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CFETP 2A9X4X  
Parts I and II  
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# AFSC 2A9X4X HEAVY AIRCRAFT INTEGRATED AVIONICS



## CAREER FIELD EDUCATION AND TRAINING PLAN

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**CAREER FIELD EDUCATION AND TRAINING PLAN  
HEAVY AIRCRAFT INTEGRATED AVIONICS  
AFSC 2A9X4X**

**PART 1**

**Preface**

**1.** This Career Field Education and Training Plan (CFETP), directed by DAFMAN 36-2689, *Training Program*, paragraph 3.1.2.3.5, is a comprehensive education and training document that identifies life-cycle education and training requirements, training support resources, and minimum core task requirements for 2A9X4X, the Heavy Aircraft Integrated Avionics specialty. The CFETP will provide personnel a clear career path to success and instill rigor in all aspects of career field training. This CFETP establishes the requirements for the integration of the 2A2X1/2/3, 2A8X1X/2X, and 2A9X1X/2X/3X AFSCs under the newly created 2A9X4X AFSC. The official CFETP can be found at the Air Force E-Publishing website: <http://www.e-publishing.af.mil/>.

**2.** The CFETP consists of two parts. Supervisors will use both parts to plan, manage, and control training within the career field.

**2.1.** Part I provides information necessary for overall management of the specialty. Section A explains how everyone will use the plan. Section B identifies career field progression information, duties and responsibilities, training strategies, and career field path. Section C associates each level with specialty qualifications (knowledge, education, training, and other). Section D indicates resource constraints to accomplishing this plan, such as funds, manpower, equipment, and facilities. Section E identifies transition training guide requirements as required by the Air Force Career Field Manager (AFCFM).

**2.2.** Part II includes the following: Section A contains the Specialty Training Standard (STS) and includes duties, tasks, and technical references to support training, including AETC conducted training, core and Home Station Training (HST) tasks, deployment/SEI/CBRN tasks. Section B contains the Course Objective List and training standards to determine Airman training requirements. Section C identifies available support materials and (when developed) a Qualification Training Plan (QTP) to support proficiency training. Section D identifies a course training index. Section E identifies MAJCOM unique training requirements. At unit level, supervisors and trainers will use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan.

## **Abbreviations/Terms Explained**

**AF Career Field Manager (AFCFM)** - Representative appointed by the respective HQ USAF Deputy Chief of Staff or Under Secretariat, to ensure assigned AF specialties are trained and utilized to support AF mission requirements. AF Career Functional Manager is the OPR; however, works in concert with MAJCOM Functional Managers as required.

**Air Force Job Qualification Standard (AFJQS)** - AF Career Field Managers issue AF Job Qualification Standards for unique duty positions, weapons systems, or equipment. The AF Job Qualification Standard supplements the CFETP, Part 2, by outlining specific skill and task requirements. AF Career Field Manager must review and approve any MAJCOM Job Qualification Standard.

**Career Field Education and Training Plan (CFETP)** - A CFETP is a comprehensive core training document that identifies life-cycle education and training requirements; training support resources; and minimum core task requirements for a specialty. The CFETP aims to give personnel a clear path and instill a sense of industry in career field training.

**Career Field Manager (CFM)** - The AF focal point for the designated career field within a functional community. Serves as the primary advocate for the career field, addressing issues and coordinating functional concerns across various staffs. Responsible for the career field policy and guidance. Must be appointed by the FM and hold the grade of Colonel/GS-15/PB-03 (or equivalent) for officer and DAF civilian specialties, and the grade of CMSgt for enlisted Airmen.

**Certification** - A formal indication of an individual's ability to perform a task to required standards.

**Certification Official** - A person whom the commander assigns to determine an individual's ability to perform a task to required standards.

**Competencies** - Observable, measurable pattern of knowledge, skills, abilities, behaviors, and other characteristics needed to perform institutional or occupational functions successfully.

**Core Task** - Tasks the AF Career Field Manager identify as minimum qualification requirements for everyone within an AFSC, regardless of duty position. Core tasks may be specified for a particular skill level or in general across the AFSC.

**Course Training Standard (CTS)** - Training standard that identifies the training members receive in a specific course.

**Distance Learning** - Structured learning that does not require the physical presence of the instructor.

**Exportable Training** - Additional training via computer assisted, paper text, interactive video, or other necessary means to supplement training.

**Field Training** - Technical, operator, and other training either a training detachment or mobile training team conducts at operational locations on specific systems and associated direct-support equipment for maintenance and aircrew personnel.

**Home Station Training (HST)** - Training required to perform in the current duty position to include duty position tasks, core tasks, Resource Augmentation Duty program tasks, contingency tasks, and additional duty tasks.

**Initial Skills Training** - Air Force Specialty specific training an individual receives upon entry into the Air Force or upon retraining into this specialty for award of the 3-skill level.

**Maintenance Information System (MIS)** - Automated maintenance information systems that support and enable maintenance business processes. MIS is used to document maintenance actions and track fleet health.

**Master Task List (MTL)** - A comprehensive list (100%) of all tasks performed within a work center and consisting of the current CFETP or AF Job Qualification Standard and locally developed DAF Form 797 (as a minimum). Should include tasks required for deployment and/or unit type code requirements.

**Master Training Plan (MTP)** - Employs a strategy for ensuring the completion of all work center job requirements by using a master task listing and provides milestones for task, Career Development Course completion, and prioritizes deployment/unit type code, home station training tasks, upgrade, and qualification tasks.

**Occupational Analysis (OA)** - Collecting and analyzing factual data on the tasks and/or knowledge performed by AF career fields. This data is used to provide personnel and training decision-makers with factual and objective job information which enables them to justify and/or change personnel utilization policies and programs, refine, and maintain occupational structures, and establish, validate, and adjust testing and training programs.

**On-the-Job Training (OJT)** - Hands-on, “over-the-shoulder” training or evaluation conducted to certify personnel in both upgrade (skill level award) and job qualification (position certification training).

**Proficiency Training** - Additional training, either in-residence or exportable advanced training courses, or on-the-job training, provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade.

**Qualification Training (QT)** - Performance training designed to qualify an Airman who has transferred from one base or position to another specific position. The supervisor performs an initial evaluation that includes a review of all previously certified tasks checked against the newly assigned position’s required tasks. Any tasks not previously completed is now required and this identifies that the member requires qualification training for the newly assigned duty position.

**Resource Constraints** - Resource deficiencies, such as money, facilities, time, manpower, and equipment that preclude desired training from being delivered.

**Specialty Training Requirements Team (STRT)** - Air Force career field managers use this forum and quality control tool to determine and manage career field education and training requirements.

**Specialty Training Standard (STS)** - An AF publication that describes an AF Specialty in terms of tasks and knowledge an Airman in that specialty may be expected to perform or to know on the job. Also identifies the training provided to achieve a 3-, 5-, or 7-skill level within an enlisted AF Specialty. It further serves as a contract between AETC and the functional user to show which of the overall training requirements for an AFSC are taught in formal schools and correspondence courses.

