDELINES

A23.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the RQ-4 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all RQ-4 aircraft.

A23.1.1. Companion Trainer – An aircraft used to maintain civil instrument currency. (e.g., Aero Club Cessna 172).

A23.1.2. Common Ground Station (CGS) – Consists of a Launch and Recovery Element (LRE) and Mission Control Element (MCE) that contain the equipment and workstations necessary to control the aircraft and manage the mission payload/sensors.

A23.2. Phase I Training.

A23.2.1. Prerequisites. Candidates must meet the following requirements before entry into RQ-4 qualification training:

A23.2.1.1. USAF rated pilot.

A23.2.1.2. USAF navigator with a FAA pilot instrument rating.

A23.2.1.3. Civilian contract pilot with a FAA commercial pilot certificate, instrument rating (or military equivalent) and current FAA medical certificate (or military equivalent)**.**

A23.3. Phase II Training. No additional requirements.

A23.3.1. **(Added-EDWARDSAFB)** Mission Commander Certification. Conduct ground training in accordance with HQ AFMC/A3V approved in-unit AFMC Form 67. Conduct flight training in accordance with locally developed courseware. Document this training on AFMC Form 68. Squadron commanders/CTF directors may elect to waive required mission commander training for those crew members who have sufficient flight and test experience.

A23.4. Continuation Training. Minimum currency and proficiency requirements are specified in **Table A23.1**, **Table A23.2** and **Table A23.3**

Table A23.1. RQ-4 Pilot/SO Basic Currency Requirements.

EVENT	CURRENCY
Flight Physical (1)	IAW Paragraph **4.2.**
Flight Evaluation	IAW AFI 11-2FT Vol 2
Instrument Refresher Course (Pilot Only)	IAW AFI 11-2FT Vol 2
Crew Resource Management	IAW Paragraph **4.2.**
Recent Instrument Experience (2) (3) (Pilot Only)	IAW FAR Part 61.57
Flight Review (2) (4) (Pilot Only)	IAW FAR Part 61.56
NOTES: 1. Physical IAW AFI 48-123 (government employee) or FAA Medical Certificate (contractor aircrew). 2. N/A for pilots with current military instrument qualification. 3. Accomplished within the previous six months, six instrument approaches, holding, procedures and intercepting and tracking courses. Pilots will perform and log this experience under actual or simulated instrument conditions in a designated companion trainer. 4. Accomplished within the previous 24 months.	

A23.4.1. Global Hawk Pilots/Sensor Operators who are non-current for the requirements listed in **Table A23.2** are restricted from performing flight/mission duties and will regain currency IAW AFI 11-202 V1.

Table A23.2. RQ-4 Currency Requirements.

POSITION	TRAINING ITEM	NUMBER/FREQUENCY
Pilot	Sortie (1)(5)(6) Takeoff (2)(5)(6) Landing (2)(5)(6) FCF (4)	1/45 1/120 1/120 1/180
Sensor Operator	Sortie Mission Takeoff Preparation (3)	1/45 1/120

Table A23.3. Additional RQ-4 Proficiency Requirements.

POSITION	TRAINING ITEM	MONTHS AVAILABLE					
		6	5	4	3	2	1
		NUMBER REQUIRED					
Pilot	Sortie (1)(5)(6)	6	5	4	3	2	1
	Takeoff (2)(5)(6)	2	2	2	1	1	1
	Landing (2)(5)(6)	2	2	2	1	1	1
	FCF (4)	1	1	1	1	1	1
Sensor Operator	Sortie	6	5	4	3	2	1
	Mission Takeoff Preparation (3)	2	2	2	1	1	1

NOTES (Tables A23.2 and A23.3):

1. For sortie credit, a pilot must achieve a takeoff credit, landing credit, or maintain primary control of the aircraft for at least two hours. Credit for pilot sorties is awarded for Sim or Flight, (see Note 6). At least one Sortie must be in the Sim and one must be in the MCE or LRE during actual flight.

2. May be accomplished in either the LRE or MCE during actual flight. Takeoff credit is awarded for Taxi, Takeoff Abort or Takeoff events. Landing credit is awarded for Approach or Landing events. Credit is awarded to the pilot controlling the aircraft.

