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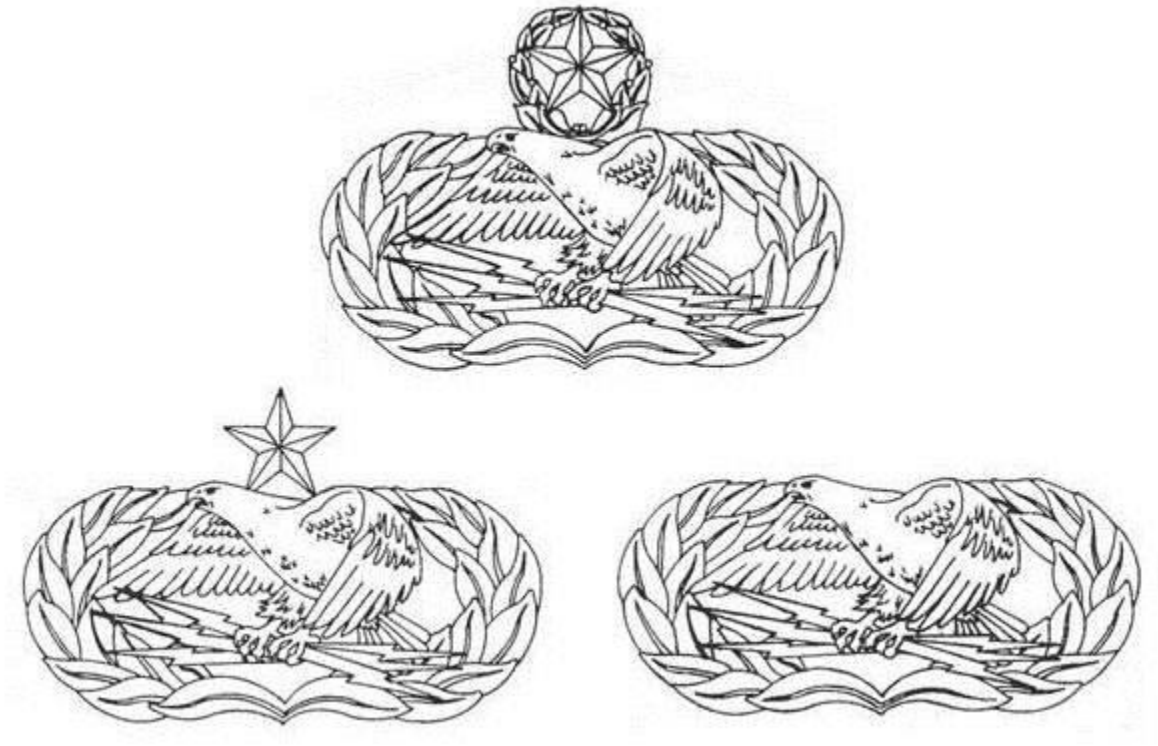

CAREER FIELD EDUCATION AND TRAINING PLAN

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RAWS
AFSC 1C8X3
CAREER FIELD EDUCATION AND TRAINING PLAN

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RAWS
AFSC 1C8X3

CAREER FIELD EDUCATION AND TRAINING PLAN

PART I

Preface

1. The changing Command and Control (C2) and Air and Space Expeditionary Forces (AEF) environments require vision, preparation, and attention to ensure people have the right skills and tools to deliver the C2 capabilities and the support required by the war fighter in meeting the Air Force mission of today and the vision of the future. Declining resources, expanding diversity of mission, and ever-changing technologies in the Air Force are impacting the availability of our most valuable resource--people. These factors will continue to exist in the future, making it essential for the work force to be effectively and efficiently trained to perform duties within each skill level of an Air Force Specialty (AFS). To meet the challenges of tomorrow, the Air Force must place a greater emphasis on career field training. This document is a "training road map", providing personnel a clear career path to success and makes career field training identifiable, measurable, and budget defensible. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. Note: Ensure the trade name/trademark is appropriately identified in the publication; common example: SharePoint®

2. This Radar, Airfield & Weather Systems (RAWS) Career Field Education and Training Plan (CFETP) is a comprehensive core training document that identifies life-cycle training/education requirements, support resources, and minimum core task requirements for the 1C8X3 specialty. The CFETP documents the career field training program and consists of two parts. Management uses both parts in conjunction with the Training Business Area (TBA) to plan, manage, and control training within the career field. NOTE: Civilians occupying associated positions will use Part II to support duty position qualification training.

2.1. Part I provides information necessary for overall management of the specialty. Section A explains how everyone will use the plan; Section B identifies career field progression information, duties and responsibilities, training strategies, and career field path; Section C associates each level with specialty qualifications (knowledge, education, experience, training, and other); and Section D indicates resource constraints. Some examples are funds, manpower, equipment, and facilities; Section E identifies transition training guide requirements for SSgt through MSgt.

2.2. Part II includes the following: Section A identifies the Specialty Training Standard (STS) and includes duties, tasks, Training References (TRs) 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 Airman have satisfied training requirements. Section C identifies available support materials. An example is 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.

3. Use of the guidance provided in this CFETP provides 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 work force 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). A formal course of training that leads to a technical or supervisory level of an AFS. Training is for selected Airmen at the advanced 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 a combination of both 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. 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 and within the established patterns of specialization.

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

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 that requires common 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 established a partnership 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). The result of a reorganization of the Air Force Institute for Advanced Distributed Learning (AFIADL); provides access to the Extension Course Institute.

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 http://www.e-publishing.af.mil/.

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 activity. Some managerial 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 especially effective training tool that allows the students to practice applications while they learn.

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

Core Competency. An integrated bundle of expert knowledge and organizational skills inherent to a particular career field(s) which makes a disproportionate contribution to the success of providing the right skills needed for military operations, anywhere anytime. It cannot be duplicated by any other organization, and is critical for the future.

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

Course Training Standard (CTS). 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 assigned by the Secretary of Defense.

Direct Reporting Unit (DRU). Air Force subdivisions directly subordinate to the CSAF. A DRU performs a mission that does not fit into any of the MAJCOMs. A DRU has many of the same administrative and organizational responsibilities as a MAJCOM (Example of a DRU: USAF Academy).

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.

Education and Training Course Announcement (ETCA). Located at https://etca.randolph.af.mil, 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. The ETCA contains courses the Air Force and reserve forces conduct or administer and serves as a reference for the Air Force, DoD, other military services, government agencies, and security assistance programs.

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 (Example of a FOA is the Air Force Inspection 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 accountable for the management and oversight of 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 highly knowledgeable and experienced person within the functional area and have the widest range of visibility over the functional area readiness and capability issues.

Functional Manager (FM). An individual assigned collateral responsibility for training, classification, utilization, and career development of personnel. AFSC Functional Managers exist at MAJCOM, NAF and base level.

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

Individual Training Plan (ITP). Use AF Form 623, On-the-Job Training Record/AF Form 623B, or other approved records system (e.g., Training Business Area (TBA)). The AF Form 623 reflects past and current qualifications and is used to determine 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 Event Summary Routine (ESR) and Job Data Documentation (JDD). Also utilized in procuring assets through the Standard Base Supply System (SBSS) and documentation of Time Compliance Technical Orders (TCTO) as well as 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. Learning gained through knowledge rather than hands-on experience.

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

Master Task Listing (MTL). A comprehensive list (100%) of all tasks performed within a work center and consisting of the current CFETP or AFJQS and locally developed AF Forms 797. Also, 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 prioritizes deployment/UTC tasks, home station training tasks, upgrade tasks, and qualification tasks.

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

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

Qualification Training. Hands-on, task performance based training designed to qualify Airmen in a specific duty position. This training program occurs both during and after the upgrade training process and is designed to provide 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 both the operational and federal communities. Additionally, RADES sets the standard for coverage prediction and depiction, as well as provides data analysis and unique radar forensics supporting search and rescue and aircraft mishap investigations. Squadron members ensure that 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 with operating locations at three NORAD Air Defense Sectors, the RADES is a major contributor to all facets of air detection, air sovereignty and command and control.

Regional Maintenance Center (RMC). Centralizing manpower at fixed locations using remote maintenance technology to maintain all ILS, TACAN, and VOR.

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 meeting chaired by the AFCFM with MAJCOM FMs, AETC Training Managers, Subject Matter Experts (SME), and HQ AETC Occupational Analysis Division (OAD) in attendance. Typically held three months prior to 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 to know on the job. Also identifies the training provided 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 of the 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.

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

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

Training Business Area (TBA). A web-based training application that provides Air Force war fighters with global, real-time visibility into qualifications, certifications, and training status of communications professionals. TBA 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.

Training Capability. The capability of a training setting 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 is the means for linking 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. Training that leads to the award 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, MAJCOM Functional Managers, 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. Those tasks which must be taught when courses are accelerated during a wartime environment. In response to a wartime scenario, these tasks will be taught in the 3-level course in a streamlined training environment. These tasks are only for those career fields that still need them applied to their schoolhouse tasks

Section A - General Information

1. Purpose of the CFETP. This CFETP provides the information necessary for AFCFMs, MAJCOM Functional Managers (MFM), 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 in order 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 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, Career Development Course (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 is designed to provide 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 for upgrade. The CFETP has several purposes, some of which are:

1.1. Serves as a management tool to plan, manage, conduct, and evaluate a career field-training program. Also, ensures that established training is provided at the appropriate point in an individual's career.

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

1.3. Lists training courses available in the specialty, identifies sources of training, and the training medium.

1.4. Identifies major resource constraints that impact implementation of the desired career field training program.

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

2.1. AETC training personnel develop/revise formal resident and exportable training based upon requirements established by the users and documented in the STS. They also develop procurement and acquisition strategies for obtaining resources needed to provide the identified training.

2.2. MAJCOM FMs 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. 81 TRSS Qualification Training Flight (Q-Flight) personnel develop training packages (AFJQSs/AFQTPs) based on requests submitted by the MAJCOMs and according to the priorities assigned by the AFCFM.

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 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 81 TRSS Q-Flight Customer Service Desk at 81 TRSS/TSQS, 601 D Street, Keesler AFB MS 39534-2235 or call DSN 597-3343; Comm. (228) 377-3343. To contact electronically send email to: qflight.customer.service@us.af.mil.

2.6. Submit recommended CFETP additions/deletions through your MAJCOM FM.

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 MAJCOM FMs 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. This information supplements that presented in the AFECD.

4.1. RAWS Apprentice/Journeyman/Craftsman (1C833/1C853/1C873).

4.1.1. Specialty Summary. Deploys, installs, maintains, and repairs fixed or mobile air traffic control, weather, ground aircraft control and warning radar systems, related radar operator training devices, aircraft identification equipment, remoting systems, video mappers, computerized processors, meteorological, navigation, and air traffic control ground-to-air radio systems. Operates and relocates related support and communications equipment, uses test equipment, analyzes performance trends, and supervises maintenance activities. RAWS may be required to maintain entire facilities, subsystems, or individual services or equipment that assist in the safe and expedient movement of air traffic throughout the National Airspace System (NAS) as well as providing support to the National Weather Service (NWS). Related DoD Occupational Subgroup: 110200.

4.1.2. Duties and Responsibilities:

4.1.2.1. Performs RAWS functions. Plans, organizes, and schedules work assignments, workloads, and maintenance procedures for RAWS. Establishes production controls and standards. Prepares reports on maintaining, installing, repairing, removing, and siting all types of air traffic control systems. Ensures operations and maintenance economies by improving work methods and procedures. Designs and develops organizational structures, including manning, duty assignments, and workloads. Inspects and evaluates RAWS activities. Performs or directs all maintenance inspections organized to evaluate base or command maintenance programs. Completes all associated communication electronic research and development projects to modernize, upgrade, or replace RAWS.

4.1.2.2. Installs, removes, and relocates RAWS. Assembles, connects, modifies, and adjusts electronic subassemblies such as antennas, transmitters, receivers, processors, indicator groups, and ancillary systems such as voice recorders, weather sensors, voice switches, solar observatories, and space weather systems. Studies system characteristics, local terrain, and planned base facilities and requirements. Conducts tests of installed equipment for proper component assembly and compliance with technical orders. Determines equipment position based on plans, diagrams, and specifications. Checks and inventories equipment and project materials for serviceability. Assembles, connects and wires components, assemblies and antenna systems. Performs operational tests, and adjusts and aligns equipment. Places in operation, calibrates, tunes, and aligns subassemblies according to approved technical data to maximize performance. Completes flight inspections. Disassembles, relocates, assembles, and connects all decommissioned RAWS.

4.1.2.3. Oversees work in progress and reviews completed repairs for sound maintenance practices. Establishes requirements for maintenance and support equipment, tools, and spare parts. Requisitions, accounts for, and turns in supplies and material. Diagnoses and recommends equipment repair, replacement or depot overhaul. Interprets inspection findings and determines adequacy of corrective action. Reviews and ensures compliance with maintenance management publications and procedures. Develops and enforces safety standards. Evaluates and resolves problems encountered during siting, installing, repairing, and overhauling. Uses layout drawings, schematics, and pictorial diagrams to solve maintenance problems, and analyzes construction and operating characteristics of equipment to determine source of malfunction. Interprets maintenance and installation policy and procedures.

4.1.2.4. Repairs, overhauls, and modifies RAWS. Isolates malfunctions by prescribed systems checking procedures, visual inspections, voltage checks, and other tests using electronic test

equipment. Repairs RAWS subassemblies, including antennas, transmitters, receivers, operator training devices, radar beacon systems, remoting systems, video mappers, display systems, and associated communications systems and related equipment. Conducts performance tests of repaired subassemblies, using bench mockups and applicable test equipment. Accomplishes organizational and intermediate level equipment modifications according to time compliance technical orders, or field directives. Assembles, installs, and repairs antenna systems, transmission lines, and waveguides. Performs corrosion control.

4.1.2.5. Develops methods for improving maintenance effectiveness and efficiency. Interprets inspection findings, and determines adequacy of corrective actions. Ensures maintenance data collection forms and inspection and maintenance records are accurately completed. Recommends changes to improve equipment performance, maintenance practices, or system interoperability. Evaluates justification and practicality of recommended improvements to equipment performance and maintenance procedures. Develop enforces safety standards and practices for RAWS maintenance activities. Coordinates with appropriate agencies to ensure systems support requirements.

4.1.2.6. Establishes requirements for tools, test/support equipment, personnel, supplies, and technical documents. Develops work standards, methods, and controls for functions such as periodic inspections, operational testing, and equipment repair. Identifies maintenance problem areas and initiates corrective action. Maintains inspection and maintenance records. Posts entries on maintenance and inspection records. Records and reviews meter readings, test results, and historical data in equipment records. Completes and reviews maintenance data collection and equipment status reporting databases.

4.1.2.7. Prepares RAWS equipment for deployment. Deploys, surveys, sets-up, and activates tactical/mobile RAWS and associated equipment. Completes all required maintenance to sustain system operations according to HHQ requirements. Coordinates with Federal Aviation Administration as well as other agencies as needed. Reconstitutes and redeploys systems.

4.2. Superintendent (1C890).

4.2.1. Specialty Summary. Manages system analysis and design, programming, systems operation and maintenance, resource management, and security management. Directs activities for installing, maintaining, repairing, overhauling, deploying, and modifying RAWS equipment platforms to include: air traffic control, weather, ground aircraft control, and warning radar systems; air traffic control radio; meteorological and navigational aid systems. Related DoD Occupational Group: 110100.

