

# AFSC 2A7X3

## AIRCRAFT STRUCTURAL MAINTENANCE



## CAREER FIELD EDUCATION AND TRAINING PLAN

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**CAREER FIELD EDUCATION AND TRAINING PLAN  
AIRCRAFT STRUCTURAL MAINTENANCE SPECIALTY  
AFSC 2A7X3  
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**CAREER FIELD EDUCATION AND TRAINING PLAN  
AIRCRAFT STRUCTURAL MAINTENANCE SPECIALTY  
AFSC 2A7X3**

**PART I**

*Preface*

**1.** This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document that identifies life-cycle education/training requirements, training support resources, and minimum core task requirements for the 2A7X3, Aircraft Structural Maintenance specialty. The CFETP will provide personnel a clear career path to success and instill rigor in all aspects of career field training. To read, review, or print a copy of the current CFETP, go to the Aircraft Maintenance Homepage at:

<https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-LG-AF-35>.

This CFETP supersedes 2A7X3 CFETP, 31 Dec 08.

NOTE: Civilians occupying associated positions will use Part II to support duty position qualification training.

**2.** The CFETP consists of two parts; both parts are used by supervisors 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 to support career field restructures.

**2.2.** Part II includes the following: Section A contains the course objective list and training standards supervisors will use to determine if Airmen have satisfied training requirements. Section B identifies available support materials, such as Qualification Training Package (QTP) which may be developed to support proficiency training. Section C identifies a training course index that supervisors can use to determine if resources are available to support training. Included here are both mandatory and optional courses. Section D identifies major command (MAJCOM unique training requirements supervisors can use to determine additional training required for the associated qualification needs. Section E identifies the Specialty Training Standard (STS) and includes duties, tasks, technical references to support training; Air Education and Training Command (AETC) conducted training, wartime course/core task and correspondence course 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.

3. Using guidance provided in the CFETP will ensure individuals in this specialty receive effective and efficient training at the appropriate point in their career. This plan will enable us to train today's work force for tomorrow's jobs.

### ***ABBREVIATIONS/TERMS EXPLAINED***

**Advanced Training (AT).** A formal course which provides individuals who are qualified in one or more positions of their Air Force Specialty (AFS) with additional skills/knowledge to enhance their expertise in the career field. Training is for selected career airmen at the advanced level of the AFS.

**Air Force Doctrine Development Center (AFDDEC).** The center researches, develops, and produces Air Force basic and operational doctrine, as well as joint and multinational doctrine.

**Air Force Job Qualification Standard (AFJQS).** A comprehensive task list that describes a particular job type or duty position. They are used by supervisors to document task qualifications. The tasks on an AFJQS are common to all persons serving in the described duty position.

**Career Field Education and Training Plan (CFETP).** A CFETP is a comprehensive, multipurpose document covering the entire spectrum of education and training for a career field. It outlines a logical growth plan that includes training resources and is designed to make career field training identifiable, to eliminate duplication, and to ensure this training is budget defensible.

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

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

**Continuation Training.** Additional training that exceeds requirements with emphasis on present or future duty assignments.

**Contract Training.** Training that receives the same priority funding as Air Force directed training. It supports initial groups of instructors, operators, etc., that the Air Force requires for new or modified weapon systems.

**Core Task.** Tasks that the Air Force Career Field Manager (AFCFM) identifies as minimum qualification requirements within an Air Force Specialty. This gives units needed flexibility to manage their workforce training.

**Course Objective List (COL).** A publication identifying the tasks and knowledge requirements and respective standards provided to achieve a 3-/7-skill level in this career field. Supervisors use the COL to assist in conducting graduate evaluations in accordance with AFI 36-2201, *Air Force Training Program*.

**Course Training Standard (CTS).** Training standard that identifies the training members will receive in a specific course not covered in the CFETP.

**Enlisted Specialty Training (EST).** A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade airmen in each skill level of a specialty.

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

**Field Technical Training.** Special or regular on-site training conducted by a training detachment (TD) or by a mobile training team (MTT).

**Integrated Maintenance Data System (IMDS).** The primary Air Force production-oriented, base-level automated Maintenance Information System (MIS).

**G081 for Mobility (G081/MAF Log C2).** Provides both a maintenance management system and a logistics command and control system for Mobility Air Forces (MAF).

**Inspection, Corrosion and Repair Recording (ICARRs) Program.** Maintains a list of files containing tail numbers, action taken codes, malfunction codes, parts list, maintenance tasks that require reporting for C-130 aircraft.

**Initial Skills Training (IST).** A formal school course that results in the award of a 3-skill level AFSC.

**Instructional System Development (ISD).** A deliberate and orderly process for developing, validating, and reviewing instructional programs that ensures personnel are taught the knowledge and skills essential for successful job performance.

**MAJCOM Mandatory Course Listing (MMCL).** Identifies mandatory maintenance training requirements for initial technical school graduates, retrainees, and personnel with no experience on assigned mission design series (MDS) aircraft. It also ensures maintenance personnel receive training commensurate to their current duty position.

**Mission Design Series (MDS).** Aircraft (i.e., A-10, F-16, C-130).

**Occupational Analysis Report (OAR).** A detailed report showing the results of an occupational survey of tasks performed within a particular AFS.

**On-the-Job Training (OJT).** Hands-on, over-the-shoulder training at the duty location used to certify personnel for both skill level upgrade and duty position qualification.

**Qualification Training (QT).** Actual hands-on task performance training designed to qualify an Airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills/knowledge required to do the job.

**Qualification Training Package (QTP).** An instructional package designed for use at the unit to qualify, or aid qualification, in a duty position or program, or on a piece of equipment. It may be printed, computer-based, or in other audiovisual media.

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

**Specialty Training Standard (STS).** An Air Force publication that describes an Air Force Specialty in terms of tasks and knowledge an Airman may be expected to perform or to know on the job. It serves as a contract between Air Education and Training Command and the functional user to show which of the overall training requirements for an Air Force Specialty are taught in formal schools, career development courses, and exportable courses.

**Training by Other Government Agencies.** This training includes training conducted by the Army, Navy, Air Force agency or unit other than AETC, and other government agencies inside or outside of the Department of Defense (DoD).

**Training Setting.** The type of forum in which training is provided (formal resident school, on-the-job, field training, mobile training team, self-study, etc.).

**Upgrade Training (UGT).** A mixture of mandatory courses, task qualification, QTPs, and CDCs required for award of the 3-, 5-, 7-, or 9-skill level.

**Utilization and Training Workshop (U&TW).** A forum, co-chaired by the AFCFM and Training Pipeline Manager, of MAJCOM Air Force Specialty Code (AFSC) functional managers, Subject Matter Experts (SMEs), and AETC training personnel that determines career ladder training requirements.

**Web Site Links:**

AFCDA	<a href="http://www.au.af.mil/au/afiadl/">http://www.au.af.mil/au/afiadl/</a>
CCAF	<a href="http://www.au.af.mil/au/ccaf/">http://www.au.af.mil/au/ccaf/</a>
CAF MCL	<a href="https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-TE-AC-42">https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-TE-AC-42</a>
ETCA	<a href="https://etca.randolph.af.mil/">https://etca.randolph.af.mil/</a>
HQ USAF/A4LF	<a href="https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-LG-AF-35">https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-LG-AF-35</a>
MAF MCL	<a href="https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-ED-AM-91">https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-ED-AM-91</a>
367 TRS/TRSS	<a href="https://367trss.hill.af.mil">https://367trss.hill.af.mil</a>
982 MXS/LGMS	<a href="https://www.my.af.mil/gcss-af/USAF/ep/globalTab.do?command=org&amp;channelPageId=s6925EC134F0A0FB5E044080020E329A9">https://www.my.af.mil/gcss-af/USAF/ep/globalTab.do?command=org&amp;channelPageId=s6925EC134F0A0FB5E044080020E329A9</a>

ASM COP	<a href="https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-LG-OO-06">https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-LG-OO-06</a>
ASM School COP	<a href="https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=AE-ED-00-23">https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=AE-ED-00-23</a>
AF Corrosion Office	<a href="https://www.my.af.mil/gcss-af/afp40/USAF/ep/globalTab.do?command=org&amp;pageId=681742&amp;channelPageId=-1986143">https://www.my.af.mil/gcss-af/afp40/USAF/ep/globalTab.do?command=org&amp;pageId=681742&amp;channelPageId=-1986143</a>
AF Composite Office	<a href="https://hillnet.hill.af.mil/ACO">https://hillnet.hill.af.mil/ACO</a>

### ***Section A - General Information***

**1. Purpose of the CFETP.** This CFETP provides information necessary for Air Force Career Field Managers (AFCFMs), MAJCOM Functional Managers (MFMs), commanders, training managers, supervisors, and trainers to plan, develop, manage, and conduct an effective career field training program. This plan outlines the training that individuals in AFSC 2A7X3 should receive to develop and progress throughout their career. This plan identifies initial skills, upgrade, qualification, advanced, and proficiency training. Initial skills training is the AFS specific training an individual receives upon entry into the Air Force or upon retraining into this specialty for award of the 3-skill level. This training is conducted by AETC at Pensacola NAS, FL. Upgrade training identifies the mandatory courses, task qualification requirements, and correspondence course completion requirements for award of the 3-, 5-, 7-, and 9-skill levels. Qualification training is actual hands-on task performance training designed to qualify an Airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills/knowledge required to do the job. Advanced training is formal specialty training used for selected Airmen. Proficiency training is additional training either in-residence or exportable advanced training courses, or on-the-job training (OJT), provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade. The CFETP has several purposes; some are:

- 1.1.** To serve as a management tool to plan, manage, conduct, and evaluate a career field training program. It is also used to help supervisors identify training at the appropriate point in an individual's career.
- 1.2.** To identify task and knowledge training requirements for each skill level in the specialty and recommends education/training throughout each phase of an individual's career.
- 1.3.** To list training courses that are available in the specialty and identifies sources of training and the training delivery method.
- 1.4.** To identify major resource constraints that impact full implementation of the desired career field training process.

**2. Uses of the CFETP.** The plan will be used by MFMs and supervisors at all levels to ensure comprehensive and cohesive training programs are available for each individual in the specialty.

**2.1.** AETC training personnel will develop/revise formal resident, non-resident, Field Training Detachment (FTD), and exportable training based on requirements established by the users and documented in Part II of the CFETP. They will also work with the AFCFM to develop acquisition strategies for obtaining resources needed to provide the identified training.

**2.2.** MFMs will ensure their training programs complement the CFETP mandatory initial, upgrade, and proficiency requirements. Identified requirements can be satisfied by OJT, resident training, contract training, or exportable courses. MAJCOM-developed mandatory training to support this AFS must be identified for inclusion into the plan and must not duplicate other available training resources.

