DEPARTMENT OF THE AIR FORCE Headquarters US Air Force Washington, DC 20330-1030

#### AFSC 1C8X3

#### Radar, Airfield, & Weather Systems (RAWS)



CAREER FIELD EDUCATION AND TRAINING PLAN

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#### **SUMMARY OF CHANGES**

This publication was changed to include: format updated to match current DAFI 36-2670, *Total Force Development*, requirements; updates to skill progression information; addition of force development roadmap; specialty descriptions updated based upon the June 2021 Specialty Training Requirements Team (STRT) meeting; and training resource constraints updated to match current limitations. The arrangement of Specialty Training Standard (STS) items was also updated to match schoolhouse course lists. This publication has been substantially revised and must be reviewed in its entirety.

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### PART I

### PREFACE

1. The 1C8 Air Force Specialty (AFS) is a ground communications-electronics (C-E) maintenance career field supporting command and control systems requiring basic cross-functional skills to sustain isolated systems in fixed or mobile missions. These basic cross-functional skills can include cybersecurity, vehicles, asset protection, supply discipline, contracting, and other areas (VCSAF Gen Allvin's 2022 Force Development Guidance; Airfield Operations Bridging and Vision Strategy). Our career field must keep pace with advancing technology and deliberately posture to meet modernization priorities while simultaneously providing sustainment and logistic capabilities to an existing fleet of aging systems. Deliberate change is an imperative to the functional communities we serve, the transformation into Joint All Domain Command & Control (JADC2), and to meet the intent of the 2022 National Defense Strategy (NDS) priorities, specifically "building enduring advantages."

**2.** Our career field has a long history of transformation; from eight separate specialties in 1938, including CMSgt Etchberger's AFS, Automatic Tracking Radar Maintenance, thru over 10 mergers to the current combination of Radar, Airfield, and Weather Systems. Throughout this time, the career field realigned to new acquisitions and challenged to maintain standards of system expertise. This past, current, and future technical expertise reality creates a demand on the 1C8 Total Force to reinforce system knowledge in our frontline technicians. Additionally, we must maintain mission flexibility to learn basic skills that are not traditionally part of the AFS job description but are necessary for systems isolated from other functional communities, particularly in a mobile environment. At the same time, we must cultivate strategic-minded 1C8 senior enlisted leaders to continue to forge the career field to meet NDS challenges. This adaptable and flexible mindset is currently integrated into many 1C8 mission sets and will be even more essential in future fights in which near-peer adversaries are increasingly probable.

**3.** Our 1C8 AFS does not fit neatly into any singular functional community but is expected to support the C-E maintenance of many mission sets. Despite this challenge our career field has become agile, advancing alongside technology and providing commanders with solutions for emerging C-E requirements. Therefore, we must continue prioritizing training throughout our community. We need to use a variety of learning platforms, hosting training events with nearby 1C8XXs but, overall, each Airman should continuously learn until achieving personal mastery on as many systems as possible. Our career field has many complex systems not standardized across the Air Force but expected of 1C8XXs with each assignment. To achieve this level of dynamic systems support and expertise, we must take advantage of every training opportunity. For these reasons, the 1C8 AFS relies heavily on its Senior Noncommissioned Officers, civilian experts, and work center managers to empower training programs and achieve true 5, 7, and 9-level mastery for those entrusted to their care.

4. The following is a breakdown of the 1C8 Career Field Education and Training Plan:

**4.1. Part I** of the CFETP provides the information necessary for the 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, experience, training, and others). Section D indicates resource constraints; some examples are funds, manpower, equipment, and facilities. Section E identifies transition training guide requirements for SSgt through MSgt.

**4.2. Part II** includes the resources and requirements necessary to meet training objectives. Section A identifies the Specialty Training Standard (STS) and includes duties, tasks, Training References (TR) to support training, AETC conducted training, wartime course and core tasks, and correspondence course requirements. Section B contains the Course Objectives List (COL) and training standards supervisors will use to determine if Airmen have satisfied training requirements. Section C identifies available support materials. For example, an Air Force Qualification Training Package (AFQTP), which may be developed to support proficiency training. Section D identifies a training course index supervisors can use to determine resources available to support training. Included here are both mandatory and optional courses. Section E identifies MAJCOM unique training requirements supervisors can use to determine additional training required for the associated qualification needs. At the unit level, supervisors and trainers will use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan.

**5.** The use of the guidance provided in this CFETP offers the foundation for effective and efficient training for individuals in this career field at the appropriate points in their careers. This plan enables the Air Force to train today's workforce for tomorrow's jobs.

### ABBREVIATIONS/TERMS EXPLAINED

This section provides a common understanding of the terms that apply to the RAWS CFETP.

Advanced Training (AT). Training is for selected Airmen at the advanced level of an AFS. A formal course of training leads to a technical or supervisory level of an AFS.

Air and Space Expeditionary Force (AEF). The AEF is the Air Force's methodology for organizing, training, equipping, and sustaining rapidly responsive air and space forces to meet defense strategy requirements. Through the AEF, consisting of enabler and tempo banded capabilities, the Air Force supports defense strategy requirements using permanently assigned and rotational (allocated) forces.

Air Education Training Command (AETC). Responsible for the recruiting, training, and education of Air Force personnel. AETC also provides pre-commissioning, professional military, and continuing education.

Air Force Career Field Manager (AFCFM). Representative appointed by the respective HQ USAF Deputy Chief of Staff or Under Secretariat to ensure that assigned Air Force specialties are trained and utilized to support Air Force mission requirements.

Air Force Enlisted Classification Directory (AFECD). The official directory for all military enlisted classification descriptions, codes, and identifiers. It establishes the occupational structure of the Air Force enlisted force. The occupational structure is flexible to permit enlisted personnel to specialize and develop their skills and abilities while allowing the Air Force to meet changing mission requirements. Individual enlisted personnel have a joint responsibility with commanders and supervisors at all levels to fully develop their abilities consistent with Air Force needs within established specialization patterns.

Air Force Job Qualification Standard (AFJQS). A comprehensive task list that describes a particular job type or duty position. The tasks on AFJQSs are common to all persons in the defined duty position. Supervisors use the AFJQS to document task qualification.

Air Force Qualification Training Package (AFQTP). An instructional course designed for use at the unit to qualify or aid qualification in a duty position, program, or on a piece of equipment. It may be printed,

computer-based, or other audiovisual media.

Air Force Specialty (AFS). A group of positions with the same title and code requires standardized qualifications.

Air University Associate-to-Baccalaureate Cooperative (AU ABC). Allows Airmen to turn a Community College of the Air Force Associates Degree into a Bachelor's degree from an accredited university. The ABC program has partnered with various civilian higher- education institutions to offer four-year degree opportunities via distance learning. The participating schools will accept all of the credits earned by Airmen who have attained a CCAF degree and apply them to a Bachelor's degree related to their Air Force specialty.

Air University/Air Force Career Development Academy (AFCDA). Manages Career Development Courses (CDC) for all active, reserve, and guard elements of the United States Air Force. Also manages specialized courses throughout the Department of Defense and civil service employees in federal agencies.

**Career Development Course (CDC).** A CDC provides the information necessary to satisfy the career knowledge component of on-the-job training. These courses are developed from references identified in the CFETP correlating with mandatory knowledge items listed in Enlisted/Officer Classification Directory. CDCs contain information on basic principles, techniques, and procedures common to an AFSC.

**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. CFETPs are officially posted at <u>https://www.e-publishing.af.mil/</u>.

**Chemical, Biological, Radiological, Nuclear (CBRN) Task Qualification Training (TQT).** CBRN TQT ensures personnel maintain proficiency in performing mission-critical tasks in a CBRN environment. See AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*, and AFI 10-2607, *Chemical, Biological, Radiological, and Nuclear Survivability* for additional information and requirements. See Part I, Section A, paragraph 6.2 for implementation guidance.

**Chief Enlisted Manager (CEM) Code.** CEM codes identify all Chief Master Sergeant positions in the Enlisted Classification Structure. They also identify Chief Master Sergeants who, through extensive experience and training, have demonstrated managerial ability to plan, direct, coordinate, implement, and control a wide range of work activities. Some administrative duties and responsibilities that are common to all chief enlisted managers are: managing and directing personnel resource activities; interpreting and enforcing policy and applicable directives; establishing control procedures to meet work goals and standards; recommending or initiating actions to improve functional operation efficiency; planning and programming work commitments, and schedules; developing plans regarding facilities, supplies, and equipment procurement and maintenance.

**Computer-Based Training (CBT).** A forum for training in which the student learns via a computer terminal. It is an effective training tool that allows the students to practice applications while they learn.

**Continuation Training.** Additional advanced training exceeds the minimum upgrade training requirements and emphasizes present or future duty assignments.

**Core Competency.** Observable, measurable pattern of knowledge, skills, abilities, behaviors, and other characteristics needed to perform occupational functions successfully (AFH 36-2647).

**Core Task.** A task AFCFMs identify as a minimum qualification requirement for everyone within an Air Force Specialty Code (AFSC), regardless of duty position. A core task may be specified for a particular skill level or across the AFSC. Guidance for using core tasks can be found in the applicable CFETP narrative.

**Course Objective List (COL).** A publication derived from the initial/advanced skills Course Training Standard (CTS) that identifies the tasks and knowledge requirements and standards provided to achieve a 3-skill level in this career field. Supervisors use the COL to assist in conducting graduate evaluations per DAFI 36-2670.

**Course Training Standard (CTS).** A standard developed for all courses not governed by an STS, including specialized training packages and computer-based training courses.

Cross Utilization Training. Training on non-duty AFSC-specific tasks.

**Defense Readiness Reporting System (DRRS).** A system used to establish a capabilities-based, adaptive, near real-time readiness reporting system for the DoD to measure the readiness of military units to meet missions and goals the Secretary of Defense assigned.

**Direct Reporting Unit (DRU).** Air Force subdivisions are directly subordinate to the CSAF. A DRU has a specialized and restricted mission, and is directly subordinate to the Chief of Staff, United States Air Force or to his delegated representative on the Air Staff. (Examples of DRUs: USAF Academy, AF District of Washington)

**Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTmLPF-P).** A tool that allows senior leaders the ability to analyze their organizational capabilities from the perspectives of "Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Policy" when making future strategic decisions.

**Duty Position Tasks.** The tasks assigned to an individual for the position currently held. These include, at a minimum, all core tasks that correspond to the duty position and tasks assigned by the supervisor.

**Dynamic System Support.** The commitment to excellence in a career field supporting multiple program elements and requiring an extensive mastery of technical skill to meet commander expectations.

Education and Training Course Announcement (ETCA). The ETCA contains courses the Air Force and reserve forces conduct or administers and serves as a reference for the Air Force, DoD, other military services, government agencies, and security assistance programs. The ETCA contains specific MAJCOM procedures, fund cite instructions, reporting instructions, and listings for those formal courses the MAJCOMs or Field Operating Agencies (FOAs) conduct or manage. ETCA website is located at https://usaf.dps.mil/teams/app10-etca/SitePages/home.aspx.

**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 Operating Agency (FOA). FOAs are subdivisions of the Air Force directly subordinate to a

Headquarters US Air Force functional manager. A FOA performs field activities beyond the scope of any of the MAJCOMs. The activities are specialized or associated with an Air Force-wide mission (examples of an FOA are the Air Force Inspection Agency and the Air Force Flight Standards Agency).

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

**Functional Area Manager (FAM).** The individual is accountable for managing and overseeing all personnel and equipment within a specific functional area to support operational planning and execution. Responsibilities include, but are not limited to, developing, and reviewing policy; developing, managing, and maintaining Unit Type Codes (UTC); developing criteria for and monitoring readiness reporting; force posturing; and analysis. At each level of responsibility (Headquarters Air Force, MAJCOM, Air Component, FOA, DRU, and Unit), the FAM should be the most knowledgeable and experienced person within the functional area and have the broadest range of visibility over the functional area readiness and capability issues.

**Functional Manager (FM).** Individuals are responsible for personnel training, classification, utilization, and career development. AFSC FMs exist at MAJCOM, NAF, and base level.

**Functional Manager Working Group (FMWG).** A meeting of the RAWS FM community, along with FAMs, Schoolhouse representatives, High Performance Teams (HPT), and subject matter experts to discuss emerging training needs and technologies. Used to identify action items to be addressed for STRTs and TAGs.

**Go/No-Go.** The "Go" is the stage at which a trainee has gained enough skill, knowledge, and experience to perform the tasks without supervision; meet the task standard. "No-Go" is the stage at which the trainee has not gained enough skill, knowledge, and experience to perform the task without supervision; does not meet task standards.

**Individual Training Plan (ITP).** Use AF Form 623, On-the-Job Training Record/AF Form 623B, or other approved records system (e.g., MyTraining). The AF Form 623 reflects past and current qualifications and determines training requirements. It is intended to be a complete history of past training and current qualifications. Supervisors will ensure all documentation is accurate and comprehensive.

**Integrated Maintenance Database System (IMDS).** An automated information system (AIS) utilized to document scheduled/unscheduled on-equipment/off-equipment maintenance through Equipment Status Reporting (ESR) and Job Data Documentation (JDD). Also used in procuring assets through the Standard Base Supply System (SBSS) and documentation of Time Compliance Technical Orders (TCTO) and documentation/tracking of work center personnel.

**Knowledge Training.** Training used to provide a base of knowledge for task performance. It may also be used in lieu of task performance when the training capability does not exist. It can be gained through reading, videos, or other information platforms rather than hands-on experience or a mentor/trainer.

**Major Command (MAJCOM).** A MAJCOM represents a major Air Force subdivision having a specific portion of the Air Force mission. MAJCOMs are interrelated and complementary, providing offensive, defensive, and support elements. Each MAJCOM is directly subordinate to HQ USAF.

Master Task Listing (MTL). A comprehensive list (100%) of all tasks performed within a work center,

consisting of the current CFETP or AFJQS and locally developed AF Forms 797. Also, it should include tasks required for deployment and/or UTC requirements.

**Master Training Plan (MTP).** Employs a strategy for ensuring the completion of all work center job requirements by using an MTL, providing milestones for task/CDC completion, and prioritizing deployment/UTC tasks, home station training tasks, upgrade tasks, and qualification tasks.

**MyTraining.** A web-based training application that provides Air Force warfighters with global, real-time visibility into professionals' qualifications, certifications, and training status. MyTraining supports base, wing, and work center training management activities by automating business processes and capabilities to eliminate paper-based practices. The system centralizes management of training task data, provides user access to CFETPs/AFJQSs, and increases security through a single AF Portal log-on.

**On-the-Job Training (OJT).** Hands-on, over-the-shoulder training that is conducted to certify personnel in upgrade (skill level award) and job qualification (duty position) training.

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

**Qualification Training.** Hands-on, task performance-based training designed to qualify Airmen in a specific duty position. This training program occurs during and after the upgrade training process and is designed to provide the skills training required to do the job.