3. Mission Takeoff Preparation is accomplished with a Data Analysis Workstation (DAWS) or Sensor workstation startup.

4. Applicable to FCF qualified pilots only.

5. Instructors may log a Sortie, Takeoff and/or Landing for both currency and proficiency, provided an actual flight is performed, Instructor is actively performing instructor duties in the specific event logged, and the Instructor is required due to student lack of qualification or currency. If this Instructor option is used to update currency, the next currency update requires actual control of the aircraft. No more than 50% of the semiannual proficiency requirements may be logged using this Instructor option.

6. Sortie, Takeoff and Landing may be logged for credit in the simulator for both currency and proficiency. If the simulator is used to update currency, the next currency update requires control of the actual aircraft. No more than 50% of the semiannual proficiency requirements may be logged in the simulator.

A23.5. Upgrade Qualification Training. Upgrade training will be conducted IAW Paragraph **5.3** If conducting a local upgrade, use the AFMC/A3V approved syllabus. In addition to Global Hawk specific training, upgrading crewmembers must complete General Instructor Ground Training.

A23.6. Training Restrictions. No additional requirements.

A23.7. Additional Training. Hawkeye Ground Chase. The flying unit commander will designate Hawkeye Ground Chase safety observer candidates. Candidates must be a USAF rated officer, a qualified RQ-4 civilian/contract pilot. A student enrolled in RQ-4 qualification training may be used for Hawkeye Ground Chase, but a qualified RQ-4 pilot must perform the aircraft exterior inspection.

A23.7. (EDWARDSAFB)USAF Flight Test Engineers will not be considered as candidates for Hawkeye Ground Chase. Candidates must be a USAF rated officer or qualified RQ-4 pilot. **Note:** Hawkeye Ground Chase training will be accomplished using the HQ AFMC/A3V approved in-unit AFMC Form 67.

Attachment 24

HH-60 TRAINING GUIDELINES

A24.1. General Information. AFI 11-2HH-60 Volume 1 will be used to qualify AFMC crewmembers in AFMC HH-60 aircraft.

Attachment 25

CSAR-X TRAINING GUIDELINES

A25.1. General. AFI 11-202 Volume 1, AFMC Supplement 1, this instruction and approved test plans will be used to qualify AFMC crewmembers in CSAR X aircraft (initial, requalification, conversion, difference, mission, and upgrade training) as applicable. CSAR-X training will be conducted in accordance with the CSAR-X Initial Pilot Cadre Training Plan.

Attachment 26

V-22 TRAINING GUIDELINES

A26.1. General Information. This attachment, in conjunction with other governing directives, outlines procedures for operation of the CV-22 aircraft under most circumstances. It applies to AFMC aircrews and all management levels concerned with operation of all CV-22 aircraft.

A26.2. Phase I Training.

A26.2.1. **CV-22 Conversion/Differences Training.** CV-22 Conversion training is required for MV-22 qualified copilots to qualify as pilots in the CV-22. CV-22 Conversion training will culminate with an AFMC pilot qualification evaluation. Open and closed book testing will be accomplished as part of conversion training. CV-22 Differences training is required for MV-22 qualified pilots to qualify in the CV-22. MV-22 pilots will complete the re-qual portion of the Conversion/Differences training syllabus. Open and closed book tests are not required for CV-22 Differences training. A graduate of the AFSOC CV-22 MP course has met all requirements of CV-22 Conversion/Differences training.

A26.2.1.1. CV-22 qualified aircrew members may fly as qualified crewmembers on the MV-22, provided their first flight is with an MV-22 qualified instructor and they are current in all required events. Currency for composite crews will be IAW each Service's requirements. Should discrepancies with respect to currency arise, the CV-22 aircrew member will demonstrate proficiency to the satisfaction of an MV-22 instructor prior to flying the event unsupervised.

A26.3. Phase II Training.

A26.3.1. CV-22 Phase II Qualifications. In addition to the Phase II training events listed in chapter 3, the CV-22 adds the additional phase II qualifications listed in **Table A26.1 Additional CV-22 Phase II Qualification Matrix.** V-22 Low Visibility Approach (LVA) is a new qualification specific to the V-22. V-22 NVG is the V-22 specific qualification augmenting NVG at Low Altitude (**para 3.3.8.2**). V-22 Low Level is the V-22 specific qualification augmenting Low Altitude Step Down Training (para.3.5.4.). V-22 FCF is the V-22 specific qualification augmenting Functional Check Flight/Acceptance Check Flight (**para 3.3.3**).