**Training Detachment** - An AETC detachment that provides technical training, at an operational location, on specific systems, and their aerospace ground equipment. A training detachment aims to: train and/or qualify personnel on new equipment or in new techniques and procedures, maintain proficiency and to increase skill and knowledge, acquaint personnel with specific systems, and keep personnel aware of changing concepts and requirements.

**Upgrade Training** - Mandatory training that leads to attainment of higher level of proficiency.

**Utilization and Training Workshop** - Career field managers use the utilization and training workshop process to develop and review training programs within an Air Force specialty or civilian occupational series. The goal of the utilization and training workshop process is to develop the architecture for effective life-cycle training to be provided at appropriate points throughout a career path and to ensure that personnel within the specialty or series are properly employed.

## **Acronyms Used**

A&P – Airframe and Powerplant

AFCDA – Air Force Career Development Academy

AETC – Air Education and Training Command

AFCFM – Air Force Career Field Manager

AF-COOL – Air Force Credentialing Opportunities On-Line

AFECD – Air Force Enlisted Classification Directory

AFJQS – Air Force Job Qualification Standard

AFRC – Air Force Reserve Command

AFS – Air Force Specialty

AFSC – Air Force Specialty Code

ALS – Airman Leadership School

ANG – Air National Guard

AvF – Avionic Fundamentals

BMT – Basic Military Training

C4ISR – Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance

CBRN – Chemical, Biological, Radiological, and Nuclear

CCAF – Community College of the Air Force

CEM – Chief Enlisted Manager

CFETP – Career Field Education and Training Plan

CSIL – Customer Service Information Line

CTS – Course Training Standard

EPME – Enlisted Professional Military Education

HST – Home Station Training

HUD – Heads Up Display

ICW – Interactive Courseware

ISD – Instructional System Development



ITP – Individual Training Plan

JQS – Job Qualification Standard

JSAMTCC – Joint Service Aviation Maintenance Technician Certification Council

MCA – Multi-capable Airman

MDS – Mission Design Series

MFM – MAJCOM Functional Manager

MMCL – MAJCOM Mandatory Course List

MTP – Master Training Plan

NCOA – Noncommissioned Officer Academy

OAR – Occupational Analysis Report

OJT – On-the-Job Training

QT – Qualification Training

QTP – Qualification Training Package

SEI – Special Experience Identifier

SKT – Specialty Knowledge Tests

SME – Subject Matter Expert

SNCOA – Senior Noncommissioned Officer Academy

STRT – Specialty Training Requirements Team

STS – Specialty Training Standard

TIS – Time in Service

TIG – Time in Grade

TR – Training Resource

UGT – Upgrade Training

WAPS – Weighted Airman Promotion System

## Section A – General Information

**3. Purpose:** This Career Field Education and Training Plan provides the information necessary for Air Force Career Field Managers, Major Command Functional Managers, commanders, training managers, supervisors and trainers to plan, develop, manage, and conduct an effective and efficient career field training program. The plan outlines the training individuals in this Air Force Specialty should receive to develop and progress throughout their career. This plan identifies initial skills, upgrade, qualification, advanced and proficiency training. The CFETP also serves the following purposes:

**3.1** Serves as a management tool to plan, manage, conduct, and evaluate a career field-training program. Also, it is used to help supervisors identify training at the appropriate point in an individual's career.

**3.2** Identifies task and knowledge training requirements for each skill level in the specialty and recommends education and training throughout each phase of an individual's career.

**3.3** Lists training courses available in the specialty, identifies sources of training, and the training delivery method.

**3.4** Identifies major resource constraints that impact full implementation of the desired career field training process.

**4. Use:** The plan is used by Major Command Functional Managers and supervisors at all levels to ensure comprehensive and cohesive training programs are available for everyone in the specialty.

**4.1** AETC training personnel develop or revise formal resident, nonresident, field, and exportable training based upon requirements established by the users and documented in Part 2 of the career field education and training plan. They also work with the Air Force Career Field Manager to develop acquisition strategies for obtaining resources needed to provide the identified training.

**4.2** Major Command Functional Managers ensure their training programs complement the career field education and training plan mandatory initial, upgrade, and proficiency requirements. On-the-job Training, resident training, and contract training or exportable courses can satisfy identified requirements. Ensure Major Command-developed training to support this Air Force Specialty Code is identified for inclusion into the plan.

**4.3** Each individual completes the mandatory training requirements specified in this plan. The list of courses in Part 2 is used as a reference to support training.

**5. Coordination and Approval:** The Air Force Career Field Manager is the approval authority. Also, the Air Force Career Field Manager will initiate an annual review of this document to ensure currency and accuracy. Major Command representatives and AETC training personnel will identify and coordinate on the career field training requirements. The AFCFM can implement out-of-cycle changes whenever necessary to address the addition of new platforms, systems, changes to test equipment, etc. Career field members can provide inputs on content or change request to

the AFCFM at any time via their MFM. The AFCFM will evaluate the information and (1) provide feedback on why the suggestion will not be incorporated, (2) initiate an out of cycle change, or (3) incorporate the suggestion during the next scheduled review, whichever is appropriate.

## **Section B – Career Progression and Information**

### **6. Specialty Description**

**6.1 Specialty Summary:** Refer to the Air Force Enlisted Classification Directory (AFECD), accessible via myFSS at <https://myfss.us.af.mil/> search for “Air Force Enlisted Classification Directory”.

#### **6.2 Specialty Shred 2A9X4A – C4ISR Mission Systems:**

**6.2.1** Applicable to: E-3, E-4, E-7, E-8, EC-130H, RC-135, and VC-25. Avionics maintainers for the E-4 and VC-25 are selectively hired from the 2A9X4/A AFSCs.

**6.2.2** There is no 3-level pipeline for this shred. Individuals will retrain from the 2A9X4 AFSC, and other AFSCs by approval of the CFM. Shred manning requirements will be listed in the OBJ IN column of the annual retraining advisory found on myFSS. Upgrade training is accomplished through OJT and MAJCOM-directed upgrade training.

#### **6.3 Duties and Responsibilities**

**6.3.1 Helper, Apprentice, Journeyman, Craftsman:** Refer to “AFSC 2A974\*, Craftsman / AFSC 2A954\*, Journeyman / AFSC 2A934, Apprentice / AFSC 2A914, Helper,” titled “Heavy Aircraft Integrated Avionics” in AFECD Section II, for specialty summary, duties and responsibilities, and specialty shred out.

**6.3.2 Chief Enlisted Manager (CEM) and Superintendent:** Refer to “CEM Code 2A500/AFSC 2A590, Superintendent,” titled “Airlift Special Mission Aircraft Maintenance” in AFECD Section II, for specialty summary, and duties and responsibilities for 9-skill level and CEM personnel.

**7. Skill/Career Progression:** Adequate training and timely progression from the apprentice to the superintendent skill level plays an important role in the Air Force's ability to accomplish its mission. It is essential that everyone involved in training do their part to plan, develop, manage, and conduct an effective training program. The guidance provided in this part of the CFETP will ensure everyone receives viable training at appropriate points in their career. Use Table 10.1, Enlisted Career Path, in conjunction with the information below to manage career skill progression.