**Radar Evaluation Squadron (RADES).** The Radar Evaluation Squadron evaluates, optimizes, and integrates fixed and mobile long-range sensors for operational and federal communities. Additionally, RADES sets the standard for coverage prediction and depiction and provides data analysis and unique radar forensics supporting search and rescue and aircraft mishap investigations. Squadron members ensure controllers have reliable and accurate sensor information for day-to-day operations, contingencies, and specialized activities such as counter-narcotics and search and rescue. Armed with technical experts, communicators, radar maintainers, specially trained surveyors, and operating locations at three NORAD Air Defense Sectors, the RADES is a significant contributor to all facets of air detection, air sovereignty, and command and control.

**Regional Maintenance Center (RMC).** Work centers that have centralized manpower at fixed locations using remote maintenance technology to maintain all ILS, TACAN, and VOR systems.

**Regional Management.** The concept for 1C8 SNCOs to cultivate relationships and advise on issues with nearby agencies outside of an assigned unit that impact the career field.

**Regional Training.** The practice of visiting and conducting training on systems outside the assigned unit but located close enough to host a training event. This concept is critical to overall knowledge retention and helps technicians meet 7-level expectations.

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

**Specialty Training Requirements Team (STRT).** A biannual meeting chaired by the AFCFM with MFMs, AETC Training Managers, Subject Matter Experts (SME), and HQ AETC Occupational Analysis Division (OAD) in attendance and typically held three months before a Utilization and Training Workshop

(U&TW) to finalize any CFETP changes or enlisted classification directory descriptions.

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

**Standard.** An exact value, a physical entity, or an abstract concept established and defined by authority, custom, or common consent to serve as a reference, model, or rule in measuring quantities or qualities, establishing practices or procedures, or evaluating results. It is a fixed quantity or quality.

**Task Qualification Training (TQT).** TQT in the task column indicates the task is a CBRN Defense Qualification Task IAW AFI 10-2501, *Emergency Management Program*. These tasks are only required for measured units that fulfill the description of a unit and have a Unit Descriptor Code (UDC) of combat, combat support or combat service support IAW AFI 38-101, *Manpower and Organization*. Units will determine the frequency of how often these tasks are assessed in order to maintain CBRN defense readiness.

**Total Force.** All collective components (active, reserve, guard, and civilian elements) of the United States Air Force.

**Training Advisory Group (TAG).** The TAG sets training goals and priorities, reviews training programs, and evaluates emerging training technologies. Chaired by the AFCFM and attended by the MAJCOM, selected DRUs, and FOA FMs. The group meets, as required, to prioritize training product development.

**Training Capability.** The capability of a training set to provide training on specified requirements, based on the availability of resources.

**Training Requirements Analysis (TRA).** A detailed analysis of tasks for a particular AFSC to be included in the training decision process.

**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.).

**Unit Type Code (UTC).** A five-character alphanumeric code identifying a specific force package of personnel and/or equipment. The UTC links logistics and manpower details within a unit type and is used to communicate force data. The UTC represents a wartime capability designed to fill a valid contingency requirement.

Upgrade Training. The training process leading toward the achievement of a higher skill level.

**Utilization and Training Pattern.** A depiction of the training provided to, and the jobs performed by, personnel throughout their tenure within a career field or AFS. There are two types of patterns:

1) Current pattern, which is based on the training provided to incumbents and the jobs to which they have been and are assigned; and

2) Alternate pattern, which considers proposed changes in manpower, personnel, and training policies.

Utilization and Training Workshop (U&TW). A forum of the AFCFM, MFMs, SMEs, and AETC

training personnel that determines career ladder training requirements. This is an executive decision meeting following the Specialty Training Requirements Team meeting.

**Wartime Tasks.** These tasks are only for those career fields that still need them applied to their schoolhouse tasks. Those tasks must be taught when courses are accelerated during wartime. In response to a wartime scenario, these tasks will be taught in the 3-level course in a streamlined training environment.

Weather System Support Cadre. Airmen who prepare to deploy with the skills to train and maintain existing weather systems across the world and test and validate emerging weather sensing technologies.

### SECTION A – GENERAL INFORMATION

1. Purpose of the CFETP. This CFETP provides the information necessary for AFCFMs, MFMs commanders, training managers, supervisors, and trainers to plan, develop, manage, and conduct an effective and efficient career field training program. The plan outlines the initial skills, upgrade, qualification, advanced, and proficiency training those individuals in AFSC 1C8X3 should receive to develop and progress throughout their careers. Initial skills training is the AFS-specific training an individual receives upon entry into the Air Force or upon retraining into this specialty for the award of the 3-skill level. This training is provided by the 334th Training Squadron (TRS) at Keesler AFB, MS. Upgrade training identifies the mandatory courses, task qualification requirements, CDC completion, and correspondence courses required for award of the 5-, 7-, or 9-skill level. 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 provides the performance skills and 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 provided to personnel to increase their skills and knowledge beyond the minimum required upgrade. The CFETP has several purposes, some of which are:

**1.1.** Serves as a management tool to plan, conduct, and evaluate a career field-training program.

**1.2.** Ensures established training is provided at the appropriate points in an individual's career.

**1.3.** 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.

1.4. Lists training courses available in the specialty, identify training sources and the training medium.

**1.5.** Identifies significant resource constraints that impact the desired career field training program implementation.

2. Use of the CFETP. The CFETP is reviewed annually and maintained by the 1C8X3 Air Force Career Field Manager (AFCFM), AF/A3OJ, MFMs, and AETC to ensure currency and accuracy. Any recommended changes may be forwarded to the AFCFM. Career field trainers at all levels use the plan to provide a comprehensive and cohesive training program available for each individual in the career ladder. Using the list of courses in Part II, they determine whether duplicate training exists and take steps to eliminate/prevent duplicate efforts.

**2.1.** AETC training management personnel develop/revise formal resident and exportable training based upon user requirements and documented it in the STS. They also build procurement and acquisition strategies for obtaining resources needed to provide the identified training.

**2.2.** MFMs ensure their training programs complement the CFETP for mandatory initial skill and upgrade requirements. They also identify the needed AFJQSs/AFQTPs to document unique upgrade and continuation training requirements. Requirements are satisfied through OJT, in-residence training, contract training, or exportable courseware/courses. MAJCOM-developed training to support this AFSC must be included in this plan.

**2.3.** 334 TRS Training Development section develops training packages (AFJQSs/AFQTPs) based on requests submitted by the MAJCOMs and according to the priorities assigned by the AFCFM. 334 TRS Training Development section also assists the AFCFM in the development of training courses.

**2.4.** Unit-level training managers and supervisors manage and control progression through the career field by ensuring individuals complete the mandatory training requirements for the upgrade specified in this plan and supplemented by their MAJCOM. The list of courses in Part II is used as a reference for planning continuation or career enhancement training.

**2.5.** Submit recommended CFETP corrections to the 334 TRS Training Development Section at 334 TRS/ULCQ, 610 Hangar Rd, Keesler AFB MS 39534-2235 or call DSN 597-4864; Comm (228) 377-4881. To contact electronically, send an email to: <u>334TRS.RAWS.UpgradeTraining@us.af.mil</u>

**2.6.** Submit recommended CFETP additions/deletions through your MFM.

**3.** Coordination and Approval of the CFETP. The AFCFM is the approval authority. MAJCOM representatives and AETC training personnel coordinate on the career field training requirements. The AETC training manager initiates an annual review of this document by AETC and MFMs to ensure the CFETP's currency and accuracy by using the list of courses in Part II to eliminate duplicate training.

### SECTION B - CAREER FIELD PROGRESSION AND INFORMATION

**4. Specialty Description.** The AFECD is the official document for career field progression and is <u>required</u> <u>reading</u> for all 1C8 personnel (CEM Code 1C800, 1C893 Superintendent, 1C873 Craftsman, 1C853 Journeyman, 1C833 Apprentice, & 1C813 Helper). The Air Force's MyPers site is the owner of this document. Utilize the following link for access: <u>https://mypers.af.mil/app/answers/detail/a\_id/7504/kw/afecd.</u>

**4.1.** *Chief Enlisted Manager.* This specialty "caps" at the Chief Master Sergeant level with those specialties that came up through the RAWS (1C8X3) career ladders. Personnel attaining the rank of CMSgt are assigned broad-ranging duties in directing and managing diverse RAWS functions.

**4.2.** *MAJCOM Functional Manager.* (AFI 36-2670, *Total Force Development*; AFMAN 36-2100, *Military Utilization and Classification; Air Force Enlisted Classification Directory*). Advises the MAJCOM and Air Staff on 1C8X3 utilization and training issues. Serves as the MAJCOM voting representative during career field STRT and U&TW. Coordinates all MAJCOM 1C8X3 staffing and manpower issues. Assists in gathering inputs and data to complete enlisted grade allocation for Career Progression Group (CPG) reviews. Guides subordinate units on 1C8X3 personnel issues. Assists with disseminating information regarding Air Force and career field policies, plans, programs, and procedures to subordinate units. Identify qualified subject matter experts to help develop Specialty Knowledge Tests (SKT) and the CDC. Acts as the primary MAJCOM reviewer on CDC training and classification waiver request packages.

**4.3.** *Air Force Career Field Manager.* (DAFPD 36-26, *Total Force Development Management*; AFI 36-2670, *Total Force Development*; AFMAN 36-2100, *Military Utilization and Classification*; *Air Force* 

*Enlisted Classification Directory*). Appointed by the Air Force Deputy Chief of Staff, Operations, Plans and Requirements Officer (HAF/A3). Advisor to the HAF/A3 on all matters affecting the RAWS career fields. Communicates directly with MFMs and AETC Training Managers to disseminate Air Force and career field policies and program requirements. Ensures development, implementation, and maintenance of the CFETP. Serves as the chairperson for the STRT/U&TW and uses it as a forum to determine and manage career field education and training requirements. Possesses final authority to waive CFETP requirements, including CDCs. Assists AETC training managers and course supervisors with planning, developing, implementing, and maintaining all AFSC-specific training courses. Assists in the development of AFSC-related manpower standards.

**5. Skill/Career Progression.** Adequate training and timely progression from the apprentice to superintendent skill levels play an essential role in the Air Force's ability to accomplish its mission. The 1C8X3 AFSC is adapting a phased training approach for completion of upgrade training at all levels, the details of which can be found in AFMAN 13-204v4. Everyone involved in training must do their part to plan, manage, and conduct an effective training program. The guidance in this part of the CFETP will ensure individuals receive viable training at appropriate points in their careers.

**5.1.** *Apprentice (3-Skill Level):* Individuals are awarded their 3-skill level upon completion of initial skills training (technical school). Apprentices work directly with qualified trainer(s) to enhance task skills and fundamental knowledge. Trainers and supervisors use standardized training plans and products (consisting of the STS, local MTL, AFJQS/AFQTPs) to train newly assigned apprentices systematically. The primary task of an apprentice is to certify on all skill level upgrade training tasks and attain position qualifications to become certified to work as a journeyman in designated positions.

**5.2.** Journeyman (5-Skill Level): Journeymen have achieved the core body of knowledge required to exploit training opportunities to continue refining their technical skills. Achieving this skill level enables a rapid ability to absorb new skills/knowledge and apply learned principles across new systems at various locations. Journeyman will enter qualification training to broaden their experience base by increasing their knowledge and skills in troubleshooting and solving more complex problems. Journeymen eventually serve as trainers and supervisors, in addition to performing the technical tasks of the career field. They perform a wide range of duties depending on their unit of assignment.

**5.3.** *Craftsman (7-Skill Level):* Craftsmen have progressed to technical experts in their career field and typically assume supervisory and management responsibilities while performing the technical tasks of the career field. They provide technical leadership to subordinates, establishing effective training programs for their work centers. They manage and adapt the use of resources efficiently to meet mission requirements. Craftsmen continue to increase their technical and leadership expertise through job experience, formal courses, OJT, and online training.

**5.4.** *Superintendent (9-Skill Level):* Superintendents have transcended the operational and strategic levels in their career field and drive the mission for their subordinates. These individuals will utilize their knowledge and experience to manage large, diverse personnel teams. Key knowledge areas include but are not limited to understanding National Defense Strategy, MAJCOM operations, Total Force 1C8 principles, RAWS manning, personnel management, and mission support functions.

**5.5.** *Training Collaboration/Communication:* Dissemination of 1C8 DOTMLPF-P actions will be distributed through official channels, MyVector messages, and included in the official 1C8 Portal Page. All collaboration and sharing of local best practices will occur on the "RAWS – 1C8X3" Microsoft Teams® site with clear ownership identified. All 1C8 collaboration will take place through Teams® and as a hybrid function during in person meetings.

**5.6.** *Enterprise Training Decisions:* The FMWGs are used to review emerging training needs and technologies, and to identify action items to be worked by teams prior to the STRT or TAG. All RAWS 9-levels are expected to attend the FMWGs. Training requirements and action item reviews are completed by the STRT, with final determination of career ladder training requirements made by the CFM at the U&TW. The TAG meets opposite of the STRT and U&TW, where prioritization of training products and initiatives are set by the CFM, MFMs, SMEs, and field representatives. Finally, the Strategic Workload & Action Group is intended to direct the functional work for the career field and develop the narrative for associated program element Executive Councils and is accomplished annually.

**5.7.** *1C8X3 Air Force Enlisted Career Path:* The following tables collectively complete the career field path and present education, training, and grade mandatory requirements for all aspects of the 1C8XX AFSC. Together, they provide enlisted RAWS personnel with a viable path/outline, which, if followed, should result in a highly successful career in the 1C8XX AFSC.