Table A26.1. Additional CV-22 Phase II Qualification Matrix.

Vol 1	Phase II	AFMC Specialized Plan (Note 1)	Dual Qual Trans (Note 2)	Concurrent Phase I, II Training Allowed (Note 3)
Para	**Qualification**	**(Y/N)**	**(Y/N)**	**(Y/N)**
A26.3.1	V-22 Low Visibility Approach (LVA)	Y	N	Y
A26.3.2	V-22 NVG	Y	N	Y
A26.3.3.	V-22 Low Level	Y	N	Y
A26.3.4.	V-22 FCF	Y	N	N

NOTES:
1. A "Y" in this column indicates that the corresponding qualification training plan is specified by the MAJCOM. An "N" indicates the qualification training plan is specified by the individual flying unit.
2. A "Y" in this column indicates that the qualification is transferable across MD platforms for multi-qualified aircrew.
3. A "Y" in this column indicates whether the qualification training can be conducted concurrently with Phase 1 training.

A26.3.2. V-22 Low Visibility Approach.

A26.3.2.1. Definition. V-22 LVA training qualifies aircrew to fly approaches that will essentially be conducted without outside visual references: brown-out (dust), white out (snow), or water approach. The approach may terminate in a landing, precision hover or translating hover (low and slow).

A26.3.2.2. Prerequisites: none. Required previous experience: none.

A26.3.2.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew, however CV-22 aircrew may conduct LVAs in MV-22 aircraft provided the provisions of Paragraph **A26.2.1.1** are met.

A26.3.2.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

A26.3.2.5. LVA training may be conducted concurrently with Phase I and other Phase II training.

A26.3.3. V-22 NVG. (The NVG Medium Altitude (>=MSA) definition from chapter 3 applies to CV-22 aircraft. However, unit commanders may accept crewmember's NVG curriculum completed at the formal school course as the equivalent of NVG medium altitude qualification.)

A26.3.3.1. Definition. V-22 NVG training qualifies aircrew to conduct NVG takeoffs, approaches and landings with or without the use of the NVG HUD and operate at altitudes below the MSA.

A26.3.3.2. Prerequisites: NVG medium altitude qualification, Low Level Navigation qualification. Required previous experience: none.

A26.3.3.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew; however, CV-22 aircrew may conduct NVG takeoffs, approaches and landings in MV-22 aircraft provided the provisions of Paragraph **A26.2.1.1** are met. In addition, multi-qualified aircrew already qualified to conduct NVG takeoffs, approaches and landings in a different MD need only complete the re-qual portion of the syllabus.

A26.3.3.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

A26.3.3.5. V-22 NVG training may be conducted concurrently with Phase I and other Phase II training.

A26.3.4. V-22 Low Level (The Low Level Navigation definition from chapter 3 applies to V-22 aircraft. Unit commanders may accept a crewmember's V-22 Qualification Evaluation as the equivalent of the Low Level Navigation qualification, as V-22 aircrew routinely operate between 2,000 ft AGL and 300 ft AGL under VFR.)

A26.3.4.1. Definition. V-22 Low Level training qualifies aircrew to conduct low level operations down to 200' AGL in APLN mode (Exception: This qualification extends down to 100 feet AGL in APLN mode for purposes of testing the Very Low Clearance capability of the TF radar system only) and down to 50 feet AGL in CONV/VTOL modes.

A26.3.4.2. Prerequisites: Low Level Navigation qualification. Required previous experience: none.

A26.3.4.3. Training Classification. This training plan is command specified. This qualification is not transferable for multi-qualified aircrew and must be accomplished for each MD qualification. Multi-qualified aircrew already qualified to conduct low level operations in a different MD need only complete the re-qual portion of the syllabus.

A26.3.4.4. Training Requirements. The MDS specific MAJCOM training plans can be found on the Edwards Center Ops Online (COOL) server.

A26.3.4.5. V-22 Low Level training may be conducted concurrently with Phase I and other Phase II training.

A26.3.5. V-22 Functional Check Flight/Acceptance Check Flight (FCF/ACF).

A26.3.5.1. Definition IAW chapter 3.

A26.3.5.2. Prerequisites. CV-22 pilots who do not meet the flying hour pre-requisites listed in **Table 3** may complete the FCF upgrade training plan with OG/CC approval, however they will be restricted to copilot duties only until the hours requirement is met or OG/CC waiver is granted IAW note 4 of **Table 3**.

