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RI 9S100

Technical Applications Specialist



**CAREER FIELD EDUCATION
AND
TRAINING PLAN**

**CAREER FIELD EDUCATION AND TRAINING PLAN
TECHNICAL APPLICATIONS SPECIALTY
RI 9S100**

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**TECHNICAL APPLICATIONS SPECIALTY
RI 9S100
CAREER FIELD EDUCATION AND TRAINING PLAN**

Part I

Preface

1. This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document that identifies life-cycle education and training requirements, and training support resources. The CFETP is a training road map for the 9S100 Reporting Identifier (RI). It identifies mandatory and optional training requirements. It includes initial skills, upgrade and continuation training that individuals should receive during their career in this RI. Note: Due to the diversity of the career field, no core tasks were identified. Civilians occupying associated positions will use Part II to support duty position qualification training.

2. The CFETP, which documents the reporting identifier training program, consists of two parts. Both parts are used to plan, manage, and control training within the career field.

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

2.2. Part II includes the following: Section A identifies the Job Educational Training Standard (JETS) and includes duties, tasks, technical references to support training, Air Education and Training Command (AETC) conducted training, wartime course, and correspondence course requirements; Section B contains the course objective list and training standards supervisors will use to determine if airmen satisfied training requirements; Section C identifies available support materials; 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.

3. Use of the guidance provided in this CFETP will ensure individuals in this reporting identifier receive effective and efficient training at the appropriate point in their career. This plan will allow the training of today's work force for tomorrow's jobs. At unit level, supervisors and trainers will use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan.

ABBREVIATIONS/TERMS EXPLAINED

9S100 Career Field Advisor (CFA). An individual charged with the responsibility for overseeing all training and management aspects of the reporting identifier. Individual works in concert with the Air Force Career Field Manager, MAJCOM Functional Manager, and Air Force Functional Manager.

Advanced Training (AT). A formal task-oriented training course provided by AETC that prepares airmen for duties based upon the requirements of their specific duty assignment. Advanced training may be required prior to a new assignment. This training is intended to provide technique-specific technical training in remote sensing, subsurface systems maintenance, special equipment maintenance, or subsurface analysis immediately prior to using the required skills. Selection for system training is contingent upon the requirements of the new duty station and the training/experience history of the individual.

Air Force Career Field Manager (AFCFM). Air Staff position responsible for overseeing all aspects of the 9S100 Reporting Identifier

Air Force Functional Manager (AFFM). Individual responsible for overseeing training and career field management activities. This individual works in concert with the MFM, AFCFM and 9S100 CFA in important decisions regarding the associated career field.

Air Force Job Qualification Standard/Command Job Qualification Standard (AFJQS/CJQS). See JETS.

Air Force Specialty (AFS). A group of positions requiring common qualifications. Each AFS has a title and a code.

Allocation Curves. The relation of hours of training in different training settings to the degree of proficiency that can be achieved on specified performance requirements.

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

Chief Enlisted Manager (CEM) Code. A five-digit code ending in “00” to identify CMSgts and CMSgt selectees as top enlisted managers in both highly technical skills and in broad areas of managerial competence.

Continuation Training. Additional advanced training exceeding the minimum upgrade training requirements with emphasis on present or future duty assignments.

Competency Level. This term is used to identify the progressive stages RI 9S100 personnel attain as they progress through their careers. This term is similar in nature to the “skill level” term used by other AFSs. We are not authorized to use AFS skill level terms since reporting identifiers are used to classify personnel not otherwise classified within another AFS. Therefore, we use competency rating instead of skill level to define knowledge and experience.

Core Task. A task Air Force Career Field Managers identify as a minimum qualification requirement within an Air Force specialty or duty position.

Course Objective List (COL). A list, derived from initial and advanced course training standards, identifying the tasks and knowledge requirements to achieve the Competency 3 or Competency 5 level in this career field. Supervisors use the COL to assist in conducting graduate evaluations in accordance with AFI 36-2201, Developing, Managing, and Conducting Military Training Programs.

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

Field Technical Training (Type 4). Special or regular on-site training conducted by a field training detachment (FTD) or by a mobile training team.

Initial Skills Training. The formal training an individual receives upon training or retraining into the 9S100 RI for award of the Competency 3 rating. This training is provided by AETC. It is task-oriented training that prepares airmen for duties based upon the requirements of their specific duty assignment. It is required prior to their first assignment. This training is intended to provide technique-specific technical training in subsurface maintenance, remote sensing, special equipment maintenance, or subsurface analysis immediately prior to using the required skills.