**2.3.** Each individual will complete the mandatory training requirements specified in this plan. The lists of courses in Part II will be used as a reference to support training.

**3. Coordination and Approval of the CFETP.** The AFCFM is the approval authority. The AETC training manager for AFSC 2A7X3 will initiate an annual review of this document by AETC and MFM to ensure currency and accuracy. The using MAJCOM representatives and AETC training personnel will identify and coordinate on the career field training requirements. Using the list of courses in Part II, they will eliminate duplicate training.

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

#### **4. Specialty Description.**

**4.1. Specialty Summary.** Refer to Air Force Enlisted Classification Directory (AFECD), paragraph 1. Designs, repairs, modifies, and fabricates aircraft, metal, plastic, composite, advanced composite, and bonded structural parts and components. Applies preservative treatments to aircraft, aerospace ground equipment (AGE), and support equipment (SE). Related DoD Occupational Subgroup: 160300.

**4.2. Duties and Responsibilities.** Refer to Air Force Enlisted Classification Directory (AFECD), paragraph 2.

**4.2.1.** Assembles structural parts and components to meet requirements for preserving structural integrity. Assesses damage to aircraft structural components and coatings. Advises on structural repair, modification, and corrosion protection treatment with respect to original strength, weight, and contour to maintain structural integrity. Ensures aircraft component balance is maintained. Assembles repairs using special fasteners and adhesives. Checks repairs for serviceability according to specifications and technical publications. Manufactures jigs, fixtures, forms, and molds.

**4.2.2.** Paints aircraft, and AGE/SE. Identifies, removes, and treats corrosion using mechanical and chemical procedures. Applies corrosion protective coatings. Applies aircraft paint schemes and markings.

**4.2.3.** Uses metalworking equipment and tools to form, cut, bend, and fasten replacement or repair parts to damaged structures and components. Fabricates, repairs, and assembles tubing and cable assemblies for aerospace weapon systems and AGE/SE. Maintains and inspects tools and equipment. Performs operator maintenance and service inspections on shop equipment and tools. Ensures lockout and tagout procedures are accomplished prior to performing shop equipment maintenance. Stores, handles, and disposes of hazardous waste and materials according to environmental standards.

**4.2.4.** Inspects structures and components and determines operational status. Interprets inspection findings and determines corrective action adequacy. Posts entries and maintains maintenance and inspection records. Recommends methods to improve equipment performance and maintenance procedures. Uses automated maintenance systems. Inputs, validates, and analyzes data processed to automated systems. Clears and closes out completed maintenance discrepancies in automated maintenance systems.

**5. Skill/Career Progression.** Adequate training and timely progression from the apprentice to the superintendent skill level play 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, manage, and conduct an effective training program. The guidance provided in this part of the CFETP will ensure each individual receives necessary training at appropriate points in their career. The following narrative and AFSC 2A7X3 career field table identify the skill/career progression.

**5.1. Apprentice (3) Level.** Following Basic Military Training, initial skills training will be provided in a resident course at Detachment 1, 359th Training Squadron, Naval Air Station, Pensacola, Florida. The course will lay the foundation for additional training at the graduate's first duty assignment. Trainees will utilize the Career Development Courses (CDCs), task qualification training, and other exportable courses to progress in their career field. Once the trainer task certifies the trainee, the trainee may perform the task unsupervised.

**5.2. Journeyman (5) Level.** Once upgraded to the 5-level, the journeyman will enter into continuation training to broaden their experience base by increasing their knowledge and skill in troubleshooting and solving more complex problems. After having 48 months in the Air Force (or sooner if individual has a line number for SSgt), 5-levels will attend Airman Leadership School (ALS) to enhance their Professional Military Education (PME). A 5-level will be considered for appointment as unit trainers. Individuals will use their CDCs to prepare for Weighted Airman Promotion testing. They should also consider continuing their education toward a Community College of the Air Force (CCAF) degree in their respective career field.

**5.3. Craftsman (7) Level.** A craftsman can expect to fill various supervisory and management positions such as shift leader, element chief, shop chief, task certifier, and various staff positions. Exportable MDS specific courses and MAJCOM/unit directed courses are also available. A 7-level should take courses or obtain added knowledge in management of resources and personnel.

Continued academic education through CCAF and higher degree programs is encouraged in their respective career field. In addition, when promoted to TSgt, individuals will attend the Noncommissioned Officer Academy.

**5.4. Superintendent (9) Level.** A 9-level can be expected to fill positions such as flight chief, production supervisor, and various staff NCOIC jobs. Additional training in the areas of budget, manpower, resources, and personnel management should be pursued through continuing education. Additional higher education and completion of courses outside their career AFS is also recommended.

**6. Training Decisions.** The CFETP uses a building block approach (simple to complex) to encompass the entire spectrum of training requirements for the Aircraft Structural Maintenance career field. The spectrum includes a strategy for when, where, and how to meet these training requirements. The strategy must ensure we develop affordable training, eliminate duplication, and prevent a fragmented approach to training. The following training decisions were made at the career field utilization and training workshop held at 359 TRS Det 1, Naval Air Station, Pensacola, Florida from 4-8 March 2013.

**6.1. Initial Skills.** Multiple changes were made to the STS affecting the initial skills course. Changes were made to line items, training references and terminology. Decisions were made to delete initial skills training on Dimpling Machine, Use Hand Tube Benders, Classify Damage-Advanced Composite, Troubleshoot Spray Equipment and Sempens, Brushes and Rollers. Additions to training include; Paint Booth Operational Fundamentals, Taper lok Fundamentals, Visual inspection and evaluation of tubing damage, Material Storage, Material Handling, and Use of Adhesives, Foams, Films and Tapes. The projected course length of the initial skills course remains 76 days.

**6.2. Five-Level Upgrade Requirements.** During the review of the 2A7X3 STS, the total number of 5-level core tasks increased from 69 to 78. 2A753 CDCs will require a major rewrite to remove unnecessary information and reorganization may result in a decrease from five to four volumes.

**6.3. Seven-Level Upgrade Requirements.** 2A7X3 STS, 7-level core tasks increased from to 3.

**6.4. Supplemental Training.** The team made several significant changes to the in-resident supplemental courses. Courses remain applicable to both ASM and LOASM personnel.

**6.4.1. Aircraft Metal Bonded Repair.** The team recommended deleting Phosphoric Acid Containment System (PACS) training and reducing maximum group size from ten to eight. Course objectives needing additional time will utilized the PACS time savings. No change in course length is anticipated.

**6.4.2. General Advanced Composite Repair.** The decision was made to remove “advanced” from the course title and to increase the maximum group size from eight to ten. Several knowledge/lecture items within the course are being shortened to reduce redundancy. These

time savings will be incorporated within the existing Course Training Standard and objectives and will result in a decrease in course length from 16 to 15 training days.

**6.4.3. Aircraft Balancing and Fasteners.** New changes include deleting Aircraft Balancing. Course will be renamed Aircraft Specialized Fasteners, Stress Relief, and Repair Applications. Fasteners will be upgraded to more modern fasteners and training specialized applications to include Cold Working Holes, Restoration of Oversized holes and Utilizing E-Drills. Course length will reduce from six to five days.

**6.4.4. Corrosion Prevention and Control (MTT).** No changes were requested for this course.

**6.4.5. Basic Repairs to Composites (MTT).** No changes were requested for this course.

**6.5. Continuation Training.** Any additional knowledge and skill requirements which were not taught through initial or upgrade training are assigned to unit training or Field Training Detachments. The purpose of the continuation training program is to provide additional training exceeding minimum upgrade training requirements with emphasis on present and future duty positions. MAJCOMs may develop a proficiency training program that ensures individuals in the Aircraft Structural Maintenance career field receive the necessary training at the appropriate point in their career. The program identifies both mandatory and optional training requirements.

**7. Community College of the Air Force (CCAF).** CCAF is one of several federally chartered degree-granting institutions and the only 2-year institution serving only military enlisted personnel. The college is a multi-campus institution and is regionally accredited through Air University by the Commission on Colleges of the Southern Association of Colleges and Schools (SACS) to award AAS degrees designed for specific Air Force occupational specialties. The college offers 68 technical degree programs serving more than 321,000 students at more than 100 worldwide affiliated technical training schools. Enrollment in CCAF occurs upon completion of basic military training. CCAF provides the opportunity to obtain an Associate in Applied Sciences technical degree.

**7.1. CCAF Degree Requirements.** All enlisted airmen are automatically entered into the CCAF program. Prior to completing an associate degree, the 5-level must be awarded and the following requirements must be met:

	<u>Semester Hours</u>
Technical Education.....	24
Leadership, Management, and Military Studies .....	6
Physical Education.....	4
General Education.....	15
Program Elective.....	15

Total: 64

**7.1.1. Technical Education** (24 Semester Hours): Completion of the career field apprentice course satisfies some semester hours of the technical education requirements. A minimum of 24

semester hours of Technical Core subjects/courses must be applied and the remaining semester hours applied from Technical Core/Technical Elective courses.

**7.1.2. Leadership, Management, and Military Studies** (6 Semester Hours): Enlisted Professional Military Education (EPME) and/or civilian management courses.

**7.1.3. Physical Education** (4 Semester Hours): This requirement is satisfied by completion of Basic Military Training.

**7.1.4. General Education** (15 Semester Hours): Applicable courses must meet the criteria for application of courses to the General Education Requirements (GER) and be in agreement with the definitions of applicable General Education subjects/courses as provided in the CCAF General Catalog.

**7.1.5. Program Elective** (15 Semester Hours): Satisfied with applicable Technical Education; Leadership, Management, and Military Studies; or General Education subjects/courses, including natural science courses meeting GER application criteria. Six semester hours of CCAF degree applicable technical credit otherwise not applicable to this program may be applied. See the CCAF General Catalog for details regarding the Associates of Applied Science for this specialty.