A26.3.6. Additional Mission Events. Training to qualify aircrew in test specific mission events not addressed in this attachment will be detailed in the test plan. When available, lead command guidance will be used to develop AFMC training plans. Training plans will be submitted to AFMC/A3V for approval.

A26.3.7. Accepted Phase II qualifications from formal MV/CV courses.

A26.3.7.1. AFSOC CV-22 Course. The AFSOC CV-22 formal course serves as initial qualification for all of the following Phase II training events: Air-to-Air Refueling Receiver, V-22 NVG, NVG Medium Altitude, Low Level Navigation, V-22 Low Level, Terrain Following/Terrain Avoidance, Formation operations and LVAs. Graduates of the AFSOC CV-22 Formal Course may be considered qualified in all these events. Should the individual become non-current in any of these phase II events, para. 3.1.2 applies.

A26.3.7.2. USMC MV-22 Course. The USMC MV-22 formal course serves as initial qualification for all of the following Phase II training events: Low Level Navigation and Formation operations. Graduates of the USMC MV-22 Formal Course may be considered qualified in all these events. Should the individual become non-current in either of these phase II events, para. 3.1.2 applies.

A26.4. Continuation Training.

A26.4.1. CV-22 Currency Requirements. AFMC pilot and Special Mission Aviator CV-22 currency requirements are listed in **Table A26.2** This table is derived from **Table 7** and contains CV-22 specific events. Section **A26.4.8** details stipulations for updating/regaining currency in the simulator.

Table A26.2. CV-22 Basic Event Currency Requirements.

Position	Training Item	Number/Frequency
Pilot Phase II Event Currency	LVA V-22 NVG Sortie EP Sim Sortie	1/60 1/90 1/180
Career Enlisted Aviator	LVA NVG sortie TF/TA EP Sim Sortie	1/60 1/90 1/90 1/180

A26.4.2. CV-22 Proficiency Requirements. AFMC pilot and Special Mission Aviator proficiency requirements are listed in **Table A26.3** This table is derived from **Table 8** and contains CV-22 specific proficiency events. Section **A26.4.10** details stipulations for logging proficiency events in the simulator.

Table A26.3. CV-22 Semiannual Proficiency Training Requirements.

Line	Position	Aircraft	Training Item	Months Available					
				6	**5**	**4**	**3**	**2**	**1**
				Number Required					
1	Pilot	Tiltrotor	Transition Sortie	2	2	2	1	1	1
2	Career Enlisted Aviator	Tiltrotor	Sorties	12	10	8	6	4	2

A26.4.3. LVA. To log this event, accomplish a simulated or actual dust-out/white-out or water approach to a landing, precision hover (uncoupled) or translational hover (low and slow). CEAs will be in the seat to log this event.

A26.4.3.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and must be regained with an appropriate MD aircraft IP.

A26.4.3.2. Proficiency requirements. None.

A26.4.4. V-22 NVG Sortie. To log this event, accomplish a takeoff, approach (vis/instr) and landing on NVGs and 10 minutes of flight below the MSA. The 10 minutes need not be continuous but should allow sufficient time to experience and operate in the below MSA environment. CEAs may only log this event from the scanner position. CEAs non-current for this event may perform cockpit duties during NVG operations.

A26.4.4.1. Currency requirements. This event is not transferable across multiple MDs, does count for multiple event (night sortie and sortie) credit and must be regained with an appropriate MD aircraft IP.

A26.4.4.2. Proficiency requirements. None.

A26.4.5. TF/TA (See para 4.5.30.1.). CEAs must be in the seat to log this event.

A26.4.5.1. Currency requirements. See para 4.5.30.2 CEAs may regain currency with an IP or IF.

A26.4.5.2. Proficiency requirements. None.

A26.4.6. Transition Sortie. To log this event accomplish a 60 degree or 75 degree Short Takeoff (STO), normal approach to a touchdown, steep approach to a touchdown, vertical takeoff, simulated marginal power Roll On Landing (ROL) and a VFR pattern.

A26.4.6.1. Currency requirements. There is no currency requirement associated with this specific event.

A26.4.6.2. Proficiency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

A26.4.7. EP Sim Sortie. To log this event, review all boldface procedures; accomplish a single engine failure in VTOL, CONV and APLN modes; a sampling of flight control

failures to include FCC, HYD, actuator and AFCS failed conditions with an approach and landing; dual engine failure in APLN/CONV mode; and nacelle control failures.