Job Educational Training Standard (JETS). A JETS is equivalent to the AF Specialty Training Standard (STS). A comprehensive task list describing skills and knowledge that an airmen in the reporting identifier needs to perform the job. The JETS is used by supervisors to document task qualifications. It further serves as a contract between the Air Education and Training Command and the user to show overall training requirements for the 9S100 RI taught in formal schools and correspondence courses.

Job Knowledge Development Course (JKDC). A JKDC is equivalent to a Career Development Course (CDC). A correspondence course used by RI 9S100 supervisors and trainers to fulfill the knowledge portion of Air Force On-the-Job Training (OJT) requirements for both upgrade and qualification training.

MAJCOM Functional Manager (MFM). Individual responsible for overseeing training and career field management activities within their respective commands. These individuals work in concert with the AFCFM and 9S100 CFA in important decisions regarding the associated career field.

Modular Training. The 9S100 RI uses a modular training program located at Goodfellow AFB TX. Due to diversification of the RI, classes are modular in design with students receiving modules pertaining to their next duty assignment. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills/knowledge required for the job to which the individual is being assigned.

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

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

Optimal Training. The ideal combination of training settings resulting in the highest levels of proficiency on specified performance requirements within the minimum time possible.

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

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

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

Representative Sites. Typical organizational units having similar missions, weapon systems or equipment, or a set of jobs, used as a basis for estimating average training capacities and costs within the Training Impact Decision System (TIDES).

Reporting Identifiers (RI). Reporting identifiers identify authorizations and individual airmen who, for any reason, are not identifiable in the classification structure.

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

Special Experience Identifier (SEI). A three-character code that identifies special experience and training not otherwise identified in the personnel data system. SEIs may permit rapid identification of individuals with special qualifications to meet peacetime assignments. More importantly, they provide a means for identifying critical manning requirements during wartime or contingency operations when little lead-time is available for training personnel in specific technical skills needed to support a weapon system.

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

Specialty Training Package and COMSEC Qualification Training Package. A composite of lesson plans, test material, instructions, policy, doctrine, and procedures necessary to conduct training. These packages are prepared by AETC, approved by National Security Agency (NSA), and administered by qualified communications security (COMSEC) maintenance personnel.

Specialty Training Standard (STS). An Air Force publication that describes skills and knowledge that an airman in a particular Air Force specialty needs on the job. It further serves as a contract between the Air Education and Training Command and the user to show the overall training requirements for an Air Force specialty code that the formal schools teach.

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. A fixed quantity or quality.

System. A physical device, such as an aircraft or air conditioner, or an organized set of doctrines, principles, and procedures, such as the logistics system or the Enlisted Evaluation System.

Task Module (TM). A group of tasks performed within an Air Force specialty that are performed together and that require common knowledge, skills, and abilities. TMs are identified by an identification code and a statement.

Task-Oriented Training (TOT). Advanced training that emphasizes hands-on practice with the applicable equipment and performance of maintenance tasks.

Test Control Officers (TCOs). Individual assigned the responsibility for controlling and safeguarding all test materials. Schedules and monitors WAPS and upgrade testing.

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

Training Capacity. The capability of a training setting to provide training on specified requirements, based on the availability of resources.

Training Impact Decision System (TIDES). A computer-based decision support technology being designed to assist Air Force career field managers in making critical judgments relevant to what training should be provided personnel within career fields, when training should be provided (at what career points), and where training should be conducted (training setting).

Training Planning Team (TPT). Comprised of the same personnel as a U&TW, however TPTs are more intimately involved in training development and the range of issues are greater than is normal in the U&TW forum.

Training Requirements Analysis. A detailed analysis of tasks for a particular AFS 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.).

Upgrade Training (UGT). Mandatory training which leads to attainment of a higher level of proficiency. Training identifies the mandatory courses, task qualification requirements, and correspondence course completion requirements for award of the Competency 5, 7, and 9 ratings.

Utilization and Training Workshop (U&TW). A forum of MAJCOM Air Force Specialty Code (AFSC) functional managers, Subject Matter Experts (SMEs), and AETC training personnel that determines career ladder training requirements.

Weighted Airman Promotion System (WAPS). The enlisted promotion system designed to promote airmen to fill particular needs for specific grades in each Air Force specialty.