## 7.1 Apprentice (3-skill level)

**7.1.1** Individuals are awarded their 3-skill level upon completion of initial skills training (technical school). At their first duty station, a trainee will work with a trainer to enhance their knowledge and skills.

**7.1.2** Wear of the Basic Maintenance Badge is authorized on award on the 3 skill-level.



## 7.2 Journeyman (5-skill level):

**7.2.1** Upon arrival at their first duty location, individuals must complete formal 5-level OJT training requirements as defined in this CFETP, AFI 36-2650, DAFMAN 36-2689, the AFECD, and MAJCOM or work-center-identified upgrade tasks. Once upgraded to the 5-skill level, the journeyman will enter qualification training to broaden their experience base by increasing their knowledge and skill in troubleshooting and solving more complex problems. This includes qualification on duty specific tasks identified by the work center supervisor. Available proficiency and/or supplementary training should be completed as early as duty permits.

**7.2.2** Minimum time in upgrade training: 12 months

**7.2.3** Maximum time in upgrade training: none. However, promotion to SSgt requires a member to achieve and maintain at least a 5-skill level.

## 7.3 Craftsman (7-skill level)

**7.3.1** Once selected for promotion to Staff Sergeant, individuals begin formal 7-skill level OJT training requirements as defined in this CFETP, AFI 36-2650, DAFMAN 36-2689, the AFECD, and MAJCOM or work-center-identified upgrade tasks. Once upgraded to the 7-skill level, the craftsman will also train on any qualification or duty specific tasks identified by the work center supervisor. Available proficiency and/or supplementary training should be completed as early as duty permits. Members should enroll and complete the 9-skill level course (when available) soon after being selected for promotion MSgt.



**7.3.2** Minimum time in upgrade training: 6 months, or 48 months after award of the 3-level; whichever comes first.

**7.3.3** Maximum time in upgrade training: 24 months. Commanders should consider demotion to SrA for individuals who cannot achieve a 7-skill level within 24 months without justified breaks in training. See DAFI36-2502, *Enlisted Airman Promotion and Demotion Programs*.

**7.3.4** Completion of the Supervisor AFJQS is mandatory for upgrade to 7-level. See <https://www.airuniversity.af.edu/Foundational-Resources/>

**7.3.5** Completion of the NCOIC/Section Chief AFJQS is mandatory on promotion to MSgt.

**7.3.6** Wear of the Senior Maintenance Badge (star) is authorized on award of the 7-skill level.

**7.3.7** MSgt selects should attend the Production Superintendent course.

#### **7.4 Superintendent (9-skill level)**

**7.4.1** The 9-skill level is awarded upon promotion to Senior Master Sergeant. When necessary, unit OJT is used for training. In addition to *full* 7-skill level qualifications, an individual must possess advanced skills and knowledge of concepts and principles in the management of aircraft maintenance. The 9-skill level needs to be an effective leader; must be able to forecast, budget, and manage funds and other resources to include manning; must be knowledgeable of federal and local environmental standards; and must ensure adherence to the proper handling and disposal of hazardous materials. This career field merges into the 2A590 career field at the SMSgt/9-skill level. The AFSC shred is removed upon upgrade to the 9-skill level. Any aircraft specific qualifications required are identified by Special Experience Identifier (SEI) codes.



**7.4.2** Completion of the AFJQS for Flight Chiefs is mandatory prior to award of the 9 skill-level. See <https://www.airuniversity.af.edu/Foundational-Resources/>

**7.4.3** Wear of the Master (wreath and star) Maintenance Badge is authorized on award of the 9-skill level.

**8. Training Decisions:** The CFETP uses a building block approach (simple to complex) to encompass the entire spectrum of training requirements for the Heavy Aircraft Integrated Avionics career field. The following training decisions were made by MFMs and Subject Matter Experts (SME) at the career field Specialty Training Requirements Team (STRT) 15-17 Nov 2022. The STRT was tasked with reviewing the entire 2A9X4X STS. Each STS line item was evaluated based on capability and method of training, redundancy of documentation, and applicability.

**8.1 Initial Skills:** Initial skills training is provided by AETC through the Heavy Aircraft Integrated Avionics 3-level course.

**8.2 5-Skill Level Upgrade Training:** Upgrade requirements include completion of core tasks and identified work center requirements for their assigned weapons system and completion of MAJCOM Mandatory Course List (MMCL) requirements as necessary based on assignment. Once 5-level CDC replacements are available, they will be mandatory for upgrade and sustainment of the 5 skill level.

**8.3 7-Skill Level Upgrade Training:** Upgrade requirements include completion of core tasks, identified work center requirements for their assigned weapons system, and completion of the MAJCOM Mandatory Course List (MMCL) requirements as necessary based on assignment. Task qualification, in residence 7-level school (when available), and advanced wire maintenance course J4AMP3000 A48A are required for upgrade. MAJCOM-specific, or airframe-specific wire

maintenance courses may be substituted for J4AMP30000 A48A. Once 7-level CDC replacements are available, they will be mandatory for upgrade and sustainment of the 7-skill level.

**9. Higher Education and Advanced Certification Opportunities.** Advanced certifications and other additional off-duty education is a personal choice encouraged for the professional development of the entire enlisted force.

**9.1 Community College of the Air Force (CCAF) Degree Program:** Enrollment in CCAF occurs automatically upon completion of Basic Military Training (BMT). Degree completion; technical education; leadership, management and military studies; general education; and program elective requirements are identified in the CCAF Catalog which can be found on the Air University (AU) site at <http://www.airuniversity.af.mil/Barnes/CCAF/>.

#### 9.1.1 Degree Requirements:

Topic	Semester Hours
Technical Education	24
Leadership, Management & Military Studies	6
General Education (written communication, oral communication, mathematics, social science, humanities)	15
Program Elective	15

**9.1.2 CCAF Academic Programs:** In addition to its associate degree program, CCAF offers other credentialing programs (licensure and certification). Licensure is normally issued by federal, state, or local governmental agencies and is issued to individuals to practice in a specific occupation. Certification is normally issued by non-governmental agencies, associations, schools, or industry-supported companies and are typically an optional credential. Air Force Credentialing Opportunities On-Line (AF- COOL) supports programs like Air Force Airframe and Power plant (A&P) Certification; CCAF Instructor Certification; CCAF Instructional Systems Development (ISD) Certification; and Joint Service Aviation Maintenance Technician Certification Council (JSAMTCC). Information on current programs is available via the Air Force Portal CCAF site at <http://www.airuniversity.af.mil/Barnes/CCAF/> and <https://afvec.us.af.mil/afvec>

**9.2 AETC Instructor Requirements:** AETC Instructors must possess, at a minimum, an associate degree or should be actively pursuing an associate degree. A degreed faculty is necessary to maintain accreditation through the Southern Association of Colleges and Schools.

#### 9.3 Significant Civilian Licensure and Certifications

**9.3.1 Federal Aviation Administration (FAA) Airframe and Powerplant (A&P) Certification.** The FAA certifies Aviation Mechanics, or Aviation Maintenance Technicians (AMT) through the A&P Mechanic Rating program (Federal Aviation Regulation 14 CFR Subchapter D, Part 65, Subpart D or Subchapter H, Part 147). Commercial avionics technicians have separate certification requirements; however many employers require or highly recommend

that avionics technicians also obtain an FAA Airframe Mechanics Rating.