A26.4.7.1. Currency requirements. This event is not transferable across multiple MDs, does not count for multiple event credit and cannot be updated with an IP in a different MD.

A26.4.7.2. Proficiency requirements. None.

A26.4.8. Use of Simulator for currency/proficiency.

A26.4.8.1. Logging Proficiency in Simulators. Pilots and Special Mission Aviators may log up to 50 percent of semi-annual proficiency requirements (as listed in **Table A26.3** and applicable items from Table 8) in the simulator. If proficiency is an odd number, individuals will round down the number that can be logged in the simulator. Exception: Pilots and Special Mission Aviators will log all EP sorties per semi-annual period in the simulator.

A26.4.8.2. Currency in the Simulator. CV-22 Aircrew may maintain/regain currency for LVA listed in Table A26.2 in an AFMC approved simulator. Event must be accomplished under the supervision of a current and qualified Air Force Instructor to regain currency. The simulator may not be used consecutively to maintain currency or regain currency in a particular event. To the max extent possible the aircraft will be used to regain currency in phase I events. Exception: Pilots and Special Mission Aviators will log all EP sorties in the simulator.

A26.4.8.3. Simulator Crew Complement. Simulator crews will consist of the standard crew complement for the type of mission being flown, minus the cabin FE. The emergency procedures sortie requires either an instructor pilot or a contract sim operator running the instructor operator station. Exception: Two aircrew (1 pilot and 1 FE or 2 pilots) and a sim operator are all that is required to update/log phase I currency/proficiency events for pilots and sortie for FEs.

A26.4.8.4. Minimum Simulator Requirements. When logging currency/proficiency in the simulator, crews are required to complete a full aircraft/systems run-up, a minimum of 1 hour of flight time, a minimum of two different currency/proficiency events, and aircraft/systems shutdown. Instrument approaches accomplished in the simulator will be flown to published minimums.

A26.5. Upgrade Training. No additional requirements.

A26.6. Training Restrictions. No additional requirements.

A26.7. Additional Training. No additional requirements.

Attachment 27

MQ-1/MQ-9 TRAINING GUIDELINES

A27.1. General Information. This attachment outlines the minimum ground and flying training required to qualify AFMC crewmembers in AFMC aircraft. In addition, it prescribes additional MQ-1/MQ-9 continuation training requirements.

A27.2. Phase I Training.

A27.2.1. Training Prerequisites. Pilot candidates must meet one of the following requirements before entry into MQ-1/MQ-9 pilot qualification training:

A27.2.1.1. USAF pilot with a current military instrument qualification.

A27.2.1.2. USAF navigator with a FAA commercial pilot certificate and current instrument rating.

A27.2.1.3. Civilian contract pilot with a FAA commercial pilot certificate, current instrument rating and current FAA medical certificate.

A27.2.2. Predator Mission Aircrew Training System is an approved simulator creditable for proficiency.

A27.2.3. Qualifications in the MQ-1 and MQ-9 will count as one qualification due to their similarities. Conversion training in either RPA may be initiated after 100 hours.

A27.3. Phase II Training

A27.3.1. **(Added-EDWARDSAFB)** Sensor Operator FCF Qualification – Flying unit commander will designate by MFR maintained in the training folder sensor operators eligible to conduct FCF flights. Sensor Operators will comply with flying time minimums in Table 3.

A27.4. Continuation Training. MQ-1/MQ-9 aircrew members will accomplish the currency and proficiency requirements specified in **Table A27.1** and **Table A27.2** The flying unit commander may specify additional requirements necessary to ensure aircrew members maintain proficiency and mission readiness. Include these requirements in a supplement to this instruction.

Table A27.1. MQ-1/MQ-9 Pilot and Sensor Operator Currency Requirements.