Section A - General Information

1. Purpose. This CFETP provides information for Air Force Functional Manager, Air Force Career Field Manager, 9S100 Career Field Advisor, MAJCOM Functional Managers, commanders, training managers, supervisors and trainers to plan, develop, manage, and conduct an effective reporting identifier training program. This plan outlines the training individuals in this RI should receive to develop and progress throughout their career. It identifies initial skills, qualification, advanced, and proficiency training. The CFETP has several purposes, some are:

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

1.2. Identifies task and knowledge training requirements for each competency level in the specialty and recommends education/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 delivery method.

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

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

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

2.2. MFMs will ensure their training programs complement the CFETP mandatory initial, upgrade, and proficiency requirements. Identified requirements can be satisfied by OJT, resident training, contract training, or exportable courses. MAJCOM-developed training to support this RI must be identified for inclusion into this plan.

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

3. Coordination and Approval. The AFCFM is the approval authority. MAJCOM representatives, 9S100 CFA, and AETC training personnel will identify and coordinate on the special identifier training requirements. The AETC training manager for this specialty will initiate an annual review of this document by AETC, 9S100 CFA, and MFMs to ensure currency and accuracy; forward recommended changes to the 9S100 CFA. Using the list of courses in Part II, they will eliminate duplicate training.

Section B - Career Progression and Information

4. Reporting Identifier Description. Personnel in this reporting identifier apply physical science techniques to perform data collection and analysis, observation, study, experimentation, acquisition, maintenance, research and development, fielding of prototype and operational electronic sensors and systems on specialized platforms such as: seismic, hydroacoustic, nuclear

radiation, chemical, biological, electro-optic, radio-frequency, infrared discrimination, radar, and rapidly deployable and fixed airborne materials sampling. Personnel utilize the Tasking, Processing, Exploitation, and Dissemination (TPED) process, computer processing applications, and information operations. Members must obtain eligibility for a Top Secret Single Scope Background Investigation (TS-SSBI) security clearance according to AFI 31-501 for award and retention of RI 9S100. Failure to obtain/maintain this clearance is grounds for exclusion from the reporting identifier.

4.1. **Competency Summaries**

4.1.1. **Competency 3** - Personnel at this level are expected to be in the rank of AB through Amn. These personnel will receive their Competency 3 rating upon successful completion of initial skills training.

4.1.2. **Competency 5** - Personnel at this level are expected to be in the rank of A1C through SrA. These personnel will receive their Competency 5 rating upon successful completion of training requirements for this level and the JKDC.

4.1.3. **Competency 7** - Personnel at this level are expected to be in the rank of SSgt through MSgt. These personnel will receive their Competency 7 rating upon successful completion of training requirements for this level.

4.1.4. **Competency 9** - Personnel at this level are expected to be in the rank of SMSgt through CMSgt. These personnel will receive their Competency 9 rating upon promotion to SMSgt and successful completion of any additional requirements, such as supervisory/management experience.

4.2. **Duties and Responsibilities.** The following duties and responsibilities are indicative of the types of jobs our personnel currently perform. The RI is not limited to performing only these duties, but evolving mission requirements and classifications prohibit the listing all possible duties. Each of the four competency ratings corresponds to the rank of personnel expected to perform at that rating. This may differ due to factors such as retrainees, early promotions, etc. Competencies are as follows:

4.2.1. **Technical Applications Specialist Competency 5 (A1C - SrA)**

Performs reporting identifier activities. Installs equipment and systems. Performs preventive maintenance routines. Maintains, repairs, modifies, and operates equipment and systems. Supervises analysis, interpretation, and reporting of sensor data. Coordinate, plan, and manage utilization of available resources. Brief senior government, civilian, and military officials. Respond to queries from government officials. Direct data collection and analysis efforts of sensor systems. Identify operational trends and problem areas and assist in cause identification and resolution. Develop and enforce safety standards.

4.2.2. **Technical Applications Specialist Competency 7 (SSgt - MSgt)**

Performs and supervises reporting identifier activities. Installs equipment and systems. Performs preventive maintenance routines. Maintains, repairs, modifies and operates equipment and systems. Supervises analysis, interpretation, and reporting of sensor data. Manages reporting identifier activities. Coordinate, plan, and manage utilization of available resources. Develop and implement internal guidance, instructions, and policy. Administer and manage support

agreements. Coordinate and advise on mission directives and requirements. Direct work force activities. Brief senior government, civilian, and military officials. Respond to queries from government officials. Direct data collection and analysis efforts of sensor systems. Coordinate between US national-level agencies, cabinet-level/ host-government officials, and HQ USAF for sustaining personnel support, financial management, administration, operations, maintenance, communications, and logistics. Identify operational trends and problem areas and assist in cause identification and resolution. Manage enlisted specialty training programs. Ensure proper assignment and availability of personnel. Establish work standards, methods, and controls. Develop and enforce safety standards.