4.2.2. Duties and Responsibilities:

4.2.2.1. Plans and organizes maintenance activities. Plans and supervises system installation and evaluates facilities layout and performance standards. Designs and develops organizational structures and determines equipment, training, and supplies required for systems implementation and support. Executes operational plans to ensure positive control of assigned forces. Evaluates operational readiness of RAWS equipment, and related support equipment.

4.2.2.2. Directs activities responsible for system analysis and design, programming, operations and maintenance, security, systems management, technical support and resource management. Implements and interprets policies, directives, and procedures.

4.2.2.3. Directs maintenance activities. Directs personnel employed in siting, deploying, inspecting, adjusting, removing, replacing, and repairing RAWS, and related equipment. Prepares and analyzes reports encompassing siting, deploying, maintaining, installing, repairing and removing RAWS and

related equipment. Coordinates activities and resolves common problems. Directs overhaul and repair of RAWS and related equipment. Ensures work standards are maintained. Determines extent and economy of repair, including disposition of malfunctioning equipment.

4.2.2.4. Inspects and evaluates maintenance activities for compliance with directives. Evaluates, rates, and prepares reports on activity effectiveness. Recommends and implements corrective action for improved methods and procedures. Evaluates effectiveness of equipment usage, systems performance, customer service, supplies, and system scheduling, processing, and maintenance.

4.2.2.5. Supervises maintenance functions. Resolves problems with installing, maintaining, repairing and overhauling systems and equipment. Checks systems and equipment for proper siting, installation, and serviceability. Establishes local maintenance procedures and policies. Performs research and development of new systems and equipment.

4.2.2.6. Establishes training requirements. Establishes training programs to meet local knowledge and certification requirements.

4.2.2.7. Plans, programs, and develops budget inputs to ensure resource availability for operational requirements.

4.2.2.8. Manages plans, implementation, and development functions. Helps functional users define requirements. Supervises functional user requirements translation into automated systems capabilities. Organizes teams that use methodologies to meet mission requirements. Supervises test and evaluation efforts to determine performance. Organizes and participates in mission implementation and conversion. Ensures continued interface between functional users, programming, and operations personnel. Ensures compliance with standards for systems documentation.

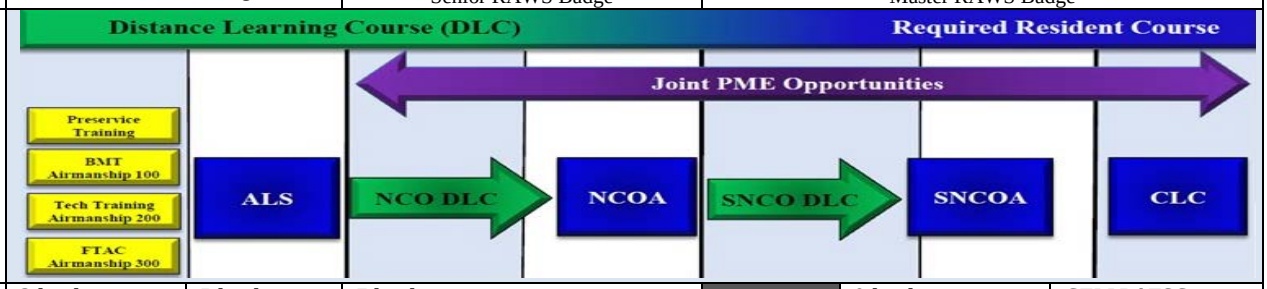
4.3. Chief Enlisted Manager. This specialty "caps" at the Chief Master Sergeant level with those specialties that came up through the RAWS (1C8X3) career ladders. Personnel attaining the rank of CMSgt are assigned broad ranging duties in directing and managing diverse RAWS functions.

4.4. MAJCOM Functional Manager (MFM). (AFI 36-2201, *Air Force Training Program*; AFI 36-2101, *Classifying Military Personnel (Officers and Enlisted)*; *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. Assists in gathering inputs and data to complete enlisted grade allocation for Career Progression Group (CPG) reviews. Provides guidance to subordinate units on 1C8X3 personnel issues. Assists with the dissemination of information regarding Air Force and career field policies, plans, programs, and procedures to subordinate units. Assists in identifying qualified subject matter experts to help with the development of Specialty Knowledge Tests (SKT) and the Career Development Course (CDC). Acts as the primary MAJCOM reviewer on CDC training and classification waiver request packages. Coordinates on all MAJCOM 1C8X3 staffing and manpower issues.

4.5. Air Force Career Field Manager (AFCFM). (AFPD 36-26, *Total Force Development*; AFI 36-2201, *Air Force Training Program*; AFI 36-2101, *Classifying Military Personnel (Officers and Enlisted)*; *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 important role in the Air Force's ability to accomplish its mission. It is essential that everyone involved in training do their part to plan, manage, and conduct an effective training program. The guidance provided in this part of the CFETP will ensure individuals receive viable training at appropriate points in their careers.

1C8X3 RAWS Career Field Path							
	Apprentice	**Journeyman**	**Craftsman**		**Superintendent**		**Chief Enlisted Manager**
Rank							
High Year of Tenure	N/A	8 Years	15 Years	20 Years	24 Years	26 Years	30 Years
Earliest sew-on time (TIS)	6 Months 16 Months	30 Months	3 Years	5 Years	8 Years	11 Years	14 Years
1C8X3 Average Note (1)		**2.6 Years**	**4.5 Years**	**8.5 Years**	**14.5 Years**	**17.71 Years**	**23.56 Years**
Badges	 Basic RAWS Badge		 Senior RAWS Badge		 Master RAWS Badge		
EPME							
Upgrade Training	**3-level PAFSC 1C833** - Awarded upon Graduation from Initial Skills Course	**5-level PAFSC 1C853** - 12 months UGT, (retrainee – 9 months) -Complete CDCs -Complete 5-level core tasks	**7-level PAFSC 1C873** - Min rank of SSgt - 12 months UGT (retrainee – 6 months) - Complete CDCs - Complete 7-level core tasks			**9-level PAFSC 1C890** - Min rank SMSgt - Complete 9-level core tasks	**CEM PAFSC 1C800** - Min rank CMSgt
Professional Development	- Basic Military Training - FTAC	-Train the Trainer -Can become a supervisor after ALS	- CCAF - NCO Professional Enhancement Course - Basic Instructor Course	- SNCO Professional Enhancement Course -SEJPME I	- CCAF Prof Mgr's Cert -SEJPME II	-SEJPME II	-MAJCOM CMSgt Orientation Course
Jobs/Opportunities		- Trainer - CONUS RMC Tech - Supervisor	- RMC Technician (Any) - Instructor Duty - Team Chief - Supervisor - Technician	- NCOIC - RMC (Any) - Team Chief - Curriculum Developer	- Flight Chief - Section Chief - Instructor Supervisor - CDC Writer -MFM	-MFM -RMC Superintendent -Flt Superintendent	-CFM -MFM -Group Superintendent -CCM

NOTE 1: Data is Current as of 30 Jun 2017, Promotion information is from 1C8X1 and 1C8X2 averages from CY16 and CY17 cycles.

Duty Titles

Unit	E9	E8	E7
Air Staff	1C8 AFCFM	Manager, (Program) Superintendent	Manager, (Program)
MAJCOM	1C8 MFM 1C8 Career Field Functional Manager (CFFM) (ANG Only)	1C8 MFM AFPC Functional Manager Manager, (Branch or Program) 1C8 Career Field Functional Manager (CFFM) (ANG Only)	1C8 MFM 1C8 Functional Area Manager (FAM) Manager, (Program)
NAF, FOA or Equivalent	Chief, (Program, Project or Policy)	Manager, (Program)	Manager, (Program)
Wing, Group	Group Superintendent	Superintendent, (Function)	Superintendent, (Function)
Squadron	Squadron Superintendent Chief of Maintenance (ANG only)	Squadron Superintendent Flight Chief NCOIC Chief of Maintenance (ANG only)	Squadron Superintendent NCOIC Technician Flight Chief
Det/Flight		Det/Flight Chief	Det/Flight Chief Section Chief NCOIC (Function) Shift Supervisor
AETC Training Squadron		Squadron Superintendent Flight Chief	Instructor Instructor Supervisor CDC Writer Flight Chief
Regional Maintenance Center (RMC)		Superintendent Operating Location Chief	Manager, AF ATCALS Flight Chief, Remote Maintenance Flight Chief, Field Maintenance Flight Chief, ATCALS Installations

Unit	E6	E5	E4
Wing, Group	NCOIC, (Function)		
Squadron	Team Chief NCOIC, (Function) Supervisor Technician	Team Chief Supervisor Technician	Supervisor Technician
Det/Flight	NCOIC, (Function) Shift Supervisor	Shift Supervisor	
AETC Training Squadron	Instructor Instructor Supervisor Curriculum Developer Training Manager	Instructor Curriculum Developer	
Regional Maintenance Center (RMC)	Team Chief, RMC Supervisor, RMC	Team Chief, RMC Supervisor, RMC Technician, RMC	Technician, RMC

NOTE: All deviations require CFM approval (submitted through MAJCOM Functional 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 identified in the individuals EPR outside of the duty title.

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). Included in this spectrum is 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. The 81 TRSS/TSQ (Q-Flight) develops AFJQSs/AFQTPs to support tasks relating to communications-electronics and communications-computer systems, functions and duties. Completion of AFJQSs/AFQTPs is mandatory by duty position for personnel in upgrade or qualification training.

6.1.2. Five level CDC development is restricted to seven volumes split into two sets. The following table outlines 5-level CDC contents.

1C853- Set A	
VOLUME 1	Introduction to the 1C8X3 Career Field & Computer
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

6.1.3. Seven-level CDC development is restricted to one volume. The following table outlines 7-level CDC contents.

1C873	
VOLUME 1	Organizational Structure & Work Center Management

6.3. No 9-level requirements currently exist for this AFSC.

6.4. Commercial Certifications. Below are some available commercial certifications for 1C8X3 technicians. An "X" in the DANTES column indicates that testing may be completed at the base education office. Air Force Credentialing Opportunities On-Line (AF COOL) will pay up to $4,500 for enlisted Air Force members to obtain civilian industry recognized credentials and licensures. For more information contact AF COOL at (334) 649-5115 or at CCAF.COOL@us.af.mil. The Department of Veterans Affairs (VA) has licensing and certification benefits that can be used, including the GI Bill. Visit http://www.gibill.va.gov/pamphlets/lcweb.htm for more information.

Certifications	Criteria	Website	DANTES
Electronics Technician Association (ETA) • Associate CET • Journeyman CET Competencies o Wireless Communications	• Experience • Written Exam	http://www.eta-i.org/	X
National Association of Radio and Telecommunications Engineers (NARTE) • Junior Telecommunications Tech • Senior Telecommunications Tech • Master Telecommunications Tech	• Education • Experience • References • Written Exam	http://www.narte.org	X
Federal Communications Commission (FCC) General Radio Operator's License (GROL)	• Written Exam	http://wireless.fcc.gov/index.htm?job=home	X
Project Management Institute • Project Management Professional (PMP)	• Education • Experience • Written Exam	http://www.pmi.org/certifications/types/project-management-pmp	

7. Community College of the Air Force (CCAF). CCAF is one of several federally chartered degree-granting institutions; however, it is the only 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 and 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 afforded the opportunity to obtain an Associate in Applied Science degree. In order to be awarded, degree requirements must be successfully 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 http://www.au.af.mil/au/barnes/ccaf/.

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

	Semester Hours
Technical Education	24
Leadership, Management, and Military Studies	6
Physical Education	4
General Education	15*
Program Elective	15*
Total:	64

7.1.1. Technical Education. (24 Semester Hours): Completion of the career field apprentice course satisfies some semester hours of the technical education requirements. A minimum of 24 semester hours of Technical Core subjects/courses must be applied and the remaining semester hours applied from Technical Core/Technical Elective courses. Some academic degree programs

have specific technical education requirements. Refer to the CCAF General Catalog for specific degree requirements for your specialty.

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

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

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

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

7.1.6. Residency Requirement. (16 Semester Hours): Satisfied by credit earned for coursework completed in an affiliated school or through internship credit awarded for progression in an Air Force occupation specialty. Enlisted members attending Army, Navy, and/or DOD initial or advanced training do not receive resident credit since these schools are not part of the CCAF system. However, the college awards proficiency credit to AF enlisted members completing these courses. Note: Physical education credit awarded for basic military training is not resident credit.

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

7.2.1. 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.

7.2.2. 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 managers extensive training, education, qualifications and experience required to develop and manage CCAF courses. The certification also recognizes the individual's ISD qualifications and experience in planning, developing, implementing and managing instructional systems.

7.2.3. CCAF Professional Manager Certification (PMC). CCAF offers the PMC Program for qualified Air Force NCO's. The PMC is a professional credential awarded by CCAF that formally recognizes an individual's advanced level of education and experience in leadership and management, as well as professional accomplishments. The program provides a structured

professional development track that supplements Enlisted Professional Military Education (EPME) and Career Field Education and Training Plan (CFETP).

7.3. Air Force Credentialing Opportunities On-Line (AF COOL). AF COOL replaced the CCAF Credentialing and Education Research Tool (CERT). The AF COOL Program is managed by CCAF and 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. AF COOL also provides information on specific occupational specialties, civilian occupational equivalencies, AFSC-related national professional credentials, credentialing agencies, and professional organizations. AF COOL contains a variety of information about credentialing and licensing and can be used to:

- 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.

To learn more about AF COOL and funding processes, visit
https://afvec.langley.af.mil/afvec/Public/COOL/Default.aspx

Section C - Skill Level Training Requirements

8. Purpose. The various skill levels in the career field are defined in terms of tasks and knowledge requirements for each skill level in the RAWS career field. They are stated in broad, general terms and establish the standards of performance. Core tasks, knowledge items, and skill requirements for this specialty are identified in the STS, COL, CDCs, AFJQSs/AFQTPs, etc. Completion of the mandatory 3-level skill awarding course, CDCs, and applicable core tasks define the Air Force core tasks for this specialty.

9. Specialty Qualification Requirements.

9.1. Apprentice (3-Level) Training.

KNOWLEDGE	Knowledge is mandatory of: Electronic Principles and Digital Techniques, including Transistors and Solid-State Component Theory that applies to RAWS; Maintenance Data Processing Systems; Wiring Diagrams, Circuit Diagrams, Schematic Diagrams, and Technical Orders; and Air Force Maintenance and Supply Procedures. Electronic Principles; Microprocessors; Data Processing; Mathematics Principles required to solve Electronic Formulas and Number Systems; Analog and Digital Electronic Circuits; Advanced Troubleshooting Techniques; Principles of Meteorological, Radar, Radio, and Navigation Systems Maintenance; Use of Technical Data and Blueprints; System Block, Data Flow, Schematic, Logic, and Interconnecting Wiring Diagrams; Principles and Use of Test Equipment and Diagnostic Systems; Radio Frequency Principles; and Advanced Soldering Techniques.
EDUCATION	Completion of High School Diploma or Equivalent is Mandatory. Additional Courses in Mathematics, Physics, Basic Knowledge of Electronic Principles, Computers and Networks is Desirable.
TRAINING	For award of AFSC 1C833, completion of RAWS Initial Skills Course is mandatory
EXPERIENCE	None required.
OTHER	For award and retention of AFSC 1C833, must complete or maintain Cyber Awareness Challenge training IAW AFMANs 33-152, *User Responsibilities and Guidance for Information Systems* and 17-1301, *Computer Security (COMPUSEC).*para 4.2. Normal color vision as defined in AFI 48-123, *Medical Examination and Standards*. The ability to obtain a government license according to AFI 24-301, *Vehicle Operations*. Freedom from fear of heights. Eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Program Management*, is mandatory for award and retention of this skill level.
IMPLEMENTATION	Attendance at the Apprentice RAWS Specialist course is mandatory for award of the 3-skill level unless waived by the AFCFM.