(<https://www.faa.gov/mechanics/become>)

**9.3.2 Air Force A&P Certification Program** is designed to bridge the gaps between a maintenance technician's military experience and the FAA-required experience for certification under the Federal Aviation Regulation (FAR) Part 65.

(<https://www.airuniversity.af.edu/Barnes/CCAF/Display/Article/803252/credentialing-programs-flight/>).

It is administered by the Joint Service Aviation Maintenance Technician Certification Council (JSAMTCC) through the CCAF Workforce Development Division's Credentialing Programs Flight. For questions or to begin the program, contact [ccaf.faa@us.af.mil](mailto:ccaf.faa@us.af.mil). The program consists of OJT, three Air University Online A&P Specialized Courses, and documented evidence of 30 months practical experience in airframe and powerplant systems. CCAF manages the AF A&P Certification Program. Technicians may enroll in the program and begin training once they have been awarded their 5-skill level and achieved 18 months (for an Airframe or Powerplant Mechanic Rating) or 30 months (for both Airframe and Powerplant Mechanic Rating). To learn more visit CCAF's website at <https://afvec.us.af.mil/afvec/af-cool/welcome>. The CCAF currently awards 30 semester hours for the FAA A&P certification and 18 semester hours for the FAA Airframe or Powerplant certification.

**9.3.3 Federal Communications Commission (FCC) licensure.** Outside of the military, individuals repairing FCC-certified equipment, and operating commercial radio and radar stations, including aircraft and ships, require licensure through the Commercial Radio Operator License Program (<https://www.fcc.gov/commercial-radio-operator-license-program>). Many avionics technicians will have most of the appropriate experience and education necessary to pass the FCC licensure tests. Several programs to aid in studying for the exams are listed on the AFCOOL website, and study guides are available from the FCC website.

**9.3.4 American Society for Testing and Materials (ASTM) National Center for Aerospace and Transportation Technologies (NCATT) Aircraft Electronics Technician (AET):** The ASTM NCATT AET is recognized by the FAA as an equivalent form of training necessary to receive a Repairman Certificate, which allows individuals to perform limited aircraft repairs for an employer without needing a full FAA Mechanics Rating. <https://spacetec.us/astm-ncatt-certifications/>

**9.3.5 CompTIA certifications:** CompTIA provides several globally recognized computer certifications including A+, Network+, and Security+. Elevated network/security permissions, as some 2A9X4A technicians require by DoD regulation, need the member to hold a Security+ or similar certification. Training courses are available on the Percipio e-learning platform (<https://usaf.percipio.com>) and through Digital University (<https://digitalu.af.mil/app/certs-prep>). Security+ preparatory courses are also available through AETC Field Training Detachments at Tinker and Offutt AFBs.

**10. Career Field Path:** Table 10.1 identifies career milestones for the 2A9X4X Air Force Specialty.

<b>Table 10.1 Enlisted Career Path</b>				
<b>Milestone</b>	<b>Grade Requirements</b>			
	<b>Rank</b>	<b>Earliest Sew-On (Note 1)</b>	<b>2A9X4 Average Sew-On (Note 2)</b>	<b>High Year of Tenure (Note 3)</b>
<b>Basic Military Training School</b>	AB			
<b>Initial Skills Training</b> (Technical School / 3-Skill level)	Amn A1C	6 months 10 months	9.4 months	8 years
<b>Upgrade to Journeyman</b> (5-Skill Level) - Complete all mandatory core tasks. - Complete mandatory requirements listed in AFECD. - Minimum 12 months in upgrade training - Supervisor recommendation and commander approval	SrA	36 months TIS & 20 months TIG or 28 months TIG	2.5 years	10 years
<b>Airman Leadership School (ALS)</b> - Must be a SrA with 48 mo. TIS or SSgt (sel) - Resident graduation is a prerequisite for SSgt sew-on (Active Duty only)	Trainer (Note 4) - Qualified and certified to perform task to be trained. - Must attend formal AF Training Course - Recommended by supervisor			
<b>Upgrade to Craftsman</b> (7-Skill Level) - Minimum rank of SSgt select - Completion of the AFJQS Supervisor Task list - 7-level school (when available) - Advanced Wire Maintenance course - Minimum 6 months in upgrade training or 48 months since award of 3-level. Commanders may waive on an individual basis. (Note 6) - Complete all CFETP core tasks and work-center minimum upgrade tasks - Complete mandatory requirements listed in AFECD - Supervisor recommendation and commander approval	SSgt (Sel)	3 years	4.9 years	20 years
<b>Noncommissioned Officer Academy (NCOA)</b> - Must be a TSgt or TSgt (Sel) - Resident graduation is a prerequisite for MSgt sew-on (Active Duty only)	TSgt	5 years	10.1 years	22 years
<b>USAF Senior NCO Academy (SNCOA)</b> - Must be MSgt or SMSgt (Sel) - Resident graduation is a prerequisite for SMSgt sew-on (Active Duty only) - Completion of the AFJQS NCOIC/Section Chief Task List	MSgt	8 years	14.2 years	24 years
<b>Upgrade to Superintendent</b> (9-Skill Level) - Minimum rank of SMSgt - 9-level course (when available) - Completion of the AFJQS Flight Chief Task List	SMSgt	11 years	18.5 years	26 years
<b>Chief Leadership Course</b>	CMSgt	14 years	21.5 years	30 years



-	Minimum rank of CMSgt or CMSgt (Sel)			
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Table data current as of August 2023.

NOTE 1: Earliest sew-on information is detailed in DAFI 36-2502, *Enlisted Airman Promotion and Demotion Programs*. SrA below-the-zone promotion is 6 months prior to listed TIS/TIG requirement.