1C8X3 RAWS Career Field Path							
	Apprentice	Journeyman	Craftsman		Superinte	ndent	Chief
Rank							
High Year of Tenure	N/A	10 Years	20 Years	22 Years	24 Years	26 Years	30 Years
Farliast say on time	6 Months	30 Months	3 Years	5 Years	8 Years	11 Years	14 Years
(TIS)	16 Months						
1C 8X3 Average		2.6 Years	4.27 Years	8.8 Years	13.8 Years	18.29 Years	21.22 Years
Badges							
	3-Level PAFSC 1C 833	5-Level PAFSC 1C 853	7-Level PAFSC 1C 873		9-Level PAFSC 1C 893		PAFSC 1C800
Upgrade Training	Awarded Upon Graduation from Initial Skills Course	Complete CDCs Complete 5- Level Core Tasks	Min Rank of Complete 7-L Tasks Complete 7-L Training Cour	SSgt evel Core evel rse	Min Rank with 2 Ye Complete Core Tasl Complete project/ac	of MSgt ears TIG. 9-Level cs career field ption item	Min Rank of CMSgt

#### Table 1-1 – RAWS Career Field Path

Table 1-2 - Approved Career Field Duty Titles

1C8X3 RAWS Career Field Duty Titles						
	E4	E5	E6	E7	E8	E9
Air Staff				Manager, (Program) Deputy CFM	Manager, (Program) Superintendent Deputy CFM	1C8 AFCFM
MAJCOM				1C8 MFM 1C8 FAM Manager, (Program) Planner	1C8 MFM AFPC FM Manager, (Branch or Program) Planner 1C8 Career Field Functional Manager (CFFM) (ANG Only)	1C8 MFM IC8 Career Field Functional Manager (CFFM) (ANG Only)
NAF, FOA or Equivalent				Manager, (Program)	Manager, (Program)	Chief, (Program, Project or Policy)
Wing, Group			NCOIC, (Function)	Superintendent, (Program)	Superintendent, (Program)	Senior Enlisted Leader / CCC
Squadron	Supervisor Technician	NCOIC, (Function) Team Chief, (Function) Supervisor Technician	NCOIC, (Function) Team Chief, (Function) Supervisor Technician	Squadron Senior Enlisted Leader NCOIC, (Function)	Squadron Senior Enlisted Leader Maintenance Superintendent Flight Chief NCOIC, (Function)	Chief Enlisted Manager Squadron Senior Enlisted Leader Chief of Maintenance
Detachment / Flight / Section		Shift Supervisor I&E Evaluator NCOIC, (Function)	NCOIC, (Function) Supervisor I&E Evaluator	DET/Flight/Section Chief NCOIC, (Function) DET Senior Enlisted Leader	DET/Flight/Section Chief DET Senior Enlisted Leader	
AETC Training Squadron		Instructor Curriculum Developer	Instructor Supervisor Instructor Curriculum Developer NCOIC, (Function)	1C8 Training Manager Section Chief, Training Development Instructor Supervisor Instructor	Squadron Senior Enlisted Leader Flight Chief	
Regional Maintenance Center ( RMC )	Technician	Team Chief, RMC Supervisor, RMC Technician, RMC	Team Chief, RMC Supervisor, RMC Technician, RMC	Manager, CONUS/Europe/Pacific RMC Manager, Plans & Programs Manger, Current Operations	Superintendent Operating Location Chief	
Weather Systems Support Cadre	Technician	Team Chief, WSSC Supervisor, WSSC Technician, WSSC	Team Chief, WSSC Supervisor, WSSC Technician, WSSC	Manager, WSSC	Superintendent Operating Location Chief	

NOTE: All deviations require AFCFM approval (submitted through MFMs to the AFCFM); the AFCFM maintains the Master List. Personnel not filling a position identified above will use "RAWS Apprentice," "RAWS Journeyman," or "RAWS Craftsman," depending on skill level, and all other duties will be placed in the individual's EPR outside of the duty title.

**5.8** *RAWS Enlisted Force Development Roadmap:* Figure 1.1 below illustrates some of the development types that should be focused upon at each grade level (**Disclaimer**: Development is not necessarily displayed in the order in which it will be completed, and paths may contain requirements that limit availability).



**6. Training Decisions.** This CFETP was developed to encapsulate an entire spectrum of training requirements for the RAWS career field, using a building block approach (simple to complex). This spectrum includes the strategy of when, where, and how to meet the training requirements. The strategy must be apparent and affordable to reduce duplication of training and eliminate a disjointed approach to training.

**6.1.** *Proficiency Training*. This training is job qualification for an assigned duty position. Additional qualification training becomes necessary when personnel transfer to another duty position, the unit mission changes, a new personnel program comes on board, or any time changes in techniques or procedures occur.

**6.1.1.** *AFJQSs/AFQTPs*. The 334 TRS/ULCQ Training Development Section develops AFJQSs/AFQTPs to support tasks relating to RAWS functions and duties. Completing AFJQSs/AFQTPs is mandatory by duty position for personnel in upgrade or qualification training.

**6.1.2.** *5-Level CDCs.* CDCs are restricted to seven volumes split into two sets. Table 1-3 outlines 5- Level CDC contents:

1C853 - Set A		
VOLUME 1	Introduction to the 1C8X3 Career Field	
VOLUME 2	Introduction to Radar Systems	
VOLUME 3	Fixed Radar Systems	
VOLUME 4	Deployable RAWS	
	1C853 - Set B	
VOLUME 5	Duties, Transmit/Receive Fundamentals, Test Equipment, and Airfield	
	Configuration and Layout	
VOLUME 6	Air Traffic Control Navigation Systems	
VOLUME 7	Standard Maintenance Practices; Meteorological, Air Traffic Control, and	
	Tactical Airfield Systems	

Table 1-3 - RAWS 5-Level CDCs

**6.1.3.** AFQTP1C8X3-201D (Work Center Manager's Handbook) is restricted to one volume. Table 1-4 outlines the 7-Level AFQTP contents:

	······································
MODULE 1	RAWS Management
MODULE 2	RAWS Work Centers
MODULE 3	Work Center Programs
MODULE 4	Training Management
MODULE 5	IMDS Management
MODULE 6	Project and Program Management
MODULE 7	Budget and Manpower Management
MODULE 8	Deployment Management

 Table 1-4 - RAWS 7-Level Qualification Training Package AFQTP1C8X3-201D

**6.2.** *CBRN TQT.* Certification of CBRN TQT requirements is outlined in DAFI 36-2670 and AFI 10-2501. Any core task within this CFETP that has a proficiency level of 1, 2, 3, or 4 within the CFETP is appropriate for evaluation under TQT and should be subject to supervisor's determination based on local

conditions and equipment. Supervisors must tailor task selection based on the Airman's assigned UTC. AFJQS critical tasks will be identified within the AFJQS task lists, and must be tailored based on UTC, MAJCOM-specific, or local requirements. Work centers will identify additional TQT tasks as required.

7. Community College of the Air Force (CCAF) Academic Programs. CCAF is one of several federally chartered degree-granting institutions. It is a 2-year institution exclusively serving military enlisted personnel. The college 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. It is the largest multi-campus community college in the world. Upon completion of basic military training and assignment to an AF career field, all enlisted personnel are registered in a CCAF degree program and are allowed to obtain an Associate in Applied Science degree. To be awarded, degree requirements must be completed before the student separates from the Air Force, retires, or is commissioned as an officer. See the CCAF website for details regarding the AAS degree programs at https://www.airuniversity.af.edu/Barnes/CCAF/

**7.1.** *CCAF Degree Requirements.* All enlisted Airmen are automatically entered into the CCAF program. Before enrolling in an associate degree, the 5-level must be awarded. For degree requirements, see the local education office.

**7.2.** *Professional Certifications.* Certifications assist the professional development of our Airmen by broadening their knowledge and skills. It also helps Airmen better prepare for the transition to civilian life. Additionally, specific certifications may award collegiate credit by CCAF and civilian colleges, saving time and Air Force tuition assistance funds.

**7.2.1.** *Cybersecurity Workforce Certifications.* The 1C8 career field has cybersecurity workforce requirements identified as special experience identifiers (SEIs) on the position number (specifically SEI-264, IAT Level 2 for technicians). Personnel assigned to those positions should follow DoD Directives and complete certification training requirements.

**7.2.2.** 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.

**7.2.3.** 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 in developing and managing CCAF courses. The certification also acknowledges the individual's ISD qualifications and experience in planning, developing, implementing, and managing instructional systems.

**7.2.4.** Air Force Credentialing Opportunities On-Line (AF COOL). CCAF manages the AF COOL Program. It provides a research tool designed to increase an Airman's awareness of national professional credentialing and funding opportunities available for all Air Force occupational specialties. It provides

information on specific occupational specialties, civilian occupational equivalencies, AFSC-related national professional credentials, credentialing agencies, and professional organizations. It contains information about credentialing and licensing and can be used to learn more about AF COOL and funding processes. AF COOL will pay up to \$4,500 to obtain civilian industry recognized credentials and licensures for enlisted Air Force members. Visit <u>https://afvec.us.af.mil/afvec/public/welcome</u> for more information.

- Get background information about civilian licensure and certification in general and specific information on individual credentials, including eligibility requirements and resources to prepare for an exam.
- Identify licenses and certifications relevant to an AFSC.
- Learn how to fill gaps between Air Force training and experience and civilian credentialing requirements.
- Get information on funding opportunities to pay for credentialing exams and associated fees.
- Learn about resources available to Airmen that can help them gain civilian job credentials.
- The Department of Veterans Affairs (VA) also has licensing and certification benefits that can be used, to include the GI Bill. Visit <u>https://benefits.va.gov/gibill/</u> for more information.

**7.3.** General Education Mobile (GEM) / Air University Associate-to-Baccalaureate Cooperative (AU-ABC): The GEM program connects CCAF students with online general education courses by regionally accredited colleges and universities. The AU-ABC program connects CCAF graduates with online 4-year degree programs. The AU-ABC program includes postsecondary schools with regional accreditation and national accreditation through the Distance Education and Training Council.

### SECTION C – SKILL LEVEL TRAINING REQUIREMENTS

8. Specialty Qualification Requirements: The various skill levels in the career field are defined in tasks and knowledge requirements for each skill level in the RAWS career field. They are stated in broad, general terms and establish performance standards. Core tasks, knowledge items, and skill requirements for this specialty are identified in the STS, COL, CDCs, AFJQSs/AFQTPs, etc. Completing the mandatory 3-Level skill awarding course, 7-Level skill awarding course, CDCs, and applicable core tasks define this specialty's Air Force core tasks. The following Tables determine the knowledge requirements for each skill level within the RAWS AFSC. Task requirements can be found in Attachment 2 of this document.

Table 1-5 - Apprentice (3-Level) Training

KNOWLEDGE	Knowledge is mandatory of electronic principles and digital techniques including (but
	not limited to):
	- Principles of Meteorological, Radar, Radio, and Navigation Systems Maintenance.
	- Analog and digital electronic circuits.
	- Maintenance data processing systems.
	- Air Force maintenance and supply procedures.
	- Mathematics principles required to solve electronic formulas.
	- Basic troubleshooting techniques.
	- Use of technical data and blueprints.
	- Principles and use of test equipment and diagnostic systems.
	- Radio frequency principles.
	- Basic soldering techniques.

EDUCATION	Completion of a High School Diploma or Equivalent is mandatory. Additional Courses in Mathematics, Physics, and Basic Knowledge of Electronic Principles, Computers, and Networks are desirable.
TRAINING	For the award of AFSC 1C833, completion of the RAWS Initial Skills Course is mandatory.
EXPERIENCE	None required.
OTHER	Normal color vision as defined in DAFMAN 48-123, <i>Medical Examination and Standards</i> , and the ability to obtain a government license in accordance with AFI 24-301, <i>Ground Transportation</i> . Physical ability to perform climbing duties and freedom from fear of heights. Completion of a current T3 Investigation required IAW DoDM 5200.02_AFMAN 16-1405, <i>Air Force Personnel Security Program</i> , is mandatory. Must maintain local network access IAW AFI 17-130, <i>Cybersecurity Program Management</i> and AFMAN 17-1301, <i>Computer Security</i> .
IMPLEMENTATION	Attendance at the RAWS Apprentice course is mandatory for award of the 3-skill level unless waived by the AFCFM. For ANG, the 1C8 CFFM is the waiver approval authority.

### Table 1-6 - Journeyman (5-Level) Training

KNOWLEDGE	All 1C833 knowledge qualifications apply to the 1C853 requirements. Completion of the 1C853 Career Development Course (CDCs).
TRAINING	No mandatory AETC training courses are required for upgrade. Completion of all STS core tasks.
EXPERIENCE	Qualification in and possession of AFSC 1C833. Experience in Performing Testing, Calibrating, Cabling, or Repairing RAWS, Associated Communications, and Identification Equipment. Operating RAWS. Completion of applicable AFJQSs/AFQTPs. Completion of all local tasks assigned for the duty position.
OTHER	Normal color vision as defined in DAFMAN 48-123, <i>Medical Examination and</i> <i>Standards</i> , and the ability to obtain a government license in accordance with AFI 24- 301, <i>Ground Transportation</i> . Physical ability to perform climbing duties and freedom from fear of heights. Completion of a current T3 Investigation required IAW DoDM 5200.02_AFMAN 16-1405, <i>Air Force Personnel Security Program</i> , is mandatory. Must maintain local network access IAW AFI 17-130, <i>Cybersecurity Program</i> <i>Management</i> and AFMAN 17-1301, <i>Computer Security</i> . Ability to obtain designated Cybersecurity SEI IAW AFMAN 17-1303, AF Cybersecurity Workforce Program.
IMPLEMENTATION	Entry into formal journeyman upgrade training is accomplished once individuals are assigned to their first duty station. Qualification training is initiated anytime individuals are assigned duties for which they are not qualified. Use CDCs, CBTs, and AFJQSs/AFQTPs concurrently to obtain the necessary qualification for refresher and cross-utilization training.

#### Table 1-7 - Craftsman (7-Level) Training

KNOWLEDGE	All 1C853 knowledge qualifications apply to the 1C873 requirements.
	Completion of Work Center Manager's Course or CDCs (Reserve/ANG only).

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TRAINING	Completion of all STS core tasks.
	Completion of AFQTP 1C8X3-201D.
	Completion of AETC 7-Level Work Center Manager's Course's E6ACW1C873 07AA
	& E3ACR1C873 07AA. Mandatory for upgrade to 7-Level, per AFCFM. (Air
	Reserves/ANG are not required to attend the 7-Level course and can satisfy the
	training requirement through completion of the 7-Level 1C873 CDCs.)
EXPERIENCE	Qualification in and possession of AFSC 1C853. Experience performing or supervising
	functions such as project management, siting, installing, repairing, deploying,
	overhauling, modifying, or flight inspecting RAWS and associated communications
	and identification equipment.
	Completion of applicable AFJQSs.
	Completion of all local tasks assigned for the duty position.
OTHER	Normal color vision as defined in DAFMAN 48-123, Medical Examination and
0 THER	Standards, and the ability to obtain a government license in accordance with AFI 24-
	301, Ground Transportation. Physical ability to perform climbing duties and freedom
	from fear of heights. Completion of a current T3 Investigation required IAW DoDM
	5200.02 AFMAN 16-1405, Air Force Personnel Security Program, is mandatory.
	Must maintain local network access IAW AFI 17-130, Cybersecurity Program
	Management and AFMAN 17-1301, Computer Security.
	Ability to obtain designated Cybersecurity SEI IAW AFMAN 17-1303, AF
	Cybersecurity Workforce Program.
IMPLEMENTATION	Entry into OJT is initiated when individuals obtain the necessary rank and skill level.
	Qualification training is initiated anytime an individual is assigned duties for which they
	are not qualified.
	Use AFJQSs/AFQTPs concurrently to obtain the necessary qualification for
	refresher and cross-utilization training.

### Table 1-8 - Superintendent (9-Level) Training

KNOWLEDGE	All 1C873 knowledge qualifications apply to the 1C893 requirements.
TRAINING	No mandatory AETC training courses are required for upgrade.
	Completion of all STS core tasks.
	Completion of AFQTP 1C8X3-201E and associated AETC XXXXX course Mandatory for
	upgrade to 9-Level, per AFCFM.
EXPERIENCE	Qualification in and possession of AFSC 1C873.
	Managing or directing functions such as installing, maintaining, repairing, or modifying the
	various RAWS and related equipment.
	Completion of applicable AFJQSs.
	Completion of all local tasks assigned for the duty position.
OTHER	Completion of a current T3 Investigation required IAW DoDM 5200.02_AFMAN 16-
0.11111	1405, Air Force Personnel Security Program, is mandatory.
	Must maintain local network access IAW AFI 17-130, Cybersecurity Program
	Management and AFMAN 17-1301, Computer Security.
	Ability to obtain designated Cybersecurity SEI IAW AFMAN 17-1303, AF
	Cybersecurity Workforce Program.
	Completion of Career Field project/action item (ref. para. 8.1.3).
IMPLEMENTATION	Entry into OJT is initiated when individuals have met the MSgt 2-year TIG requirement
	or are selected for the rank of SMSgt. Qualification training is initiated anytime
	individuals are assigned duties for which they are not qualified.