4.2.3. Technical Applications Specialist Competency 9 (SMSgt – CMSgt)

Supervises and manages reporting identifier activities. Coordinate, plan, and manage utilization of available resources. Develop and implement internal guidance, instructions, and policy. Administer and manage support agreements. Coordinate and advise on mission directives and requirements. Direct work force activities. Brief senior government, civilian, and military officials. Respond to queries from government officials. Direct data collection and analysis efforts of sensor systems. Coordinate between US national-level agencies, cabinet-level/ host-government officials, and HQ USAF for sustaining personnel support, financial management, administration, operations, maintenance, communications, and logistics. Identify operational trends and problem areas and assist in cause identification and resolution. Manage enlisted specialty training programs. Ensure proper assignment and availability of personnel. Establish work standards, methods, and controls. Develop and enforce safety standards.

5. Skill/Career Progression

Throughout their career, members of the 9S100 career field are subject to a wide variety of tasking to support a number of dynamic missions. Expanding diversity of these mission tasks and the ever-changing technologies needed to meet them impact our most valuable resource - people. It is essential that we minimize this impact by effectively and efficiently training our people to succeed in this challenging environment. Adequate training and timely progression from the Competency 3 to the Competency 9 rating play an important role in the Air Force's ability to accomplish its mission. It is essential that everyone involved in training do his or her part to plan, manage, and conduct an effective training program. The guidance provided in this part of the CFETP ensures that each individual receives viable training at appropriate points in their career.

5.1. Competency 3 (AB – Amn)

Formal training for entry level airmen consists of the task and knowledge training provided by AETC and consists of several courses. The first course, Electronic Principles (EP), is currently taught at Lackland AFB TX. This course provides the student with a basic understanding of electronic components, circuits, test equipment, and computers. More importantly, EP provides foundation stones for analytical thinking, vital to all 9S100 jobs. It is a pre-requisite for entry into one of the four initial skills courses taught at Goodfellow AFB TX. These courses introduce the student to the core knowledge and task requirements for Competency 3. They cover general Air Force topics, technical knowledge (math, science, and phenomenology), community mission and organization, technical skills training, and task-oriented training that prepares airmen for duties based upon the requirements of their specific duty assignment. Completion of initial skills training is required prior to the first duty assignment. This training is intended to provide assignment-

specific technical training immediately prior to using the required skills. Selection for any specific initial skills course is contingent upon the requirements of the duty assignment. Task and knowledge training requirements are identified in the JETS. Individuals must complete one of the initial skills courses to be awarded the 9S100 reporting identifier.

5.2. Competency 5 (A1C – SrA)

The requirements for completion of training are: (1) qualification in and possession of RI 9S100; (2) complete qualification training requirements for current duty position; (3) complete job knowledge training as outlined in JKDC 9S100; (4) satisfactorily perform in current duty position; (5) satisfactorily perform in duties for 15 months (9 months if a retrainee); and (6) recommendation of immediate supervisor. Certain positions qualify for award of a special experience identifier (SEI). The requirements for award of an SEI follow in paragraph 10.5 (see AFI 36-2108 for further details). Once task certified, a trainee may perform tasks unsupervised and may qualify for award of a SEI. NCOs who retrain into this RI must complete Competency 3 training prior to assignment of Competency 5 duties. Individuals moving to new duty assignments or positions may require advanced training to acquire the assignment-specific training required for the new position. The task and knowledge training requirements for these courses are identified in the JETS at Part II, Section A. Airmen will attend the Airman Leadership School (ALS) after serving 48 months in the Air Force or upon selection for promotion to SSgt. Individuals will use their JKDCs and other designated study references to prepare for testing under WAPS.