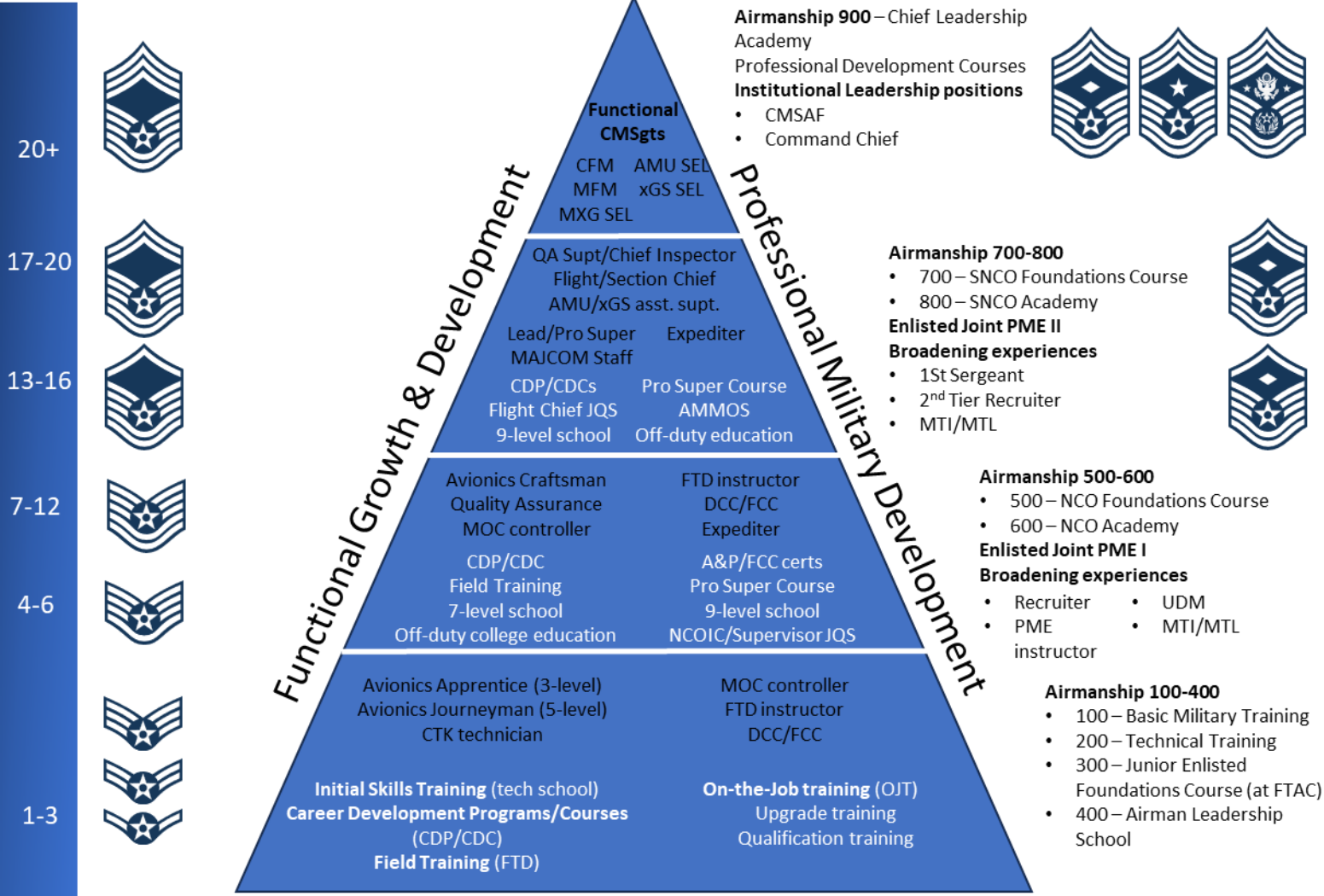
NOTE 2: Average sew-on time is determined by the 2A9X4 AFCFM.

NOTE 3: HYT information is on the myFSS site. Search for “High Year of Tenure” at <https://myfss.us.af.mil>

NOTE 4: Upgrade and trainer/certifier requirements are detailed in DAFMAN 36-2689, *Training Program*

NOTE 5: EPME information is on the myFSS site. Search for “Enlisted Professional Military Education” at <https://myfss.us.af.mil>.

NOTE 6: Time in UGT blanket waivers of any type are not permitted. The intent is that only extraordinarily talented, skilled, or members with previous aircraft maintenance experience (e.g., FAA A&P) will be upgraded early.



**Functional Heavy Avionics Career Pyramid**

## Section C - Skill Level Training Requirements

**11. Purpose:** Skill level training requirements in this specialty are defined in terms of tasks and knowledge requirements. This section outlines the specialty qualification requirements for each skill level in broad, general terms and establishes the mandatory requirements for entry, award, and retention of each skill level. The specific task and knowledge training requirements are identified in the Specialty Training Standard of this CFETP.

### 12. Specialty Qualification Requirements

**12.1 Knowledge, Education, Training, and Experience:** Refer to the Air Force Enlisted Classification Directory (AFECD), accessible via myFSS at <https://myfss.af.mil> search for “Air Force Enlisted Classification Directory”.

**12.2 Helper, Apprentice, Journeyman, Craftsman:** Refer to “AFSC 2A974\*, Craftsman / AFSC 2A954\* Journeyman / AFSC 2A934\*, Apprentice /AFSC 2A914, Helper,” titled “Heavy Aircraft Integrated Avionics” in AFECD Section II, for specialty qualification information for 1-, 3-, 5-, and 7-skill level personnel.

**12.3 CEM and Superintendent:** Refer to “CEM Code 2A500/AFSC 2A590, Superintendent,” titled “Airlift Special Mission Aircraft Maintenance” in AFECD Section II, for specialty qualification information for 9-skill level and CEM personnel.

### 13. Training Sources and Implementation

**13.1 Apprentice Level Training:** The initial skills course (J3ABR2A934 048A) will provide the required knowledge the trainee needs at their first duty location. The training encompasses modules for Maintenance Professional Orientation, Safety and Technical Orders, Basic Electronics, Composite Took Kit, Wire Maintenance, Intermediate Electronics, the Maintenance Complex, Flightline Familiarization, Aerospace Ground Equipment, Aircraft Communication Systems, Aircraft Flight Controls, Aircraft Flight Instruments, Aircraft Navigation Systems, and Electromagnetic Spectrum Operations (EMSO). Trainees will use Ground Instructional Training Aircraft, virtual training systems, representative aircraft and/or alternate resources to accomplish the training requirements. Unless waived by the AFCFM, the initial skills course is a requirement upon entry into the career field. Trainees are awarded a 3-skill level upon completion of the initial skills course.

**13.2 Journeyman Level Training:** Trainees enter 5-skill level Up-Grade Training (UGT) upon arrival at their first duty station. Core and work center tasks in the trainee’s Job Qualification Standard (JQS) are trained via OJT and, when mandated, MAJCOM specific courses.

**13.3 Craftsman Level Training:** Trainees enter 7-skill level UGT when selected for promotion to Staff Sergeant. Core and work center tasks in the trainee’s JQS are trained via OJT and, when mandated MAJCOM specific courses.

**13.4 Superintendent Level Training:** The 9-skill level is awarded upon promotion to Senior Master Sergeant. When necessary, unit OJT is used for training. In addition to 7-skill level

qualifications, an individual must possess advanced skills and knowledge of concepts and principles in the management of aircraft maintenance. The 9-skill level needs to be an effective leader; must be able to forecast, budget, and manage funds and other resources to include manning; must be knowledgeable of federal and local environmental standards; and must ensure adherence to the proper handling and disposal of hazardous materials.

## **Section D – Resource Constraints**

**14. Purpose:** This section identifies known resource constraints that preclude optimal and desired training from being developed or conducted, including information such as cost and manpower. Narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training are included. Also included in this section are actions required, OPR, and target completion dates. As a minimum, review and update resource constraints annually.

**14.1. Apprentice Level Training:** Initial skills training course J3ABR2A934 048A is still in draft as of the publication of this CFETP. Until it is completed, and the training pipeline adjusted, new accessions to the AFSC will attend one of the existing heavy avionics initial skills training courses (in AFSCs 2A23X, 2A83XX or 2A93XX).