**8.1.** *Training Sources:* There are several training resources available in the career field. The following are some examples of training types, as well as where each item can be located:

**8.1.1.** AFSC Specific Training - 334 TRS, Keesler AFB, MS at <u>https://usaf.dps.mil/teams/app10-etca/SitePages/home.aspx</u>.

**8.1.2.** *Career Development Courses* – The 1C853 CDCs are available for enrollment through the Air Force Career Development Academy, located on myLearning. For Air National Guard and Air Reserve personnel requiring the 1C873 CDC, that course is also available for enrollment through the same source. Coordination with the Unit Training Manager is required to enroll in CDCs for upgrade training purposes.

**8.1.3.** *Career Field Projects and Action Items* – A list of current projects and actions items identified by the 1C8 senior leaders during official working groups can be found on the RAWS Portal: <u>https://www.my.af.mil/gcss-</u>

<u>af/USAF/ep/globalTab.do?channelPageId=s0A43E677726CDFF30172A4CAC3D3015E</u>. Although all 1C8s will be actively involved in the advancement of the career field through this initiative, SNCOs in 9-level UGT must complete a project IAW business rules associated with the action item.

**8.1.4.** *Air Force Job Qualification Standards and Qualification Training Packages* - AFJQSs/AFQTPs are Air Force publications and are mandatory for personnel in upgrade or qualification training. They are developed by the 334 TRS/ULCQ Training Development Section, Keesler AFB, MS, and may be downloaded from the RAWS Dashboard at the following link:

https://usaf.dps.mil/:f:/r/teams/aetc-ksl-

81trg/334/ULC/Documents/RAWS/1C8X3?csf=1&web=1&e=TXc9m0.

Procedures for requesting the development of AFJQSs/AFQTPs are contained in AFMAN 13-204v4, *Radar, Airfield, and Weather Systems*.

**8.2.** Occupational Badges: The 1C8 RAWS occupational badge has the same eligibility criteria as other occupational badges. Enlisted RAWS personnel may wear the basic badge after finishing technical school. Enlisted RAWS personnel earn the right to wear the senior badge after being awarded the 7-skill level. Master badges are awarded to RAWS Master Sergeants with two years TIG, have at least two years of experience in the specialty at the 7-skill level and have completed all 9-level core training requirements.

### SECTION D – RESOURCE CONSTRAINTS

**9. Purpose**. This section identifies known resource constraints that preclude optimal/desired training from being developed or conducted, including information such as part numbers, national stock numbers, number of units required, cost, manpower, etc. Included are narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training. Finally, this section includes actions required, OPR, and target completion date. Resource constraints will be, at a minimum, reviewed and updated annually.

### 10. Apprentice Level Training.

**10.1.** The AN/TMQ-53 Tactical Meteorological Observing System (TMOS), 1C8X3-201T JQS and AN/TRN-41 Tactical Navigation System, 1C8X3-205K constrained to complete setup, teardown, configuration, and

operation until systems arrive at the Schoolhouse. The equipment should arrive when this CFETP is signed. POC is 334 TRS/ULCQ.

**10.2.** Integrated Maintenance Data System (IMDS). IMDS system is not able to provide a training account for students to practice maintenance tasks. The Database Manager associated with the Schoolhouse must create a dummy account for the students to utilize and learn how to properly use IMDS. There is no ETIC at this time and POC is 1C8 AFCFM.

**10.3.** Support Equipment. There are support equipment in the Schoolhouse that need to be replaced with newer items currently in use by the career field. Due to the constrictions in the supply system for many SE items, the Schoolhouse will need to replace items in a prudent manner to ensure the field has the appropriate items and that the students can still understand the general theory behind SE usage. There is no ETIC at this time and POC is AFCFM.

#### 11. Journeyman Level Training.

**11.1.** CBRN TQT Tasks have not yet been identified in all AFJQSs. These tasks are being identified during the normal 2-year AFJQS refresh cycle via inputs from subject matter experts in the field. If CBRN TQT tasks are not already identified within the AFJQS, supervisors are expected to tailor task selection based on UTC, MAJCOM, or locally directed requirements. Estimated completion date for all 1C8X3 AFJQSs is December 2024. POC is 334 TRS/ULCQ.

**11.2.** AFJQS XXXX-200TBA Training Business Area (TBA). TBA is no longer available and its replacement, myTraining, is not functioning at Full Operational Capability (FOC). Latest ETIC for resolution is end of FY2023. POC is 81 TRSS/TRSQ.

**11.3.** ANG unique systems. Joint Threat Emitters (JTE) do not have a JQS/QTP or tasks listed in the CFETP. ETIC is July 2023. POC is 334 TRS/ULCQ.

**11.4.** AFJQS 1C8X3-205W Enhanced Terminal Voice Switch. The AM-48 support equipment is routinely not serviceable and few replacements in stock which limits 1C8 UGT on the tasks associated.

**11.5.** AFJQS Deployable Instrument Landing System (D-ILS), 1C8X3-203F. Centralized training at a deployable unit limits the fields' ability to train during contingencies. Although an AETC training detachment for RAWS deployable systems was being established, costs were too high for implementation. There are limited experts in the field (i.e., some RMC personnel and 53rd ATCS civilians). There is no ETIC at this time and POC is 1C8 AFCFM.

**11.6.** TPN-19 AFJQS 211Q, TPS-75 Mobile Radar Set AFJQS 211P, MPN-14K AFJQS 1C8X3-211G, and D-ILS AFJQS 1C8X3-203F. Costs associated with setup and tear down can be extensive. There is a resource constraint in the number of times this system can be deployed and operated. There is no ETIC at this time and POC is ACC/A3AO & A3CG; NGB/A3.

**11.7.** Support Equipment. There are limited signal generators in the field with long lead times for replacements. This constraint impacts multiple systems and prevents power measurement hands-on UGT completion. There is no ETIC currently and the POC is HQ AFFSA/XL.

11.8. DASR Support Equipment. There is limited DASR support equipment in general with

workcenters needing to share equipment to accomplish maintenance and training. The ability to complete training in a timely manner is significantly impacted by this limited resource. There is no ETIC currently and the POC is HQ AFFSA/XL.

### 12. Craftsman Level Training.

**12.1.** CBRN TQT Tasks have not yet been identified in all AFJQSs. These tasks are being identified during the normal 2-year AFJQS refresh cycle via inputs from subject matter experts in the field. If CBRN TQT tasks are not already identified within the AFJQS, supervisors are expected to tailor task selection based on UTC, MAJCOM, or locally directed requirements. Estimated completion date for all 1C8X3 AFJQSs is December 2024. POC is 334 TRS/ULC.

**12.2.** Course E3ACR1C873 07AA (RAWS Work Center Manager). The software currently used to teach equipment siting criteria for the expeditionary exercise of the course is not robust enough to meet training objectives (e.g., limited software interface, lack of accurate siting data, missing equipment profiles). The schoolhouse is working with the 81 TRSS/TRSQ on updating current software and develop new training tools, such as immersive virtual reality solutions, to meet training requirements. Latest ETIC for resolution is end of FY2024. POC is 334 TRS/ULC.

**12.3.** Course E5AZG1C853 01NA (WSR-88D Weather Radar Maintenance). Seat availability is limited and fully qualified NEXRAD technicians are in high demand. The requirement is for two technicians to remain fully qualified at every NEXRAD location, but this occurs very seldomly. There is no ETIC and POC is ACC/A3AO.

#### 13. Superintendent Level Training.

**13.1.** CBRN TQT Tasks have not yet been identified in all AFJQSs. These tasks are being identified during the normal 2-year AFJQS refresh cycle via inputs from subject matter experts in the field. If CBRN TQT tasks are not already identified within the AFJQS, supervisors are expected to tailor task selection based on UTC, MAJCOM, or locally directed requirements. Estimated completion date for all 1C8X3 AFJQSs is December 2024. POC is 334 TRS/ULC.

### 14. General Training.

**14.1.** The electronics and computer principal lessons with the CFETP are passed down from training references in the past without specific industry standards identified. The career field requires an industry standard organization to ensure electronics are keeping up with the latest technology. There is no ETIC and POC is 334 TRS/ULC.

**14.2.** There are some systems that RAWS personnel support that will be included in the future but require DOTmLPF-P planning before inclusion. This is a training restraint since initiating a formal training course/document requires inclusion into the RAWS portfolio. Some of the systems include counter small unmanned aerial systems (C-sUAS), small unmanned aerial systems (sUAS), over-the-horizon radars (OTR), and other systems or tasks (Electronic Protection Technician certification) that require electronics technicians due to loss of contract maintenance, lack of associated career field specialty, or other reasons. MAJCOMs should ensure all appropriate training and safety measures are conducted until a formal plan is complete. POC is 1C8 CFM, no ETIC.

### SECTION E – TRANSITION TRAINING GUIDE

**15.** Current 5 and 7-Level Airmen must complete all core tasks identified in this CFETP within the timeline established by AFCFM guidance. Guidance at the time of publishing this CFETP states that the timeline to reach 5-Level is a minimum of 12 months (a minimum of 9 months if retraining into the 1C8X3 AFSC), and the timeline to complete 7- Level is a minimum of 6 months (a minimum of 6 months if retraining). Additional information can be located on the Air Force Portal's RAWS Functional Area: <a href="https://www.my.af.mil/gcss-af/USAF/site/RAWS">https://www.my.af.mil/gcss-af/USAF/site/RAWS</a>.

### **PART II**

### SECTION A - SPECIALTY TRAINING STANDARD

**1. Implementation.** This STS will be used for technical training provided by AETC for the Initial Skills Training course (with varying shred-out options) and the 7-/9-Level Skill Awarding courses.

2. Purpose. As prescribed in DAFI 36-2670, this STS provides:

**2.1.** *Task, Knowledge, and Technical Reference.* Column 1 the most common tasks, knowledge, and Training References (TR) necessary for Airmen to perform duties in the 3-, 5-, 7- and 9-skill levels.

**2.2.** *Core Tasks*. Column 2 identifies, by skill level, specialty-wide training requirements and wartime tasks. **NOTE:** Core tasks are minimum task training requirements for skill level upgrade.

**2.3.** *Provides certification for OJT.* Use automated training management systems to document technician qualifications, if available. Column 3 records the completion of tasks and knowledge training requirements. For initial certification or transcribing documentation, complete the columns per DAFI 36-2670.

**2.4.** *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(s).

**NOTE:** Career Development Courses (CDCs) are located at the Air Force myLearning Air Force Career Development Academy (<u>https://lms-jets.cce.af.mil/moodle/</u>); Initial Skills Training (IST) and Upgrade Training (UGT) course information is found at: <u>https://usaf.dps.mil/teams/app10-etca/SitePages/home.aspx</u>.

**2.5.** *Qualitative Requirements.* Attachment 1 contains the tasks, knowledge, and proficiency levels referenced in paragraph 2. Columns are marked with a proficiency code to indicate the subjects taught. A (-) in the proficiency code column indicates a lack of student man-years and instructor resources. Trainees without prerequisites specified in Education and Training Course Announcement (ETCA) cannot be expected to meet the proficiency levels indicated.

**2.6.** Job Qualification Standard (JQS): The JQS is used for on-the-job training when placed in AF Form 623, *Individual Training Record Folder*, and used according to DAFI 36-2670.

**2.7.** *Specialty Training Standard (STS):* The STS is used as a guide to develop tests used in the Weighted Airman Promotion System (WAPS) Specialty Knowledge Tests (SKT). SNCOs with extensive practical experience in their career field develop questions at the Airmen Advancement Division. The tests sample STS subject matter areas judged by the test development team as most appropriate for promotion to higher grades. Questions are based on study references in the Enlisted Promotion References and Requirements Catalog (EPRRC). Individual responsibilities are listed in chapter 4 of AFMAN 36-2664, Personnel Assessment Program. WAPS does not apply to the Air National Guard or Air Reserve Forces.

3. Recommendations. Comments and recommendations are invited concerning the quality of AETC

training. The Training Feedback Hotline is available for supervisors' feedback. Call the Training Feedback Hotline at DSN 597-4566 or e-mail at 81trg.tge@us.af.mil. Reference this STS and identify the specific area of concern (paragraph, training standard element, etc.).

### SECTION B - COURSE OBJECTIVE LIST

**4. Measurement.** The knowledge required for each objective is indicated as follows: "W" indicates task or subject knowledge, which is measured using a written test, PC indicates required task performance, which is measured with a performance progress check, and PC/W indicates separate measurement of both knowledge and performance elements using a written test and a progress check.

**5. Standard.** The standard is 70% on written examinations. Standards for performance measurement are indicated in the objective and delineated on the individual progress checklist. Instructor assistance is provided during the progress check, and students may be required to repeat all or part of the behavior until satisfactory performance is attained.

**6. Proficiency Level.** Most task performance is taught to the "2b" proficiency level, which means the student can do most parts of the task but does need assistance on the more complex elements of the task (partially proficient). The student can also determine step-by-step procedures for doing the task.

**7. Course Objectives**. The course objectives are listed in the sequence taught by block of instruction. A detailed list of course objectives may be obtained by written request to 334 TRS/TRR, Keesler AFB MS, 39534-2335.

### SECTION C – SUPPORT MATERIALS

**8.** The list of support materials found in the link below is not all-inclusive; however, it covers the most frequently referenced areas. Procedures for requesting product development are found in AFMAN 13-204 v4 and DAFI 36-2670.

**8.1.** AFJQSs/AFQTPs applicable to AFSC 1C8X3 family are available on the RAWS Dashboard: <u>https://usaf.dps.mil/:f:/r/teams/aetc-ksl-</u> <u>81trg/334/ULC/Documents/RAWS/1C8X3?csf=1&web=1&e=TXc9m0</u>.

### SECTION D – TRAINING COURSE INDEX

**9. Purpose.** This section of the CFETP identifies training courses available for continuation/supplemental training. For information on all formal courses, refer to the Air Force ETCA database at <u>https://usaf.dps.mil/teams/app10-etca/SitePages/home.aspx</u>.

**10.** Air Force In-Residence Courses. See Table 2-1 below for available Air Force In-Residence course information. Refer to ETCA for further course details.