**7.2. Professional Certifications.** Certifications assist the professional development of our Airmen by broadening their knowledge and skills. Additionally, specific certifications may be awarded collegiate credit by CCAF and civilian colleges, saving time and Air Force tuition assistance funds. It also helps airmen to be better prepared for transition to civilian life. To learn more about professional certifications and certification programs offered by CCAF, visit <http://www.au.af.mil/au/ccaf/certifications.asp>. In addition to its associate degree program, CCAF offers the following certification programs and resources:

**7.2.1. Federal Aviation Administration (FAA) Airframe and Powerplant (A&P) Certification.** Air Force aircraft maintenance technicians are eligible to pursue FAA A&P certification based on training and experience in accordance with Federal Aviation Regulation Part 65. The DoD established the Joint Service Aviation Maintenance Technician Certification Council (JSAMTCC) to standardize the eligibility and certification process for the military and provide direction and resources necessary to fill the gaps within military training and experience. Completing the Air Force A&P Certification Program, managed by CCAF, will fill training and experience gaps, ensuring FAA eligibility. The program consists of three Air University Online A&P Specialized Courses, OJT and experience requirements contained in a Qualification Training Package (QTP). Technicians may enroll in the program once they have been awarded the 5-skill level. To learn more, visit CCAF at <http://www.au.af.mil/au/ccaf/certifications.asp>. CCAF awards 30 semester hours for FAA A&P certification and 18 semester hours for FAA Airframe or Powerplant certification.

**7.2.2. SpaceTEC Aerospace Technician Certification.** Air Force aircraft maintenance technicians are eligible to pursue SpaceTEC Aerospace Technician certification based on aviation training and experience. SpaceTEC certification is endorsed by NASA and the Aerospace industry. Air University Online offers a Specialized Course to assist technicians prepare for the Aerospace Technician certification exams. To learn more, visit SpaceTEC at

<http://www.spacetec.org/> or CCAF at <http://www.au.af.mil/au/ccaf/certifications.asp>. CCAF awards 25 semester hours for the SpaceTEC Aerospace Technician certification.

**7.2.3. CCAF Instructor Certification (CIC) Program.** CCAF offers the three-tiered CIC Program for qualified instructors teaching at CCAF affiliated schools who have demonstrated a high level of professional accomplishment. The CIC is a professional credential that recognizes the instructor's extensive faculty development training, education and qualification required to teach a CCAF course, and formally acknowledges the instructor's practical teaching experience.

**7.2.4. CCAF Instructional Systems Development (ISD) Certification Program.** CCAF offers the ISD Certification Program for qualified curriculum developers and managers who are formally assigned at CCAF affiliated schools to develop and manage CCAF collegiate courses. The ISD Certification is a professional credential that recognizes the curriculum developer's or manager's extensive training, education, qualifications and experience required to develop and manage CCAF courses. The certification also recognizes the individual's ISD qualifications and experience in planning, developing, implementing and managing instructional systems.

**7.2.5. CCAF Professional Manager Certification (PMC).** CCAF offers the PMC Program for qualified Air Force NCO's. The PMC is a professional credential awarded by CCAF that formally recognizes an individual's advanced level of education and experience in leadership and management, as well as professional accomplishments. The program provides a structured professional development track that supplements Enlisted Professional Military Education (EPME) and Career Field Education and Training Plan (CFETP).

**7.2.6. CCAF Credentialing and Education Research Tool (CERT).** CCAF implemented CERT to increase awareness of professional development opportunities applicable to Air Force occupational specialties. It is a valuable resource for Air Force enlisted personnel and provides information related to specific AFSCs, such as: AFSC description; civilian occupation equivalencies (US Department of Labor); CCAF degree programs; national professional certifications; certifying agencies; and professional organizations.

**7.2.7. Air Education and Training Command (AETC) Instructor Requirements:** Additional off-duty education is a personal choice that is encouraged for all. Individuals desiring to become an AETC instructor should be actively pursuing an associate degree. A degreed faculty is necessary to maintain accreditation through the Southern Association of Colleges and Schools.

## 8. Career Field Path

**8.1. Enlisted Career Path.** Table 8.1 identifies career milestones for the 2A7X3 AF Specialty.

<b>Table 8.1. Enlisted Career Path</b>				
<b>Education and Training Requirements</b>	<b>Grade Requirements</b>			
	<b>Rank</b>	<b>Average Sew-On</b>	<b>Earliest Sew-On</b>	<b>High Year Of Tenure (HYT)</b>
<b>Basic Military Training School</b>				
<b>Apprentice Technical School (3-Skill Level)</b>	Amn A1C	6 months 16 months		
<b>Upgrade To Journeyman (5-Skill Level)</b> - Minimum 12 months on-the-job training. - Minimum 9 months on-the-job training for retrainees. - Complete all 5-level core tasks on one MDS. - Complete appropriate CDC if/when available.	Amn A1C SrA	6 months 16 months 3 years	28 months	8 years
<b>Airman Leadership School (ALS)</b> - Must be a SrA with 48 months time in service or be a SSgt selectee. - Resident graduation is a prerequisite for SSgt sew-on (Active Duty Only).	- Must be a SSgt with a 5-skill level or civilian equivalent. - Must attend the AF Training Course. - Be a person other than the trainer except for AFSCs, duty positions, units, and/or work centers with specialized training standardization and certification requirements.			
<b>Trainer</b> - Trained and qualified to perform the task to be trained - Must attend the Air Force Training Course				
<b>Upgrade To Craftsman (7-Skill Level)</b> - Minimum rank of SSgt. - Minimum 12 months on-the-job training. - Minimum 6 months on-the-job training for retrainees. - Complete all 5- and 7-level core tasks on one mission design aircraft. - Complete appropriate CDC.	SSgt	4.7 years	3 years	15 years
<b>Noncommissioned Officer Academy (NCOA)</b> - Must be a TSgt, MSgt selectee, or MSgt. - Resident graduation is a prerequisite for MSgt sew-on (Active Duty Only).	TSgt MSgt	10.5 years 16.8 years	5 years 8 years	20 years 24 years
<b>USAF Senior NCO Academy USAF Senior NCO Academy (SNCOA)</b> - Must be a MSgt, SMSgt, or SMSgt Selectee. - Resident graduation is a prerequisite for SMSgt sew-on (Active Duty Only). <b>Upgrade To Superintendent (9-Skill Level)</b> - Minimum rank of SMSgt.	SMSgt	19.5 years	11 years	26 years
<b>Chief Enlisted Manager (CEM)</b>	CMSgt	22.8 years	14 years	30 years

## ***Section C - Skill Level Training Requirements***

**9. Purpose.** Skill level training requirements in the 2A7X3 career field 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 STS at Part II, Sections A and E of this CFETP.

**10. Specialty Qualification Requirements.** The various skill levels in this career field are defined in terms of tasks and knowledge proficiency requirements for each skill level. They are stated in broad general terms and establish the standards of performance. Unit work centers must develop a structured training program to ensure the following requirements are met.

### **10.1. Apprentice Level Training (3-Level):**

**10.1.1. Specialty Qualification.** This information is located in the official specialty description in Air Force Enlisted Classification Directory (AFECD), paragraph 3.

**10.1.1.1. Knowledge.** The following knowledge is mandatory: aircraft construction features; identification and characteristics of aerospace materials; repair of metal, tubing, cable, plastic, fiberglass, bonded honeycomb, and composite structural components; removal and replacement of fasteners; shop drawing and sheet metal layout techniques; shop mathematics; corrosion identification, removal, repair, and prevention; cleaning of metals; application of protective coatings and markings; proper use, mixing, and storage of acids, solvents, alcohol, caustics, primers, and paints; technical orders and directives; and proper handling and disposal of hazardous waste and materials in accordance with federal, state, and local directives.

**10.1.1.2. Education.** For entry into this specialty, completion of high school with courses in mathematics, algebra, chemistry, physics, mechanical drawing, and metal working is desirable.

**10.1.1.3. Training.** For award of AFSC 2A733, completion of the basic aircraft structural maintenance course is mandatory.

**10.1.1.4. Experience.** None

**10.1.2. Training Sources and Resources.** The initial skills course will provide the required knowledge, qualification, and, if applicable, certification.

**10.1.3. Implementation.** Upon graduation from Basic Military Training (BMT), completion of the Aircraft Structural Maintenance Apprentice course is mandatory. This course satisfies the knowledge and training resource requirements for award of the 3-skill level.

### **10.2. Journeyman Level Training (5-Level):**

**10.2.1. Specialty Qualification.** This information is located in the official specialty description in Air Force Enlisted Classification Directory (AFECD), paragraph 3.

**10.2.1.1. Knowledge.** The 5-level must have advanced knowledge of the following: aircraft construction features; identification and characteristics of aerospace materials; repair of metal, tubing, cable, plastic, fiberglass, bonded honeycomb, and composite structural components; removal and replacement of fasteners; shop drawing and sheet metal layout techniques; shop mathematics; corrosion identification, removal, repair, and prevention; cleaning of metals; application of protective coatings and markings; proper use, mixing, and storage of acids, solvents, alcohol, caustics, primers, and paints; technical orders and directives; and proper handling and disposal of hazardous waste and materials in accordance with federal, state and local directives.

**10.2.1.2. Education.** There are no additional education requirements beyond those defined for the apprentice level. However, completion of a CCAF degree is desirable.

**10.2.1.3. Training.** For award of AFSC 2A753, the 5-level CDC provides the career knowledge training required. Qualification training and OJT will provide training and qualification on the core tasks identified in the STS. The CDC is written to build from the trainee's current knowledge base, and provides more in-depth knowledge to support OJT requirements.

**10.2.1.4. Experience.** Qualification in and possession of AFS 2A733. Also, experience in fabricating, repairing, assembling, and installing aircraft metals, plastics, fiberglass, composites, and honeycomb parts; and corrosion identification, removal, and applying coatings and markings.

**10.2.2. Training Sources and Resources.** A minimum of 12 months on-the-job training (9 months for retrainees), completion of the 2A753 CDC, and completion of the 5-level core tasks represent the resources needed for award of the 5-skill level.

**10.2.3. Implementation.** Training to the 5-level is performed by the units utilizing this STS, exportable courses, and CDCs. Upgrade to the 5-level requires completion of the 2A753 CDC, completion of all core tasks, and a minimum of 12 months upgrade training.

### **10.3. Craftsman Level Training (7-Level):**

**10.3.1 Specialty Qualification.** This information is located in the official specialty description in Air Force Enlisted Classification Directory (AFECD), paragraph 3.

**10.3.1.1. Knowledge.** In addition to 5-level knowledge, a 7-level must have knowledge of: supervisory responsibilities (i.e., workplace safety, training documentation, equipment management, supply management, etc.) and workload planning (i.e., job prioritization, task assignment, personnel scheduling, etc.).

**10.3.1.2. Education.** There are no additional education requirements beyond those defined for the apprentice level. However, completion of a CCAF degree is desirable.

**10.3.1.3. Training.** Completion of mandatory 2AX7X CDCs, 7-level core tasks.

**10.3.1.4. Experience.** Qualification in and possession of AFSC 2A753. Also, experience supervising functions dealing with corrosion identification, prevention, and repair; applying protective coatings and markings; and fabricating, assembling, and repairing metal, fiberglass, composites, honeycomb, and plastic components.