**14.2. Journeyman Level Training:** No resource constraints identified.

**14.3. Craftsman Level Training:** There is, at publication, no 2A974 upgrade course. Once developed and implemented it will be mandatory for upgrade to 2A974 and promotion to TSgt.

**14.4. Superintendent Level Training:** Superintendent 2AX9X upgrade training course is in development. Once available, it is mandatory for upgrade to 2A590 and promotion to SMSgt.

## **Section E – Transitional Training Guide**

**15. Purpose:**

**15.1.** This transition guide outlines the process for training during the transition from 2A2XXX, 2A8XXX and 2A9X1/2/3X AFSCs to the 2A9X4/A AFSCs.

**15.2. Conditions.**

**15.2.1. Duration.** Transition training is expected to take approximately two years for members who transitioned from previous heavy avionics AFSCs.

**15.2.2. Target Group.** Members who have transitioned from the 2A2XXX, 2A8XXX and 2A9X1/2/3X AFSCs to the 2A9X4X AFSCs.

**15.3. Transition Training Plan Administration**

**15.3.1 Requirements.** Upgrade training requirements are identified in Part 2, Section A.

**15.3.2 Training Methods.** Transition training will consist of MAJCOM or locally directed FTD courses and OJT.

**15.3.3 Certification Requirements.** Task certification requirements are identified in Part 2 Section A.

**15.3.4 Program Management.**

**15.3.4.1 Members who transitioned as fully qualified 5- and 7-levels (TSC R or Q)** will be placed in TSC Q. Place in TSC R after completing all 2A9X4/A Part 2-directed upgrade and all work center-directed upgrade/qualification requirements.

**15.3.4.2 Members who transitioned while in initial 5- or 7-level UGT (TSC B or C)** will remain in TSC B or C until meeting at least the minimum upgrade requirements identified in Part 2 of the 2A9X4/A CFETP.

**15.3.4.3 ARC Members.** ANGB and AFRC may supplement this section as necessary to meet unique ANG or AFR requirements.

**15.3.4.4 3-levels.** All 3-levels from 2A2X3X, 2A8X3X and 2A931/2X and 2A933E/F/G (bombers) will upgrade into 2A954. All 3-levels in 2A9X3A/B/C/D/H/J will upgrade into 2A9X4A. EXCEPTION: Reserves maintainers for the MHU-139 are 2A231, and upgrade into 2A251.

**15.3.5 Status Reporting.** Report upgrade training status per AFI 36-2650 *Maintenance Training*.

**15.3.6 Recommendations.** Contact MAJCOM Functional Managers for questions regarding MAJCOM-directed mandatory training.

## PART 2

### Section A – Specialty Training Standard

**16. Implementation:** The STS will be used for technical training provided by AETC. The STS is organized in attachments to this document.

**Attachment 2** – Avionics Fundamentals (Initial Skills Training)

**Attachment 3** – Heavy Aircraft Integrated Avionics Course (Initial Skills Training)

**Attachment 4** – 5- and 7-level General Training Requirements

**Attachment 5** – 5- and 7- level Mission Design Series (MDS) Training Requirements

**16.1 Wartime Requirements:** When necessary, the AFCFM can direct expedited training to support wartime requirements. If implemented, all task and knowledge taught in the initial skills courses will continue to be taught in the wartime initial skills courses, the training timeline will just be compressed as able. For example, if a course were currently being taught 5 days a week on dayshift, the wartime course would provide the same training to trainees but might be taught 6 days a week on day-, swing-, and mid-shift.

**16.2. Documentation:** As prescribed in DAFMAN 36-2689, *Training Program*

**17.1 Column 1 (Task, Knowledge, and Technical References):** The most common tasks, knowledge, and Technical References (TR) necessary for Airmen to perform duties in the 3-, 5-, and 7-skill level. Not all tasks apply to every work center.

**17.1.1** It is the work center supervisor’s job to identify work center requirements and build a Master Training Plan (MTP) to train assigned trainees to the requirements. Add command/MDS unique requirements to an AF Job Qualification Standard (JQS), if required.

**17.1.2** For OJT, the tasks in column 1 are trained and qualified to the go/no go level. “Go” means the individual can perform the task without assistance and meets local requirements for accuracy, timeliness, and correct procedures.

**17.1.3** Unless mandated by another source (e.g., engine run currency requirements in DAFI 21-101), there is no career field standard for proficiency. Once a trainee is qualified on a task, they remain qualified unless de-certified IAW DAFMAN 36-2689.

**17.1.4** Decertification and Recertification. When a supervisor determines an Airman is unqualified on a task previously certified for their duty position, the supervisor erases the previous certification, or deletes certification when using an automated system. Appropriate remarks pertaining to the reason for decertification are entered on the DAF Form 623A or automated version.

The supervisor will initiate retraining on the task by entering a new training start date. Once the retraining is complete, enter a new training complete date and both the trainee, trainer, and certifier must enter their initials.

**17.1.5** It is the work center supervisor's responsibility to ensure that trainees arriving from another base or MDS, *regardless of rank or prior experience*, are fully qualified or trained on all tasks prior to performing maintenance.

**17.2 Column 2 (Core/Cert Tasks):** Tasks identified with the corresponding skill level (5/7) are specialty-wide training requirements. Certification on all shop/flight line core tasks must be completed for skill level upgrade.

**17.2.1** Trainees are only required to qualify on core tasks applicable to their assigned aircraft or systems; e.g. if the STS lists two separate Heads Up Display (HUD) systems, and the operational check for both is identified as a core task, the trainee only has to qualify on the HUD system installed on the aircraft assigned at the trainee's location.

**17.2.2** When a base has multiple MDS, trainees are only required to complete core task training on the MDS systems assigned to their unit.

**17.2.3** Core tasks that are not applicable to base assigned aircraft or equipment are not required for upgrade (units are not required to send personnel TDY for core task training.)

**17.3 Column 2 (Deployment \*/SEI +/CBRN ~ Tasks)** Tasks identified with an (\*) are Aircraft Maintenance Functional MCA tasks. Avionics technicians should be qualified on all these tasks (as applicable per airframe) prior to deployment. Task identified with an (+) are required prior to award of the aircraft or system SEI. Currently no tasks are identified with a (+). Task identified with an (~) are tasks that require annual CBRN (Training Task Qualification) training in the work center. Document training on an DAF 797 or local equivalent until myTraining has capability.

**17.4 Column 3 (Certification for OJT):** Used to record completion of tasks and knowledge training requirements. If available, use an automated training management systems to document technician qualifications. Task certification must show a certification/completion date.

**17.5 Column 4 (Behavioral Codes Used to Indicate Training/Information Provided):** Identifies the behavior a trainee should be able to demonstrate on the job after completing formal training. Attachment 1 contains the behavioral statement code key.

**18. Job Qualification Standard (JQS):** The STS becomes a JQS for OJT when placed in Air Force training management system or DAF Form 623A, *On-The-Job Training Record*, and used according to DAFMAN 36-2689. When used as a JQS, the following requirements apply:

**18.1** Document and certify completion of training IAW DAFMAN 36-2689. Load the tasks into the Air Force approved training management system as a JQS and add them to the applicable Individual Training Plan (ITP). MyTraining is the current Air Force training system of record. However, it is being developed through an Agile process and may not have adequate functionality at the time of the publication of this CFETP. Local training tracking through Excel, using the

attached STS, is authorized until MyTraining (or equivalent system) is feature-capable and available).