9.2. 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 1C853. Experience 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	For award and retention of AFSC 1C853, must complete or maintain Cyber Awareness Challenge training IAW AFMANs 33-152, *User Responsibilities and Guidance for Information Systems* and 17-1301, *Computer Security (COMPUSEC)*.para 4.2. Normal color vision as defined in AFI 48-123, *Medical Examination and Standards*. The ability to obtain a government license according to AFI 24-301, *Vehicle Operations*. Freedom from fear of heights. Eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Program Management*, is mandatory for award and retention of this skill level.
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.

9.3. Craftsman (7-Level) Training.

KNOWLEDGE	All 1C853 knowledge qualifications apply to the 1C873 requirements. Completion of the 1C873 Career Development Course (CDC).
TRAINING	No mandatory AETC training courses are required for upgrade. Completion of all STS core tasks.
EXPERIENCE	Qualification in and possession of AFSC 1C873. 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/AFQTPs. Completion of all local tasks assigned for the duty position.
OTHER	For award and retention of AFSC 1C83X, must complete or maintain Cyber Awareness Challenge training IAW AFMANs 33-152, *User Responsibilities and Guidance for Information Systems* and 17-1301, *Computer Security (COMPUSEC)*.para 4.2. Normal color vision as defined in AFI 48-123, *Medical Examination and Standards*. The ability to obtain a government license according to AFI 24-301, *Vehicle Operations*. Freedom from fear of heights. Eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Program Management*, is mandatory for award and retention of this skill level.
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 CDCs and AFJQSs/AFQTPs concurrently to obtain the necessary qualification for refresher and cross-utilization training.

9.4. Superintendent (9-Level) Training.

KNOWLEDGE	Techniques and Procedures of Systems Analysis and Design. Interpretation of Wiring and Logic Diagrams. Project Management. Software. Methodology. System Operation and Maintenance. System and Equipment Capability, Capacity, and Logic. Performance Measurement, Security, and Resource Management.
TRAINING	No mandatory AETC training courses are required for upgrade. Completion of all STS core tasks.
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.
OTHER	For award and retention of AFSC 1C890, must complete or maintain Cyber Awareness Challenge training IAW AFMANs 33-152, *User Responsibilities and Guidance for Information Systems* and 17-1301, *Computer Security (COMPUSEC)*.para 4.2. Completion of and eligibility for Single Scope Background Investigation (SSBI) according to AFI 31-501, *Personnel Security Program Management* is mandatory for award and retention of this skill level.
IMPLEMENTATION	Entry into OJT is initiated when individuals are selected for the rank of SMSgt. Qualification training is initiated anytime individuals are assigned duties for which they are not qualified.

9.5. Training Sources.

9.5.1. AFSC specific training - 334th TRS, Keesler AFB, MS at https://etca.randolph.af.mil/.

9.5.2. CDCs 1C853 are available for upgrade purposes through the unit training manager or online at Air University. For individual qualification and cross-utilization training, CDCs are ordered through the unit training office.

9.5.3. AFJQSs/AFQTPs are Air Force publications and are mandatory for use by personnel in upgrade or qualification training. They are developed by the 81 TRSS (Q-Flight), Keesler AFB, MS and may be downloaded from the Q-Flight SharePoinT© site at: https://cs.eis.af.mil/sites/10445/default.aspx. Procedures for requesting development of AFJQSs/AFQTPs are contained in AFI 17-204, *Air Force On-the-Job Training Products for Cyberspace Support Enlisted Specialty Training*. AFJQSs/AFQTPs are listed in Part II, Section C, of this CFETP.

Section D - Resource Constraints

10. 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.

There are currently no constraints. This area is reserved.

Section E - Transition Training Guide

11. Current 5 and 7-level Airmen must complete all core tasks identified in this CFETP within the timeline established by CFM guidance.

PART II

Section A - Specialty Training Standard

1. Implementation. This STS will be used for technical training provided by AETC for the 3- level class beginning in 2018.

2. Purpose. As prescribed in AFI 36-2201 this STS:

2.1. Lists in column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for Airman to perform duties in the 3-, 5-, and 7-skill level. Column 2 (Core Tasks) identifies by skill level, specialty-wide training requirements. **NOTE:** Core tasks are minimum task training requirements for upgrade.

2.2. Provides certification for OJT. Column 3 is used to record completion of tasks and knowledge training requirements. Use automated training management systems to document technician qualifications, if available. For initial certification or transcribing documentation complete the columns in accordance with AFI 36-2201.

2.3. Shows formal training and correspondence course requirements. Column 4 shows the proficiency to be demonstrated on the job by the graduate as a result of training on the task/knowledge and the career knowledge provided by the correspondence course. See the Air University Catalog maintained at https://cs3.eis.af.mil/sites/AE-ED-02-37/AFKN_Docs/Forms/AllItems.aspx?RootFolder=%2Fsites%2FAE%2DED%2D02%2D37%2FAFKN%5FDocs%2Fe%2DCDC%5FCDC%20Catalog for current CDC listings.

2.4. Qualitative Requirements. Attachment 1 contains the tasks, knowledge, and proficiency levels referenced in paragraph 2. Columns are marked with a proficiency code to indicate 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 proficiency levels indicated.

2.5. Becomes a job qualification standard (JQS) for on-the-job training when placed in AF Form 623, *Individual Training Record Folder* and used according to AFI 36-2201.

2.6. Is a guide for development of promotion tests used in the Weighted Airman Promotion System (WAPS). Specialty Knowledge Tests (SKT) are developed at the Airmen Advancement Division by senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the Enlisted Promotion References and Requirements Catalog (EPRRC). Individual responsibilities are listed in chapter 1 of AFI 36-2605, *Air Force Military Personnel Testing System*. WAPS is not applicable to the Air National Guard or Air Reserve Forces.

3. Recommendations. Comments and recommendations are invited concerning the quality of AETC training. A Training Feedback Hotline has been installed for the supervisors' convenience. For a quick response to concerns, call our Training Feedback Hotline at DSN 597-4566, fax us at DSN 597-3790, or e-mail us at 81trg.tge@us.af.mil. Reference this STS and identify the specific area of concern (paragraph, training standard element, etc.).

4. Measurement. 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 as needed 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 hardest parts of the task (partially proficient). The student can also determine step-by-step procedures for doing the task.

Section B - Support Materials

7. The following list of support materials is not all-inclusive; however, it covers the most frequently referenced areas. The most current products can be found at the 81st TRSS/TSQ web page and are available for download from the web site at https://cs.eis.af.mil/sites/10445/default.aspx. Procedures for requesting product development are found in AFI 17-204.

Section C - Training Course Index

8. 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 Education and Training Course Announcements (ETCA) database at https://etca.randolph.af.mil/

9. Air Force In-Residence Courses.

Course Number	Course Title	Location
E2ANW3DXXX 00QA/ E2AZR3DXXX 00QA	Cyberspace Support Quality Assurance Procedures Course (Hybrid Course)	AU Blackboard/ Keesler
E2ANW3DXXX 00QA/ E2AZT3DXXX 00QA	Cyberspace Support Quality Assurance Procedures Course (Hybrid Course)	AU Blackboard/ Mobile Training Team
E3AZR1C851 03DA	Digital Airport Surveillance Radar (DASR) Maintenance	Keesler
E3AZR1C851 03SA	Standard Terminal Automation Replacement System (STARS) Maintenance	Keesler
E3AZR1C852 0B1A	AN/FRN-45 O/I Maintenance	Keesler
E3AZR1C8XX 00DA	High reliability soldering and connections	Keesler
E3AZR3DX7X 00AB	Project Management	Keesler
J7AZR3D157 0C0B	Tower Climbing and Tower Certifier Training Course	Sheppard
J7AST3D157 0C0B	Tower Climbing and Tower Certifier Training	Mobile Training Team
J8AZR3D157 0F5A	Fiber Optic Cable Installation, Splicing And Maintenance	Sheppard

10. Air University Courses.

For a current listing of Air University courses go to http://www.au.af.mil/au/afiadl/.

11. Exportable Courses.

For a current list of the available CBT courses refer to https://www.my.af.mil/faf/FAF/fafHome.jsp (Under AF e-Learning)

12. National Weather Service Course.

E5AZG1C851 01NA	WSR-88D Weather Radar Maintenance (R-4006)	Kansas City

13. Federal Aviation Administration Courses:
https://www.academy.jccbi.gov/catalog/course.asp?CHAP=TO

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

Section D - MAJCOM Unique Requirements

14. The following MAJCOM provided courses are available to support RAWS training. They are open to all active, reserve, and guard military and civilians.

Course Title	MAJCOM	Unit	Location	POC
TPS75CHOT- AN/TPS-75 Long Range Radar (CHOT)	ACC/A6CS	726 ACS	Luke	Mr. Steve Smith
ASOS Maintenance Course Number: S1003	AFDW	811 OSS	Kansas City	Mr. Bob Retzlaff Phone: (816) 994-3019 Email: robert.retzlaff@noaa.gov Link to course info: http://www.nws.noaa.gov/training
Mark 20A Instrument Landing System	AFFSA	ERMC	Ramstein AB	Mr. Richard Harbridge HQ AFFSA/ERMC DSN: 314-489-7450/6921
AN/FMQ-7 Maintainer Course	ACC	2 WS, Det 4	Holloman AFB	Mr. John Pietrzak 1441 Observatory Road Holloman AFB, NM 88330 DSN: 572-3461
AN/FRR-95 and Solar Radio Spectograph Maintainer Course	ACC	2 WS, Det 2	Hamilton, MA	Mr. Daniel Holmes 305 Sagamore Street Hamilton, MA 01982 DSN: 478-4602; Comm: (781) 377-4600

15. The following Lightning Force Academy (LFA) courses are available to support RAWS training. They are open to all active, reserve, and guard military and civilians. These courses

can be found at the LFA SharePoin© Link at:
https://cs1.eis.af.mil/sites/eiportal/lfa/default.aspx.

The Standard Installation Practices Training (SIPT)
Cable Antenna SIPT
Electronics SIPT
Network Infrastructure
Team Chief Academy (TCA)
Team Chief Refresher Seminar (TCR)
Project Engineering
Project Management (being developed)
Quality Assurance (QA)
GPS Data Collection
Confined Space and Pole Top Rescue Training
Giant Voice
Tower Rescue Certifier Course

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

B. CHANCE SALTZMAN, Brig Gen, USAF
Director of Current Operations

Attachments:
1. Qualitative Requirements
2. Specialty Training Standard (STS) 1C8X3

PREFACE

NOTE 1: Users are responsible for annotating technical references to identify current references pending STS revision. Locate current Air Force publications at:

DOD Issuances and OSD Administrative Instructions at: http://www.dtic.mil/whs/directives/.
Air Force publications at: http://www.e-publishing.af.mil/.
AFSSIs at: https://cs.eis.af.mil/sites/10060/default.aspx.
DISA Circulars and Instructions at: https://www.disa.mil/About/DISA-Issuances.
Technical Orders (TO) at: https://www.my.af.mil/etims/ETIMS/index.jsp.
AF e-Learning:
https://usafprod.skillport.com/skillportfe/custom/login/usaf/seamlesslogin.action.

NOTE 2: Not mandatory for Engineering and Installation units.

NOTE 3: For "Personnel Only" UTCs, there are no wartime tasks required.

NOTE 4: All core position tasks must be completed prior to upgrade. This includes all tasks outlined in 1C8X3 CFETP assigned to the work center.

NOTE 5: Knowledge and/or performance tasks are defined in the AFJQS. AFJQS items set the standard for qualification and certification and are mandatory for use in conjunction with this STS when applicable to the duty position.

NOTE 6: Track and manage training for TSgts and below and MSgt/SMSgt retrainees using Training Business Area (TBA).

NOTE 7: When an AFJQS is loaded into TBA, AFJQS task numbering will vary from the STS. The numbering scheme is defined by your work center specific master training plan.

NOTE 8: Senior NCOs in the 1C8X3 AFSC are not required to have an Individual Training Plan (ITP) with the following exceptions: personnel in upgrade training status, or performing equipment maintenance as part of primary duties. Unit Commanders can require Senior NCOs with UTC tasks to have an ITP.

NOTE 9: AFQTP3DXXX-202A, Electrostatic Discharge Handbook will be changed to AFJQSXXXXX-202A, Electrostatic Discharge.

NOTE 10: AFJQS3D1XX-200F, Engineering Installation (EI) Team Chief will be changed to AFJQSXXXXX-200F, Engineering Installation (EI) Team Chief.

NOTE 11: Third Party certification is not required for Radar, Airfield, Weather Systems personnel.

PRINTED NAME OF TRAINEE *(Last, First, Middle Initial)*	INITIALS *(Written)*	
PRINTED NAME OF TRAINER AND WRITTEN INITIALS		
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	

PROFICIENCY CODE KEY		
	SCALE VALUE	DEFINITION**: The individual**
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (EXTREMELY LIMITED)
	2	Can do most parts of the task. Needs help only on hardest parts. (PARTIALLY PROFICIENT)
	3	Can do all parts of the task. Needs only a spot check of completed work. (COMPETENT)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (HIGHLY PROFICIENT)
***Task Knowledge Levels**	a	Can name parts, tools, and simple facts about the task. (NOMENCLATURE)
	b	Can determine step by step procedures for doing the task. (PROCEDURES)
	c	Can identify why and when the task must be done and why each step is needed. (OPERATING PRINCIPLES)
	d	Can predict, isolate, and resolve problems about the task. (ADVANCED THEORY)
****Subject Knowledge Levels**	A	Can identify basic facts and terms about the subject. (FACTS)
	B	Can identify relationship of basic facts and state general principles about the subject. (PRINCIPLES)
	C	Can analyze facts and principles and draw conclusions about the subject. (ANALYSIS)
	D	Can evaluate conditions and make proper decisions about the subject. (EVALUATION)

Explanations

* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)

** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks. This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.

(-) 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.