Course Number	Course Title	Location
E6ACW1C873 07AA	RAWS Work Center Manager (Prerequisite)	On-Line
E3ACR1C87307AA	RAWS Work Center Manager (Resident)	Keesler AFB, MS
E3AZR1C853 03SA	Standard Terminal Automation Replacement System (STARS) Maintenance	Keesler AFB, MS
E3AZR1C853 03DA	Digital Airport Surveillance Radar (DASR) Maintenance	Keesler AFB, MS
E3AZR1C853 03EA	Enhanced Terminal Voice Switch (ETVS)	Keesler AFB, MS
E3AZR1C8XX 00DA	High Reliability Soldering and Connectors	Keesler AFB, MS
J3AZR1D753 0C0B	Tower Climbing and Tower Certifier Training Course	Sheppard AFB, TX
J8AZR3D157 0F5A	Fiber Optic Cable Installation, Splicing and Maintenance	Sheppard AFB, TX
E6ANW3DXXX 00QA	Cyberspace Support Quality Assurance Procedures (Prereq.)	On-Line
E3AZR3DXXX 00QA	Cyberspace Support Quality Assurance Procedures (Res)	Keesler AFB, MS
E3AZR3DXXX 00PB	Cyberspace Project Management	Keesler AFB, MS

Table 2-1 - Air Force Courses

### 11. Air University Courses. For current Air University courses go to:

https://www.airuniversity.af.edu/Registrar/#air-university-catalog

**12. Exportable Courses.** Current RAWS CBTs available at <u>Air Force myLearning (https://lms-jets.cce.af.mil/moodle/)</u>.

#### 13. National Weather Service Course. http://www.nws.noaa.gov/training

Table 2-2 – Weather Service Course									
E5AZG1C853 01NA	WSR-88D Weather Radar Maintenance (R-4006)	Kansas City, MO							

#### 14. Federal Aviation Administration Courses: <u>https://www.academy.jccbi.gov/catalog/</u>

#### Table 2-3 – Federal Aviation Administration Courses

FAA 41916001	ILS Concepts	Oklahoma City, OK
FAA 40066	ETVS	Oklahoma City, OK
FAA 40081001	Charles 360-80 Channel Bank	Oklahoma City, OK
FAA 40391	Airport Surveillance Radar (ASR)-9 SCIP	Oklahoma City, OK
FAA 40408	Air Route Surveillance Radar (ARSR)-4 Hardware	Oklahoma City, OK
FAA 40398	Mode S Sensor Maintenance	Oklahoma City, OK

### **SECTION E – MAJCOM UNIQUE REQUIREMENTS**

**15. MAJCOM Provided Courses:** The following MAJCOM-provided courses are available to support RAWS training. They are open to all active, reserve, and guard military and civilians.

Course	Location	<b>Contact Information</b>			
ASOS Maintenance Course	Kansas City, MO	http://www.nws.noaa.gov/training			
TACAN CHOT & Mark 20A Instrument Landing System Course	Ramstein AB, Germany	HQ USAFE/AFETS DSN: 314-489-7450/6921			
AN/FMQ-7 Maintainer Course	Holloman AFB	1441 Observatory Road Holloman AFB, NM 88330 DSN: 572-3461			
AN/FRR-95 and Solar Radio Spectrograph Maintainer Course	Hamilton, MA	305 Sagamore Street Hamilton, MA 01982 DSN: 478-4602; Comm: (781) 377-4600			
USAF Landing Zone Operations Course	Scott AFB, IL	USAFEC/435th TRS DSN:576-6288 Comm: (618) 256-6411			
D-RMC & Portable Doppler Radar	Kapaun AB, Germany	HQ AFFSA/XMRE DSN: 314-489-6921			
(PDR) JTT	Ramstein AB, Germany	Ist Combat Communications Sq DSN: 314-480-1720			

Table 2-4 - MAJCOM Provided Courses

**16. Lightning Force Academy:** The Lightning Force Academy (LFA) provides courses to support all 1C8s. They are open to all active, reserve, and guard military and civilians. These courses can be found at the LFA SharePoint Link at: <u>http://lightningforceacademy.com/</u> <u>https://usaf.dps.mil/sites/AFSOC-193SOW/193RSG/LFA</u>

#### BY ORDER OF THE SECRETARY OF THE AIR FORCE OFFICIAL

GREGORY KREUDER, Brig Gen, USAF Director of Current Operations

2 Attachments:

- 1. Qualitative Requirements (Proficiency Code Key)
- 2. AFSC 1C8X3 STS

### ATTACHMENT 1 – QUALITATIVE REQUIREMENTS

#### THIS BLOCK IS FOR IDENTIFICATION PURPOSES ONLY

	Name Of Trainee									
Printed Name (Last, First, Middle Initial)	Initials (Written)	SSAN								
Printed Name Of	10 <sup>-</sup>									
N/I	N/I									
N/I	N/I									
N/I	N/I									
<i>N/I</i>	N/I									
N/I	N/I									
N/I	N/I									
N/I	N/I									
<i>N/I</i>	N/I									

	PROFICIENCY CODE KEY								
2	SCALE	DEFINITION: The individual							
9	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (EXTREMELY LIMITED)							
sk nan els	2	Can do most parts of the task. Needs help only on hardest parts. (PARTIALLY PROFICIENT)							
Tai	3	Can do all parts of the task. Needs only a spot check of completed work. (COMPETENT)							
Pe	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (HIGHLY PROFICIENT)							
0	а	Can name parts, tools, and simple facts about the task. (NOMENCLATURE)							
sk edg els	b	Can determine step by step procedures for doing the task. (PROCEDURES)							
Ta low	с	Can identify why and when the task must be done and why each step is needed. (OPERATING PRINCIPLES)							
K	d	Can predict, isolate, and resolve problems about the task. (ADVANCED THEORY)							
	A	Can identify basic facts and terms about the subject. (FACTS)							
edg els	В	Can identify relationship of basic facts and state general principles about the subject. (PRINCIPLES)							
Sub wor	С	Can analyze facts and principles and draw conclusions about the subject. (ANALYSIS)							
* 3	D	Can evaluate conditions and make proper decisions about the subject. (EVALUATION)							
* A ta	isk knowled c. (Example	Explanations Ige scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific e: b and 1b)							
** A si	ubject know	dedue 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 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.

(-) This mark is used alone in Proficiency Codes Course columns to show that training is required but not given due to limitations in resources.

NOTE: All tasks and knowledge items shown with a proficiency code are trained during wartime.

(-) When this code is used in the Core & Wartime Tasks Column it indicates that the qualification is a local determination.

(5) When this code is used in the Core & Wartime Tasks Column it indicates the CFM has mandated this task as a core 5-level requirement. The training to satisfy this requirement is either provided through OJT, CBTs, CDCs, or a combination.

(7) When this code is used in the Core & Wartime Tasks Column it indicates the CFM has mandated this task as a core 7-level requirement. The training to satisfy this requirement is either provided through OJT, CBTs, CDCs, or a combination.

(5-) When this code is used in the Core Task Column it indicates the CFM has selected this task as core 5-level tasks if loaded to the unit's Work-center Tasks Assigned (WTA). This code indicates that training to satisfy this requirement is normally provided through OJT.

(7-) When this code is used in the Core Task Column it indicates the CFM has selected this task as core 7-level tasks if loaded to the unit's WTA. This code indicates that training to satisfy this requirement is normally provided through OJT.

		3. CERTIFICATION FOR OJT 4. PROFICIENCY COD								DES USEI	ES USED TO INDICATE		
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	A	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-	
I. RAWS CAREER FIELD													
TR: AFECD; AFMAN 13-204v4 and DAFI 36-2670; 1C8X3 C.	FETP; 1C8X	.3 Comm	inicatio	ns Plan			1	1					
1.1. CFETP IC8X3 Familiarization	5						A			A			
1.2. IC8X3 Air Force Specialty Structure	5						A			A		<b></b>	
1.3. Air Force Specialty Code Progression	5						A			A			
1.4. Duties of 1C8X3 AFSC	5						A			А		ļ	
Familiarization	5						Α			А			
2. PUBLICATIONS AND DIRECTIVES TR: DAFI 90-160; AF Records Distribution System; http://www.e-publishing.af.mil/; ETIMS https://etims.cce.af.mil/ETIMS/index, AFMAN 13-204V4, DoDM 4120.24, ETIMS, TOs 00-5-1, 00-5-15, and 00-5-18, Command and Local Directives													
2.1. Publication use while Performing Work	5						2b			Α			
2.2. Department of Defense (DoD)/Joint Publications	5									Α			
2.3. Air Force	5						Α			Α			
2.4. Commercial/Vendor Publications	5						Α			Α			
2.5. FAA Publications	5						А			Α			
2.6. Technical Orders													
2.6.1. Technical Order System	5						А			Α	В		
2.6.2. TO Numbers and Titles in each TO Index	5						А			А	В		
2.6.3. Time Compliance Technical Orders (TCTO) Procedures	5						А			А	В		
2.6.4. Time Compliance Technical Orders (TCTO)	-									А	В		
2.6.5 Local Work Cards Checklists and Job Guides	_										2h		
2.6.6 Publication Error Reporting and Form Deficiencies	7										B		
2.6.7 Technical Order Improvements Process	7										B		
2.6.8. Standard Installation Practices Technical Orders (SIPTO)	5						А			А			
2.6.9. Military Standard (MIL STD)	5						A			A			
3. SAFETY/RISK MANAGEMENT (RM)		<b>I</b>						I	<b>I</b>				
TR: AFIs 90-802, 91-202 and AFMAN 13-204v4; AFQTP 1C82	K3-201D; DA	FMAN 9	1-203;	ГО 00-25-24	45; Comma	nd and Loc	al Directi	ives					
3.1. Air Force Safety Instructions for AFSC	5						Α			А	В		
3.2. Hazards of the AFSC	5						А			А	В	1	
3.3. Safety Precautions	•	- -				•	-						
3.3.1. General Housekeeping	-												
3.3.2. Maintenance Actions	5						2b			В	В		

3. CERTIFICATION FOR OJT 4. PROFICIENCY CODES USED TO INDICAT										DICATE		
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
3.3.3. Energized Equipment	5						2b			В	В	
3.3.4. High Voltage Equipment	5						2b			В	В	
3.3.5. Radio Frequency (RF) Hazard Environments	5						Α			В	В	
2.3.6. Compressed Gas Cylinders	5									А		
3.3.7. Hazardous Materials	5						Α			А	В	
3.3.8. Confined Spaces	-											
3.3.9. Climbing	5						Α			А	В	
3.4. Personal Protective Equipment												
3.4.1. Usage	5						Α	Α	А			
3.4.2. Maintenance	-											
3.4.3. Inspection	5						Α	Α	А			
3.5. Work Center Safety Program												
3.5.1. Managing Work Center Program	7									А	2b	
3.5.2. Conducting Job Safety Analysis	-											
3.5.3. Documenting Safety Training (AF Form 55/IMDS)	5										А	
3.5.4. Conducting Inspections	5									В		
4. COMMAND, CONTROL, COMMUNICATIONS, COMPU	TERS, AND	INTELLI	IGENCI	E (C4I) SEC	CURITY/PH	IYSICAL S	ECURIT	Υ				
TR: DAF1 31-101; AFPD 31-1, Command and Local Directives	-						1	T			[	
4.1. Definition	5									A		
4.2. Secure Area Access Management	-											
4.3. Facility Security Requirements	5									A		
4.4. Identifying Violations Procedures	-									-		
4.5. Reporting Violations Procedures	-											
5. MANAGEMENT OF PROCESSES	FD- 1COV2 1	01D and	10022	<b>201E. DAE</b>	126 2670							
1K:         AFIS 05-145, 04-102 and 90-201; AFMAN 15-20404; AFQ           5.1         Management Policies	11510073-2		1Солз-	201E; DAF	1 30-2070							
5.1.1 Equipment Deadings	7					1	1			٨	2h	C
5.1.2. Staffing and Hilization	/ 7									A	20 25	C
5.1.2. Statting and Outzation	/									A	20	U
TR: DAFI 36-2670; AFQTP 1C8X3-201D												
5.1.3.1. Training Program Management	7									А	2b	
5.1.3.2. Training Documentation	5									А	В	
5.1.3.3. Evalute New Personnel's Training Requirements	7									А	2b	

		3. CERTIFICATION FOR OJT						4. PROFICIENCY CODES USED TO INDICATE						
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL		
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-		
5.1.3.4. On-the-Job Training (OJT)	5									Α	В			
5.1.3.5. Quality of OJT and Trainee Feedback	7									Α	2b			
5.1.3.6. Master Training Plan Requirements	7									Α	2b			
5.1.4. Inspections and Evaluations (I&E) TR: AFMAN 13-204v4 and AFI 90-201														
5.1.4.1. Self-Inspection Program	7									Α	В			
5.1.4.2. Personnel Evaluations	7									Α	В			
5.1.4.3. Equipment Evaluations	7									Α	В			
5.1.4.4. Documentation Requirements	7									Α	В			
5.1.5. Automated Information Systems (AIS)														
TR: https://www.my.af.mil; https://ceds.gunter.af.mil/Publicati	ons.aspx; htt	ps://lms-j	ets.cce.a	f.mil/moodl	le/					-				
5.1.5.1. Integrated Maintenance Data System (IMDS)	5									Α	В			
5.1.5.2. MyTraining	-													
5.1.5.3. Defense Property Accountability System (DPAS)	5										В			
5.1.5.4. Logistics, Installations, and Mission Support Enterprise	7										А	В		
View (LIMS-EV)														
5.1.6. Logistics Support						151			<b>.</b> .					
TR: DODM 4140.01 (v6) Sec 3, AFI 23-101, AFMAN 23-122, T	Os 00-20-3,	00-25-195	5, 00-35	D-54, Comi	mand and L	ocal Direct	ives, App	plicable	Equipm	ent TOs,	Federal			
Logistics (FEDLOG) Program, and WebFLIS		1	1		1	1	1	1	1	1	1	1		
5.1.6.1. Submitting Price Challenges	-													
5.1.6.2. Reporting Item and Packaging Discrepancies	-													
5.1.6.3. Reporting Uniform Source, Maintenance and														
Recoverability Code and Air Force Expendability, Recoverability,	-													
Reparability Category Code Discrepancies														
5.1.6.4. Submitting Deficiency Reports	-													
5.1.6.5. Researching and Identifying Part and Stock Numbers	-													
5.1.6.6. Supply Listings and Reports (D04, D18, M30, D23, or Equivalent IMDS)	7										В			
5.1.6.7. Bench Stock	-													
5.1.6.8. Supply Point Stock Management	7										Α			
5.1.6.9. Adjusting Stock Levels (Special Levels)	-													
5.1.6.10. Precious Metals Program	-													
5.1.6.11. Repair Cycle Management	7										Α			