REQUIREMENT	PILOT	SENSOR OPERATOR	NOTES
Flight Physical	IAW AFI 11-202 Vol 1 /61-23	IAW AFI 11-202 Vol 1 /61-23	
Flight Evaluation	IAW AFI 11-202 Vol 2	IAW AFI 11-202 Vol 2	
IRC	IAW AFI 11-202 Vol 2	N/A	
CRM	IAW AFI 11-290	IAW AFI 11-290	
MQ-1 Basic Sortie	1/45	1/45	1, 3, 4
MQ-9 Basic Sortie	1/45	1/45	1, 3, 4
MQ-1 Takeoff	1/45	1/120	4, 6
MQ-9 Takeoff	1/45	1/120	4, 6
MQ-1 Landing	1/45	1/120	4
MQ-9 Landing	1/45	1/120	4
Launch Sequence (Ground Ops)	1/60	1/120	2, 3, 4, 5, 6
Instrument Approach (GLS)	1/45	N/A	2, 4, 6
Nose Camera Landing	1/60	N/A	2, 4
IR Camera Landing	1/60	N/A	2, 4
Touch and Go	1/120	N/A	2, 4
Pilot Proficiency Sortie	1/120	N/A	2, 4
Simulated Flame Out	1/120	N/A	2, 4, 6
FCF Profile	1/180	N/A	2, 4, 6
T & E Profile	1/120	1/120	1, 2, 4, 5
Instructor Event	1/120	1/120	1, 2, 6

NOTES:
1. Events applicable to MCE aircrew.
2. Event in either aircraft applies to both.
3. Sensor Operator requirements can be credited in either aircraft.
4. Supervision level for recurrency is an IP or ISO qualified and current in sortie/event.
5. Instructor aircrew may log this event for currency when they instruct it.
6. Aircrew and Instructors may update or regain currency in the PMATS. This may be done only once in the ATD between actual flying events.

Table A27.2. Additional MQ-1/MQ-9 Proficiency Requirements

POSITION		MONTHS AVAILABLE					
		6	5	4	3	2	1
Pilot		NUMBER REQUIRED					
	Basic Sortie	12	10	8	6	2	1
	Launch Sequence	6	5	4	3	2	1
	MQ-1 Takeoff	12	10	8	6	2	1
	MQ-1 Landing	12	10	8	6	2	1
	MQ-9 Takeoff	12	10	8	6	2	1
	MQ-9 Landing	12	10	8	6	2	1
	Instrument Approach (GLS)	10	8	6	4	2	1
	Nose Camera Landing	6	5	4	3	2	1
	IR Camera Landing	6	5	4	3	2	1
	Touch and Go	4	4	3	3	2	1
	Pilot Proficiency Sortie	1	1	1	1	1	1
	Simulated Flame Out	1	1	1	1	1	1
	GBU-12 Weapons Profile	2	2	2	1	1	1
	AGM-114 Weapons Profile	2	2	2	1	1	1
	FCF Profile	1	1	1	1	1	1
	T & E Profile	2	2	2	1	1	1
	Instructor Event	2	2	2	1	1	1
	Systems Training/SEPT	3	3	3	3	2	1
Sensor Operator		NUMBER REQUIRED					
	Basic Sortie	6	5	4	3	2	1
	Launch Sequence	2	2	2	1	1	1
	MQ-1 Takeoff	2	2	2	1	1	1
	MQ-1 Landing	2	2	2	1	1	1
	Systems Training/SEPT	3	3	3	3	2	1
	T & E Profile	1	1	1	1	1	1
	Instructor Event	2	2	2	1	1	1
	MQ-9 Takeoff	2	2	2	1	1	1
	MQ-9 Landing	2	2	2	1	1	1

A27.4.1. Weapons profile does not require actual ordnance but should simulate a weapons release to the maximum extent possible.

A27.4.2. IR Camera Landing updates the 45 day Landing currency requirement as well.

A27.4.2. **(EDWARDSAFB)** Infrared Camera Landing. Log an IR Camera Landing when the primary visual reference used by the Pilot is the nose IR camera. IR Camera Landing also updates Nose Camera Landing currency.

A27.4.3. Pilot Proficiency Sortie. Sortie may be logged upon completion of 5 of the 8 events, regardless of length of actual sortie. As a minimum, practice the following:

A27.4.3.1. One Takeoff

A27.4.3.2. One instrument approach.

A27.4.3.3. One VFR pattern

A27.4.3.4. One IR camera landing.

A27.4.3.5. One nose camera landing.

A27.4.3.6. One SFO.

A27.4.3.7. One touch and go.