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
1. RAWS CAREER FIELD TR: AFECD; AFI 13-204 v(4) & 36-2101; 1C8X3 CFETP												
1.1. AFS Structure	5						A	A	-	-	-	-
1.2. Progression within Air Force Specialty Code 1C8X3	5						A	A	-	-	-	-
1.3. Read CFETP 1C8X3	5						-	-	-	-	-	-
1.4. Explain Duties of 1C8X3 AFSC	5						A	A	-	-	-	-
2. SAFETY/RISK MANAGEMENT (RM) TR: AFIs 90-802, 91-202, 13-204 v(4), 91-302 and TO 00-25-213												
2.1. Air Force Consolidated Occupational Safety Instructions for AFSC	5						A	A	B	-	-	-
2.2. Hazards of the AFSC	5						A	A	B	-	-	-
2.3. Practice Safety Precautions:												
2.3.1. Maintenance Actions	5						2b	A	B	-	-	-
2.3.2. Energized Equipment	5						2b	A	B	-	-	-
2.3.3. High Voltage Equipment	-						2b	A	B	-	-	-
2.3.4. Radio Frequency (RF) Hazard Environments TR: AFI 91-203 chap 30.15T; TO31Z-10-4-WA-1; Command and Local Directives	-						A	A	B	-	-	-
2.3.5. Compressed Gas Cylinders TR: AFI 91-203 chap 40; TO 42B5-1-2; Command and Local Directives	-						-	-	-	-	-	-
2.3.6. Hazardous Materials TR: AFI 91-203 chap 22, 31, 33, 36, 40, & 43; TO 00-25-213-WA-1	-						A	A	B	-	-	-
2.3.7. In Confined Spaces TR: 91-203 Chap 23	-						-	-	-	-	-	-
2.3.8. When Climbing TR: AFI 91-203 chap 13	-						A	A	B	-	-	-
2.4. Safety and Personal Protective Equipment TR: AFI 91-203; TO 00-25-245-WA-1, Command and Local Directives												
2.4.1. Use	5						-	-	-	-	-	-
2.4.2. Maintain	5						-	-	-	-	-	-
2.4.3. Inspect	5						-	-	-	-	-	-
2.5. Perform General Housekeeping	5						-	A	B	-	-	-
2.6. Work Center Safety Program: TR: AFI 91-202 chaps 1, 2.2 through 2.3, and 4; AFI 91-203 chap 1; Command and Local Directives												
2.6.1. Manage Work Center Program	-						-	A	B	-	-	-
2.6.2. Conduct Job Safety Analysis	-						-	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
2.6.3. Document AF Form 55	5						-	-	-	-	-	-
2.6.4. Conduct Inspections	5						-	-	-	-	-	-
3. PUBLICATIONS AND DIRECTIVES TR: AFI 17-Series; AF Records Distribution System; http://www.e- publishing.af.mil/												
3.1. Department of Defense (DoD)/Joint	-						-	A	-	A	-	-
3.2. Air Force	5						-	A	-	A	-	-
3.3. Allied Communications Publications (ACP)	-						-	A	-	A	-	-
3.4. Commercial/Vendor Publications	5						A	A	B	-	-	-
3.5. FAA Publications	-						A	A	B	-	-	-
3.6. Technical Orders (TO)												
3.6.1. Describe Technical Order System TR: AFI 63-101; TO 00-5-1-WA-1; TO 00-5-18-WA-1	5						A	A	-	-	-	-
3.6.2. Identify TO Numbers and Titles in each TO Index TR: TO 00-5-1-WA-1; TO 00-5-18-WA-1; https://www.my.af.mil/etims/ETIMS/index.jsp; Applicable TO index	5						A	A	-	-	-	-
3.6.3. Identify Time Compliance Technical Orders (TCTO) Procedures TR: AFCSM 21-568 v(2) https://www.my.af.mil/etims/ETIMS/index.jsp; AFI 17-120; TO 005-15-WA-1; and applicable TCTOs	5						-	A	-	-	-	-
3.6.4. Implement Time Compliance Technical Orders (TCTO) Procedures and Document Completion TR: AFCSM 21-568 v(2) https://www.my.af.mil/etims/ETIMS/index.jsp; AFI 17-120; TO 005-15-WA-1; and Applicable TCTOs	-						-	-	-	-	-	-
3.6.5. Prepare Local Work Cards, Checklists and Job Guides TR: TO 005-1-WA-1; and Command and Local Directives	-						-	-	-	-	-	-
3.6.6. Report Publication Errors and Form Deficiencies TR: AFI 33-360	5						-	-	-	-	-	-
3.6.7. Report Technical Order Improvements TR: TO 00-5-1-WA-1	5						-	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
3.7. Standard Installation Practices Technical Order (SIPTO)	5						A	A	-	-	-	-
3.8. Enterprise Information Architecture (EIA)/ Telecommunications Industry Association (TIA)	-						-	A	-	-	-	-
3.9. Military Standard (MIL STD)	5						A	A	A	-	-	-
3.10. Use Publications when Performing Work	5						2b	-	-	-	-	-
4. C4I SECURITY TR: AFI 31-101; AFPD 31-1												
4.1. Physical Security:												
4.1.1. Definition	5						-	A	-	-	-	-
4.1.2. Secure Area Access Management	-						-	B	-	-	-	-
4.1.3. Facility Security Requirements	5						-	B	-	-	-	-
4.1.4. Identify Violations Procedures	5						-	-	-	-	-	-
4.1.5. Report Violations Procedures	5						-	-	-	-	-	-
5. MANAGEMENT OF PROCESSES TR: AFIs 13-204 v(4), 36-2201, 63-145, 64-102; 90-201; OMB Circular A-130												
5.1. Management Policies												
5.1.1. Equipment Readiness	-						-	-	B	-	-	-
5.1.2. Staffing and Utilization	7						-	-	B	-	-	-
5.1.3. Training												
5.1.3.1. Document Training	5						-	-	-	-	-	-
5.1.3.2. Evaluate Newly Assigned Personnel and Identify Individual Training Requirements	7						-	-	-	-	-	-
5.1.3.3. Conduct On-the-Job Training (OJT)	5						-	-	-	-	-	-
5.1.3.4. Evaluate Quality of OJT and Provide Trainee Feedback	7						-	-	B	-	-	-
5.1.3.5. Understand Master Training Plan Requirements	7						-	-	B	-	-	-
5.1.4. Inspections and Evaluations (I&E) TR: AFI 13-204 v(4) and 90-201												
5.1.4.1. Perform Self-Inspection	5						-	A	B	-	-	-
5.1.4.2. Perform Personnel Evaluation	7						-	A	B	-	-	-
5.1.4.3. Evaluate Equipment	5						-	A	B	-	-	-
5.1.4.4. Document Results	5						-	A	B	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
5.1.5. Automated Information Systems (AIS) TR: https://www.my.af.mil/cssv/cssv/Main.html#												
5.1.5.1. Integrated Maintenance Data System (IMDS) **(**Note 2)	5						-	A	B	-	-	-
5.1.5.2. Training Business Area (TBA)	5						-	A	B	-	-	-
5.1.5.3. Global Cyber Support Systems Dashboard (GCSS-D)	7						-	A	B	-	-	-
5.1.6. Logistics Support												
5.1.6.1. Submit Price Challenges TR: AFI 23-101	-						-	-	-	-	-	-
5.1.6.2. Report Item and Packaging Discrepancies TR: DODM 4140.01 (v6), Sec 3	5						-	-	-	-	-	-
5.1.6.3. Report Uniform Source, Maintenance and Recoverability Code and Air Force Expendability, Recoverability, Reparability Category Code Discrepancies TR: AFMAN 21-106; TOs 00-20-3-WA-1, chap 1; 00-25-195-WA-1	5						-	-	-	-	-	-
5.1.6.4. Submit Deficiency Reports TR: TO 00-35D-54-WA-1, chap 3	7						-	-	-	-	-	-
5.1.6.5. Research and Identify Part and Stock Numbers TR: Applicable Equipment TOs, Federal Logistics (FEDLOG) Program, WebFLIS	5						-	-	-	-	-	-
5.1.6.6. Maintain Supply Listings and Reports (D04, D18, M30, D23, or Equivalent IMDS) TR: AFI 23-101	7						-	-	-	-	-	-
5.1.6.7. Manage Bench Stock TR: AFMAN 23-122, chap 5; and Local Directives	-						-	-	-	-	-	-
5.1.6.8. Manage Supply Point Stock TR: AFMAN 23-122, chap 5, and TO 00-20-3-WA-1, chap 3	-						-	-	-	-	-	-
5.1.6.9. Request and Validate Adjusted Stock Levels (Special Levels) TR: AFMAN 23-122, chap 2	-						-	-	-	-	-	-
5.1.6.10. Describe Procedures for Recovering and Turning in Precious Metals TR: AFI 23-101, Sec 6C; and Local Directives	-						-	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
5.1.6.11. Manage Repair Cycle TR: AFI 23-101, Sec 4C; AFMAN 23-122, Sec 4C; TO 00-20-3-WA-1, chaps 2 and 3, and Table 2-1	5						-	-	-	-	-	-
5.1.6.12. Initiate Not Repairable This Station (NRTS) Actions TR: TO 00-20-3-WA-1, chaps 3 and 6, and Table 1-1	5						-	-	-	-	-	-
5.1.6.13. Initiate Contract Repair (AF Form 9) TR: AFI 64-102; AFI 23-101, Command and Local Directives	7						-	-	-	-	-	-
5.1.6.14. Manage Custodian Authorization/Custody Receipt Listing (CA/CRL) Equipment Accounts TR: AFMAN 23-122 , Sec 5D; and Local Directives	7						-	-	-	-	-	-
5.1.7. Work Center Management TR: AFI 21-103, chap 6												
5.1.7.1. Report Equipment Status	-						-	-	B	-	-	-
5.1.7.2. Document Actions	7						-	-	B	-	-	-
5.1.7.3. Develop Work Schedules	7						-	-	B	-	-	-
5.1.8. Modification Management TR: AFI 13-204 v(4)												
5.1.8.1. Configuration Review/Control Process	7						-	-	B	-	-	-
5.1.8.2. Initiate Modification Proposals	7						-	-	B	-	-	-
5.1.9. Communications Systems Installation Records (CSIRs) TR: AFI 13-204 v(4), para 15.3.17.												
5.1.9.1. CIPS CVC Tool	-						-	-	-	-	-	-
5.1.10. Contract Management: TR: AFQTPXXXXX-213R												
5.1.10.1. Administrative Contract Management	-						-	-	A	-	-	-
5.2. Functional Management TR: AFECD; AFIs 36-2201, 36-2623, 36-2845, 38-101; AFQTP 3DXXX-225E; 1C8X3 CFETP												
5.2.1. Responsibilities												
5.2.1.1. AF Career Field Manager	5						-	A	B	-	-	-
5.2.1.2. MAJCOM Functional Manager	5						-	A	B	-	-	-
5.2.1.3. Base Functional Manager	5						-	A	B	-	-	-
5.2.2. Resource Management												
5.2.2.1. Manpower Products	7						-	-	A	-	-	-
5.2.2.2. Manpower Studies	-						-	-	A	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
5.2.2.3. Describe Authorization /Organizational Change Request Process	7						-	-	A	-	-	-
5.2.2.4. Manpower Standards	-						-	-	A	-	-	-
5.2.2.5. Allocating Personnel	7						-	-	A	-	-	-
5.2.3. Workshops:												
5.2.3.1. Describe the Purpose of Utilization and Training Workshop (U&TW)	5						-	A	-	-	-	-
5.2.3.2. Describe the Purpose of Training Advisory Groups	5						-	A	-	-	-	-
5.2.3.3. Describe the Purpose of Occupational Survey	5						-	A	B	-	-	-
5.2.3.4. Describe the purpose of a Weapon Systems Review (WSR)	7						-	A	-	-	-	-
5.2.3.5. Describe the purpose of a Lead Command Advisory Group (LCAG)	7						-	A	-	-	-	-
5.2.3.6. Describe the Purpose of Specialty Training Requirements Team (STRT)	5						-	A	-	-	-	-
6. EXPEDITIONARY CONCEPTS TR: AFDD 4-0; AFIs 10-401, 10-403, 21-109; AFMAN 23-110, AEF Online												
6.1. Describe the Concepts of Aerospace Expeditionary Force (AEF) employment:												
6.1.1. AEF-Teaming	5						-	A	A	-	-	-
6.1.2. Enabler Forces	5						-	A	A	-	-	-
6.1.3. Deployment Planning and Execution	-						-	-	A	-	-	-
6.2. Interpret:												
6.2.1. Designed Operational Capability (DOC)	-						-	-	A	-	-	-
6.2.2.. AEF UTCs:												
6.2.2.1. Unit Type Code (UTC)	5						-	A	A	-	-	-
6.2.2.2. Equipment (e.g. LOGDET)	-						-	A	A	-	-	-
6.2.2.3. Personnel (e.g. MANFOR)	-						-	A	A	-	-	-
6.3. Posturing	-						-	-	A	-	-	-
6.4. Sourcing	-						-	-	A	-	-	-
6.5. Readiness Status Reporting:												
6.5.1. Status of Resources and Training (SORTS)	7						-	-	A	-	-	-
6.5.2. AEF UTC Reporting Tool (ART)	7						-	-	A	-	-	-
6.5.3. Defense Readiness Reporting System (DRRS)	7						-	-	A	-	-	-
6.6. Deployment Procedures:												
6.6.1. Develop Load Plan	-						-	-	-	-	-	-