**18.2** All AFJQSs and previous CFETPs are replaced by this CFETP; therefore, transcribing of all training records to this CFETP STS is mandatory. Use the CFETP STS (or automated STS) to identify and certify all past and current qualifications. Document and certify all previous and current training IAW DAFMAN 36-2689.

**19. Specialty Knowledge Tests (SKT).** The STS serves as a guide for development of promotion tests used in WAPS. SKTs are developed at the USAF Occupational Measurement Squadron, by SNCOs with extensive practical experience in their career field. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are entirely based upon study references listed in the *Enlisted Promotions References and Requirements Catalog* at <https://www.studyguides.af.mil/>. Individual responsibilities are in Chapter 4, of DAFMAN 36-2664, *Personnel Assessment Program*. WAPS is not applicable to the AFRC or ANG.

## **Section B – Course Objective List**

**20.** Initial skills training (Technical school) is *not* designed to produce a mission ready technician. Initial skills training is designed to provide fundamental, general electronics and avionics knowledge, and some hands-on skills (e.g., tool familiarity). When evaluating course graduates, supervisors should use column 4A of attachments 2 and 3 of the STS as a guide. Review column 4A to determine the proficiency level of a particular task or knowledge item. Review Attachment 1 of this CFETP for an explanation of the behavioral codes. Then compare the proficiency of the trainee to the proficiency expected upon completion of the course.

**20.1. Recommendations:** Comments and recommendations are invited concerning the quality of training AETC graduates received. The 782 TRG Customer Service Information Line (CSIL) is available for supervisors to identify training concerns on tasks/knowledge items listed in this STS. Please reference specific STS line items and address your comments to: [782CSIL@us.af.mil](mailto:782CSIL@us.af.mil) or call the CSIL at DSN 736-2574 anytime.

## **Section C – Support Material**

**21.** There are currently no support material requirements. This area is reserved.

## **Section D – Training Course Index**

**22. Purpose:** This index lists mandatory formal training including Air Force in-residence, field, Air Force Career Development Academy (AFCDA), and exportable courses used to support training for this specialty.

**22.1. Air Force Heavy Aircraft Integrated Avionics Follow-on Courses :**

<b>COURSE ID</b> Note 1	<b>COURSE TITLE</b>	<b>LOCATION</b>	<b>USER</b>
J3ABR2A934-048A	Avionics Fundamentals (AvF)	Sheppard AFB	AF
	Heavy Aircraft Integrated Avionics Follow-on course		
J4AMP2A9X2AD22A	E-3 Instrument and Flight Control Systems Maintenance – Dragon Modification	See ETCA for, Locations	AF
J4AMP2A9X1AD22A	E-3 Communication/Navigation and Mission Systems Maintenance – Dragon Modification	See ETCA for Locations	AF
J4AMP2A9X3AE22A	E-3 AWACS Airborne Surveillance Radar Systems Fundamentals	See ETCA for Locations	AF
J4AMP2A9X3BE22A	Internet Protocol Enabled Communications	See ETCA for Locations	AF
J4AMP2A9X3AF22A	NGIFF Fundamentals	See ETCA for Locations	AF
J4AMP2A9X3AB22A	E-3 AN/APY-1/-2 Antenna Group	See ETCA for Locations	AF
J4AMP2A9X3BC22B	Data Processing/Display System, Maintenance 40/45 (E-3)	See ETCA for Locations	AF
J4AMP2A9X2AB22A	E-3 Basic Instrument and Flight Control System Journeyman	See ETCA for Locations	AF
J4AMP2A9X1AA22A	E-3 Avionics Navigational Aids Journeyman, Flight Avionics System	See ETCA for Locations	AF
J4AMP2A9X3AA22B	E-3 AWACS Airborne Surveillance Radar Systems (Apprentice Follow-on)	See ETCA for Locations	AF
J4AMP2A9X1AB22A	E-3 Basic Communications Systems (O Maint)	See ETCA for Locations	AF
J4AMP2A9X3AD22A	AN/APY-1/2 Analog Cabinet Group (E-3)	See ETCA for Locations	AF
J4AMP2A9X3AC22A	An/Apy-1/-2 Transmitter Group (E-3)	See ETCA for Locations	AF
J4AMP2A9X3BD22B	E-3 Electronic Support Measures (ESM) O-level Maintenance	See ETCA for Locations	AF
J4AMP2A9X2AA22A	E-3 Advanced Instrument and Flight Control System Craftsman	See ETCA for Locations	AF
J4AMP2A9X3BA22A	Data Processor/Display System Maintenance (US Standard E-3)	See ETCA for Locations	AF
J4AMP2A9X1DG18A	RC/TC/WC-135 Avionics Radar and Navigation System	See ETCA for Locations	AF



	Maintenance Craftsman Combat Readiness Training		
J4AMP2A9X1DH18A	RC-135 Avionics Communication Systems Maintenance Craftsman	See ETCA for Locations	<b>AF</b>
J4AMP2A9X2DM18A	RC-135 Instrument and Flight Control Systems	See ETCA for Locations	<b>AF</b>
J4AMP2A8X1GI18A	KC-135R/T Comm/Nav/Mission Systems Craftsman (Transition)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X2GK18A	KC-135 Instrument And Flight Control Systems (Transition)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X2 Z52A	KC-46 Integrated Flight Control Systems Maintenance Course	See ETCA for Locations	<b>AF</b>
J4AMP2A8X1 Z52A	KC-46 Integrated Communication/Countermeasure/Navigation (ICCN) Systems Maintenance Course	See ETCA for Locations	<b>AF</b>
J4AMP2A8X2 A04B	C-5M Instruments And Flight Controls Systems Transition (Enroute)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X1AA04A	C-5M Embedded Diagnostic/Core Processor Technician	See ETCA for Locations	<b>AF</b>
J4AMP2A8X1AE04A	C-5M Integrated Comm & Nav/Electronic Warfare Systems Transition	See ETCA for Locations	<b>AF</b>
J4AMP2A871 A07A	C-17A Comm/Nav/EW Sys Transition Crs	See ETCA for Locations	<b>AF</b>
J4AMP2A8X2 A07B	C-17A Instr & Flt Ctrl Sys Transition Crs	See ETCA for Locations	<b>AF</b>
J4AMP2A2X1 G17A	HC/MC-130J Communication Navigation Systems Craftsman (O. Maint.)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X1CD17A	C-130J Defensive Systems Repair (O. Maint.)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X1CJ17A	C-130H AN/APN-59 and AN/ASQ-14 RADAR SYSTEMS MAINTENANCE (O. Maint.)	See ETCA for Locations	<b>AF</b>
J4AMP2A2X3 B17A	MC-130H Electronic Warfare Systems (O. Maint.)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X2CD17A	C-130 AN/AYW-1(V)1 AFCS and AN/ASN-167(V)1 GCAS (O. Maint.)	See ETCA for Locations	<b>AF</b>