A27.4.3.8. One Full stop

A27.4.4. Basic Sortie Credit. In order to log a sortie for currency, aircrew must log 0.5 hours primary, secondary, instructor or evaluator time. If a currency event is accomplished, 0.3 hours flight time is sufficient to log a Basic Sortie. For example, an aircrew that performs a simulated weapons release profile in 20 minutes can log a Basic Sortie. Performing a takeoff and a full stop landing automatically qualifies as a sortie, regardless of sortie duration. Aircrew may combine primary, secondary, instructor or evaluator time to meet sortie requirements.

A27.4.4. **(EDWARDSAFB)** Secondary time does not qualify for basic sortie currency. A sortie may also be logged when a crewmember has accomplished at least one of the following.

A27.4.4.1. **(Added-EDWARDSAFB)** A pilot proficiency sortie

A27.4.4.2. **(Added-EDWARDSAFB)** Complete aircraft launch through takeoff

A27.4.4.3. **(Added-EDWARDSAFB)** Complete an aircraft recovery, descent checklist through engine shutdown

A27.4.4.4. **(Added-EDWARDSAFB)** Logging 0.5 of instructor time

A27.4.4.5. **(Added-EDWARDSAFB)** Flight Examiners administering evaluations will log a Basic Sortie.

A27.4.5. Pilot Touch-and-Go Landing Certification. Touch-and-Go Landing Certification will be accomplished in conjunction with qualification/requalification/instructor training.

A27.4.6. The following training is not required for Sensor Operators:

A27.4.6.1. USAF Physiological Training

A27.4.6.2. Water Survival Training (AFI 11-301)

A27.4.6.3. Low Threat Combat Survival Training

A27.4.6.4. Aircraft Egress Training (AFI 11-301)

A27.4.6.5. Aircrew Flight Equipment Training

A27.4.6.6. Hanging Harness Training

A27.4.6.7. Aircraft Portable and Fixed Fire Extinguisher Training

A27.4.6.8. Aircraft Marshaling Exam

A27.4.6.9. Local Area Survival Training

A27.4.7. **(Added-EDWARDSAFB)** Events and Definitions. Unless otherwise specified in these event descriptions, the unit will determine the necessary parameters for fulfilling and logging tasked events and grounding status for failure to meet event currency.

A27.4.8. **(Added-EDWARDSAFB)** Test and Evaluation (T&E) Sortie. A sortie flown under a formal signed test plan; an ATP or any portion thereof; or any sortie in which aircrew members use established FTTs under the direction of a TC/TD/FTE.

A27.4.9. **(Added-EDWARDSAFB)** Instructor Event. An event logged by an instructor when performing instructor duties during a sortie or simulator session. Log only one instructor event per sortie. Instructors may also log the following events in which they provide instruction to an unqualified/conversion student or noncurrent aircrew member:

A27.4.9.1. **(Added-EDWARDSAFB)** Launch sequence

A27.4.9.2. **(Added-EDWARDSAFB)** MQ-1/MQ-9 Takeoff

A27.4.9.3. **(Added-EDWARDSAFB)** MQ-1/MQ-9 Landing

A27.4.9.4. **(Added-EDWARDSAFB)** FCF Profile

A27.4.9.5. **(Added-EDWARDSAFB)** T&E Profile

A27.4.10. **(Added-EDWARDSAFB)** Instrument Approach. Log an instrument approach when using the GLS as primary instrumentation on following vertical and horizontal guidance and displacement from the runway.

A27.4.11. **(Added-EDWARDSAFB)** Launch and Takeoff. To log a Launch Sequence, accomplish normal procedures checklists from Rack Configuration through Taxi. Event may be credited without aircraft entering the active runway. To log a takeoff accomplish the Pre-takeoff checklist through climb, level-off, cruise checklist or before landing checklist.

A27.4.12. **(Added-EDWARDSAFB)** Touch and Go. A Touch and Go Landing can be credited as both a takeoff event and a landing event.

A27.4.13. **(Added-EDWARDSAFB)** MTS Landing. Pilots will accomplish 6 landings per training cycle using the Multispectral Targeting System (MTS) payload. Log an MTS Landing when the primary visual reference used by the pilot is the MTS EO/IR camera. MTS Landing currency is 60 days and an event accomplished in either aircraft applies to both. Supervision level for recurrency is an IP qualified and current in the event.

A27.4.14. **(Added-EDWARDSAFB)** Instructor Qualification in MQ-1 or MQ-9 is transferrable to other MDS without a minimum hours requirement with flying unit commander's approval.

A27.5. Upgrade Training. No additional requirements

A27.6. Training Restrictions. No additional requirements.