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		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
6.6.2. Explain Pallet Build-Up Procedures	-						-	-	-	-	-	-
6.6.3. Explain Hazardous Cargo Preparation	-						-	-	-	-	-	-
6.6.4. Prepare Documentation	-						-	-	-	-	-	-
6.6.5. Determine Site Selection Requirements	-						-	-	-	-	-	-
6.6.6. Determine Site Preparation Requirements	-						-	-	-	-	-	-
6.6.7. Determine Site Configuration Requirements	-						-	-	-	-	-	-
6.6.8. Determine Requirements for Constructing Deployment Site Utility Grids	-						-	-	-	-	-	-
7. DEPLOYABLE MISSIONS TR: AFTTP 3-4, MAJCOM and Local Directives												
7.1. Contingency Response Groups	-						-	A	-	-	-	-
7.2. Deployable Air Traffic Control and Landing Systems (DATCALS)	-						-	A	A	-	-	-
7.3. Engineering & Installation (E&I)	-						-	A	A	-	-	-
7.4. Deployable Comm Support	-						-	-	-	-	-	-
7.5. Air Operations Centers	-						-	A	-	-	-	-
7.6. Ground Theater Air Control Systems (Air Control Squadrons)	-						-	A	A	-	-	-
7.7. Remote Piloted Aircraft (RPA)	-						-	A	-	-	-	-
8. ORGANIZATIONAL STRUCTURE TR: AFIs 38-101 and 17-100												
8.1. Operations Support Squadron	5						-	A	A	-	-	-
8.2. Air Traffic Control Squadrons	5						-	A	A	-	-	-
8.3. Air Control Squadron (ACS)	5						-	A	A	-	-	-
8.4. Combat Communications Squadrons	5						-	-	-	-	-	-
8.5. Radar Evaluation Squadron (RADES)	5						-	-	-	-	-	-
8.6. Air Force Flight Standards Agency (AFFSA)	5						-	A	A	-	-	-
8.7. 557 Weather Wing	5						-	A	A	-	-	-
8.8. Weather Systems Support Cadre (WSSC)	5						-	-	-	-	-	-
8.9. Contingency Readiness Group (CRG)	5						-	-	-	-	-	-
8.10. Engineering and Installation Squadron (E&I)	5						-	-	-	-	-	-
8.11. Range Squadron (RANS)	5						-	-	-	-	-	-
9. BASIC COMPUTER FUNDAMENTALS TR: **TR: AFI 31-1-141-2, Para 5.4 thru Para 9.1**												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
9.1. **Communications and Network Protocols:**												
9.1.1. Connection Oriented Communication	5						A	B	-	-	-	-
9.1.2. Connectionless Oriented Communication	-						A	B	-	-	-	-
9.1.3. International Standards Organization (ISO) Open Systems Interconnect (OSI) Model	-						-	B	-	-	-	-
9.1.4. TCP/IP	5						A	B	-	-	-	-
9.1.5. Department of Defense (DoD) Standard Protocols	-						-	A	-	-	-	-
9.1.6. IPv4/IPV6	5						A	B	-	-	-	-
9.1.7. Ports (IP)	5						A	A	-	-	-	-
9.2. Network Theory/Components/Electrical Theory:												
9.2.1. Components:												
9.2.1.1. Principles	5						B	B	-	-	-	-
9.2.1.2. Central Processing Unit (CPU)	5						A	A	-	-	-	-
9.2.1.3. Computer Memory	5						A	A	-	-	-	-
9.2.1.4. Input/Output (I/O) Devices	5						A	A	-	-	-	-
9.2.1.5. Storage Devices	5						A	A	-	-	-	-
9.2.1.6. Peripherals (Printers, Fax, Scanners, etc.)	-						-	A	-	-	-	-
9.2.2. Network Types:												
9.2.2.1. Wired (e.g. LAN, WAN, MAN)	5						A	B	-	-	-	-
9.2.2.2. Wireless	-						-	A	-	-	-	-
9.2.2.3. Topologies (e.g. Star, Ring, Bus, Hybrid)	5						A	B	-	-	-	-
9.3. Network Devices:												
9.3.1. Modems	5						1a	B	-	-	-	-
9.3.2. Switches	5						1a	B	-	-	-	-
9.3.3. Multiplexers	-						1a	A	-	-	-	-
9.3.4. Bridges/Routers	5						1a	B	-	-	-	-
9.3.5. Encryption Devices	-						-	A	-	-	-	-
9.4. Communications Mediums	5						1a	B	-	-	-	-
9.5. LAN Architecture	-						-	A	-	-	-	-
9.6. Converters	5						1a	B	-	-	-	-
9.7. Network Fault Isolation Techniques:												
9.7.1. Network Error Detection	-						1a	B	-	-	-	-
9.7.2. Network Error Correction	-						1a	B	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
9.7.3. Network Flow Control	-						1a	B	-	-	-	-
9.7.4. Transmission Impairments	-						1a	B	-	-	-	-
9.8. Software:												
9.8.1. Operating Systems (e.g. UNIX, Windows, LINUX)	5						A	A	-	-	-	-
9.8.2. Infectious and Malicious Software	-						-	A	-	-	-	-
9.9. Fundamentals of Electricity:												
9.9.1. Principles of:												
9.9.1.1. Current	5						B	B	-	-	-	-
9.9.1.2. Voltage	5						B	B	-	-	-	-
9.9.1.3. Resistance	5						B	B	-	-	-	-
9.9.1.4. Conductance	5						B	B	-	-	-	-
9.9.1.5. Capacitance	5						B	B	-	-	-	-
9.9.1.6. Power	5						B	B	-	-	-	-
9.9.2. Terms and Terminology of Electronics	5						B	B	-	-	-	-
9.9.3. Ohm's Law and its Application	5						B	B	-	-	-	-
9.9.4. Direct Current:												
9.9.4.1. Theory	5						B	B	-	-	-	-
9.9.4.2. Applications	5						B	B	-	-	-	-
9.9.5. Alternating Current:												
9.9.5.1. Theory	5						B	B	-	-	-	-
9.9.5.2. Applications	5						B	B	-	-	-	-
9.9.6. Electrical Symbols and Drawings	5						B	B	-	-	-	-
10. COMPONENT AND DEVICE THEORY TR: TO 31-1-141-2 , TO 31-1-141-3, TO 31-1-141-4, TO 31-1-141-5												
10.1. Resistors	5						B	B	-	-	-	-
10.2. Capacitors	5						B	B	-	-	-	-
10.3. Inductors	5						B	B	-	-	-	-
10.4. Transformers	5						B	B	-	-	-	-
10.5. Relays and Solenoids	5						B	B	-	-	-	-
10.6. Semiconductors:												
10.6.1. Diodes	5						B	B	-	-	-	-
10.6.2. Transistors	5						B	B	-	-	-	-
10.6.3. Special Purpose Components:												
10.6.3.1. Zener Diode	5						B	B	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
10.6.3.2. Light Emitting Diode (LED)	5						B	B	-	-	-	-
10.6.3.3. Liquid Crystal Display (LCD)	5						B	-	-	-	-	-
10.6.3.4. Integrated Circuits	5						B	B	-	-	-	-
10.7. Electronic Circuits:												
10.7.1. Series Circuits	-						B	B	-	-	-	-
10.7.2. Parallel Circuits	-						B	B	-	-	-	-
10.7.3. Power Supply Circuits:												
10.7.3.1. Theory (Rectifiers, Filters, and Voltage Regulators)	5						B	B	-	-	-	-
10.7.3.2. Troubleshoot	5						2b	A	-	-	-	-
10.7.4. Wave Generating Circuits:												
10.7.4.1. Oscillators	-						B	B	-	-	-	-
10.7.4.2. Wave Shaping Circuits	-						A	A	-	-	-	-
10.8. Transistor Amplifier Circuits	-						A	A	-	-	-	-
10.9. Digital Circuits:												
10.9.1. Theory	-						A	B	-	-	-	-
10.9.2. Applications	-						A	B	-	-	-	-
10.10. Metric Notation:												
10.10.1. Calculate Powers of Ten	-						B	B	-	-	-	-
10.10.2. Electrical Prefixes	-						B	B	-	-	-	-
11. BASIC COMMUNICATIONS THEORY TR: TO 31-1-141-7, TO 31-1-141-11, TO 31-1-141-12, TO 31-1-141-13												
11.1. Communication Mediums:												
11.1.1. Transmissions Lines	-						B	B	-	-	-	-
11.1.2. Fiber Optics	-						B	B	-	-	-	-
11.1.3. Data Bus	-						B	B	-	-	-	-
11.1.4. Antennas	-						B	B	-	-	-	-
11.1.5. Waveguides	-						B	B	-	-	-	-
11.2. Digital Communications:												
11.2.1. Synchronous	-						A	A	-	-	-	-
11.2.2. Isochronous	-						A	A	-	-	-	-
11.2.3. Asynchronous	-						A	A	-	-	-	-
11.2.4. Signal Rate	-						A	A	-	-	-	-
11.2.5. Bit Count Integrity	-						A	A	-	-	-	-
11.2.6. Signal Formats	-						A	A	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
11.2.7. Multiplexing:												
11.2.7.1. Multiplexers	-						A	A	-	-	-	-
11.2.7.2. Wave Division Multiplexing	-						A	A	-	-	-	-
11.2.7.3. Time Division Multiplexing	-						A	A	-	-	-	-
11.3. Modulation Techniques:												
11.3.1. Amplitude Modulation	-						B	B	-	-	-	-
11.3.2. Frequency Modulation	-						B	B	-	-	-	-
11.3.3. Phase Modulation	-						B	B	-	-	-	-
11.3.4. Space Modulation	-						B	B	-	-	-	-
11.4. AM Receiver Signals:												
11.4.1. Measure Radio Frequency (RF)	-						2b	-	-	-	-	-
11.4.2. Measure Intermediate Frequency (IF)	-						2b	-	-	-	-	-
11.4.3. Measure Audio Frequency (AF)	-						2b	-	-	-	-	-
11.4.4. Measure Local Oscillator (LO) Output	-						2b	-	-	-	-	-
11.5. Electromagnetic Effects (EMP/EMI)	-						A	A	-	-	-	-
11.6. Digital Numbering Systems:												
11.6.1. Binary	-						A	A	-	-	-	-
11.6.2. Hexadecimal	-						A	A	-	-	-	-
11.6.3. Binary Coded Decimal	-						A	A	-	-	-	-
12. WIRING AND CABLE TR**:** TO 31-10-13												
12.1. Assemble Solderless Connectors:												
12.1.1. Crimped Connection	-						2b	-	-	-	-	-
12.1.2. Coaxial Connector	-						2b	-	-	-	-	-
12.1.3. Multi-Pin Connector	-						2b	-	-	-	-	-
12.2. Connectors and Cables:												
12.2.1. Solder Connectors	-						2b	-	-	-	-	-
12.2.2. Create Cables	-						2b	-	-	-	-	-
12.2.3. Troubleshoot Cables	-						2b	A	-	-	-	-
12.2.4. Perform VSWR	-						2b	-	-	-	-	-
12.2.5. Create a Punch-down Block	-						2b	-	-	-	-	-
12.2.6. Troubleshoot Punch-down Block	-						2b	-	-	-	-	-
13. TEST EQUIPMENT TR: TO 33K-1-100, Applicable Test Equipment Technical Orders												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
13.1. Identify Principles, Capabilities, Limitations and Operate Test Equipment:												
13.1.1. Oscilloscope	5						2b	B	-	-	-	-
13.1.2. Digital Multi-meters	5						2b	B	-	-	-	-
13.1.3. Optical Time Domain Reflectometer (OTDR)	-						-	A	-	-	-	-
13.1.4. Time Domain Reflectometer (TDR)	-						-	A	-	-	-	-
13.1.5. Frequency Counter	-						2b	B	-	-	-	-
13.1.6. Network/Protocol Analyzer	-						2b	A	-	-	-	-
13.1.7. Spectrum Analyzer	5						2b	B	-	-	-	-
13.1.8. Wattmeter	5						2b	B	-	-	-	-
13.1.9. RF Power Meter	-						2b	B	-	-	-	-
13.1.10. RF Peak Power Meter	-						2b	B	-	-	-	-
13.1.11. RF Signal Generator	5						2b	B	-	-	-	-
13.1.12. Insulation Test Set	-						-	-	-	-	-	-
13.1.13. Megaohmeter	-						-	-	-	-	-	-
13.1.14. Built-In Test Equipment	-						-	-	-	-	-	-
13.1.15. Breakout Box	-						2b	A	-	-	-	-
13.1.16. Communications System Analyzer	-						-	A	-	-	-	-
13.1.17. Sweep Generator	-						-	-	-	-	-	-
13.1.18. Function Generator	-						2b	A	-	-	-	-
13.1.19. RMS Voltmeter	-						2b	A	-	-	-	-
13.1.20. Distortion Analyzer	-						2b	B	-	-	-	-
13.1.21. Dummy Load	5						2b	B	-	-	-	-
13.1.22. Audio Oscillator	-						2b	A	-	-	-	-
13.1.23. Infrared Tester	-						-	-	-	-	-	-
13.1.24. Earth Ground Tester	-						2b	A	-	-	-	-
13.1.25. Frequency Generator	-						2b	A	-	-	-	-
13.1.26. Noise Figure Meter	-						-	A	-	-	-	-
13.1.27. Video Signal Processor Test Set, AN/TPM-32	-						2b	A	-	-	-	-
13.1.28. IFF/SIF Radar Test Set, TPM-25	-						-	-	-	-	-	-
13.1.29. Radar Test Set, AN/UPM-145	-						-	A	-	-	-	-
13.1.30. IFF/SIF Radar Test Set, AN/UPM-155	-						2b	A	-	-	-	-
13.1.31. Monopulse Beacon Test Set w/Laptop	-						2b	A	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
13.1.32. NARDA Survey Meter 8712	-						-	-	-	-	-	-
13.1.33. NARDA Isotropic Electronic Probe 8712D	-						-	-	-	-	-	-
13.1.34. Minolta Color Analyzer-CA-100	-						-	-	-	-	-	-
13.1.35. Minolta CS-100A Chroma-Meter	-						-	-	-	-	-	-
13.1.36. Sony Monitor Remote Controller RM-10	-						-	-	-	-	-	-
13.1.37. Barco Keypad Controller	-						-	-	-	-	-	-
13.1.38. Portable ILS Receiver	-						2b	A	-	-	-	-
13.1.39. Vector Voltmeter	-						2b	A	-	-	-	-
13.1.40. Audio Test Set/Line Level Test Set/TIMS	-						2b	B	-	-	-	-
13.1.41. Anemometer Drive Wind-Speed Test Set	-						-	-	-	-	-	-
13.1.42. Vane Angle Test Set	-						-	-	-	-	-	-
13.1.43. Vane Torque Gauge	-						-	-	-	-	-	-
13.1.44. Propeller Torque Tester	-						-	-	-	-	-	-
13.1.45. AT/RH Test Set	-						-	-	-	-	-	-
13.1.46. Digital Barometer Test Set	-						-	-	-	-	-	-
13.1.47. Visibility Calibration Test Set	-						-	-	-	-	-	-
13.1.48. Angle Locator	-						-	-	-	-	-	-
13.1.49. Field Fox	-						2b	A	-	-	-	-
13.2. Specialized Tools: TR: Applicable Technical Publications												
13.2.1. Amphenol Tool	-						2b	-	-	-	-	-
13.2.2. Tone Generator	-						2b	A	-	-	-	-
13.2.3. Inductive Amplifier	-						2b	A	-	-	-	-
13.2.4. LAN Tester	-						A	-	-	-	-	-
13.2.5. Light Source	-						A	-	-	-	-	-
13.2.6. Transit	-						-	-	-	-	-	-
13.2.7. Fusion Splicer	-						-	-	-	-	-	-
13.2.8. Fiber Optic Source and Meter	-						-	-	-	-	-	-
14. STANDARD PRACTICES TR: TOs 00-25-234-WA-1, 31-10-7, 31-10-13-WA-1, 31-1-141-1-WA-1 v(1); AFI 32-1065												
14.1. State Facts Related to the Following Practices:												
14.1.1. Installation	-						-	-	-	-	-	-
14.1.2. Configuration	-						-	-	-	-	-	-
14.1.3. Interconnection	-						A	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
14.1.4. Inspection	7						-	-	A	-	-	-
14.2. Marking and Identifying Underground Utilities	-						-	-	-	-	-	-
14.3. EMSEC Suppression Techniques	-						-	-	-	-	-	-
14.4. Cable Labeling and Installation Documentation	-						A	-	-	-	-	-
14.5. Wire Color-Coding Standards	-						A	A	-	-	-	-
14.6. Fiber Optics Installation Concepts	-						-	A	-	-	-	-
14.7. Landline Concepts:												
14.7.1. Copper Cables	-						B	B	-	-	-	-
14.7.2. Coaxial Cables	-						B	B	-	-	-	-
14.7.3. Fiber Optic Cable	-						B	B	-	-	-	-
14.7.4. Channel Bank	-						A	A	-	-	-	-
14.7.5. Interfacing Considerations (e.g. TRI-TAC, Pin-Outs, Signal Format)	-						-	-	-	-	-	-
14.8. Concepts of:												
14.8.1. Grounding	5						B	B	B	-	-	-
14.8.2. Bonding	5						B	B	B	-	-	-
14.8.3. Shielding	5						B	B	B	-	-	-
14.8.4. Lightning Protection	5						B	B	B	-	-	-
14.9. Electrostatic Discharge: TR: AFQTP3DXXX-202A Electrostatic Discharge Handbook (Note 9) and TO 00-25-234-WA-1												
14.9.1. Principles	5						A	B	B	-	-	-
14.9.2. Concepts	5						A	B	B	-	-	-
14.9.3. Handling, Packaging and Storing	5						A	-	-	-	-	-
14.10. Equipment Grounding and Lightning Protection:												
14.10.1. Install	-						-	-	-	-	-	-
14.10.2. Remove	-						-	-	-	-	-	-
14.10.3. Perform Inspection and Maintenance	5						2b	-	-	-	-	-
14.11. Equipment Familiarization:												
14.11.1 Locate Elements:												
14.11.1.1 Alphanumeric	-						2b	-	-	-	-	-
14.11.1.2. Visual Inspection	-						2b	B	-	-	-	-
14.11.2. Basic Troubleshooting Techniques (Half Split Method)	5						2b	B	-	-	-	-
15. COMMUNICATIONS PRINCIPLES TR: TO 31-1-141-13												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
15.1. Amplitude Modulation (AM)	5						B	B	-	-	-	-
15.2. Frequency Modulation (FM)	5						B	B	-	-	-	-
15.3. Phase Modulation (PM)	5						B	B	-	-	-	-
15.4. Pulse Code Modulation (PCM)	-						B	B	-	-	-	-
15.5. Bandwidth	-						B	B	-	-	-	-
15.6. Light Wave Communications	-						B	B	-	-	-	-
15.7. Asynchronous and Synchronous Communication Modes	-						B	B	-	-	-	-
15.8. Error Detection and Correction	-						-	-	-	-	-	-
16. ELECTRICAL POWER SYSTEMS TR: Commercial Manuals												
16.1. Automatic Power Transfer	-						A	B	-	-	-	-
16.2. Uninterruptible Power Supplies (UPS)	-						A	B	-	-	-	-
16.3. Batteries	-						A	A	-	-	-	-
16.4. Rectifiers	-						-	-	-	-	-	-
16.5. Inverters	-						A	A	-	-	-	-
16.6. Generators	-						A	A	-	-	-	-
17. BASIC ELECTRONIC PRINCIPLES TR: TOs 31-1-141-3, TO 31-1-141-4, 31-1-141-14												
17.1. Operating Characteristics:												
17.1.1. Silicon Controlled Rectifier (SCR)	-						A	A	-	-	-	-
17.1.2. High Power Tubes	-						A	A	-	-	-	-
17.1.3. Amplifiers	-						A	A	-	-	-	-
17.1.4. Limiter Circuits	-						A	A	-	-	-	-
17.1.5. Pulse Modulated Transmitters	-						A	A	-	-	-	-
17.1.6. Pulse Modulated Receivers	-						A	A	-	-	-	-
18. UNIX OPERATING SYSTEM TR: Applicable Commercial Manuals												
18.1. Characteristics	-						A	A	-	-	-	-
18.2. Commands:												
18.2.1. Operating	-						A	A	-	-	-	-
18.2.2. File System Structure	-						A	A	-	-	-	-
18.2.3. VI Editor	-						A	A	-	-	-	-
18.2.4. Remote System	-						A	A	-	-	-	-
18.2.5. System Monitoring	-						A	A	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
18.3. UNIX System Administration:												
18.3.1. System Administration	-						A	A	-	-	-	-
18.3.2. File System Administration	-						A	A	-	-	-	-
18.3.3. System User Account Administration	-						A	A	-	-	-	-
19. TOWER CLIMBING PROCEDURES AND SAFETY REQUIREMENTS TR: AFI 91-203 Chap 13 and 13 204 v(4) Chap 8												
19.1. Tower Climbing Fundamentals:												
19.1.1. Consolidated Occupational Safety Instructions (COSI)/OSHA Climbing Standards	-						C	C	-	-	-	-
19.1.2. Climbing Safety Principles	-						C	C	-	-	-	-
19.1.3. Proper Care, Use and Storage of Climbing Equipment	-						C	C	-	-	-	-
19.2. Personal Fall Arrest Systems (PFAS):												
19.2.1. Conduct and Document Inspections	-						3c	-	-	-	-	-
19.2.2. Use Fall Restraint Devices	-						3c	-	-	-	-	-
19.2.3. Use Personal Climbing Equipment	-						3c	-	-	-	-	-
19.3. Perform Climbing Techniques	-						3c	-	-	-	-	-
19.4. Work Aloft at Extended Heights:												
19.4.1. Tie Knots/Hitches in Fiber Ropes	-						3c	-	-	-	-	-
19.4.2. Secure Tools or Equipment at Working Height	-						3c	-	-	-	-	-
19.4.3. Raise/Lower Equipment on Aerial Systems	-						3c	-	-	-	-	-
19.4.4. Rig Ascending/Descending Equipment	-						3c	-	-	-	-	-
19.5. Rescue Procedures at Extended Heights:												
19.5.1. Rescue Safety Considerations	-						B	-	-	-	-	-
19.5.2. Perform Rescue Procedures	-						3c	-	-	-	-	-
19.5.3. First Aid Procedures on Towers	-						B	-	-	-	-	-
20. AIRFIELD OPERATIONS SUPPORT TR: Applicable Equipment Technical Orders; AFI 13-204 v(3) and AFMAN 11-225												
20.1. Typical RAWS Facility Configuration	5						A	A	-	-	-	-
20.2. RAWS Relationship in the Aerodome	5						A	A	-	-	-	-
20.3. RAWS Relationship to Safety of Flight	5						A	B	B	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
20.4. Flight Inspection Procedures: TR: AFMAN 11-225												
20.4.1. Types of Flight Inspection	5						A	A	B	-	-	-
20.4.2. Purpose of Flight Inspection	5						A	A	B	-	-	-
20.4.3. Facility Classification	5						-	A	-	-	-	-
20.4.4. Technician Responsibilities	5						-	A	-	-	-	-
20.4.5. Flight Inspection Report	5						-	B	-	-	-	-
20.4.6. Analyze/Interpret Flight Inspection Reports	7						-	-	-	-	-	-
20.4.7. Inspection Intervals	5						-	A	B	-	-	-
20.5. Maintain Facility Records TR: AFI 13-204 V4	5						-	A	-	-	-	-
21. EQUIPMENT INSTALLATION TR: AFI 17-120; TOs 31-10 Series, 31Z-10-4-WA-1, 31Z-10-20-WA-1, 31Z-10-26-WA-1, 31Z-10-29-WA-1, 31Z-10-36-WA-1, 31Z-10-37-WA-1, 31Z1-407-06-WA-1, 31Z3-10-8-WA-1, 31Z3-10-9-WA-1, 31Z3-822-2-WA-1, UFC 3-260-01 and Applicable System Manuals												
21.1. Policies and Procedures for Programming and Planning Installation of C-E Equipment	-						-	-	-	-	-	-
21.2. Install Equipment in Accordance with Installation Instructions	-						-	-	-	-	-	-
21.3. Interconnect Equipment in Accordance with Installation Instructions	-						-	-	-	-	-	-
21.4. Inspect Equipment during Pre-Installation and Post Installation Phases	-						-	-	-	-	-	-
21.5. Explain NAVAID and Weather Systems Siting Criteria	7						-	A	B	-	-	-
22. RADAR FUNDAMENTALS TR: TO 31-1-141-9-WA-1												
22.1. Typical Radar Systems:												
22.1.1. Roles in Operational Theater	5						A	B	-	-	-	-
22.1.2. Leading Particulars	5						B	B	-	-	-	-
22.1.3. Principles	5						B	B	-	-	-	-
22.1.4. Frequency Characteristics	5						B	B	-	-	-	-
22.2. Principles of Major Radar Assemblies and Subassemblies:												
22.2.1. Transmitters	5						B	B	-	-	-	-
22.2.2. Antennas	5						B	B	-	-	-	-
22.2.3. Receivers	5						B	B	-	-	-	-
22.2.4. Processors	5						B	B	-	-	-	-
22.2.5. Indicators	5						B	B	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
22.2.6. Waveguide and RF Devices	5						B	B	-	-	-	-
22.2.7. Remoting Circuits	5						B	B	-	-	-	-
22.2.8. Performance Monitors/Built-In-Test Equipment (BITE)	5						B	B	-	-	-	-
22.3. Advanced Radar Principles:												
22.3.1. Antenna Types	5						B	B	-	-	-	-
22.3.2. Radiation Patterns and Properties	5						B	B	-	-	-	-
22.3.3. Propagation Anomalies	5						B	B	-	-	-	-
23. AN/MPN-14K, LANDING CONTROL CENTRAL TR: TO 31P5-2MPN14-22												
23.1. Capabilities and Limitations	-						A	A	-	-	-	-
23.2. Theory of Operation	-						A	B	-	-	-	-
24. AN/TPN-19, LANDING CONTROL CENTRAL TR: TOs 31P5-2TPN19-2, 31P5-2TPN24-2 and 31P5-2TPN25-2												
24.1. Capabilities and Limitations	-						A	A	-	-	-	-
24.2. Theory of Operation	-						A	B	-	-	-	-
25. AN/TPX-42, SECONDARY SURVEILLANCE RADAR (SSR) TR: TOs 31P4-2TPX42-2-WA-1, 31P4-2TPX-49-2-WA-1, 31P4-2T-62-WA-1, 31P4-2T-22-WA-1, 31P4-2TPX42-56WC-1-WA-1, 31P2-4-72-1-1-WA-1, 31P4-2TPX42-52-WA-1 and 31P2-4-72-21-1-WA-1												
25.1. Capabilities and Limitations	-						A	A	-	-	-	-
25.2. Theory of Operation	-						A	B	-	-	-	-
25.3. Measure Key Performance Parameters	-						2b	-	-	-	-	-
26. AN/GPN-30, DIGITAL AIRPORT SURVEILLANCE RADAR (DASR) SYSTEM TR: 6310.30A Maintenance Handbook												
26.1. Capabilities and Limitations	-						A	A	-	-	-	-
26.2. Theory of Operation	-						A	B	-	-	-	-
26.3. System Power-On and Power-Off	-						B	-	-	-	-	-
26.4. Measure Key Performance Parameters	-						2b	-	-	-	-	-
27. MONOPULSE SECONDARY SURVEILLANCE RADAR (MSSR) TR: 6310.30A Maintenance Handbook												
27.1. Capabilities and Limitations	-						A	A	-	-	-	-
27.2. Theory of Operation	-						A	B	-	-	-	-
27.3. Measure Key Performance Parameters	-						2b	-	-	-	-	-
28. AN/FSQ-204, STANDARD TERMINAL AUTOMATION REPLACEMENT SYSTEM (STARS) TR: Interactive Equipment Technical Manuals (IETMs)												
28.1. Capabilities and Limitations	-						A	A	-	-	-	-
28.2. Theory of Operation	-						A	B	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
28.3. Measure Key Performance Parameters	-						2b	-	-	-	-	
29. AN/GPN-22, PRECISION APPROACH RADAR (PAR) TR: TOs 31P5-2GPN-22-2 and 31P5-2GPN22-2C												
29.1. Capabilities and Limitations	-						A	A	-	-	-	-
29.2. Theory of Operation	-						-	A	-	-	-	-
29.3. Measure Key Performance Parameters	-						-	-	-	-	-	-
29.4. Verify Operation:												
29.4.1. Perform Turn-On and Turn-Off Procedures	-						-	-	-	-	-	-
29.4.2. Verify Advanced Modular Transmitter (AMT) System Performance Assessment (SPA)	-						-	-	-	-	-	-
30. AN/TPS-75, AIRCRAFT CONTROL AND WARNING RADAR SYSTEM TR: TOs 31P3-2TPS75-2-1, 31P3-2TPS75-2-2, 31P3-2TPS75-6WC-1, 31P5-2TPS75-9, 31P1-2UYQ27-22, 31P1-2TYQ23-1 and 31P1-2UPA59-1-1												
30.1. Capabilities and Limitations	-						A	A	-	-	-	-
30.2. Theory of Operation	-						A	B	-	-	-	-
30.3. Measure Key Performance Parameters	-						2b	-	-	-	-	-
31. AN/UPX-37, DIGITAL INTERROGATOR TR: TO 31P4-2UPX37-1												
31.1. Capabilities and Limitations	-						A	A	-	-	-	-
31.2. Theory of Operation	-						A	B	-	-	-	-
31.3. Measure Key Performance Parameters							2b	-	-	-	-	-
31.4. Verify Operation	-						-	-	-	-	-	-
31.5. Isolate Malfunctions	-						-	-	-	-	-	-
32. RANGE THREAT EMITTER SYSTEMS												
32.1. Capabilities and Limitations	-						A	-	-	-	-	-
32.2. Theory of Operation	-						A	-	-	-	-	-
33. METEOROLOGY TR: Federal Meteorological Handbook FMH-1												
33.1. Temperature/Dew- Point Measurement	5						A	A	-	-	-	-
33.2. Wind Measurement	5						A	A	-	-	-	-
33.3. Visibility Measurement	5						A	A	-	-	-	-
33.4. Barometers/ Altimeters	5						A	A	-	-	-	-
33.5. Cloud Height Measurement	5						A	A	-	-	-	-
34. WEATHER RADAR SYSTEMS TR: TO 31P1-4-108-1												
34.1. WSR-88D, Next Generation Radar (NEXRAD):												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
34.1.1. Capabilities and Limitations	-						A	A	-	-	-	-
34.1.2. Theory of Operation	-						A	B	-	-	-	-
35. PORTABLE DOPPLER RADAR (PDR) TR: Applicable Technical Manuals and Commercial Publications												
35.1. Capabilities and Limitations	-						A	A	-	-	-	-
35.2. Theory of Operation	-						A	B	-	-	-	-
36. WIND MEASUREMENT SET AN/FMQ-13 TR: TOs 31M1-2FMQ13-2 and 31M1-2FMQ13-6WC-1												
36.1. Capabilities and Limitations	-						-	-	-	-	-	-
36.2. Theory of Operation	-						-	-	-	-	-	-
36.3. Perform Fault Isolation/Troubleshoot System	-						-	-	-	-	-	-
37. AUTOMATIC METEOROLOGICAL SYSTEM AN/FMQ-19 TR: TOs 31M1-2FMQ19-1-CD-1 and 31M1-2FMQ19-6WC-1-WA-1												
37.1. Capabilities and Limitations	-						A	A	-	-	-	-
37.2. Theory of Operation	-						A	B	-	-	-	-
37.3. Measure Key Performance Parameters	-						2b	-	-	-	-	-
37.4. Airport Weather Advisory Program:												
37.4.1. Perform Turn On/Off Procedures	-						-	-	-	-	-	-
37.4.2. Perform 168 Day Functional Test	-						-	-	-	-	-	-
37.4.3. Perform Fault Isolation	-						-	-	-	-	-	-
38. AUTOMATIC METEOROLOGICAL STATION AN/TMQ-53 TR: TO 31M1-2TMQ53-WA-1												
38.1. Configure and Coordinate Network Connections	-						-	-	-	-	-	-
38.2. Troubleshoot	-						-	-	-	-	-	-
39. AUTOMATIC METEOROLOGICAL SYSTEM AN/FMQ-22 TR: TO 31M1-4-48-2-WA-1												
39.1. Capabilities and Limitations	-						A	A	-	-	-	-
39.2. Theory of Operation	-						A	B	-	-	-	-
40. FIXED BASE WEATHER OBSERVATION SYSTEM AN/FMQ-23 TR: TO 31M1-2FMQ23-1												
40.1. Capabilities and Limitations	-						A	A	-	-	-	-
40.2. Theory of Operation	-						A	A	-	-	-	-
41. NON-DIRECTIONAL BEACON TR: Applicable TOs												
41.1. Analyze and Interpret the Effects of the Alignment and Adjustment Routines on System/Equipment Performance	-						-	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
41.2. Interpret and Evaluate Performance Data to Determine if Systems meet Established Reference Parameters	-						-	-	-	-	-	-
42. NAVAIDS FUNDAMENTALS TR: TOs 00-20-10-WA-1, 31R4-2FRN44 Series and 31R4-2FRN45 Series; AFMAN 11-225												
42.1. Typical TACAN, ILS and VOR Systems:												
42.1.1. Roles in Operational Theater	5						A	A	-	-	-	-
42.1.2. Leading Particulars	5						B	B	-	-	-	-
42.1.3. Principles	5						B	B	-	-	-	-
42.1.4. Frequency Characteristics	5						B	B	-	-	-	-
42.2. Principles of Major NAVAID Assemblies and Subassemblies:												
42.2.1. Transmitters	5						B	B	-	-	-	-
42.2.2. Antennas	5						B	B	-	-		-
42.2.3. Receivers	5						B	B	-	-	-	-
42.3. Advanced NAVAID Principles:												
42.3.1. Antenna Types	5						B	B	-	-	-	-
42.3.2. Siting Criteria	5						B	B	B	-	-	-
42.4. Radiation Patterns												
42.4.1. Properties	5						B	B	-	-	-	-
42.4.2. Vulnerabilities	5						B	B	B	-	-	-
43. INSTRUMENT LANDING SYSTEM TR: TOs 00-20-10-WA-1 and 31R4-2GRN29-2 Chap 5												
43.1. Capabilities and Limitations	-						A	A	-	-	-	-
43.2. Theory of Operation	-						A	B	-	-	-	-
43.3. Measure Key Performance Parameters	-						2b	-	-	-	-	-
43.4. Null Reference Glideslope TR: TOs 31R4-2GRN31-2-WA-1 and 31R4-2GRN31-6WC-1-WA-1												
43.4.1. Capabilities and Limitations	-						A	A	-	-	-	-
43.4.2. Theory of Operation	-						A	B	-	-	-	-
43.4.3. Measure Key Performance Parameters	-						A	B	-	-	-	-
43.5. Capture Effect Glideslope TR: TOs 31R4-2GRN31-22-WA-1 and 31R4-2GRN31-26WC-1-WA-1												
43.5.1. Capabilities and Limitations	-						A	A	-	-	-	-
43.5.2. Theory of Operation	-						A	B	-	-	-	-
43.6. Localizer TR: TOs 31R4-2GRN30-2-WA-1 and 31R4-2GRN30-6WC-1-WA-1												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
43.6.1. Capabilities and Limitations	-						A	A	-	-	-	-
43.6.2. Theory of Operation	-						A	B	-	-	-	-
44. VERY HIGH FREQUENCY OMNIRANGE (VOR), AN/FRN-44 TR: AFMAN 11-225 and TO 31R4-2FRN44 Series												
44.1. Capabilities and Limitations	-						-	A	-	-	-	-
44.2. Theory of Operation	-						-	B	-	-	-	-
45. TACTICAL AIR NAVIGATION SYSTEM (TACAN) TR: AFMAN 11-225 and TO 31R4-2FRN45 Series												
45.1. Capabilities and Limitations	-						A	A	-	-	-	-
45.2. Theory of Operation	-						A	B	-	-	-	-
45.3. Measure Key Performance Parameters	-						2b	-	-	-	-	-
46. FAMILY OF SYSTEMS TACAN/VORTAC TR: Applicable TOs/Technical Instruction												
46.1. Capabilities and Limitations	-						-	A	-	-	-	-
46.2. Theory of Operation	-						-	A	-	-	-	-
47. TACAN, AN/TRN-48 TR: TACAN 2010 Tactical Air Navigation Equipment Manual												
47.1. Capabilities and Limitations	-						-	A	-	-	-	-
47.2. Theory of Operation	-						-	A	-	-	-	-
48. MOBILE CONTROL TOWER AN/MSN-7 TR: 31 R5-2MSN7-1												
48.1. Capabilities and Limitations	-						-	A	-	-	-	-
48.2. Theory of Operation	-						-	A	-	-	-	-
49. RADIO CONCEPTS TR: TO 31-1-141-3, TO 31-1-141-4, TO 31-1-141-12, TO 31-1-141-13, TO 31-1-141-14, TO 31-1-141-15												
49.1. Transmitters (UHF/VHF)	5						B	B	-	-	-	-
49.2. Receivers (UHF/VHF)	5						B	B	-	-	-	-
49.3. Transceivers (UHF/VHF)	5						B	B	-	-	-	-
49.4. Ancillary Equipment												
49.4.1. Linear Power Amplifiers	-						-	-	-	-	-	-
49.4.2. Antenna Systems	5						B	B	-	-	-	-
49.4.3. Transmission Lines	5						B	B	-	-	-	-
49.4.4. Remote Control Functions	-						B	B	-	-	-	-
49.4.5. Recorder/ Reproducers	-						B	B	-	-	-	-
49.4.6. Automatic Lock Out Device	-						A	A	-	-	-	-
50. ANTENNA COUPLERS, UHF/VHF; CU-547, CU-2274 TR: TOs 31R1-2GR-142-WA-1, 31R2-2GR-146WC-1-WA-1, 31R2-2GR-1091-WA-1, and 31R2-2GR-1096WC-1-WA-1; AFMIS 300-1												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
50.1. Capabilities and Limitations	-						A	A	-	-	-	-
50.2. Theory of Operation	-						A	B	-	-	-	-
51. VHF/UHF AM TRANSMITTER EQUIPMENT (AN/GRT-21 or AN/GRT-22) TR: TOs 31R2-2GRT-102-WA-1 and 31R2-2GRT-106WC-1-WA-1												
51.1. Capabilities and Limitations	-						A	B	-	-	-	-
51.2. Theory of Operation	-						A	-	-	-	-	-
51.3. Perform 336 Day Preventative Maintenance Inspection (PMI)	-						2b	-	-	-	-	-
51.4. Perform Tuning	-						2b	-	-	-	-	-
51.5. Perform Alignments with the Exception of the Frequency Synthesizer	-						2b	-	-	-	-	-
51.6. Perform Fault Isolation	-						2b	-	-	-	-	-
52. VHF/UHF AM RECEIVER EQUIPMENT (AN/GRR-23 or AN/GRR-24) TR: TOs 31R2-2GRR-112-WA-1 and 31R2-2GRR-116WC-1-WA-1; AFMSI 300-1												
52.1. Capabilities and Limitations	-						A	A	-	-	-	-
52.2. Theory of Operation	-						A	B	-	-	-	-
52.3. Perform 336 Day Preventative Maintenance Inspection	-						2b	-	-	-	-	-
52.4. Perform Tuning	-						2b	-	-	-	-	-
52.5. Perform Alignments with the Exception of the Frequency Synthesizer	-						2b	-	-	-	-	-
52.6. Perform Fault Isolation	-						2b	-	-	-	-	-
53. VHF/UHF TRANSCEIVER EQUIPMENT (AN/GRC-211 or AN/GRC-171) TR: TOs 31R2-2GRC171-2-WA-1, 31R2-2GRC171-6WC-1-WA-1, 31R2-2GRC211-2-WA-1, and 31R2-2GRC211-6WC-1-WA-1, AFMSI 300-1												
53.1. Capabilities and Limitations	-						A	A	-	-	-	-
53.2. Theory of Operation	-						A	B	-	-	-	-
53.3. Perform 336 Day Preventative Maintenance Inspection	-						2b	-	-	-	-	-
53.4. Perform Front Panel Adjustments	-						2b	-	-	-	-	-
53.5. Perform Fault Isolation	-						2b	-	-	-	-	-
54. VHF/UHF TRANSMITTERS (CM300/350) TR: Applicable TOs/Technical Instruction; AFMSI 300-1												
54.1. Capabilities and Limitations	-						A	A	-	-	-	-
54.2. Theory of Operation	-						A	A	-	-	-	-
55. VHF/UHF RECEIVERS (CM300) TR: Applicable TOs/Technical Instruction; AFMSI 300-1												
55.1. Capabilities and Limitations	-						A	A	-	-	-	-
55.2. Theory of Operation	-						A	A	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
56. VHF/UHF TRANSCEIVERS (CM350) TR: Applicable TOs/Technical Instruction; AFMSI 300-1												
56.1. Capabilities and Limitations	-						-	A	-	-	-	-
56.2. Theory of Operation	-						-	A	-	-	-	-
57. ENHANCED TERMINAL VOICE SWITCH (ETVS) SYSTEM TR: TOs 31R2-4-1929-8-1-WA-1/TI 6650.53A; 31R2-4-1930-7-WA-1/TI 6650.54B; AFJQS1C8X2-205W; AFMSI 300-1 and 300-6												
57.1. Capabilities and Limitations	-						B	A	-	-	-	-
57.2. Theory of Operation	-						B	B	-	-	-	-
57.3. Perform 168 Day Preventative Maintenance Inspection	-						2b	-	-	-	-	-
57.4. Perform 336 Day Preventative Maintenance Inspection	-						2b	-	-	-	-	-
57.5. Digital Audio/TDM Principles Associated with ATC Air to Ground Systems	-						B	-	-	-	-	-
57.6. System Architecture	-						B	-	-	-	-	-
57.7. Operator Position Equipment	-						B	-	-	-	-	-
57.8. Measure Transmit and Receive Audio Path	-						2b	-	-	-	-	-
57.9. Operate Configuration and Control Subsystem (CCS)	-						2b	-	-	-	-	-
57.10. Central Rack Equipment	-						B	-	-	-	-	-
57.11. Power Distribution Equipment	-						B	-	-	-	-	-
57.12. Operating Procedures of the Position Consoles	-						B	-	-	-	-	-
57.13. Perform Position Operational Checkout	-						2b	-	-	-	-	-
57.14. Perform Configuration Changes	-						2b	-	-	-	-	-
57.15. Perform Prescribed Maintenance Procedures	-						2b	-	-	-	-	-
57.16. Perform Performance Checks on Circuit Card Assemblies	-						2b	-	-	-	-	-
57.17. Perform Alignments on Circuit Card Assemblies	-						2b	-	-	-	-	-
57.18. Perform Fault Isolation	-						2b	-	-	-	-	-
58. DIGITAL AUDIO LEGAL RECORDER (DALR) TR: AFJQS1C8X3-206D, DALR												
58.1. Capabilities and Limitations	-						A	A	-	-	-	-
58.2. Theory of Operation	-						A	B	-	-	-	-
59. INTEGRATED MAINTENANCE DATA SYSTEM (IMDS) TR: Air Force Computer Systems Manual (AFCSM) 21-556, v(2) (https://ceds.gunter.af.mil/Publications.aspx)												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
59.1. IMDS Central Database (CDB) Introduction												
59.1.1. Explain the Purpose of C-E (Communications Electronics) Equipment Status and Inventory Reporting TR: section 2.4.3	5-						-	-	-	-	-	-
59.1.2. Explain the Purpose of the Maintenance Events Subsystem TR: section 2.4.4	5-						-	-	-	-	-	-
59.1.3. Explain the Purpose of the Job Data Documentation (JDD) TR: section 2.4.6	5-						-	-	-	-	-	-
59.1.4. Explain the Purpose of the Status and Inventory Reporting Subsystem TR: section 2.4.7	5-						-	-	-	-	-	-
59.1.5. Explain the Purpose of the Inspection and Time Change Subsystem TR: section 2.4.9	5-						-	-	-	-	-	-
59.1.6. Explain the Purpose of the Equipment/Personnel Transfer Procedures Subsystems TR: section 2.4.10	7-						-	-	-	-	-	-
59.1.7. Explain the Purpose of the Time Compliance Technical Order (TCTO) Subsystem TR: section 2.4.11	5-						-	-	-	-	-	-
59.1.8. Explain the Purpose of the Maintenance Personnel Subsystem TR: section 2.4.12	5-						-	-	-	-	-	-
59.1.9. Explain the Purpose of the Training Management Subsystem TR: section 2.4.13	-						-	-	-	-	-	-
59.2. Highlights to IMDS CDB Maintenance Events												
59.2.1. Describe an IMDS CDB Event TR: attachment A2.1	-						-	-	-	-	-	-
59.2.2. Describe an IMDS CDB Work Center Event (WCE) TR: attachment A2.1.1	5-						-	-	-	-	-	-
59.2.3. Create a WCE TR: attachment A2.1.2	5-						-	-	-	-	-	-
59.2.4. Find a WCE TR: attachment A2.1.3	5-						-	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
59.2.5. Review Status of a WCE TR: attachment A2.1.4	5-						-	-	-	-	-	-
59.2.6. Complete/Close a WCE TR: attachment A2.1.5	5-						-	-	-	-	-	-
59.2.7. Explain the Purpose of Manual Job Control Numbers (JCN) TR: attachment A2.4	5-						-	-	-	-	-	-
59.2.8. Explain how to Acquire Database Assistance TR: attachment A2.11	5-						-	-	-	-	-	-
59.3. Maintenance Events TR: AFCSM 21-561, v(2) (https://ceds.gunter.af.mil/Publications.aspx)												
59.3.1. Information												
59.3.1.1. Explain the Purpose of IMDS CDB Graphical User Interface (GUI) TR: section 1.2.3	-						-	-	-	-	-	-
59.3.1.2. Describe IMDS Air Expeditionary Force (AEF) Functionality TR: section 1.2.5	-						-	-	-	-	-	-
59.3.2. Online Processing												
59.3.2.1. Describe the Available Capabilities of Maintenance Events Online Processing TR: section 2.1	-						-	-	-	-	-	-
59.3.2.2. Explain the Available Capabilities of Maintenance Events Online Inquiries TR: section 3.1	-						-	-	-	-	-	-
59.3.2.3. Explain the Available Capabilities of Maintenance Events Background Reports TR: section 4.1	-						-	-	-	-	-	-
59.3.3. Online Processing (Maintenance Events)												
59.3.3.1. Create & Schedule WCE Discrepancies TR: section 2.4	5-						-	-	-	-	-	-
59.3.3.2. View Unscheduled WCE Discrepancies TR: section 2.6	5-						-	-	-	-	-	-
59.3.3.3. Perform & Record WCE Maintenance TR: section 2.16	5-						-	-	-	-	-	-
59.3.3.4. Process Change WCE Narrative TR: section 2.17	5-						-	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
59.3.3.5. Change Event/Work Center Record TR: section 2.18 & 2.19	5-						-	-	-	-	-	-
59.3.3.6. Defer WCE TR: section 2.20	5-						-	-	-	-	-	-
59.3.3.7. Start and Complete (Close) WCE TR: section 2.23	5-						-	-	-	-	-	-
59.3.3.8. View Maintenance Documents TR: section 3.4	5-						-	-	-	-	-	-
59.3.4. Job Data Documentation (JDD) TR: AFCSM 21-563, Vol 2 (https://ceds.gunter.af.mil/Publications.aspx)												
59.3.4.1. Describe the Intended Use for JDD TR: section 1.4	5-						-	-	-	-	-	-
59.3.4.2. Explain the Available Capabilities of JDD Online Processing TR: section 4.1	5-						-	-	-	-	-	-
59.3.4.3. Perform JDD Utilities TR: section 2.4	5-						-	-	-	-	-	-
59.3.4.4 Perform On-Equipment Maintenance TR: section 2.11	5-						-	-	-	-	-	-
59.3.4.5. Perform On-Equipment Maintenance (Support General) TR: section 2.12	5-						-	-	-	-	-	-
59.3.4.6. Perform Off-Equipment Maintenance TR: section 2.14	5-						-	-	-	-	-	-
59.3.4.7. Perform On-Equipment Maintenance (Support General) TR: section 2.16	5-						-	-	-	-	-	-
59.3.4.8. Explain the Available Capabilities of JDD Inquiries TR: section 3.1	5-						-	-	-	-	-	-
59.3.4.9. View JDD Main Menu TR: section 3.4	5-						-	-	-	-	-	-
59.3.4.10. Request Unscheduled/ Deferred/ Scheduled Discrepancies TR: section 3.6	5-						-	-	-	-	-	-
59.3.4.11. Inquire Maintenance Repair History TR: section 3.10	5-						-	-	-	-	-	-
59.3.4.12. Inquire Maintenance Snapshot TR: section 3.11	5-						-	-	-	-	-	-
59.3.5. Background Reports												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
59.3.5.1. Explain the Available Capabilities of Maintenance Events Background Reports TR: section 4.1	5-						-	-	-	-	-	-
59.3.6. Personnel Management TR: AFCSM 21-569, v(2) (https://ceds.gunter.af.mil/Publications.aspx)												
59.3.6.1. Describe Available Capabilities for Personnel Management Online Processing TR: section 2.1 thru 2.19	7-						-	-	-	-	-	-
59.3.6.2. View Maintenance Personnel Menu TR: section 2.9	7-						-	-	-	-	-	-
59.3.6.3. Load/Change/ Inquire Maintenance Personnel TR: section 2.10	7-						-	-	-	-	-	-
59.3.6.4 Transfer Personnel Between Work Center or Units TR: section 2.16	7-						-	-	-	-	-	-
59.3.6.5. Delete Personnel TR: section 2.17	7-						-	-	-	-	-	-
59.3.7. C-E Equipment Status And Inventory Reporting TR: AFCSM 21-560, v(2) (https://ceds.gunter.af.mil/Publications.aspx)												
59.3.7.1. Explain the Capabilities of Background Reports TR: section 4.1 thru 4.12	5-						-	-	-	-	-	-
59.3.7.2. List C-E Equipment Inventory TR: section 4.4	5-						-	-	-	-	-	-
59.3.7.3. View C-E Open Incident List TR: section 4.5	5-						-	-	-	-	-	-
59.3.7.4. Perform Preventive Maintenance Inspection (PMI)/C-E TR: section 4.12	5-						-	-	-	-	-	-
59.3.8. Time Compliance Technical Order (TCTO) TR: AFCSM 21-568, v(2) (https://ceds.gunter.af.mil/Publications.aspx)												
59.3.8.1. Describe TCTO Types TR: section 1.4	5-						-	-	-	-	-	-
59.3.8.2. Load-Add/Inquiry-Change/Delete TCTO TR: section 4.5 thru 4.7	5-						-	-	-	-	-	-
59.3.8.3. Add/Change/ Delete TCTO Document Number TR: section 4.12	5-						-	-	-	-	-	-
59.3.8.4. Schedule TCTOs for all Types of Equipment TR: section 4.13	5-						-	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
59.4. Maintenance-Supply Interface TR: AFCSM 21-579 v(2) (https://ceds.gunter.af.mil/Publications.aspx)												
59.4.1. Online Processing												
59.4.1.1. Describe Available Capabilities for Maintenance-Supply Interface TR: section 2.1	5-						-	-	-	-	-	-
59.4.1.2. Describe all Screens Utilized for Maintenance-Supply Interface TR: section 2.4 thru 2.22	5-						-	-	-	-	-	-
59.4.2. Inquiries												
59.4.2.1. Describe Available Capabilities for Inquiries TR: section 3.1	5-						-	-	-	-	-	-
59.4.2.2. Describe all Screens Utilized for Inquiries TR: section 3.4 thru 3.12	5-						-	-	-	-	-	-
59.4.3. Background Reports												
59.4.3.1. Describe Available Capabilities for Background Reports TR: section 4.1	5-						-	-	-	-	-	-
59.4.3.2. Describe all Screens Utilized for Background Reports TR: section 4.4 thru 4.12	5-						-	-	-	-	-	-
59.4.4. Standard Base Supply System (SBSS) Rejects												
59.4.4.1. Describe all Potential Reject Codes TR: attachment A2-1 thru A2-6	5-						-	-	-	-	-	-
60. DEFENSE ACQUISITION UNIVERSITY COURSES TR: DoDD 5000.1, https://learn.dau.mil/Atlas2/faces/page/atlasSE/login/Login.seam												
60.1. Complete LOG101	9						-	-	-	-	-	-
60.2. Complete LOG102	9						-	-	-	-	-	-
61. AIR FORCE JOB QUALIFICATION STANDARDS APPLICABLE TO 1C8X3 AFSC TR: AFI 17-204, 17-120, and 13-204 v(4), 1CFETP 1C8X3												
61.1. Complete AFJQS1C8X3-202N, AN/FMQ-13 Wind Measuring Set	5-						-	-	-	-	-	-
61.2. Complete AFJQS1C8X3-202XB, WSR-88D NEXRAD Radar Product Generation	5-						-	-	-	-	-	-
61.3. Complete AFJQS1C8X3-202XD, WSR-88D NEXRAD Open Radar Data Acquisition Group (ORDA)	5-						-	-	-	-	-	-