			3. CEI	RTIFICATIO	ON FOR OJ	Γ	4. PRO	FICIEN	ICY COL	ES USEI	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
5.1.6.12. Not Repairable This Station (NRTS) Actions	-											
5.1.6.13. Contract Repair Initiation (AF Form 9)	7										А	
5.1.6.14. Custodian Inventory Report (CIR) Equipment Accounts	7										А	
5.1.7. Work Center Management TR: AFI 21-103; AFMAN 13-204(v4), and AFQTP 1C8X3-2011	D	<u>.</u>										
5.1.7.1. Equipment Status Reporting	7										2b	
5.1.7.2. Work Center Documentation	7										2b	
5.1.7.3. Work Schedule Development	7										2b	
5.1.7.4. Work Center Programs Management	7										2b	
5.1.7.5. Budget Management	7										2b	
5.1.7.6. Manpower Management	7										2b	
5.1.7.7. Project Management	7										2b	
5.1.8. Modification Management TR: AFI AFMAN 13-204v4												
5.1.8.1. Configuration Review/Control Process	7										В	
5.1.8.2. Modification Proposals	7										В	
5.1.9. Communications Systems Installation Records (CSIRs) TR: AFMAN 13-204v4; AFQTP 1C8X3-201D; TOs 00-33D-300	4, 00-33D-30	)04-2, and	l 00-33D	-3005								
5.1.9.1. Communications Infrastructure Planning System (CIPS)	5									А	В	
5.1.10. Contract Management TR: AFQTP XXXXX-213R; AFIs 64-102, 64-105 and 63-108												
5.1.10.1. Administrative Contract Management	-										Α	
5.2. Functional Management TR: AIR FORCE ENLISTED CLASSIFICATION DIRECTO 36-2670	RY (AFECD	9); AFI 38	-101; A	FMAN 36-2	2100; AFPD	36-26; AF	QTP 1C8	3X3-201	D; CFE	FP 1C8X	3 Part 1;	DAFI
5.2.1. Responsibilities								1				
5.2.1.1. AF Career Field Manager	5									А	В	
5.2.1.2. MAJCOM Functional Manager	5									А	В	
5.2.1.3. Base Functional Manager	5									А	В	
5.2.2. Resource Management												

			3. CEI	RTIFICATIO	ON FOR OJ	Г	4. PRO	FICIEN	ICY COD	DES USEI	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
5.2.2.1. Manpower Products	7										2b	
5.2.2.2. Manpower Studies	-										В	
5.2.2.3. Authorization/Organizational Change Request Process	7										2b	I
5.2.2.4. Manpower Standards	-										В	
5.2.2.5. Allocating Personnel	7										2b	
5.2.3. Workshops								<u> </u>				
5.2.3.1. Utilization and Training Workshop (U&TW)	5									А		
5.2.3.2. Occupational Survey	5									А	В	
5.2.3.3. Weapon Systems Review (WSR)	7									А	В	
5.2.3.4. Lead Command Advisory Group (LCAG)	7									А	В	
5.2.3.5. Specialty Training Requirements Team (STRT)	5									А	В	
6. EXPEDITIONARY CONCEPTS TR: DAFI 10-401; AEF Online; AFQTP 1C8X3-201D												
6.1. Concepts of Aerospace Expeditionary Force (AEF)												
6.1.1. AEF-Teaming	7										А	
6.1.2. Enabler Forces	7										А	
6.1.3. Deployment Planning and Execution	7										А	
6.1.4. Designed Operational Capability (DOC) Statement	-										В	
6.2. AEF UTCs												
6.2.1. Unit Type Code (UTC)	5									А	В	
6.2.2. Equipment (e.g. LOGDET)	-									А	В	
6.2.3. Personnel (e.g. MANFOR)	-									А	В	
6.2.4. Posturing	-										В	
6.2.5. Sourcing	-										В	1
6.3. Readiness Status Reporting		1		-	1	1	•	-				
6.3.1. Defense Readiness Reporting System (DRRS)	7										В	ļ
6.3.2. Mission Essential Task Listing (METL)	-										В	ļ
6.3.3. Mission Essential Tasks (METs)	-										A	
6.3.4. Deliberate and Crisis Action Planning Execution Segments (DCAPES)	7										В	
6.4. Deployment Procedures	I	I	I	I	1			L	<u> </u>			
6 4 1 Load Plans	_		1			1	1					
	1						I	I				

			3. CEI	RTIFICATIO	ON FOR OJ	Г	4. PRO	FICIEN	ICY COD	DES USEI	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
6.4.2. Pallet Build-Up Procedures	-											
6.4.3. Hazardous Cargo Preparation	-											
6.4.4. Preparing Documentation	-											
6.4.5. Site Selection Requirements	-											
6.4.6. Site Preparation Requirements	-											
6.4.7. Site Configuration Requirements	-											
6.4.8. Deployed Site Utility Grids Construction Requirements	-											
7. DEPLOYABLE MISSIONS						• •		-				
TR: AFTTP 3-4; MAJCOM and Local Directives						-	-	-	-			
7.1. Contingency Response Groups	-									А		
7.2. Deployable Air Traffic Control and Landing Systems (DATCALS)	-									А		
7.3. Engineering & Installation (E&I)	_									А		
7.4. Deployable Comm Support	_									A		
7.5. Air Operations Centers	_									А		
7.6. Air Control Systems (Air Control Squadrons)	-									А		
7.7. Agile Combat Employment (ACE)	-									А		
7.8. Deployable Weather	-									А		
8. ORGANIZATIONAL STRUCTURE						<u> </u>	<u> </u>	1				
TR: AFI 38-101; AFQTP 1C8X3-201D												
8.1. Operations Support Squadron (OSS)	5									А		
8.2. Air Traffic Control Squadron (ATCS)	5									А		
8.3. Air Control Squadron (ACS)	5									А		
8.4. Combat Communications Squadron (FILO)	5									А		
8.5. Radar Evaluation Squadron (RADES)	5									А		
8.6. Air Force Flight Standards Agency (AFFSA)	5									А		
8.7. 557th Weather Wing	5									А		
8.8. Weather Systems Support Cadre (WSSC)	5									А		
8.9. Contingency Readiness Group (CRG)	5									А		
8.10. Engineering and Installation Squadron (E&I)	5									А		
8.11. Range Squadron (RANS)	5									А		
9. BASIC COMPUTER FUNDAMENTALS												
TR: Applicable UNIX Manuals												

			3. CEI	RTIFICATI	ON FOR OJ	Г	4. PRO	FICIEN	ICY COL	DES USEI	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
9.1. Communications and Network Protocols												
9.1.1. Connection Oriented Communication	5						А			В		
9.1.2. Connectionless Oriented Communication	-						Α			В		
9.1.3. International Standards Organization (ISO) Open Systems	_									B		
Interconnect (OSI) Model										Ъ		
9.1.4. TCP/IP	5						Α			В		
9.1.5. Department of Defense (DoD) Standard Protocols	-									А		
9.1.6. IPv4/IPV6	5						Α			В		
9.1.7. Ports (IP)	5						Α			Α		
9.2. Network Theory/Components/Electrical Theory												
9.2.1. Components												
9.2.1.1. Principles	5						В			В		
9.2.1.2. Central Processing Unit (CPU)	-						Α			Α		
9.2.1.3. Computer Memory	-						Α			Α		
9.2.1.4. Input/Output (I/O) Devices	-						Α			Α		
9.2.1.5. Storage Devices	-						Α			А		
9.2.1.6. Peripherals (Printers, Fax, Scanners, etc.)	-						Α			Α		
9.2.2. Network Types												
9.2.2.1. Wired (e.g. LAN, WAN, MAN)	-						Α			В		
9.2.2.2. Wireless	-						А			Α		
9.2.2.3. Topologies (e.g. Star, Ring, Bus, Hybrid)	-						Α			В		
9.3. Network Devices												
9.3.1. Modems	-						Α			В		
9.3.2. Switches	-						Α			В		
9.3.3. Multiplexers	-									Α		
9.3.4. Bridges/Routers	-						Α			В		
9.3.5. Encryption Devices	-									Α		
9.3.6. Communications Mediums	-						Α			В		
9.4. LAN Architecture												
9.4.1 Network Symbols and Drawings	-						A			В		
9.4.2. Converters	-						A			В		
9.5. Network Fault Isolation Techniques												

			3. CEI	RTIFICATI	ON FOR OJ	Г	4. PRO	FICIEN	ICY COL	DES USE	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
9.5.1. Network Error Detection	-						Α			В		
9.5.2. Network Error Correction	-						Α			В		
9.5.3. Network Flow Control	-						Α			В		
9.5.4. Transmission Impairments	-						Α			В		
9.6. Software												
9.6.1. Operating Systems (e.g. UNIX, Windows, LINUX)	-						Α			А		
9.6.2. Infectious and Malicious Software	-						Α			А		
9.7. UNIX OPERATING SYSTEM	•	•		•	•	•	•		•	•		
9.7.1. Characteristics	-						Α			Α		
9.7.2. Commands	-						А			А		
9.7.3. Operating	-						Α			А		
9.7.4. File System Structure	-						А			А		
9.7.5. VI Editor	-						А			А		
9.7.6. Remote System	-						Α			А		
9.7.7. System Monitoring	-						А			А		
9.8. UNIX System Administration		•		•	•	•			•			
9.8.1. System Administration	-						Α			Α		
9.8.2. File System Administration	-						А			Α		
9.8.3. System User Account Administration	-						Α			А		
9.9. Cybersecurity Overview	•	•		•	•	•	•		•	•		
9.9.1. Threats and Vulnerabilities	-						Α					
9.9.2. Threat Detection and Management	-						Α					
9.9.3. Host Security	-						А					
9.9.4. Operational Security	-						А					
9.9.5. Access Control	-						А					
10. ELECTRONIC PRINCIPLES TR: TOs 31-1-141-2, 31-1-141-3, 31-1-141-4 and 31-1-141-5		<u>.</u>										
10.1. Basic Principles												
10.1.1. Electronics Terms and Terminology	-						Α			В		
10.1.2. Current	-						Α			В		
10.1.3. Voltage	-						А			В		
10.1.4. Resistance	-						А			В		
10.1.5. Conductance	-						Α			В		

			3. CEI	RTIFICATI	ON FOR OJ	Γ	4. PRO	FICIEN	ICY COL	DES USEI	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
10.1.6. Capacitance	-						Α			В		
10.1.7. Power	-						Α			В		
10.1.8. Ohm's Law	-						Α			В		
10.2. Direct Current												
10.2.1. Theory	-						В			В		
10.2.2. Applications	-						В			В		
10.3. Alternating Current												
10.3.1. Theory	-						В			В		
10.3.2. Applications	-						В			В		
10.4. Components and Devices												
10.4.1. Resistors	-						Α			В		
10.4.2. Capacitors	-						Α			В		
10.4.3. Inductors	-						А			В		
10.4.4. Transformers	-						А			В		
10.4.5. Relays and Solenoids	-						А			В		
10.5. Semiconductors	-				-	-						
10.5.1. Diodes	-						Α			В		
10.5.2. Transistors	-						А			В		
10.5.3. Zener Diode	-						А			В		
10.5.4. Light Emitting Diode (LED)	-						А			В		
10.5.5. Liquid Crystal Display (LCD)	-						А			В		
10.5.6. Silicon Controlled Rectifier (SCR)	-						А			А		
10.5.7. Integrated Circuits	-						А			В		
10.6. Electronic Circuits	-				-	-						
10.6.1. Series Circuits	-						В			В		
10.6.2. Parallel Circuits	-						В			В		
10.6.3. Transistor Amplifier Circuits	-						А			А		
10.6.4. Power Supply Circuits	•	•										
10.6.4.1. Theory	-						Α			В		
10.6.4.2. Troubleshooting	5						2b			В		
10.6.5. Wave Generating Circuits												
10.6.5.1. Oscillators	-						А			В		
10.6.5.2. Wave Shaping Circuits	-						Α			А		

			3. CE	RTIFICATI	ON FOR OJ	Г	4. PRO	FICIEN	ICY COL	DES USE	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
10.6.6. Digital Circuits												
10.6.6.1. Theory	-						Α			В		
10.6.6.2. Applications	-						Α			В		
10.7. Metric Notation												
10.7.1. Powers of Ten	-						2b			В		
10.7.2. Electrical Prefixes	-						В			В		
10.8. Special Purpose Components												
10.8.1. High Power Tubes	-						А			А		
10.8.2. Amplifiers	-						А			А		
10.8.3. Limiters	-						А			А		
11. BASIC COMMUNICATIONS THEORY TR: TOs 31-1-141-11, 31-1-141-12 and 31-1-141-13												
11.1. Communication Mediums												
11.1.1. Transmissions Lines	5						В			В		
11.1.2. Fiber Optics	5						А			В		
11.1.3. Data Bus	5						А			В		
11.1.4. Antennas	5						В			В		
11.2. Digital Communications		-					-				-	
11.2.1. Synchronous	-									Α		
11.2.2. Isochronous	-									А		
11.2.3. Asynchronous	-									А		
11.2.4. Signal Rate	-									А		
11.2.5. Bit Count Integrity	-									А		
11.2.6. Signal Formats	-						Α			В		
11.3. Multiplexing												
11.3.1. Multiplexers	-						Α			А		
11.3.2. Wave Division Multiplexing	-						Α			А		
11.3.3. Time Division Multiplexing	-						Α			А		
11.4. Modulation Techniques		-					-				-	
11.4.1. Amplitude Modulation (AM)	5						В			В		
11.4.2. Frequency Modulation (FM)	5						В			В		
11.4.3. Phase Modulation (PM)	5						В			В		
11.4.4. Pulse Code Modulation (PCM)	5						В			В		

			3. CEI	RTIFICATI	ON FOR OJ	Γ	4. PRO	FICIEN	ICY COL	DES USE	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
11.4.5. Space Modulation	5						В			В		
11.5. Receiver Signals												
11.5.1. Radio Frequency (RF)	-						Α			В		
11.5.2. Intermediate Frequency (IF)	-						Α			В		
11.5.3. Audio Frequency (AF)	-						Α			В		
11.5.4. Local Oscillator (LO) Output	-						Α			В		
11.5.5. Electromagnetic Effects (EMP/EMI)	-						Α			В		
11.6. Digital Numbering Systems												
11.6.1. Binary	-						Α					
11.6.2. Hexadecimal	-						Α					
11.6.3. Binary Coded Decimal	-						Α					
11.7. Principles			-					-				
11.7.1. Bandwidth	-						В			В		
11.7.2. Light Wave Communications	-						В			В		
11.7.3. Asynchronous/Synchronous Communication Modes	-						В			В		
11.7.4. Error Detection and Correction	-											
12. WIRING AND CABLE	•			•	•	•			•	•	•	
TR: TO 31-10-13												
12.1. Assemble Solderless Connectors												
12.1.1. Crimped Connection	5						2b					
12.1.2. Coaxial Connector	5						2b					
12.1.3. Multi-Pin Connector	5						2b					
12.2. Connectors and Cables												
12.2.1. Solder Connectors	5						2b					
12.2.2. Create Cables	5						2b					
12.2.3. Troubleshoot Cables	5						2b			В		
12.2.4. Perform Voltage Standing Wave Ratio (VSWR)	5						2b					
12.2.5. Create Punch-down Block	5						2b					
12.2.6. Troubleshoot Punch-down Block	5						2b					
13. STANDARD PRACTICES TR: TOs 00-25-234, 31-10-7, 31-10-13 and 31-1-141-1; AFMA	N 32-1065; A	FQTP 10	C8X32	01D								