A27.7. Additional Training. No additional requirements.

Attachment 28

DELETED

A28.1. Deleted.

Attachment 29

DHC-8-Q200 TRAINING GUIDELINES

A29.1. General Information. AFI 11-202 Volume 1, AFMC Supplement 1, this instruction and approved test plans will be used to qualify AFMC crewmembers in DHC-8-Q200 aircraft (initial, requalification, conversion, difference, mission, and upgrade training) as applicable.

Attachment 30

PC-12/U-28 TRAINING GUIDELINES

A30.1. General Information. AFI 11-202 Volume 1, AFMC Supplement 1, this instruction and approved test plans will be used to qualify AFMC crewmembers in PC-12 aircraft (initial, requalification, conversion, difference, mission, and upgrade training) as applicable.

Attachment 31

C-20 TRAINING GUIDELINES

A31.1. General Information. AFI 11-202 Volume 1, AFMC Supplement 1, this instruction, Contractor Flight Operations Procedures (CFOPs) and approved test plans will be used to qualify AFMC crewmembers in C-20 aircraft (initial, requalification, conversion, difference, mission, and upgrade training) as applicable.

Attachment 32

C/RC-26 TRAINING GUIDELINES

A32.1. General Information. AFI 11-202 Volume 1, AFMC Supplement 1, this instruction and approved test plans will be used to qualify AFMC crewmembers in C/RC-26 aircraft (initial, requalification, conversion, difference, mission, and upgrade training) as applicable.

Attachment 33

FALCON 20 TRAINING GUIDELINES

A33.1. General Information. AFI 11-202 Volume 1, AFMC Supplement 1, this instruction, Contractor Flight Operations Procedures (CFOPs) and approved test plans will be used to qualify AFMC crewmembers in Falcon 20 aircraft (initial, requalification, conversion, difference, mission, and upgrade training) as applicable.

Attachment 34

NON-USAF AIRCRAFT TRAINING GUIDELINES

A34.1. General Information.

A34.2. USAF Test Pilot School: AFI 11-401/AFMC Sup 1 designates the Commandant of the USAF Test Pilot School (TPS) as the approval authority for TPS curriculum missions conducted in non-USAF aircraft.

A34.2.1. USAF TPS Glider Operations: AFI 11-202 Volume 1, AFMC Supplement 1, this instruction and approved test plans will be used to qualify AFMC crewmembers in Glider aircraft (initial, requalification, conversion, difference, mission, and upgrade training) as applicable. TPS operates contractor-owned glider aircraft in support of the TPS curriculum. Glider aircrew consist of assigned or attached military, civil service, and contractor pilots who are trained and qualified under Title 14 of the Code of Federal Regulations (14 CFR 61), *Certification: Pilots, Flight Instructors, and Ground Instructors*. Operation of the gliders is governed by 14 CFR 91, *General Operating and Flight Rules*. TPS Operating Instruction 11-4, *Soaring* contains specific guidance for administration of the glider program. Guidance is provided for aircrew selection, training, mission qualification and operating procedures.

Attachment 35

OTHER AIRCRAFT

A35.1. General Information. There are numerous aircraft in the USAF inventory that are fielded and fully operational. These aircraft occasionally enter AFMC status, primarily while undergoing heavy maintenance (PDM) or extensive modifications. AFMC does not maintain a standing crew force to operate these aircraft. Instead, they are flown during post maintenance/modification check flights by owning unit aircrew on a TDY basis to the maintenance facility. While the aircraft is flown for check flight purposes and while under AFMC control (does not include delivery flight), the following aircraft may be operated IAW published AFI 11-2MDS guidance without the need for further coordination or approval from AFMC/A3V. AFMC retains all waiver authority for any required item or issue involved in the check flight.

A35.1.1. AFI 11-202 Volume 1, AFMC Supplement 1, this instruction, Contractor Flight Operations Procedures (CFOPs) and approved test plans will be used to qualify AFMC crewmembers (initial, requalification, conversion, difference, mission, and upgrade training) in the following aircraft as applicable. Aircraft governed by this attachment:

C-21

C-22 (B727)

C-32 (B757)

C-37 (Gulfstream V)

C-38 (Gulfstream G100)

C-40 (B737)

E-4

T-1 Jayhawk

T-6 Texan

T-41

T-43

VC-25

UV-18