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		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
61.4. Complete AFJQS1C8X3-202XE, WSR-88D Next Generation Radar Transmitter System	5-						-	-	-	-	-	-
61.5. Complete AFJQS1C8X3-203A, AN/GPA-134 Video Map Generator System	5-						-	-	-	-	-	-
61.6. Complete AFJQS1C8X3-203B, AN/GPN-30, Digital Airport Surveillance Radar	5-						-	-	-	-	-	-
61.7. Complete AFJQS1C8X3-203C, AN/FSQ-204, Standard Terminal Automation Replacement System	5-						-	-	-	-	-	-
61.8. Complete AFJQS1C8X3-203CA, AN/FSQ-204 STARS Elite	5-						-	-	-	-	-	-
61.9. Complete AFJQS1C8X3-203LA, AN/GPN-22 System Level Maintenance	5-						-	-	-	-	-	-
61.10. Complete AFJQS1C8X3-203LB, AN/TPX-42 Interrogator Set	5-						-	-	-	-	-	-
61.11. Complete AFJQS1C8X3-205GB, AN/GRN-31 Null Reference Glidelsope Maintenance	5-						-	-	-	-	-	-
61.12. Complete AFJQS1C8X3-205GC, AN/GRN-31 Capture Effect Glideslope Maintenance	5-						-	-	-	-	-	-
61. 13. Complete AFJQS1C8X3-205GD, AN/GRN-30 Localizer Maintenance	5-						-	-	-	-	-	-
61.14. Complete AFJQS1C8X3-205K, AN/TRN-41 TACAN	5-						-	-	-	-	-	-
61.15. Complete AFJQS1C8X3-205L, AN/TRN-48 TACAN	5-						-	-	-	-	-	-
61.16. Complete AFJQS1C8X3-205R, AN/GRR-23/24 VHF/UHF Receiver	5-						-	-	-	-	-	-
61.17. Complete AFJQS1C8X3-205W, Enhanced Terminal Voice Switch	5-						-	-	-	-	-	-
61.18. Complete AFJQS1C8X3-205X, AN/MSN-7, Communication Central	5-						-	-	-	-	-	-