**10.3.2. Training Sources and Resources.** Completion of CDC 2AX7X, along with completion of AFCFM directed core tasks, represent the resources required for award of the 7-skill level.

**10.3.3. Implementation.** Upgrade to the 7-level will require completion of all core tasks, minimum of 12 months OJT as SSgt, and completion of the 2AX7X CDC.

#### **10.4. Superintendent Level Training (9-Level):**

**10.4.1 Specialty Qualification.** This information is located in the official specialty description in Air Force Enlisted Classification Directory (AFECD), paragraph 3.

**10.4.1.1. Knowledge.** To perform duties at the 9-skill level, an individual must possess basic knowledge of the following: aircraft structural maintenance, low observable aircraft structural maintenance, metals technology, corrosion control, and non-destructive inspection methods; characteristics of metals identification; concepts and application of maintenance directives; maintenance data reporting; and proper use, handling, and disposal of hazardous waste and materials in accordance with federal, state and local directives.

**10.4.1.2. Education.** There are no additional education requirements beyond those defined for the apprentice level. However, completion of a CCAF degree is desirable.

**10.4.1.3. Training.** For award of AFSC 2A790, promotion to SMSgt is mandatory.

**10.4.1.4. Experience.** For award of AFSC 2A790, qualification in and possession of AFSC 2A771, 2A772, 2A773, or 2A775 is mandatory. Also, experience in managing or directing repair activities for aircraft structural maintenance, metals technology, low observable aircraft structural maintenance, or non-destructive inspection specialties and functions.

**10.4.2. Training Sources and Resources.** None.

**10.4.3. Implementation.** The 9-level will be awarded after promotion to SMSgt.

***Section D - Resource Constraints***

**11. Purpose.** This section identifies known resource constraints that preclude optimal/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, office of primary responsibility, and target completion dates. Resource constraints will be, as a minimum, reviewed and updated annually.

**12. Apprentice Level Training.** There are no manpower/man-year or equipment/resource constraints.

**13. Five-Level Training:** There are no constraints.

**14. Seven-Level Training.** There are no constraints.

***Section E. - Transitional Training Guide.*** There are no transition training requirements. This area is reserved.

## PART II

### *Section A - Course Objective List*

**1. Measurement.** Each proficiency coded STS task or knowledge item taught at the technical school is measured through the use of an objective. An objective is a written instruction for the student so he or she knows what is expected of them to successfully complete training on each task. Each objective is comprised of a condition, behavior, and standard which states what is expected of the student for each task. The condition is the setting in which the training takes place. The behavior is the action a student must demonstrate to accomplish a task (i.e., remove and install wheel and tire assembly). The standard is the level of performance that is measured to ensure the STS proficiency code level is attained. Each objective uses letter code(s) to identify how it is measured. All objectives use the **PC** code which indicates a progress check is used to measure subject or task knowledge. Progress checks are also used to measure student accomplishment of performance objectives. **W** indicates a comprehensive written test and is used to measure the subject and/or task knowledge at the end of a block of instruction. **PC/W** indicates separate measurement of both knowledge and performance elements using a written test and a performance progress check.

**2. Standard.** The minimum standard is 70% on written examinations. Standards for performance measurement are indicated in the objective and delineated on the individual progress checklist. The checklist is used by the instructor to document each student's progress on each task. Instructor assistance is provided as needed during the progress check, and students may be required to repeat all or part of the behavior until satisfactory performance is attained. Students must satisfactorily complete all PCs prior to taking the written test.

**3. Proficiency Level.** Review column 4A of the STS to determine the proficiency level of a particular task or knowledge item. Review the course objective list to determine which STS item the objective supports. Review the proficiency code key in Part II, Section E of this CFETP for an explanation of the proficiency codes. All task performance items are taught to the "2b" proficiency level which means the students **can do most parts of the task**, but does need assistance on the hardest parts of the task (**partially proficient**). The student can also determine step-by-step procedures for doing the task.

**4. Course Objectives.** A detailed listing of initial skills course objectives may be obtained by submitting a written request to the AETC Training Manager, 359 TRS Det 1/TRR, 230 Chevalier Field Avenue, Suite A, NAS Pensacola FL 32508-5142.

**Section B - Support Material**

5. The following list of support material is not all inclusive; however, it covers the most frequently referenced areas. Support material is any training package designed to enhance the learning process at any level of training. Refer to the Air Force Education and Training Course Announcements (ETCA) for information on AETC formal courses. ETCA can be accessed at <https://etca.randolph.af.mil/>.

5.1. Interactive Courseware (ICW) courses are available from (or under development by) 367 TRS/TRSS, Hill AFB, Utah. Their course catalog is available on the Internet at <https://367trss.hill.af.mil/>. Questions should be referred to the customer service number at DSN 586-4014.

**Section C - Training Course Index**

6. **Purpose.** This index lists Air Force resident, Air Force Career Development Academy (AFCDA), and exportable courses used to support training for this specialty. Refer to the Air Force Education and Training Course Announcements (ETCA) at <https://etca.randolph.af.mil/> for information on AETC formal courses listed below. For further information on the following courses, contact the OPR at:

359 TRS Det1/TRR  
230 Chevalier Field Ave, Suite A  
NAS Pensacola, FL 32508-5142  
DSN 495-7483

**6.1. Air Force In-Resident/Mobile Courses:**

COURSE NUMBER	TITLE	OPR
JCABP2A733 048C	Aircraft Structural Maintenance Apprentice	359 TRS Det 1
JCAZP2A753 0B1B	Aircraft Metal Bonded Repair	359 TRS Det 1
JCAZP2A753 0C1B	General Composite Repair	359 TRS Det 1
JCAZP2A753 0F1B	Aircraft Specialized Fasteners, Stress Relief, and Repair Applications	359 TRS Det 1
J7AZT2A753 0M1B	Corrosion Prevention and Control (MTT)	359 TRS Det 1
J7AZT2A753 0M2B	Basic Repairs to Composites (MTT)	359 TRS Det 1

**6.2. Air Force Career Development Academy (AFCDA) Courses.**

COURSE NUMBER	TITLE	OPR
CDC 2A753	Aircraft Structural Maintenance Journeyman	359 TRS Det 1
CDC 2AX7X	Aerospace Maintenance Craftsman	HQ USAF/A4LF

**6.3. Exportable Courses.**

<b>COURSE NUMBER</b>	<b>TITLE</b>	<b>OPR</b>	<b>MEDIA</b>
	G081 Maintenance Data Collection	367 TRS	WBT
	Corrosion and Prevention	367 TRS	CBT
	Aircraft Wash Procedures	367 TRS	Video

For further information contact the OPR at:

359 TRS Det 1  
 230 Chevalier Field Ave  
 NAS Pensacola, FL 32580-5142  
 DSN 459-7483

Interactive Courseware (ICW) courses are available from or are under development by 367 TRS/TRSS at Hill AFB, Utah and 982 MXS/TSU at Sheppard AFB, Texas.

For further information contact the OPRs at:

367 TRS/TRSS  
 6058 Aspen Ave  
 Hill AFB, UT 84056-5805  
 DSN 586-4014  
<https://367trss.hill.af.mil>

982 MXS/LGMS  
 912 I Ave Ste 4  
 Sheppard AFB, TX 76311-2334  
 DSN 736-3834  
<https://www.my.af.mil/gcss-af/USAF/ep/globalTab.do?command=org&channelPageId=s6925EC134F0A0FB5E044080020E329A9>

**6.4. Courses Under Development/Revision.**

<b>COURSE NUMBER</b>	<b>TITLE</b>	<b>OPR</b>
JCABP2A733 048D	Aircraft Structural Maintenance Apprentice	359 TRS Det 1
JCAZP2A753 0B1C	Aircraft Metal Bonded Repair	359 TRS Det 1
JCAZP2A753 0C1C	General Composite Repair	359 TRS Det 1
JCAZP2A753 0F1C	Aircraft Specialized Fasteners, Stress Relief, and Repair Applications	359 TRS Det 1

***Section D – MAJCOM-Unique Requirements.***

7. For MAJCOM-unique requirements, refer to the following web sites:

Combat Air Force (CAF):

<https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-TE-AC-42>

***Section E - Specialty Training Standard***

**8. Implementation.** This STS will be used for technical training provided by Air Education and Training Command for the apprentice class beginning 6 December 2013. The 5-level CDC need date is 3 April 2014.

**9. Purpose of This STS.** As prescribed in AFI 36-2201, this STS:

**9.1.** Lists in column 1 (Tasks, 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.

**9.2.** Identifies in column 2 (Core Tasks) by asterisk (\*), specialty-wide training requirements.

**9.2.1.** Core tasks which 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).

**9.2.2.** For units with more than one mission design series (MDS) (e.g., A-10, C-130) aircraft, upgrade trainees need only complete core tasks on a single mission design. MFMs, unit commanders, and/or supervisors may require trainees to complete core task training on additional mission design aircraft, if desired. If some of these core tasks involve training in another unit on base, trainees must still complete all core tasks relevant to at least one mission design aircraft. All units are bound by the requirements in this CFETP and will accommodate core task trainees from other units.

**9.2.3.** Units that use the G081 maintenance data collection system do not need to complete Integrated Maintenance Data System (IMDS) core tasks. However, these units will complete G081 and maintenance data collection CBT requirements to meet the intent of core task requirements for IMDS.

**9.3.** Provides certification for OJT. Column 3 is used to record completion of tasks and knowledge training requirements. Use automated training management systems Training Business Area (TBA) to document technician qualifications, if available. Task certification must show a certification completed date.

**9.4.** Shows formal training and correspondence course requirements. Column 4 shows the proficiency to be demonstrated on the job by the graduate as a result of training on the task/knowledge and the career knowledge provided by the correspondence course. When two

codes are used in columns 4A and 4C (e.g., 2b/b), the first code is the established requirement for resident training on the task/knowledge, and the second code indicates the level of training provided in the course due to equipment shortages or other resource constraints. See AFCDA/AFSC/CDC listing maintained by the unit training manager for current CDC listing.

**9.5.** Guides development of promotion tests used in the Weighted Airman Promotion System (WAPS). Specialty Knowledge Tests (SKTs) are developed at the Airman Advancement Division by SNCOs with extensive practical experience in their career fields. 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 based upon study references listed in the WAPS catalog. Individual responsibilities are outlined in AFI 36-2502, *Airman Promotion/Demotion Program*. WAPS is not applicable to the Air National Guard or Air Force Reserve.