			3. CEI	RTIFICATI	ON FOR OJ	Γ	4. PRO	FICIEN	ICY COL	DES USE	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	A	В	С	D	E	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch I)	DATE	DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
13.1. Facts and Principles												
13.1.1. Installation	-											
13.1.2. Configuration	-											
13.1.3. Interconnection	-						А					
13.1.4. Inspection	7										А	
13.1.5. Marking and Identifying Underground Utilities	-									А		
13.1.6. EMSEC Suppression Techniques	-											
13.1.7. Cable Labeling and Installation Documentation	-						Α			В	В	
13.1.8. Wire Color-Coding Standards	-						Α			Α	В	
13.1.9. Fiber Optics Installation Concepts	-									Α	В	
13.2. Landline Concepts												
13.2.1. Copper Cables	-						В			В		
13.2.2. Coaxial Cables	-						В			В		
13.2.3. Fiber Optic Cable	-						В			В		
13.2.4. Channel Bank	-						А			В		
13.3. Grounding & Electrical Systems Concepts	•											
13.3.1. Grounding	5						В			В	В	
13.3.2. Bonding	5						В			В	В	
13.3.3. Shielding	5						В			В	В	
13.3.4. Lightning Protection	5						В			В	В	
13.4. Equipment Grounding and Lightning Protection		•		•		•			•		•	
13.4.1. Installation	-											
13.4.2. Removal	-											
13.4.3. Maintenance and Inspection	5						2b			В	В	
13.5. Electrostatic Discharge												
13.5.1. Principles	5						А			В	В	
13.5.2. Concepts	5						Α			В	В	
13.5.3. Handling, Packaging and Storing	5						А			В	В	
13.6. Equipment Familiarization and Locating Equipment Elem	nents											
13.6.1. Circuit Card Identification/Alphanumerics	-						Α					
13.6.2. Visual Inspection	-						2b			В		
13.6.3. Basic Troubleshooting Techniques	5						2b			В		

			3. CEI	RTIFICATI	ON FOR OJ	Γ	4. PRO	FICIEN	ICY COL	DES USEI	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	A	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch I)	START DATE	DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
14. TEST EOUIPMENT				• •		• •				- -		
TR: TO 33K-1-100, 31-1-141-7; Applicable Test Equipment Te	chnical Man	uals										
14.1. Principles, Capabilities, Limitations and Operation												
14.1.1. Oscilloscope	-						2b			В		
14.1.2. Digital Multimeters	-						2b			В		
14.1.3. Optical Time Domain Reflectometer (OTDR)	-						A			A		
14.1.4. Time Domain Reflectometer (TDR)	-						A			Α		
14.1.5. Frequency Counter	-						2b			В		
14.1.6. Network/Protocol Analyzer	-						2b			В		
14.1.7. Spectrum Analyzer	-						2b			В		
14.1.8. Wattmeter	-						2b			В		
14.1.9. RF Power Meter	-						2b			В		
14.1.10. RF Peak Power Meter	-						2b			В		
14.1.11. RF Signal Generator	-						2b			В		
14.1.12. Insulation Test Set	-						А					
14.1.13. Megaohmeter	-						А					
14.1.14. Built-In Test Equipment (BITE)	-						А					
14.1.15. Breakout Box	-						2b			В		
14.1.16. Communications System Analyzer	-						А			В		
14.1.17. Sweep Generator	-						А					
14.1.18. Function Generator	-						2b			В		
14.1.19. RMS Voltmeter	-						2b			В		
14.1.20. Distortion Analyzer	_						2b			В		
14.1.21. Dummy Load	5						2b			В		
14.1.22. Audio Oscillator	_						2b			В		
14.1.23. Infrared Tester	-						А					
14.1.24. Earth Ground Tester	_						2b			В		
14.1.25. Frequency Generator	_						2b			В		
14.1.26. Noise Figure Meter	-			1		1	Α		1	А		
14.1.27. Video Signal Processor Test Set, AN/TPM- 32	-						2b			В		
14.1.28. IFF/SIF Radar Test Set, TPM-25	-						А					
14.1.29. Radar Test Set, AN/UPM-145	-						А			А		
14.1.30. IFF/SIF Radar Test Set, AN/UPM-155	-						2b			В		

			3. CEI	RTIFICATI	ON FOR OJ	Г	4. PRO	FICIEN	ICY COD	DES USE	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
14.1.31. Monopulse Beacon Test Set w/Laptop	-						2b			В		
14.1.32. NARDA Survey Meter 8712	-						Α					
14.1.33. NARDA Isotropic Electronic Probe 8712D	-						Α					
14.1.34. Minolta Color Analyzer-CA-100	-						Α					
14.1.35. Minolta CS-100A Chroma-Meter	-						Α					
14.1.36. Sony Monitor Remote Controller RM-10	-						А					
14.1.37. Barco Keypad Controller	-						А					
14.1.38. Portable ILS Receiver	-						2b			В		
14.1.39. Vector Voltmeter	-						А			В		
14.1.40. Audio Test Set/Line Level Test Set/TIMS	-						2b			В		
14.1.41. Anemometer Drive Wind-Speed Test Set	-						А					
14.1.42. Vane Angle Test Set	-						А					
14.1.43. Vane Torque Gauge	-						А					
14.1.44. Propeller Torque Tester	-						А					
14.1.45. AT/RH Test Set	-						А					
14.1.46. Digital Barometer Test Set	-						А					
14.1.47. Visibility Calibration Test Set	-						Α					
14.1.48. Angle Locator	-						А					
14.1.49. Field Fox	-						А			А		
14.1.50. Dielectric Tester	-						А					
14.2. Specialized Tools TR: Applicable Technical Publications												
14.2.1. Amphenol Tool	-						2b					
14.2.2. Tone Generator	-						2b			В		
14.2.3. Inductive Amplifier	-						2b			В		
14.2.4. LAN Tester	-						Α					
14.2.5. Light Source	-						Α					
14.2.6. Transit	-						Α					
14.2.7. Fusion Splicer	-						Α					
14.2.8. Fiber Optic Source and Meter	-						Α					
15. ELECTRICAL POWER SYSTEMS												
TR: Commercial Manuals, TOs 00-25-213, 33-1-5, and 33-1-32	and Applical	ble Equip	ment To	echnical Or	ders							
15.1. Automatic Power Transfer												

			3. CEI	RTIFICATI	ON FOR OJ	Г	4. PRO	FICIEN	ICY COL	DES USE	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
15.2. Uninterruptible Power Supplies (UPS)	-						Α			В		
15.3. Batteries	-						Α			В		
15.4. Rectifiers	-						Α			В		
15.5. Inverters	-						Α			В		
15.6. Generators	-						Α			В		
16. SUSTAINMENT												
							1	1				
TR: DAU.edu (LOG1000)	-											
16.2. Fundamentals of System Sustainment Management TR: DAU.edu (LOG105)	-											
17. AIRFIELD OPERATIONS SUPPORT								<u> </u>				
TR: Applicable Equipment Technical Orders; AFMANs 13-20	4v4 and 11-2	25, AFQT	P 1C8X	3-201D								
17.1. Typical RAWS Facility Configuration	5						la			В		
17.2. RAWS Relationship in the Aerodome	5						la			В		
17.3. RAWS Relationship to Safety of Flight	5						1a			В	В	
17.4. Flight Inspection Procedures												
17.4.1. Types of Elight Increasion	5				1			1			D	
17.4.2 Purpose of Elight Inspection	5						Δ			A A	B	
17.4.3 Facility Classification	5						Π			Δ	B	
17.4.4 Technician Responsibilities	_									A	B	
17.4.5 Flight Inspection Report	7									A	B	
17.4.6. Inspection Intervals	5									A	B	
17.4.7. Facility Records	5									А	В	
18. EQUIPMENT INSTALLATION								<u>.</u>	L		1	
TR: TOs 31-10 Series, 31Z-10-37, 31Z3-822-2, UFC 3-260-01; A	Applicable Sy	stem Ma	nuals									
18.1. Policies and Procedures for Programming and Planning Installation of C-E Equipment	-											
18.2. Equipment Installation in Accordance with Instructions	-											
18.3. Interconnecting Equipment in Accordance with Instructions	-											

			3. CE	RTIFICATI	ON FOR OJ	Г	4. PRO	FICIEN	ICY COL	DES USE	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
18.4. Pre-Installation and Post Installation Equipment Inspections	-											
18.5. Siting Criteria	7						1a			В	2b	
19. RADAR FUNDAMENTALS TR: TO 31-1-141-1 thru -15; AFQTP 1C8X3-201R												
19.1. Typical Radar Systems												
19.1.1. Roles	5						В			В		
19.1.2. Leading Particulars	5						В			В		
19.1.3. Principles	5						В			В		
19.1.4. Frequency Characteristics	5						В			В		
19.2. Major Radar Assemblies and Subassemblies							-					
19.2.1. Transmitters	5						В			В		
19.2.2. Antennas	5						В			В		
19.2.3. Receivers	5						В			В		
19.2.4. Processors	5						В			В		
19.2.5. Indicators	5						В			В		
19.2.6. Waveguide and RF Devices	5						В			В		
19.2.7. Remoting Circuits	5						В			В		
19.2.8. Performance Monitors	5						В			В		
19.2.9. Built-In-Test Equipment (BITE)	5						В			В		
19.3. Advanced Radar Principles							-					
19.3.1. Radiation Patterns and Properties	-						В			В		
19.3.2. Propagation Anomalies	-						В			В		L
20. AN/GPN-30, DIGITAL AIRPORT SURVEILLANCE RAD TR: JO 6310.30B Maintenance Handbook; AFJQS 1C8X3-203	DAR (DASR) B	SYSTEM	[									
20.1. Capabilities and Limitations	-							А		А		
20.2. Theory of Operation	-							А		В		
20.3. System Power-On and Power-Off	-							В				
20.4. Key Performance Parameters	-							2b				
21. AN/MPN-14K, LANDING CONTROL CENTRAL TR: TO 31P5-2MPN14-22: AFJOS 1C8X3-211G		<u> </u>	1		<u> </u>		J	1	<u>.</u>	<u> </u>	<u>.</u>	
21.1. Capabilities and Limitations	-								А	А		

3. CERTIFICATION FOR OJT 4. PROFICIENCY CODES USED TO INDIC											DICATE	
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
21.2. Theory of Operation	-								А	В		
22. AN/TPN-19, LANDING CONTROL CENTRAL TR: TOs 31P5-2TPN19-2. 31P5-2TPN24-2 and 31P5-2TPN25-2	2: AFJOS 1C	8X3-2110	0									
22.1. Capabilities and Limitations	-						Ι		А	А		
22.2. Theory of Operation	-								А	В		
23. PRECISION APPROACH RADAR (PAR)			1					<u> </u>				
TR: TOs 31P5-2GPN-22-2 and 31P5-2GPN22-2C; AFJQS 1C8	X3-203E											
23.1. Capabilities and Limitations	-						Α			А		
23.2. Theory of Operation	-						Α			А		
24. AN/TPS-75, AIRCRAFT CONTROL AND WARNING RA TR: TOs 31P3-2TPS75-2-1, 31P3-2TPS75-2-2, 31P3-2TPS75-6 211PD and 1C8X3-211PG	DAR SYSTE WC-1, 31P5-	CM 2TPS75-9	9, 31P1-	2UYQ27-22	2, 31P1-2TY	7Q23-1, 31F	P1-2UPA	59-1-1;	AFJQSs	1C8X3-2	211P, 1C	28X3-
24.1. Capabilities and Limitations	-								А	А		
24.2. Theory of Operation	-								Α	В		
24.3. Key Performance Parameters	-								2b			
25. SECONDARY SURVEILLANCE RADAR SYSTEMS (IFF TR: TOs 31P4-2TPX42-2, 31P4-2TPX-49-2, 31P4-2T-62, 31P4- 1C8X3-201R	'/SIF SYSTE -2T-22, 31P4	MS) -2TPX42	-56WC-	1, 31P2-4-7	2-1-1, 31P4-	- 2TPX42-5	2, 31P2-4	4-72-21	-1, AFJQ	<u>9</u> Ss 1C8X	3-203LB	and
25.1. Capabilities and Limitations	-								В	А		
25.2. Theory of Operation	-								В	В		
25.3. Key Performance Parameters	-								2b	В		
26. AN/UPX-37, DIGITAL INTERROGATOR TR: TO 31P4-2UPX37-1 and AFJQS 1C8X3-211PH												
26.1. Capabilities and Limitations	-								А	А		
26.2. Theory of Operation	-								В	В		
26.3. Measuring Key Performance Parameters	-								2b			
26.4. Verifying Operation	-								2b			
26.5. Isolating Malfunctions	-								2b			<u> </u>
27. MONOPULSE SECONDARY SURVEILLANCE RADAR TR: JO 6310.30A Maintenance Handbook; AFJQS 1C8X3-203	(MSSR) B											
27.1. Capabilities and Limitations	-							А		А		

3. CERTIFICATION FOR OJT 4. PROFICIENCY CODES USED TO INDICA											DICATE	
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
27.2. Theory of Operation	-							Α		В		
27.3. Key Performance Parameters	-							2b				
28. Automatic Dependent Surveillance-Broadcast (ADS-B) TR: AFQTP 1C8X3-201R												
28.1. Theory of Operation	-							А		В		
29. AN/FSQ-204, STANDARD TERMINAL AUTOMATION R TR: AFJQSs 1C8X3-203C, 1C8X3-203CA, 1C8X3-203CB, and 31P5-2FSQ204-8, 31P5-2FSQ204-11,31P5-2FSQ204-21, 31P5-2I 31P5-2FSQ204-52, 31P5-2FSQ204-61	EPLACEM 1C8X3-2030 FSQ204-22, 3	ENT SYS CC; Inter 31P5-2FS	TEM (S active E SQ204-3	TARS) Cquipment T 1, 31P5-2FS	Fechnical M SQ204-32, 3	anuals (IE 1P5-2FSQ2	ΓMs); Τ( 04-41, 31	Ds 31P5 1P5-2F5	5-2FSQ2( 5Q204-42	04-1, 31P 2, 31P5-2	5-2FSQ2 FSQ204-	204-2, -51,
29.1. Capabilities and Limitations	-							А		А		
29.2. Theory of Operation	-							А		В		
29.3. Key Performance Parameters	-							2b				
30. METEOROLOGY TR: Federal Meteorological Handbook FMH-1												
30.1. Temperature/Dew- Point Measurement	5						A			A		
30.2. Wind Measurement	5						A			A		
30.3. Visibility Measurement	5						A			A		
30.4. Barometers/ Altimeters	5						A			A		
30.5. Cloud Height Measurement	3						A			A		
JI. WEATHER SISTEMS TR: Applicable Technical Orders												
31.1. WSR-88D, Next Generation Radar (NEXRAD) TR: TO 31P1-4-108-1, AFJQSs 1C8X3-202XB, 1C8X3-202XD a	nd 1C8X3-2	02XE										
31.1.1. Capabilities and Limitations	-						А			А		
31.1.2. Theory of Operation	-						А			В		
<b>31.2. PORTABLE DOPPLER RADAR (PDR)</b> <b>TR: Applicable Technical Manuals; Commercial Publications a</b>	nd AFJQS 1	C8X3-20	9X									
31.2.1. Capabilities and Limitations	-						А			А		
31.2.2. Theory of Operation	-						А			В		
31.3. AUTOMATIC METEOROLOGICAL SYSTEM AN/FMC	)-19 OS 1C8X3 (	2094										
31.3.1. Capabilities and Limitations	-							А		А		