J4AMP2A2X1 F17A	MC-130W Communication/Navigation/Mission Systems (O Maint)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X1CA17A	C-130 Self-contained Navigation System (SCNS)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X1CE17A	C-130 Traffic Collision Avoidance System (TCAS) (O. Maint.)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X1CO17A	C-130 Traffic Collision Avoidance System (TCAS) (O. Maint.)	See ETCA for Locations	<b>AF</b>
J4AMP2A8X2CB17A	C-130J Guidance and Control Systems (O. Maint.)	See ETCA for Locations	<b>AF</b>
J4AMP2A2X2 H17A	MC-130H Guidance and Control Systems (O. Maint.)	See ETCA for Locations	<b>AF</b>
J4AMP2A2X1 D17A	MC-130H Comm/Nav/Mission Systems (O. Maint.)	See ETCA for Locations	<b>AF</b>
J4AMP2A9X1EF01A	B-1B Avionics Systems (CNMS)	Dyess / Ellsworth	<b>AF</b>
J4AMP2A9X2EA01A	B-1B Avionics Systems (Instrument and Flight Control/Autopilot)	Dyess / Ellsworth	<b>AF</b>
J4AMP2A9X2EB01A	B-1B Avionics Systems (Instrument and Flight Control/Navigation)	Dyess / Ellsworth	<b>AF</b>
J4AMP2A9X2EC01A	B-1B Avionics Systems (Instrument and Flight Control - General/Kapton Wire)	Dyess / Ellsworth	<b>AF</b>
J4AMP2A9X1EE01A	B-1B Avionics Systems (Com/Nav Transition)	Dyess / Ellsworth	<b>AF</b>
J4AMP2A9X2ED01A	B-1B Avionics Systems (Instrument and Flight Controls - Transition)	Dyess / Ellsworth	<b>AF</b>
J4AMP2A9X3EA01A	B-1B Avionics Systems (Electronic Warfare Systems)	Dyess / Ellsworth	<b>AF</b>
J4AMP2A9X2FA02B	B-2 Instrumentation And Flight Control Systems Maintenance	Whiteman	<b>AF</b>
J4AMP2A9X1FA02B	B-2 Communication/Navigation/Mission Systems	Whiteman	<b>AF</b>
J4AMP2A9X3FA02B	B-2 Electronic Warfare Systems Maintenance	Whiteman	<b>AF</b>
J4AMP2A9X2FC02A	B-2 Avionics Systems (Flight Controls System Trainer)	Whiteman	<b>AF</b>
J4AMP2A9X1GD03A	B-52H Communication, Navigation, and Mission Systems Organizational Maintenance	Barksdale / Minot	<b>AF</b>

J4AMP2A9X2GA03A	B-52H Aircraft Instrument and Flight Control System (IFCS Maintenance)	Barksdale / Minot	<b>AF</b>
J4AMP2A9X3GA03A	B-52H Electronic Warfare Systems Organizational Maintenance	Barksdale / Minot	<b>AF</b>
J4AMP2A9XXFA02A	B-2 Fiber Optics Maintenance	Whiteman	<b>AF</b>
J4AMP30000 S48A	Security+ Course	Tinker / Offutt	<b>AF</b>
J4AMP30000 A48A	Advanced Wire Maintenance	See ETCA for Locations	<b>AF</b>
J4AMP30000 B48A	Automatic Wire Test Analyzer (AWTS) Operation Course	See ETCA for Locations	<b>AF</b>

NOTE 1: For information on the AETC formal courses listed, refer to Education and Training Course Announcements at <https://usaf.dps.mil/teams/app10-etca/SitePages/home.aspx>.

NOTE 2: In the course announcement, the course number listed above are followed by the current revision number, e.g., the current 2A9X1A Avionics Fundamentals course at the time the CFETP was published was J3AQR2A931A-022B; a year from now the most current revision might be J3AQR2A931A-022D. Additionally, as courses are transitioned to the integrated avionics model, their course numbers will change to reflect the 2A9X4X AFSCs.

**22.2. Air Force Career Development Academy (AFCDA) Courses.** AU/A4L is responsible for managing the CDC program. The 2A954X CDCs are managed by the Avionics AFCFM and updates are managed as part of the Heavy Aircraft Integrated Avionics STRT. The 2AX7X CDCs are managed by the Aircraft Systems AFCFM and updates are managed via a stand-alone STRT. At CFETP publication, the 2A9X4X AFSCs do not have CDCs, although work is in progress on continuing education-type modules. Once published, they will be mandatory for upgrade training, and required annually to maintain a skill level.

**22.3. Interactive Courseware and distance learning courses:** Many digital courses are available via the MyLearning website (<https://lms-jets.cce.af.mil/moodle/>), via the Percipio platform (<https://usaf.percipio.com/>) and from Digital University (<https://digitalu.af.mil/>).

**22.4 Virtual Reality (VR) Learning Modules:** VR learning modules are available through the Virtual Hangar provided by Mass Virtual, Inc. Please contact the Integrated Technology Platform, (AETC/A3GT) at DSN 487-6473 or visit <https://daflearning.af.mil/ITP> for additional details on hardware requirements, available learning modules, system access, and new requests.

## Section E – MAJCOM Requirements

**23.** The MAJCOM Mandatory Course Lists (MMCLs) identify mandatory maintenance training requirements for initial skills (technical school) graduates, retrainees, and personnel with no

experience on assigned MDS systems. They also ensure maintenance personnel receive training commensurate to their current duty position. The AFRC and ANG do not publish MMCLs, and their personnel are not subject to their requirements. All other commands publish an MMCL as appropriate and have decision authority regarding which MAJCOM personnel the MMCL applies to, e.g., whether AMC personnel assigned to a Total Force Squadron in New Hampshire are subject to AMC's MMCL is up to AMC. All MMCL courses will be identified as a priority on the DAF Form 898. Contact your UTM for the most current version of your MAJCOM's MMCL.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICAL

TOM D. MILLER  
Lieutenant General, USAF  
DCS/Logistics, Engineering, & Force Protection

5 Attachments:

1. Behavioral Statement Code Key
2. Avionics Fundamentals (AvF) (*will be released later*)
3. Heavy Aircraft Integrated Avionics Follow-on Course (*will be released later*)
4. General Training Requirements (*see attached excel*)
5. Aircraft Specific Training Requirements (*see attached excel*)

**Attachment 1**

<b>BEHAVIORAL REQUIREMENTS</b>	
Behavioral Statement Code Key	
Code	Definition
K	Subject Knowledge Training - The verb selection identifies the individual's ability to identify facts, state principles, analyze or evaluate the subject
P	Performance Testing - Identifies that the individual has performed the task to the satisfaction of the course; however, the individual may not be capable of meeting the field requirements for speed and accuracy
pk	Performance Knowledge Training - The verb selection identifies the individual's ability to relate simple facts, procedures, operating principles, and operational theory for the task
-	No training provided in the course or CDC
X	Training is required but not provided due to limitations in resources
<i>Each behavioral STS element is written as a behavioral statement. The detail of the statement and verb selection reflects the level of training provided by resident training</i>	