**10. Qualitative Requirements.** Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and career development courses.

**11. Job Qualification Standard.** The STS becomes a job qualification standard (JQS) for on-the-job training when placed in automated training management systems, and used according to AFI 36-2201. 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. When used as a JQS, the following requirements apply:

**11.1. Documentation.** Document and certify completion of training IAW AFI 36-2201. Automated records, utilizing TBA reflecting this STS, is mandatory. Use of Part II and attachments one and two of this CFETP are mandatory in individual training records. Use of Part I of this CFETP and attachment three is optional. As a minimum, complete the following in Part II of this CFETP: date training started, date training completed, trainee initials, and trainer initials.

**11.1.1. Transcribing From Old CFETP to New CFETP.** All AFJQSs and previous CFETPs are replaced by this CFETP; therefore, conversion of all training records to this CFETP STS is mandatory. Use this CFETP STS (or automated STS) to identify and certify all past and current qualifications. Document and certify all previous and current training IAW AFI 36-2201.

**11.1.2. Documenting Career Knowledge.** When a CDC is not available, the supervisor identifies CFETP Part II training references that the trainee requires for career knowledge and ensures, as a minimum, that trainees cover the mandatory items in Air Force Enlisted Classification Directory (AFECD). For two-time CDC course exam failures, supervisors identify all Part II items corresponding to the areas covered by the CDC. The trainee completes a study of references, undergoes evaluation by the trainer, and receives certification on the CFETP Part II. *Supervisors must document successful completion of career knowledge prior to submission of a CDC waiver.*

**11.2. Work center Job Qualification Standard (WJQS).** When additional items not listed in the CFETP Part II are necessary in the current duty assignment, enter them on the WJQS.

**12. Recommendations:** Report unsatisfactory performance of individual course graduates to the AETC training manager at 359 TRS Det 1/TRR, 230 Chevalier Field Ave, Suite A, NAS Pensacola, FL 32508-5142, DSN 459-7483. Reference specific STS paragraphs. A customer service information line has been installed for the supervisor's convenience to identify graduates who may have received over or under training on task/knowledge items listed in this training standard. For a quick response to problems, call our customer service information line, DSN 736-5236.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

JUDITH A. FEDDER,  
Lieutenant General, USAF  
DCS/Installations, Logistics and Mission Support

3 Attachments

1. Proficiency Code Key
2. Specialty Training Standard (STS)
3. STS – 2AX7X CDC

<b>PROFICIENCY CODE KEY</b>		
<i>This Block Is For Identification Purposes Only</i>		
Name Of Trainee		
Printed Name (Last, First, Middle Initial)	Initials (Written)	SSAN
Printed Name Of Certifying Official And Written Initials		
N/I	N/I	

### QUALITATIVE REQUIREMENTS

Proficiency Code Key		
	Scale Value	<b>Definition: The individual</b>
<b>Task Performance Levels</b>	<b>1</b>	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (Extremely Limited)
	<b>2</b>	Can do most parts of the task. Needs only help on hardest parts. (Partially Proficient)
	<b>3</b>	Can do all parts of the task. Needs only a spot check of completed work. (Competent)
	<b>4</b>	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (Highly Proficient)
<b>*Task Knowledge Levels</b>	<b>a</b>	Can name parts, tools, and simple facts about the task. (Nomenclature)
	<b>b</b>	Can determine step by step procedures for doing the task. (Procedures)
	<b>c</b>	Can identify why and when the task must be done and why each step is needed. (Operating Principles)
	<b>d</b>	Can predict, isolate, and resolve problems about the task. (Advanced Theory)
<b>**Subject Knowledge Levels</b>	<b>A</b>	Can identify basic facts and terms about the subject. (Facts)
	<b>B</b>	Can identify relationship of basic facts and state general principles about the subject. (Principles)
	<b>C</b>	Can analyze facts and principles and draw conclusions about the subject. (Analysis)
	<b>D</b>	Can evaluate conditions and make proper decisions about the subject. (Evaluation)
<b>Explanations</b>		
* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)		
** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.		
- This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.		
X This mark is used alone in the course columns to show that training is required but not given due to limitations in resources.		
<b>NOTE:</b> All tasks and knowledge items shown with a proficiency code are trained during war time.		

## SPECIALTY TRAINING STANDARD

CFETP 2A7X3, 1 August 2013

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Notes)				
	A	B	A	B	C	D	E	A 3-Skill Level	B 5-Skill Level	C 7-Skill Level		
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC	
ATTACHMENT 2												
NOTE 1: Users are responsible for annotating training references to identify current references pending STS revision.												
NOTE 2: All tasks and knowledge identified as training requirements in column 4A will be taught during wartime.												
NOTE 3: Items in column 2A/2B marked with an asterisk (*) identify core tasks.												
CFETP Date	1 Aug 13											
1.1	SECURITY								A	-	-	-
	TR: DOD 5200.1-R, Information Security Program											
1.2	AF OCCUPATIONAL SAFETY and HEALTH (AFOSH) PROGRAM											
	TR: AFIs 91-203, 91-302; TOs 00-110N-3 and -42 series; applicable OSHA standards											
1.2.1	Hazards of AFSC 2A7X3											
1.2.1.1	In shop								A	-	-	-
1.2.1.2	Flight line								A	-	-	-
1.2.1.3	Respiratory protection equipment								-	B	-	-
1.2.1.4	Maintain AF Form 55 (Employee Safety and Health Record)								-	-	-	-
	TR: AFI 91-203											
1.2.1.5	Maintenance Resource Management (MRM)								A	-	-	-
1.3	HAZARDOUS MATERIALS and WASTE HANDLING ACCORDING to ENVIRONMENTAL STANDARDS											
	TR: AFI 91-203											
1.3.1	Types of hazardous materials/fluids								B	A	-	-
1.3.2	Handling procedures								B	B	-	-
1.3.3	Storage and labeling								B	A	-	-
1.3.4	Proper disposal of hazardous materials								B	A	-	-
1.4	HAZARDOUS COMMUNICATION TRAINING								-	-	-	-
	TR: AFI 90-821											
1.5	SUPERVISION and TRAINING											
	TR: AFIs 21-101; 36-2201; Air Force Enlisted Classification Directory (AFECD)											
1.5.1	Perform corrosion manager responsibilities								-	-	-	-
1.5.2	Aircraft wash management								-	-	-	-
1.5.3	Train personnel											
1.5.3.1	Determine training requirements								-	-	-	-
1.5.3.2	Assign OJT trainers or supervisors								-	-	-	-

## SPECIALTY TRAINING STANDARD

CFETP 2A7X3, 1 August 2013

1. Tasks, Knowledge And Technical References		2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Notes)			
		A	B	A	B	C	D	E	A 3-Skill Level	B 5-Skill Level	C 7-Skill Level	
		5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC
1.5.3.3	Conduct training								-	-	-	-
1.5.3.4	Maintain records								-	-	-	-
1.5.3.5	Counsel trainees on training progress								-	-	-	-
1.5.4	OJT trainer requirements											
1.5.4.1	Prepare teaching outlines or task breakdowns								-	-	-	-
1.5.4.2	Provide trainees theory and train on actual equipment								-	-	-	-
1.5.5	OJT task certifier requirements											
1.5.5.1	Evaluate trainee's knowledge and abilities								-	-	-	-
1.5.5.2	Provide supervisor and trainer feedback on results of training provided, and trainee's strengths and/or weaknesses								-	-	-	-
1.5.6	Plan and schedule maintenance and repair work											
1.5.6.1	Analyze workload requirements								-	-	-	-
1.5.6.2	Coordinate with other agencies								-	-	-	-
1.5.6.3	Determine or establish priorities								-	-	-	-
1.5.6.4	Adjust daily maintenance plans to meet operational commitments								-	-	-	-
1.5.6.5	Direct aircraft structural maintenance activities								-	-	-	-
1.5.6.6	Direct specialized repair activities								-	-	-	-
1.5.7	Manage resources TR: AFMAN 23-110								-	-	-	-
1.5.8	Determine authorized materials with: TR: TO 1-1-8, 1-1-691, Applicable TOs											
1.5.8.1	Technical Orders								-	B	-	-
1.5.8.2	Qualified Products Listings (QPLs)/ Qualified Products Database (QPD)		*						-	A	-	-
1.5.8.3	Mil Specs		*						-	A	-	-
1.5.8.4	Maintain equipment accountability								-	-	-	-
1.5.9	Supplies TR: AFI 21-101, AFMAN 23-110, T.O. 00-35D-54											
1.5.9.1	Issue								-	-	-	-
1.5.9.2	Establish levels								-	-	-	-
1.5.9.3	Maintain levels								-	-	-	-
1.5.9.4	Shelf Life Program								A	B	-	-
1.5.9.5	Evaluate maintenance or use of equipment, supplies, or workspace								-	-	-	-
1.5.9.6	Deficiency Reporting Program								-	-	-	-
1.5.9.7	Initiate deficiency reports								-	-	-	-
1.5.9.8	Bench check and repair policy								-	-	-	-

## SPECIALTY TRAINING STANDARD

CFETP 2A7X3, 1 August 2013

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Notes)				
	A	B	A	B	C	D	E	A 3-Skill Level	B 5-Skill Level	C 7-Skill Level		
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC	
1.6 TOOLS and EQUIPMENT TR: TOs 1-1A-8, 1-1-691, and applicable -32, -33, -34 series TOs, and equipment manuals												
1.6.1 Composite Tool Kits (CTKs)												
1.6.1.1 Inventory	*							2b	-	-	-	
1.6.1.2 Manage		*						-	-	-	-	
1.6.1.3 Tool Accountability System TR: AFI 21-101												
1.6.1.3.1 Lost tool reporting								A	-	-	-	
1.6.1.3.2 Conduct lost tool investigation								-	-	-	-	
1.6.2 Use hand tools TR: TO 32-1-101	*							2b	b	-	-	
1.6.3 Maintain tools TR: TO 32-1-101	*							-	-	-	-	
1.6.4 Use shop equipment												
1.6.4.1 Arbor press								2b	a	-	-	
1.6.4.2 Band saw	*							2b	b	-	-	
1.6.4.3 Weld band saw blades								-	-	-	-	
1.6.4.4 Brakes												
1.6.4.4.1 Box and pan	*							2b	b	-	-	
1.6.4.4.2 Cornice	*							2b	b	-	-	
1.6.4.4.3 Power								-	-	-	-	
1.6.4.4.4 Press								-	-	-	-	
1.6.4.4.5 Bar folding machine								2b	b			
1.6.4.5 Dimpling machine								-	a	-	-	
1.6.4.6 Drill press	*							2b	b	-	-	
1.6.4.7 Grinder (pedestal)	*							2b	b	-	-	
1.6.4.8 Optical micrometer								-	-	-	-	
1.6.4.9 Rotary (turret) punch								2b	a	-	-	
1.6.4.10 Shears												
1.6.4.10.1 Foot	*							2b	b	-	-	
1.6.4.10.2 Power								2b	b	-	-	
1.6.4.10.3 Scroll								a	a	-	-	
1.6.4.10.4 Throatless	*							2b	b	-	-	
1.6.4.11 Shrinking and stretching machine	*							2b	b	-	-	
1.6.4.12 Slip roll former	*							2b	b	-	-	
1.6.4.13 Stationary sander (belt)	*							2b	b	-	-	
1.6.5 Maintain shop equipment	*							-	b	-	-	
1.6.6 Coating application/paint equipment												
1.6.6.1 Electrostatic spray unit												
1.6.6.1.1 Use								-	a	-	-	
1.6.6.1.2 Maintain								-	a	-	-	
1.6.6.2 Film gauge, dry								-	-	-	-	
1.6.6.3 Film gauge, wet								-	-	-	-	
1.6.6.4 High volume low pressure												
1.6.6.4.1 Use	*							2b	b	-	-	
1.6.6.4.2 Maintain	*							2b	-	-	-	