	ON FOR OJ	Г	4. PRO	FICIEN	ICY COD	ES USEI	D TO INI	DICATE				
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
31.3.2. Theory of Operation	-							В		В		
31.3.3. Measuring Key Performance Parameters	-							2b				
31.4. AUTOMATIC METEOROLOGICAL STATION AN/TM TR: TO 31M1-2TMQ53; AFJQS 1C8X3-201T	1Q-53											
31.4.1. Capabilities and Limitations	-						Α			А		
31.4.2. Theory of Operation	-						В			В		
31.4.3. Measuring Key Performance Parameters	-						1a					
31.5. AUTOMATIC METEOROLOGICAL SYSTEM AN/FM	Q-22											
TR: TO 31M1-4-48-2; AFJQS 1C8X3-215P		1		1	1	1	1				1	1
31.5.1. Capabilities and Limitations	-							A		A		
31.6 FIXED BASE WEATHER OBSERVATION SYSTEM A)	- N/FMO_23							A		В		
TR: TO 31M1-2FMQ23-1; AFJQS 1C8X3-215PA	₩1111Q-23											
31.6.1. Capabilities and Limitations	-							Α		А		
31.6.2. Theory of Operation	-							Α		А		
32. NAVAIDS FUNDAMENTALS												
TR: TOs 00-20-10, 31R4-2FRN44 Series and 31R4-2FRN45 Se	eries; AFMA	N 11-225										
32.1. Typical TACAN, ILS and VOR Systems												
32.1.1. Roles in Operational Theater	5						Α			Α		
32.1.2. Leading Particulars	5						В			В		
32.1.3. Principles	5						В			В		
32.1.4. Frequency Characteristics	5						В			В		
32.2. Major NAVAID Assemblies and Subassemblies												
32.2.1. Transmitters	5						В			В		
32.2.2. Antennas	5						В			В		
32.2.3. Receivers	5						В			В		
32.3. Advanced NAVAID Principles			-									
32.3.1. Antenna Types	5						В			В		
32.3.2. Siting Criteria	5						В			В	В	
32.4. Radiation Patterns												
32.4.1. Properties	5						В			В		

			3. CEI	RTIFICATI	ON FOR OJ	Г	4. PRO	FICIEN	ICY COL	DES USE	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
32.4.2. Vulnerabilities	5						В			В	В	
33. INSTRUMENT LANDING SYSTEM				• •	• •					- -		
TR: TOs 00-20-10 and 31R4-2GRN29-2 Chap 5; AFJQS 1C8X	3-206GB											
33.1. Capabilities and Limitations	-						Α			А		
33.2. Theory of Operation	-							В		В		
33.3. Measuring Key Performance Parameters	-							2b				
33.4. Null Reference Glideslope TR: TOs 31R4-2GRN31-2 and 31R4-2GRN31-6WC-1												
33.4.1. Capabilities and Limitations	-						Α			А		
33.4.2. Theory of Operation	-							В		В		
33.5. Capture Effect Glideslope TR: TOs 31R4-2GRN31-22 and 31R4-2GRN31-26WC-1		-										
33.5.1. Capabilities and Limitations	-						Α			Α		
33.5.2. Theory of Operation	-							В		В		
33.5.3. Measuring Key Performance Parameters	-							2b		В		
33.6. Glideslope Control Interface TR: TOs 31R4-2GRN31-32												
33.6.1. Connect Maintenance Laptop to ILS Equipment	-							2b				
33.6.2. Demonstrate Maintenance Laptop Screen Operations	-							2b				
33.6.3. Demonstrate Transmitter Command Inputs	-							2b				
33.6.2. Demonstrate Diagnostic Screen Operations	-							2b				
33.7. Localizer TR: TOs 31R4-2GRN30-2, 31R4-2GRN30-32 and 31R4-2GRN	30-6WC-1											
33.7.1. Capabilities and Limitations	-						Α			А		
33.7.2. Theory of Operation	-							В		В		
33.7.3. Measuring Key Performance Parameters	-							2b		В		
33.7.4. Perform Remote Maintenance Monitor Operation Performance Check	-							2b				
33.7.5. Perform Monitor Certification Check	-							2b				
33.7.6. Perform Standby Transmitter Check	-							2b				
33.7.7. Perform Modulation Percentage Performance Check	-							2b				
33.7.8. Perform Main-to-Standby Performance Check	-							2b				

			3. CEI	RTIFICATIO	ON FOR OJ	Г	4. PRO	FICIEN	ICY COD	DES USEI	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	E	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
33.7.9. Perform Localizer Ground Checks	-							2b				
33.7. Deployable ILS, AN/TRN-50 TR: TOs 31R4-2TRN50-2, 31R4-2TRN-51-2, 31R4-2TRN-52-2	and 31R4-2	FRN50-6V	WC-1; A	AFJQS 1C8	X3-203F							
33.6.1. Capabilities and Limitations	-						Α			А		
33.6.2. Theory of Operation	-								В	В		
33.6.3. Measuring Key Performance Parameters	-								2b	В		
34. FAMILY OF SYSTEMS TACAN/VORTAC												
TR: Applicable TOs/Technical Instruction; AFJQSs 1C8X3-21	5QC and 1C	8X3-215Q	<b>D</b>									
34.1. Capabilities and Limitations	-						Α					
34.2. Theory of Operation	-							В				
34.3. Measuring Key Performance Parameters	-							2b				
34.4. TACAN, AN/TRN-48	•				•		•					
TR: TACAN 2010 Tactical Air Navigation Equipment Manual	; AFJQS 1C8	8X3-205L										
34.4.1. Capabilities and Limitations	-								Α	А		
34.4.2. Theory of Operation	-									А		
34.5. TACAN AN/TRN-41 TR: 31R4-2TRN41-2; AFJQS 1C8X3-205K												
34.5.1. Capabilities and Limitations	-						Α		Α	А		
34.5.2. Theory of Operation	-						В			В		
34.5.3. Configuration/Key Performance Parameters	-						la			А		
34.6. TACAN AN/FRN-45C TR: 31R4-2FRN45C-2; AFJQS 1C8X3-215QC												
34.6.1. Capabilities and Limitations	-						Α					
34.6.2. Theory of Operation	-							В				
34.6.3. Measuring Key Performance Parameters	-							2b				
34.6.4. Identify Module Controls and Indications							-	-				
34.6.4.1. Power Distribution Unit (PDU)	-						2b					
34.6.4.2. Local Control and Status Unit (LCSU) Panel	-						2b					
34.6.4.3. Beacon Equipment LRU	-						2b					
34.6.4.4. Remote Status Indicator (RSI)	-						2b					
34.6.4.5. Facility Central Processing Unit (FCPU)	-						2b					
34.6.4.6. TACAN Front Panel	-						2b					

			3. CE	RTIFICATIO	ON FOR OJ	Г	4. PRO	FICIEN	ICY COD	DES USEI	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch I)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
34.6.5. Maintenance Data Terminal (MDT)												
34.6.5.1. Explain the purpose of the MDT	-						В					
34.6.5.2. Launch the MDT Front Panel	-						2b					
34.6.5.3. Check the Executive Monitor on Antenna	-						2b					
34.6.5.4. Perform Diagnostics Check	-						2b					
34.6.5.5. Check for Status Warnings	-						2b					
34.6.5.6. Check for Alarms	-						2b					
34.6.5.7. Explain the Functions of the Equipment Menu	-						В					
34.6.5.8. Display Equipment Status	-						2b					
34.6.5.9. Reset the FCPU	-						2b					
34.6.5.10. Navigate the Logs Menu	-						2b					
34.6.5.11. Navigate MDT Sensor Menus	-						2b					
34.6.5.12. Switch Between Normal and Maintenance Modes	-						2b					
34.6.5.13. Navigate the Command Menu	-						2b					
34.6.5.14. Navigate the Checks Menu	-						2b					
34.6.6. TACAN Maintenance												
34.6.6.1. Determine How To Remove a Line Replaceable Unit	-						2b					
34.6.6.2. Measure Antenna Power Supply Voltage	-						2b					
35. MOBILE CONTROL TOWER AN/MSN-7 TR: 31-R5-2MSN7-1; AFJQS 1C8X3-205X												
35.1. Capabilities and Limitations	-								А	А		
35.2. Theory of Operation	-									А		
36. RADIO CONCEPTS TR: TOs 31-1-141-3, 31-1-141-4 and 1-1-141-12 thru -15												
36.1. Transmitters (UHF/VHF)	5						В			В		
36.2. Receivers (UHF/VHF)	5						В			В		
36.3. Transceivers (UHF/VHF)	5						В			В		
36.4. Ancillary Equipment												
36.4.1. Linear Power Amplifiers	-											
36.4.2. Antenna Systems	5						В			В		
36.4.3. Transmission Lines	5						В			В		

3. CERTIFICATION FOR OJT 4. PROFICIENCY CODES USED										D TO INI	DICATE	
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	A	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
36.4.4. Remote Control Functions	-						В			В		
36.4.5. Recorder/ Reproducers	-						В			В		
36.4.6. Automatic Lock Out Device	-						Α			А		
37. ANTENNA COUPLERS, UHF/VHF; CU-547, CU-2274												
TR: TOs 31R1-2GR-142, 31R2-2GR-146WC-1, 31R2-2GR-109	1 and 31R2-2	2GR-1096	WC-1;	AFJQS XX	XXX-206T	B; AFMSI 3	300-1					
37.1. Capabilities and Limitations	-						Α			А		
37.2. Theory of Operation	-						Α			В		
38. VHF/UHF AM TRANSMITTER EQUIPMENT (AN/GRT-	21 or AN/GI	RT-22)										
TR: TOs 31R2-2GRT-102 and 31R2-2GRT-106WC-1; AFJQ8	1C8X-205Q											
38.1. Capabilities and Limitations	-						Α			В		
38.2. Theory of Operation	-						Α					
38.3. 336 Day Preventative Maintenance Inspection (PMI)	-						2b					
38.4. Tuning	-						2b					
38.5. Alignments with the Exception of the Frequency Synthesizer	-						2b					
38.6. Fault Isolation	-						2b					
39. VHF/UHF AM RECEIVER EQUIPMENT (AN/GRR-23 or	AN/GRR-24	ł)										
TR: TOs 31R2-2GRR-112 and 31R2-2GRR-116WC-1;AFJQS	1C8X3-205R	; AFMSI	300-1		•		•					
39.1. Capabilities and Limitations	-						Α			А		
39.2. Theory of Operation	-						A			В		
39.3. 336 Day Preventative Maintenance Inspection	-						2b					
39.4. Tuning	-						2b					
39.5. Alignments with the Exception of the Frequency Synthesizer	-						2b					
39.6. Fault Isolation	-	4 = 4 \					2b					
40. VHF/UHF I KANSCEIVER EQUIPMENT (AN/GRC-211 TD, TO: 21D2 2CDC171 2 21D2 2CDC171 6WC 1 21D2 2C	or AN/GRC- DC211-2 and	-171) 1 21 D 2 20	DC211	6WC 1. A		VV 2058A.	EMSI 20	0.1				
40.1 Capabilities and Limitations	NC211-2 and	1 <b>3 1 K 2 - 2</b> C	KC211	-0 W C-1, A	FJQ5 AAA	AA-2038A,		00-1	[	Δ		
40.2 Theory of Operation	-						A			B		
40.3. 336 Day Preventative Maintenance Inspection	_						1a			5		
40.4. Front Panel Adjustments	-						2b					
40.5. Fault Isolation	-						2b					
41. VHF/UHF TRANSMITTERS (CM300/350)												
TR: Applicable TOs/Technical Instruction; AFJQS 1C8X3-205	D; AFMSI 3	00-1										

			3. CEI	RTIFICATI	ON FOR OJ	Г	4. PRO	FICIEN	ICY COL	DES USEI	D TO INI	DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	A	В	С	D	Е	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
41.1. Capabilities and Limitations	-						Α			Α		
41.2. Theory of Operation	-						Α			Α		
42. VHF/UHF RECEIVERS (CM300) TR: Applicable TOs/Technical Instruction; AFJQS 1C8X3-205	D; AFMSI 3	00-1							-			
42.1. Capabilities and Limitations	-						Α			Α		
42.2. Theory of Operation	-						A			Α		
43. VHF/UHF TRANSCEIVERS (CM350)												
TR: Applicable TOs/Technical Instruction; AFJFQS 1C8X3-20	5F; AFMSI 3	300-1	-		I	<b></b>	T	1	1	I .	-	
43.1. Capabilities and Limitations	-									A		
43.2. Theory of Operation	-									A		
44. ENHANCED TERMINAL VOICE SWITCH (ETVS) SYST TR: TOs 31R2-4-1929-8-1; TI 6650.53A; 31R2-4-1930-7; TI 66	TEM 50.54B; AFJ	QS 1C8X	3-205W	; AFMSIs 3	300-1 and 3(	)0-6						
44.1. Capabilities and Limitations	-						Α			А		
44.2. Theory of Operation	-						В			В		
44.3. 168 Day Preventative Maintenance Inspection	-											
44.4. Digital Audio/TDM Principles Associated with ATC Air to	_						в					
Ground Systems	_						Б					
44.5. System Architecture	-						В					
44.6. Operator Position Equipment	-						В					
44.7. Measuring Transmit and Receive Audio Path	-						la					
44.8. Operating Configuration and Control Subsystem	-						1a					
44.9. Central Rack Equipment	-						В					
44.10. Power Distribution Equipment	-						В					
44.11. Operating Procedures of the Position Consoles	-						В					
44.12. Position Operational Checkout	-						la					
44.13. Configuration Changes	-						la					
44.14. Prescribed Maintenance Procedures	-						la					
44.15. Performance Checks on Circuit Card Assemblies	-						2b					
44.16. Alignments on Circuit Card Assemblies	-						2b					
44.17. Fault Isolation	-						1a					

	3. CERTIFICATION FOR OJT 4. PROFICIENCY CODES USED TO INDICAT											DICATE
1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	А	В	С	D	E	3 SKILL LEVEL	Fixed Track	Mobile Track	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
	(Atch 1)	START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERT INITIALS	Course			CDC	Course	-
45. FLIGHT DATA INPUT OUTPUT (FDIO)												
TR: TO 31P5-4-10-1-2, AFJQS 1C8X3-203D			-			-	-					
45.1. Capabilities and Limitations	-						Α			В		
45.2. Theory of Operation	-						В			В		
46. DIGITAL AUDIO LEGAL RECORDER (DALR)												
TR: TO 31S3-4-180-1; AFJQS 1C8X3-206D												
46.1. Capabilities and Limitations	-						А			В		
46.2. Theory of Operation	-						В			В		
47. SECONDARY TRAINING DOCUMENTS						• •						
47.1. Air Force Job Qualification Standards TR: RAWS Training Dashboard	-											
47.2. Air Force Qualification Training Package TR: RAWS Training Dashboard	-											
47.3. Formal Training Courses TR: Education and Training Course Announcements (ETCA)	-											