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		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
61.19. Complete AFJQS1C8X3-206D, Digital Audio Legal Recorder (DALR)	5-						-	-	-	-	-	-
61.20. Complete AFJQS1C8X3-206GB, ILS Local Work Center Maintenance Support	5-						-	-	-	-	-	-
61.21. Complete AFJQS1C8X3-206TA, OK-423, Control Monitor Group	5-						-	-	-	-	-	-
61.22. Complete AFJQS1C8X3-207A, AN/MST-T1A MUTES	5-						-	-	-	-	-	-
61.23. Complete AFJQS1C8X3-207D, AN/VPQ-1 Tactical Radar Threat Generator	5-						-	-	-	-	-	-
61.24. Complete AFJQS1C8X3-209A, AN/FMQ-19 Meteorological Observation Station	5-						-	-	-	-	-	-
61.25. Complete AFJQS1C8X3-209C, Automated Surface Observing System	5-						-	-	-	-	-	-
61.26. Complete AFJQS1C8X3-209X, AN/TMS-2 Radar Cloud Detecting System	5-						-	-	-	-	-	-
61.27. Complete AFJQS1C8X3-211G, AN/MPN-14K Landing Control Central	5-						-	-	-	-	-	-
61.28. Complete AFJQS1C8X3-211P, AN/TPS-75 Mobile Radar Set	5-						-	-	-	-	-	-
61.29. Complete AFJQS1C8X3-211PD, AN/UYQ-27 Situation Display Console	5-						-	-	-	-	-	-
61.30. Complete AFJQS1C8X3-211PG, AN/UPA-59 Decoder Group	5-						-	-	-	-	-	-
61.31. Complete AFJQS1C8X3-211PH, AN/UPX-37 Digital Interrogator	5-						-	-	-	-	-	-
61.32. Complete AFJQS1C8X3-211Q, AN/TPN-19 Landing Control Central	5-						-	-	-	-	-	-
61.33. Complete AFJQS1C8X3-215P, AN/FMQ-22 Meteorological Observation Station	5-						-	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
61.34. Complete AFJQS1C8X3-215QA, AN/FRN-45 Tactical Air Navigation System (TACAN)	5-						-	-	-	-	-	-
61.35. Complete AFJQS1C8X3-215QB, AN/FRN-44 Very High Omnirange (VOR) Maintenance	5-						-	-	-	-	-	-
61.36. Complete AFQTP1C8X3-203E, Instrument Landing Systems HB	5-						-	-	-	-	-	-
62. AIR FORCE JOB QUALIFICATION STARNDARDS APPLICABLE TO 1C8X3 AFSC FROM THE 3D1XX AFSC TR: AFI 17-204, 17-120, and 13-204 v(4), 1CFETP 1C8X3												
62.1. Complete AFJQS3D1X3-203TC, AN-GRC-239 Tropo Satellite Support Radio	7-						-	-	-	-	-	-
63. AIR FORCE JOB QUALIFICATION STARNDARDS APPLICABLE TO 1C8X3 AFSC FROM THE 3DXXX AFSC TR: AFI 17-204, 17-120, and 13-204 v(4), 1CFETP 1C8X3												
63.1. Complete AFJQS3D1XX-200F, Engineering Installation (EI) Team Chief (Note 10)	7-						-	-	-	-	-	-
63.2. Complete AFJQS3D1XX-201X, Engineering Installation (EI) Quality Assurance	7-						-	-	-	-	-	-
63.3. Complete AFQTP3D1XX-200S, Basic/Advance Soldering	5-						-	-	-	-	-	-
64. AIR FORCE JOB QUALIFICATION STARNDARDS APPLICABLE TO 1C8X3 FROM THE XXXXX AFSC TR: AFI 17-204, 17-120, and 13-204 v(4), 1CFETP 1C8X3												
64.1. Complete AFJQS3DXXX-201G, Quality Assurance	7-						-	-	-	-	-	-
64.2. Complete AFJQS3DXXX-201M, Cyber Infrastructure Planning System (CIPS)	7-						-	-	-	-	-	-
64.3. Complete AFQTP3DXXX-202A, Electrostatic Discharge Handbook (Note 9)	5						-	-	-	-	-	-
64.4. Complete AFQTP3DXXX-202MA, Project Management Handbook	7-						-	-	-	-	-	-
64.5. Complete AFQTP3DXXX-225M, MAJCOM Functional Manager's Handbook	9						-	-	-	-	-	-
65. AIR FORCE JOB QUALIFICATION STANDARDS APPLICABLE TO XXXXX AFSC TR: AFI 17-204, 17-120, and 13-204 v(4), 1CFETP 1C8X3												
65.1. Complete AFJQSXXXXX-200TB, Training Business Area	5						-	-	-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS **(Note 3)**	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL	UTC 1	UTC 2
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	CDC	OJT		
65.2. Complete AFJQSXXXXX-201C, Corrosion Prevention and Control	5						-	-	-	-	-	-
65.3. Complete AFJQSXXXXX-205Q, AN/GRT-21/22 VHF/UHF Transmitter	5-						-	-	-	-	-	-
65.4. Complete AFJQSXXXXX-205SA, AN/GRC-171 (V1, AV1) UHF Transceiver and AN/GRC-211 VHF Transceiver	5-						-	-	-	-	-	-
65.5. Complete AFJQSXXXXX-206F RT-1319/URC, AN/PRC-133, AN/TRC-176 and AN/VRC-83 Radio Set Maintenance	5-						-	-	-	-	-	-
65.6. Complete AFJQSXXXXX-206TB, CU-547/GR and CU-2274/GR Antenna Couplers	5-						-	-	-	-	-	-
65.7. Complete AFQTPXXXXX-213R, Contracts and Agreements	7-						-	-	-	-	-	-