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1. Tasks, Knowledge And Technical References		2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Notes)			
		A	B	A	B	C	D	E	A 3-Skill Level	B 5-Skill Level	C 7-Skill Level	
		5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC
1.6.6.5	Paint booth operational fundamentals								A	-	-	-
1.6.6.6	Use paint shaker (agitator)								2b	-	-	-
1.6.6.7	Use pit depth gauge	*							2b	b	-	-
1.6.6.8	Use media blasting booth								2b	b	-	-
1.6.6.9	Use media blasting cabinet								2b	b	-	-
1.6.6.10	Pneumatic compactor								-	-	-	-
1.6.6.11	Pressure pots											
1.6.6.11.1	Fundamentals								A	B	-	-
1.6.6.11.2	Use								-	-	-	-
1.6.6.11.3	Maintain								-	-	-	-
1.6.6.12	Recovery still (chemical distillation)								-	-	-	-
1.6.6.13	Sanding booth								-	-	-	-
1.6.6.14	Spray gun cleaning unit								2b	-	-	-
1.6.7	Use composites equipment											
1.6.7.1	Heat gun								-	-	-	-
1.6.7.2	Hot air gun								-	-	-	-
1.6.7.3	Hot air module								-	-	-	-
1.6.7.4	Hot bonder											
1.6.7.4.1	Program hot bonder	*							2b	a	-	-
1.6.7.4.2	Weld thermocouples								2b	a	-	-
1.6.7.5	Oven								-	a	-	-
1.6.7.6	Vacuum system								2b	a	-	-
1.6.7.7	Weight measuring scale	*							2b	b	-	-
1.6.8.	Use tube flaring equipment											
1.6.8.1	Double								2b	b	-	-
1.6.8.2	Single								2b	b	-	-
1.6.8.3	Use tube benders											
1.6.8.3.1	Computer Numeric Controlled (CNC)								-	-	-	-
1.6.8.3.2	Hand								2b	b	-	-
1.6.8.3.3	Hydraulic								-	a	-	-
1.6.8.4	Production tubing bender	*							2b	b	-	-
1.7	TECHNICAL PUBLICATIONS											
1.7.1	Use electronic and manual Technical Publications for: TR: AFIND 0-2, TOs 00-5-1, 00-20, 1-1-8, 1-1-24, 1-1-690, 1-1-691, 1-1A-1 series, -3, -4, -6, -23 series and OMMS TOs											
1.7.1.1	Maintenance	*							2b	b	-	-
1.7.1.2	Illustrated parts breakdown	*							2b	b	-	-
1.7.1.3	TO improvement procedures								-	b	-	-
1.7.2	Aircraft Construction Familiarization								A	B	-	-
1.8	INSPECTION TR: TOs 1-1-690, 1-1-691, and -3, -6 and -23 series TOs											
1.8.1	Perform inspection for corrosion and structural damage											

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1. Tasks, Knowledge And Technical References		2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Notes)			
		A	B	A	B	C	D	E	A 3-Skill Level	B 5-Skill Level	C 7-Skill Level	
		5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC
1.8.1.1	Surface	*							2b	b	-	-
1.8.1.2	Internal structures	*							2b	b	-	-
1.8.2	Classify damage											
1.8.2.1	Metal structures	*							2b	b	-	-
1.8.2.2	Composite	*							2b	b	-	-
1.8.2.3	Transparent plastics								-	a	-	-
1.8.2.4	Determine repair procedures	*							-	b	-	-
1.9	DOCUMENTATION TR: TO 00-20-1 & -7, 34-1-2, AFMAN 23-110											
1.9.1	Use forms											
1.9.1.1	781A series	*							2b	b	-	-
1.9.1.2	781H series								-	a	-	-
1.9.1.3	781K series	*							2b	a	-	-
1.9.1.4	AFTO 95								-	a	-	-
1.9.1.5	AFTO 244 series	*							2b	b	-	-
1.9.2	Use Integrated Maintenance Data System (IMDS) TR: AFCSM 21 Series; TO 00-20 Series, applicable -6 TO											
1.9.2.1	Open discrepancies	*							-	-	-	-
1.9.2.2	Close discrepancies	*							-	-	-	-
1.9.2.3	Access applicable IMDS menus and data screens								-	-	-	-
1.9.3	Use G0 81 TR: G0 81/SBSS System Interface User's Guide											
1.9.3.1	Open discrepancies	*							-	-	-	-
1.9.3.2	Close discrepancies	*							-	-	-	-
1.9.3.3	Access applicable menus and data screens								-	-	-	-
1.10	CORROSION PREVENTION and CONTROL TR: TOs 1-1-8, 1-1-24, 1-1-690, 1-1-691 and applicable -3, -23, or equivalent series											
1.10.1	Corrosion principles											
1.10.1.1	Theory								B	B	-	-
1.10.1.2	Types								B	B	-	-
1.10.1.3	Factors affecting corrosion								B	B	-	-
1.10.2	Corrosion prevention compounds								A	B	-	-
1.10.3	Corrosion treatment											
1.10.3.1	Apply passivation chemicals								2b	b	-	-
1.10.3.2	Remove corrosion (mechanical)	*							2b	b	-	-
1.10.3.3	Remove corrosion (chemical)								-	-	-	-
1.10.4	Protective coating											
1.10.4.1	Score aircraft/support equipment coating								-	-	-	-
1.10.4.2	Prepare surface	*							2b	b	-	-
1.10.4.3	Prepare coating	*							2b	b	-	-

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1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Notes)				
	A	B	A	B	C	D	E	A 3-Skill Level	B 5-Skill Level	C 7-Skill Level		
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC	
1.10.4.4	Apply coating	*							2b	b	-	-
1.10.4.5	Apply tapes, boots, and protective films								-	b	-	-
1.10.4.6	Remove tapes, boots, and protective films								-	b	-	-
1.10.5	Correct spray pattern defects	*							b	b	-	-
1.10.6	Sempens, brushes, and rollers								-	A	-	-
1.10.7	Remove coating											
1.10.7.1	Mechanical sanding	*							2b	b	-	-
1.10.7.2	Dry abrasive blasting								2b	b	-	-
1.10.7.3	Chemicals								-	b	-	-
1.10.8	Aircraft sealing											
1.10.8.1	Prepare sealants	*							2b	b	-	-
1.10.8.2	Use sealants	*							2b	b	-	-
1.10.9	Aircraft markings											
1.10.9.1	Stencils											
1.10.9.1.1	Manufacture								-	a	-	-
1.10.9.1.2	Apply								-	b	-	-
1.10.9.2	Decals											
1.10.9.2.1	Manufacture								-	a	-	-
1.10.9.2.2	Apply								-	b	-	-
1.10.9.2.3	Remove								-	b	-	-
1.11	REPAIR, MODIFY, and FABRICATE METAL PARTS and ASSEMBLIES of AIRFRAME STRUCTURES TR: TOs 1-1A-9, 1-1A-1, 1-1A-8, 1-1-691, applicable structural repair and corrosion control TOs											
1.11.1	Identify metals	*							2b	b	-	-
1.11.2	Characteristics of metals								B	B	-	-
1.11.3	Interpret drawings	*							2b	b	-	-
1.11.4	Interpret blueprints								-	b	-	-
1.11.5	Develop layout for repairs	*							2b	b	-	-
1.11.6	Develop layout for parts	*							2b	b	-	-
1.11.7	Calculate shop mathematics								2b	b	-	-
1.11.8	Cut sheet metal	*							2b	b	-	-
1.11.9	Form metal parts											
1.11.9.1	Machine form parts	*							2b	b	-	-
1.11.9.2	Hand form parts	*							2b	b	-	-
1.11.10	Advanced repair concepts											
1.11.10.1	Design molds								-	b	-	-
1.11.10.2	Form blocks											
1.11.10.2.1	Design								-	b	-	-
1.11.10.2.2	Manufacture								-	b	-	-
1.11.11	Install and remove hardware											
1.11.11.1	Hole preparation	*							2b	b	-	-
1.11.11.2	ASP (Adjustable sustained preload)								-	-	-	-
1.11.11.3	Blind rivets, pull thru								2b	b	-	-
1.11.11.4	Blind rivets, friction lock								-	-	-	-

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1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Notes)				
	A	B	A	B	C	D	E	A 3-Skill Level	B 5-Skill Level	C 7-Skill Level		
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC	
1.11.11.5	Blind rivets, mechanical lock	*							2b	b	-	-
1.11.11.6	Composi-Lok								-	a	-	-
1.11.11.7	Eddie bolt								-	-	-	-
1.11.11.8	Hi-lok (Pin rivet, Threaded)	*							2b	b	-	-
1.11.11.9	Hi-shear rivets								a	b	-	-
1.11.11.10	Hi-tigue								-	b	-	-
1.11.11.11	Huck crimp								-	-	-	-
1.11.11.12	Jo-bolt (Visu-Loc)											
1.11.11.12.1	Straight shank								2b	b	-	-
1.11.11.12.2	Tapered shank								-	-	-	-
1.11.11.13	Lockbolt											
1.11.11.13.1	Pull type								-	b	-	-
1.11.11.13.2	Stump type								-	b	-	-
1.11.11.14	Mechanical lock blind bolt								2b	b	-	-
1.11.11.15	Radial-lok								-	-	-	-
1.11.11.16	SLEEVbolt								-	-	-	-
1.11.11.17	Solid rivets	*							2b	b	-	-
1.11.11.18	Microshave rivets	*							2b	b	-	-
1.11.11.19	Taper lok											
1.11.11.19.1	Fundamentals								A	A	-	-
1.11.11.19.2	Remove								-	-	-	-
1.11.11.19.3	Prepare holes								-	-	-	-
1.11.11.19.4	Install								-	-	-	-
1.11.11.20	Turnlock fasteners											
1.11.11.20.1	Airlock								2b	b	-	-
1.11.11.20.2	Camloc								2b	b	-	-
1.11.11.20.3	Dzus								-	-	-	-
1.11.11.20.4	Latches	*							2b	b	-	-
1.11.11.20.5	Hinges								2b	b	-	-
1.11.11.21	Nut plates											
1.11.11.21.1	Riveted	*							2b	b	-	-
1.11.11.21.2	Bonded								-	b	-	-
1.11.11.21.3	Coldworked								-	-	-	-
1.11.11.22	Aircraft bolts								-	a	-	-
1.11.11.23	Aircraft nuts								-	a	-	-
1.11.11.23.1	Davis elliptical								-	-	-	-
1.11.11.23.2	Press nuts								-	-	-	-
1.11.11.23.3	RivNuts								-	-	-	-
1.11.11.23.4	Tuklok								-	-	-	-
1.11.11.24	Corebolt								-	-	-	-
1.11.12	Remove defective screws								-	a	-	-
1.11.13	Perform metal skin repairs											
1.11.13.1	Stop drill cracks	*							a	a	-	-
1.11.13.2	Cold work holes								-	a	-	-
1.11.13.3	Nonflush	*							2b	b	-	-
1.11.13.4	Flush	*							2b	b	-	-
1.11.13.5	Sealed structural	*							2b	b	-	-
1.11.13.6	Combination substructural member								2b	b	-	-
1.11.13.7	Reshape/blend damaged areas	*							2b	b	-	-

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	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC	
1.11.13.8	Apply aerodynamic smoothing compound								-	a	-	-
1.11.13.9	Roto-Flap/Shot peening								-	-	-	-
1.11.14	Trim and fit aircraft skins	*							2b	b	-	-
1.11.15	Trim and fit access panels/doors	*							2b	b	-	-
1.11.16	Balance Control Surfaces								-	a	-	-
1.12	<b>AIRCRAFT CABLE ASSEMBLIES</b> TR: TOs 1-1A-8, 32A-1, 33A1-4-6-1, and applicable structural repair TOs											
1.12.1	Select components								a	a	-	-
1.12.2	Fabricate								a	b	-	-
1.12.3	Pull test								a	a	-	-
1.13	<b>AIRCRAFT TUBING ASSEMBLIES</b> TR: TO 42E1-1-1, and applicable aircraft TOs											
1.13.1	Select components											
1.13.1.1	Material	*							2b	a	-	-
1.13.1.2	Hardware	*							2b	a	-	-
1.13.2	Fabricate aircraft tubing assembly	*							2b	b	-	-
1.13.3	MS (Military Standard) flareless fittings								A	B	-	-
1.13.4	Install AN (Army Navy) flared fittings								2b	a	-	-
1.13.5	Repair methods											
1.13.5.1	Cryofit								-	-	-	-
1.13.5.2	Permalite								a	a	-	-
1.13.5.3	Dynatube								a	a	-	-
1.13.5.4	Permaswage								a	b	-	-
1.13.5.5	Ryngloc								a	a	-	-
1.13.4.6	Wiggins								-	a	-	-
1.13.5.7	Visually inspect and evaluate tubing damage	*							a	a	-	-
1.14	<b>REPAIR COMPOSITES</b> TR: TO 1-1-24, 1-1-690 and applicable structural repair TOs											
1.14.1	Fundamentals											
1.14.1.1	Composite identification								A	B	-	-
1.14.1.2	Characteristics of composites								A	B	-	-
1.14.1.3	Material storage								A	A	-	-
1.14.2	Lightning and anti static wire mesh								-	-	-	-
1.14.3	Overlap repair								-	b	-	-
1.14.4	Perform bonded fiberglass panel honeycomb core repair	*							2b	b	-	-
1.14.5	Perform metal bonded honeycomb core repair	*							2b	b	-	-
1.14.6	Potted fastener hole repair								-	-	-	-

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	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC	
1.14.7	Scarf repair								2b	b	-	-
1.14.8	Solid laminate								-	b	-	-
1.14.9	Step repair								2b	b	-	-
1.14.10	Transparent/structural plastics								-	b	-	-
1.14.11	Trim and fit replacement components								-	b	-	-
1.14.12	Develop layout for composite repairs								2b	b	-	-
1.14.13	Drilling and countersinking of composites								2b	b	-	-
1.14.14	Integral blade repair (L Angle)								-	-	-	-
1.14.15	Integral hat repair								-	-	-	-
1.14.16	Material handling								2b	b	-	-
1.14.17	Cut materials								2b	b	-	-
1.14.18	Drying								2b	b	-	-
1.14.19	Ply orientation								2b	b	-	-
1.14.20	Vacuum bagging								2b	b	-	-
1.14.21	Radar Absorbent Material (RAM) inspection								-	-	-	-
1.14.22	RAM application								-	-	-	-
1.14.23	RAM removal								-	-	-	-
1.15	<b>BONDED REPAIR PREPARATION</b> TR: TOs 1-1-690, 1-1A-1											
1.15.1	Prepare metal surface											
1.15.1.1	Phosphoric Acid Anodize								-	-	-	-
1.15.1.2	Sol Gel								2b	-	-	-
1.15.1.3	Grit Blast Saline								-	-	-	-
1.15.2	Prepare liquid matrix								2b	b	-	-
1.15.3	Use of adhesives, foams, films and tapes								2b	b	-	-
1.15.4	Use Prepreg materials								2b	a	-	-
1.16	<b>GENERAL MAINTENANCE/ PRODUCTION TEAM TASKS</b> TR: applicable aircraft TO's											
1.16.1	Aircraft Safe for Maintenance								A	-	-	-
1.16.2	Technical Order familiarization								-	-	-	-
1.16.3	Flightline/safety/precautions/security								-	-	-	-
1.16.4	Introduction to aircraft/airframe familiarization/egress								-	-	-	-
1.16.5	Inspect/use ground maintenance stands								-	-	-	-
1.16.6	Dropped Object Prevention Program (DOPP)								-	-	-	-
1.16.7	Defensive System (DS) familiarization (on applicable aircraft)								-	-	-	-
1.16.8	Statically ground aircraft								-	-	-	-

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1. Tasks, Knowledge And Technical References		2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Notes)			
		A	B	A	B	C	D	E	A 3-Skill Level	B 5-Skill Level	C 7-Skill Level	
		5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC
1.16.9	Inspect/operate portable external electrical power unit								-	-	-	-
1.16.10	Apply/disconnect external electrical power								-	-	-	-
1.17	TOW AIRCRAFT TR: applicable aircraft TOs											
1.17.1	Tow team member								-	-	-	-
1.17.2	Brake operator								-	-	-	-
1.18	PERFORM REFUEL/DEFUEL TEAM MEMBER DUTIES TR: applicable aircraft TOs											
1.18.1	Fireguard								-	-	-	-
1.18.2	Panel operator								-	-	-	-
1.18.3	Open and close engine cowling								-	-	-	-
1.18.4	Remove/install aircraft maintenance access panels								-	-	-	-
1.18.5	Use aircraft interphone system								-	-	-	-
1.18.6	Perform aircraft marshaling procedures								-	-	-	-

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## AEROSPACE MAINTENANCE CRAFTSMAN

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	(1) Crse	(1) CDC	(1) Crse	(2) CDC
NOTE 1: Users are responsible for annotating training references to identify current references pending STS revision.				
NOTE 2: This attachment is to be used in conjunction with other attachments in applicable CFETPs.				
NOTE 3: Personnel must complete CDC requirements on all MDSs/attachments.				
NOTE 4: This attachment is to be used as a correlation document for the 2AX7X 7-level Aerospace Maintenance Craftsman CDC's.				
NOTE 5: All items are SUBJECT KNOWLEDGE LEVELS only and require no certification on this STS.				
AA.1.	MAINTENANCE PHILOSOPHY AND POLICY			
AA.1.1.				A
	Aircraft and Equipment Readiness TR: AFI 21-101 and Repair Enterprise 21 Fact Sheet <a href="https://acc.dau.mil/CommunityBrowser.aspx?id=32781">https://acc.dau.mil/CommunityBrowser.aspx?id=32781</a>			
AA.1.2.				A
	Maintenance Concept TR: AFI 21-101 and AFI 21-129			
AA.1.3.				A
	Reliability and Maintainability (R&M) TR: AFI 21-101, AFI 21-118 and TO 00-35D-54.			
AA.1.4.				A
	Operating Instructions (OI) TR: AFI 21-101 and AFI 33-360			
AA.1.5.				A
	Support Agreements (SA) TR: AFI 21-101 and AFI 25-201			
AA.1.6.				A
	Modification and Configuration Management TR: AFI 21-101			
AA.1.7.				B
	Maintenance Information Systems (MIS) TR: AFI 21-101, AFI 21-116, AFCSM 21-556 volume 2, and TO 00-20-2			
AA.1.8.				B
	Maintenance Performance Indicator Metrics and Health of the Fleet TR: AFI 21-101 and AFI 21-103			
AA.1.9.				A
	Personnel Utilization TR: AFI 21-101			
AA.1.10.				A
	Maintenance Repair Priorities TR: AFI 21-101			
AA.1.11.				A
	Minimum Essential System Listing (MESL) TR: AFI 21-101 and AFI 21-103			
AA.1.12.				A
	Status of Resources and Training System (SORTS), and AEF Reporting Tool (ART) TR: AFI 10-201, AFI 10-244 and <a href="https://aefcenter.afpc.randolph.af.mil/">https://aefcenter.afpc.randolph.af.mil/</a>			
AA.1.13.				A
	Historical Aircraft and Equipment Records TR: AFI 21-101 and T.O. 00-20-1			
AA.1.14.				A
	Maintenance Scheduling Effectiveness TR: AFI 21-101			
AA.2.	MAINTENANCE ORGANIZATION KEY LEADER RESPONSIBILITIES			
AA.2.1.				A
	Wing Commander (WG/CC) TR: AFI 21-101 and AFI 38-101			
AA.2.2.				A
	Wing Vice Commander (WG/CV) TR: AFI 21-101 and AFI 38-101			
AA.2.3.				A
	Maintenance Group Commander (MXG/CC) TR: AFI 21-101 and AFI 38-101			
AA.2.4.				A
	Maintenance Group Deputy Commander (MXG/CD) TR: AFI 21-101			
AA.2.5.				A
	MXG Superintendent (SUPT) TR: AFI 21-101			