Section B - Course Objective List

4. Measurement. 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 as needed 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 hardest parts of the task (partially proficient). The student can also determine step-by-step procedures for doing the task.

Section C - Support Materials

7. The following list of support materials is not all-inclusive; however, it covers the most frequently referenced areas. The most current products can be found at the 81st TRSS/TSQ web page and are available for download from the web site at https://cs.eis.af.mil/sites/10445/default.aspx. Procedures for requesting product development are found in AFI 17-204.

Section D - Training Course Index

8. 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 Education and Training Course Announcements (ETCA) database at https://etca.randolph.af.mil/

9. Air Force In-Residence Courses.

Course Number	Course Title	Location
E2ANW3DXXX 00QA/ E2AZR3DXXX 00QA	Cyberspace Support Quality Assurance Procedures Course (Hybrid Course)	AU Blackboard/ Keesler
E2ANW3DXXX 00QA/ E2AZT3DXXX 00QA	Cyberspace Support Quality Assurance Procedures Course (Hybrid Course)	AU Blackboard/ Mobile Training Team
E3AZR1C851 03DA	Digital Airport Surveillance Radar (DASR) Maintenance	Keesler
E3AZR1C851 03SA	Standard Terminal Automation Replacement System (STARS) Maintenance	Keesler
E3AZR1C852 0B1A	AN/FRN-45 O/I Maintenance	Keesler
E3AZR1C8XX 00DA	High reliability soldering and connections	Keesler
E3AZR3DX7X 00AB	Project Management	Keesler
J7AZR3D157 0C0B	Tower Climbing and Tower Certifier Training Course	Sheppard
J7AST3D157 0C0B	Tower Climbing and Tower Certifier Training	Mobile Training Team
J8AZR3D157 0F5A	Fiber Optic Cable Installation, Splicing And Maintenance	Sheppard

10. Air University Courses.

For a current listing of Air University courses go to http://www.au.af.mil/au/afiadl/.

11. Exportable Courses.

For a current list of the available CBT courses refer to https://www.my.af.mil/faf/FAF/fafHome.jsp (Under AF e-Learning)

12. National Weather Service Course.

E5AZG1C851 01NA	WSR-88D Weather Radar Maintenance (R-4006)	Kansas City

13. Federal Aviation Administration Courses:
https://www.academy.jccbi.gov/catalog/course.asp?CHAP=TO

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

Section E - MAJCOM Unique Requirements

14. The following MAJCOM provided courses are available to support RAWS training. They are open to all active, reserve, and guard military and civilians.

Course Title	MAJCOM	Unit	Location	POC
TPS75CHOT-AN/TPS-75 Long Range Radar (CHOT)	ACC/A6CS	726 ACS	Luke	Mr. Steve Smith
ASOS Maintenance Course Number: S1003	AFDW	811 OSS	Kansas City	Mr. Bob Retzlaff Phone: (816) 994-3019 Email: robert.retzlaff@noaa.gov Link to course info: http://www.nws.noaa.gov/training
Mark 20A Instrument Landing System	AFFSA	ERMC	Ramstein AB	Mr. Richard Harbridge HQ AFFSA/ERMC DSN: 314-489-7450/6921
AN/FMQ-7 Maintainer Course	ACC	2 WS, Det 4	Holloman AFB	Mr. John Pietrzak 1441 Observatory Road Holloman AFB, NM 88330 DSN: 572-3461
AN/FRR-95 and Solar Radio Spectograph Maintainer Course	ACC	2 WS, Det 2	Hamilton, MA	Mr. Daniel Holmes 305 Sagamore Street Hamilton, MA 01982 DSN: 478-4602; Comm: (781) 377-4600

15. The following Lightning Force Academy (LFA) courses are available to support RAWS training. They are open to all active, reserve, and guard military and civilians. These courses can be found at the LFA SharePoint© Link at: https://cs1.eis.af.mil/sites/eiportal/lfa/default.aspx.

The Standard Installation Practices Training (SIPT)
Cable Antenna SIPT
Electronics SIPT
Network Infrastructure
Team Chief Academy (TCA)
Team Chief Refresher Seminar (TCR)
Project Engineering
Project Management (being developed)
Quality Assurance (QA)
GPS Data Collection
Confined Space and Pole Top Rescue Training
Giant Voice
Tower Rescue Certifier Course