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AA.2.6.	Squadron Commander (SQ/CC) Responsibilities TR: AFI 21-101				A
AA.2.7.	Operations Officer and Maintenance Superintendent (MX SUPT) Responsibilities TR: AFI 21-101				A
AA.2.8.	Flight Commander/Flight Chief TR: AFI 21-101				A
AA.2.9.	AMU OIC/Superintendent (SUPT) TR: AFI 21-101				A
AA.2.10.	Section NCOIC TR: AFI 21-101				A
AA.2.11.	Production Superintendent (Pro Super) TR: AFI 21-101				A
AA.2.12.	Expediter TR: AFI 21-101				B
AA.3.	FUNCTIONS OF MAINTENANCE OPERATIONS TR: AFI 21-101 and AFI 38-101				
AA.3.1.	Maintenance Operations TR: AFI 21-101				A
AA.3.2.	Maintenance Training Section (MTS) TR: AFI 21-101 and AFI 36-2232				A
AA.3.3.	Programs and Resources Section TR: AFI 21-101				A
AA.3.4.	Quality Assurance (QA) TR: AFI 21-101				A
AA.4.	FUNCTIONS OF AIRCRAFT/HELICOPTER MAINTENANCE SQUADRON (AMXS/HMXS) TR: AFI 21-101 and AFI 38-101				
AA.4.1.	Aircraft Maintenance Unit (AMU) TR: AFI 21-101				A
AA.4.2.	Aircrew and Maintenance Debrief Section TR: AFI 21-101				A
AA.4.3.	Aircraft Section TR: AFI 21-101				A
AA.4.4.	Specialist Section TR: AFI 21-101				A
AA.4.5.	Weapons Section TR: AFI 21-101				A
AA.4.6.	Plans, Scheduling and Documentation Section (PS&D) TR: AFI 21-101				A
AA.4.7.	Support Section TR: AFI 21-101				A
AA.5.	FUNCTIONS OF MAINTENANCE SQUADRON (MXS) TR: AFI 21-101 and AFI 38-101				
AA.5.1.	Accessories Flight TR: AFI 21-101				A
AA.5.2.	Aerospace Ground Equipment (AGE) Flight TR: AFI 21-101				A
AA.5.3.	Armament Flight TR: AFI 21-101				A
AA.5.4.	Avionics Flight TR: AFI 21-101				A
AA.5.5.	Fabrication Flight TR: AFI 21-101				A
AA.5.6.	Maintenance Flight TR: AFI 21-101				A
AA.5.7.	Munitions Flight TR: AFI 21-101 and AFI 21-201				A
AA.5.8.	Propulsion Flight TR: AFI 21-101				A
AA.5.9.	Test, Measurement, and Diagnostic Equipment (TMDE) Flight TR: AFI 21-101				A
AA.6.	AIR FORCE MATERIEL COMMAND RESPONSIBILITIES				

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AA.6.1.	Air Logistics Centers (ALC) TR: AFMCMC (Mission Directives) 406, 407 and 410. Located at: <a href="https://www.afmc-mil.wpafb.af.mil/pdl/afmc/md.htm">https://www.afmc-mil.wpafb.af.mil/pdl/afmc/md.htm</a> , OO-ALC Brochure located at: <a href="http://www.hill.af.mil/main/index.html">http://www.hill.af.mil/main/index.html</a> , WR-ALC: <a href="http://www.robins.af.mil/units/402mw.asp">http://www.robins.af.mil/units/402mw.asp</a> and OC-ALC: <a href="http://www.tinker.af.mil/units/">http://www.tinker.af.mil/units/</a>				A
AA.6.2.	Air Force Flight Test Center/Air Armament Center TR: AFMCMC 404 located at <a href="https://www.afmc-mil.wpafb.af.mil/pdl/afmc/md.htm">https://www.afmc-mil.wpafb.af.mil/pdl/afmc/md.htm</a> and Flight Test Center Fact Sheet locate at: <a href="http://www.edwards.af.mil/library/factsheets/factsheet_print.asp?fsID=6573&amp;page=1">http://www.edwards.af.mil/library/factsheets/factsheet_print.asp?fsID=6573&amp;page=1</a>				A
AA.6.3.	Aerospace Maintenance and Regeneration Center (AMARC) TR: AFMCMC 415 located at: <a href="https://www.afmc-mil.wpafb.af.mil/pdl/afmc/md.htm">https://www.afmc-mil.wpafb.af.mil/pdl/afmc/md.htm</a> and <a href="http://www.dm.af.mil/units/amarc.asp">http://www.dm.af.mil/units/amarc.asp</a>				A
AA.7.	MAINTENANCE TRAINING				
AA.7.1	Types of Training TR: AFI 36-2232 and the ETCA site located at: <a href="https://etca.randolph.af.mil/">https://etca.randolph.af.mil/</a>				A
AA.7.2.	Training Documentation TR: AFI 36-2232, AFI 21-101, and AFI 36-2201				A
AA.7.3.	Special Certification Rosters TR: AFI 21-101				A
AA.7.4.	Maintenance Qualification Program (MQP) TR: AFI 36-2232, AFI 21-101 and AFD 10-9.				A
AA.7.5.	Training Forecast / Request TR: AFI 36-2232 and AFI 21-101				A
AA.7.6.	Training Development Process TR: AFI 36-2232, AFI 21-101, and AETCI 36-2601				A
AA.8.	PERSONNEL RESOURCE MANAGEMENT				
AA.8.1.	Capability Based Manpower Standard and Logistics Composite Model (LCOM) TR: AFMAN 38-208 Volume 3, AFI 38-201, AFI 21-101 and AFTTP 3-21.1				A
AA.8.2.	Unit Manpower Document (UMD) and Unit Personnel Manpower Roster (UPMR) TR: AFI 38-201, AFTTP 3-21.1 and AFI 36-2110				A
AA.9.	MAINTENANCE SUPPLY				
AA.9.1.	Logistics Readiness Squadron (LRS) Supply Support TR: AFI 21-101, AFMAN 23-110 (vol. 1) and AFTTP 3-21.1				A
AA.9.2.	Readiness Spares Packages TR: AFMAN 23-110, AFI 21-101 and AFTTP 3-21.1				A
AA.9.3.	Consumables Management TR: AFI 21-101, AFTTP 3-21.1 and AFMAN 23-110				A
AA.9.4.	Equipment Items TR: AFI 21-101, AFMAN 23-110 and AFMAN 23-220				A
AA.9.5.	Special Purpose Recoverable Authorized Maintenance (SPRAM) Assets TR: AFI 21-101, AFMAN 23-110 and AFI 21-103				A
AA.9.6.	Supply Assets Requiring Functional Check, Calibration, or Operational Flight Programming TR: AFI 21-101 and AFMAN 23-110				A
AA.9.7.	Precious Metals Recovery Program TR: AFMAN 23-110 and AFI 21-101				A
AA.9.8.	Supply Points TR: AFI 21-101 and AFMAN 23-110				A
AA.9.9.	Local Manufacture TR: AFI 21-101				A
AA.9.10.	Repair Cycle Assets / Supply Management Products TR: AFI 23-110 and AFI 21-101				A
AA.9.11.	Tail Number Bins (TNB) TR: AFI 21-101				A
AA.9.12.	Maintenance Repair / Supply Delivery Priorities TR: AFI 21-101				A
AA.9.13.	Classified Assets TR: AFI 21-101 and TO 00-20-1				A

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AA.9.14.	Hazardous Materials TR: AFI 90-821, AFI 32-7086 and AFI 21-101				A
AA.9.15.	Supply Deficiency and Discrepancy Reporting TR: AFI 23-110 and AFI 21-101				B
AA.10.	TECHNICAL ORDER POLICY TR: TO 00-5-1, AFI 21-101, AFI 21-303				
AA.10.1.	Use of Technical Orders (TO), TO Supplements and Publications TR: AFI 21-101, 21-303 and AFTTP 3-21.1				A
AA.10.2.	Technical Order Change Process TR: AFI 21-303				A
AA.10.3.	Technical Order Waivers TR: AFI 21-303 and AFI 21-101				A
AA.11.	MAINTENANCE REQUIREMENTS AND PROGRAMS				
AA.11.1.	Cannibalization Program TR: AFI 21-101 and AFTTP 3-21.1				A
AA.11.2.	Restricted Maintenance Areas TR: AFI 21-101				A
AA.11.3.	Red Ball Maintenance TR: AFI 21-101 and AFTTP 3-21.1				A
AA.11.4.	Aircraft/Equipment Impoundment Program TR: AFI 21-101				A
AA.11.5.	Maintenance Standardization and Evaluation Program (MSEP) Purpose and Inspection Types TR: AFI 21-101 and AFTTP 3-21.1				B
AA.11.6.	Foreign Object Damage (FOD) Program TR: AFI 21-101, AFI 36-2232 and AFTTP 3-21.1				A
AA.11.7.	Dropped Object Prevention (DOP) Program TR: AFI 21-101				A
AA.11.8.	Tool Management TR: AFI 21-101 and AFTTP 3-21.1				A
AA.11.9.	Tool Accountability TR: AFI 21-101 and AFTTP 3-21.1				A
AA.11.9.1.	Marking and Tool Identification TR: AFI 21-101				A
AA.11.9.2.	Locally Manufactured, Developed, or Modified Tools and Equipment TR: AFI 21-101				A
AA.11.9.3.	Lost Item/Tool Procedures TR: AFI 21-101				A
AA.11.10.	Maintenance Recovery Team TR: AFI 21-101				A
AA.11.11.	Aging Aircraft / Equipment Issues TR: AFI 21-101, DoD 5010.12-M and DMSMS Guide Book (SD-22)				A
AA.11.12.	Quality Assurance Evaluators TR: AFI 21-101 and AFTTP 3-21.1				A
AA.11.13.	Computer Applications TR: AF Portal, AF E-Publishing site, AF IT E-Learning site, Advanced Distributed Learning Services (ADLS) site, AF Center of Excellence for Knowledge Management (AFKM) site, Defense Travel System (DTS) training site, Air & Space Expeditionary Force Center site and the AF Center for Electronic Distribution of Systems (AFCEDS) site				A
AA.11.14.	Mobility TR: AFTTP 3-21.1, AFI 10-403, AFI 21-101, and the AFMAN 10-100 (Airman's Manual)				A
AA.11.15.	Crashed Damaged or Disabled Aircraft Recovery (CDDAR) Program TR: AFI 21-101				A