5.3. Competency 7 (SSgt – MSgt)

Completion of Competency 5 training is a prerequisite for entry into Competency 7 training. To obtain and maintain this status, members must (1) possess the RI 9S100, (2) be a SSgt through MSgt; (3) complete all duty position requirements; (4) successfully complete any advanced training required by the current duty assignment; (5) successfully perform in the current duty position for 12 months; (6) recommendation of immediate supervisor; and (7) successfully complete management training requirements IAW AFI 36-2201. Certain positions qualify for award of a special experience identifier (SEI). Paragraph 10.5 lists these SEI award requirements. Competency 7 applies to those in the grades of SSgt through MSgt. Currently, there are no RI 9S100 course requirements to achieve this status, however, trainees will enter qualification training as required to complete any new training requirements of their duty position. Individuals moving to a new duty assignment or position may also require advanced training to acquire the assignment-specific training required for the new position. Once task certified, a trainee may perform Competency 7 tasks unsupervised and may qualify for award of a special experience identifier. NCOs who retrain into this RI must complete Competency 3 and Competency 5 training prior to assignment of Competency 7 duties. In addition, when selected for promotion to TSgt, individuals will be eligible to attend the Noncommissioned Officer Academy. Individuals selected for promotion to MSgt must have attended the NCO Academy prior to actually assuming the grade. Individuals should take courses or obtain added knowledge on management of resources and personnel.

5.4. Competency 9 (SMSgt – CMSgt)

Completion of Competency 7 requirements is a prerequisite for entry into Competency 9 training. To obtain this status, members of this career field must (1) possess the RI 9S100, (2) be a SMSgt or CMSgt; (3) satisfactorily perform in current duty position; and (4) complete the SNCOA in

residence (for CMSgt). (CEM codes are not available to the RI 9S100 career field.) There are no career-field-specific knowledge/training requirements to advance to the Competency 9 although certain duty positions require qualification training. All members must successfully complete continuation training required by their duty positions and successfully complete any advanced training for which they are selected. This tier is tied to the individual's grade; no specific actions are required for entry into this tier. Personnel moving to a new duty assignment or position generally will not require any training to assume the new position. Individuals can be expected to fill positions such as detachment chief, detachment superintendent, directorate superintendent, resource manager and various senior staff NCO jobs. Individuals promoted to SMSgt must attend the SNCOA prior to promotion to CMSgt. Additional training in the areas of budget, manpower, resources and personnel management should be pursued through continuing education.

6. Training Decisions

This CFETP encompasses the entire spectrum of training requirements for the RI 9S100 career field. The spectrum includes a strategy for 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. Minor course content changes were accomplished at the last U&TW. JKDC content was completely revised. JKDC requirements were placed into a separate attachment in order to clarify course requirements.

6.1. Competency 3 Training Requirements (AB – Amn)

Competency 3 training encompasses those items required to provide essential knowledge and skills used throughout the career field, such as electronics principles, AF indoctrination, basic mathematics, scientific principles, community mission and organization, and an introduction to computers and workstations. It also will provide assignment-specific training to introduce specialized skills and knowledge to be used at the trainee's first duty assignment. The goal of the initial skills course is to provide career field members with a broad-based education they can build upon and apply to all missions and systems combined with some specialization tailored to their first duty assignment.

6.2. Competency 5 Training Requirements (A1C – SrA)

Competency 5 training begins at the first duty station after initial skills training and follows a dual track. The performance track consists of qualification training on all tasks required for the assigned duty position. The knowledge track comes in a JKDC, which covers knowledge items required for upgrade training.

6.3. Competency 7 Training Requirements (SSgt – MSgt)

Competency 7 training consists of qualification training on all tasks required for the assigned duty position. Personnel in these training tracks may require advanced training in conjunction with a move to a new duty position or assignment.

6.4. Proficiency Training. No proficiency training is required.

6.5. Classification and Tracking of Training

As a reporting identifier, a 9S100 faces some unique difficulties in tracking and administering training. We do not have skill-levels and the assortment of training status codes available to an AFS. The career path of 9S100 personnel is similar to that of an AFS. There are competency tiers

associated to grade-levels, training using training status codes “D” (qualification training) and “T” (unsatisfactory progress), and various special experience identifiers [see paragraph 10.5 and AFI 36-2108 for further details] to track qualified advanced training.

6.6. On-the-Job Training (OJT)

6.6.1. General Responsibilities

The duties and responsibilities of the AFCFM, unit commanders, TCOs, unit training managers, supervisors, trainers, and trainees are specified in AFI 36-2201, AFI 37-138, and this plan. Unit training managers and TCOs will be appointed in writing with copies of the appointment letters provided to 312 TRS/DOEX. Maintenance of all AF Forms 623 will be accomplished IAW AFI 36-2201. The 312th Training Squadron, Goodfellow AFB, TX is responsible for publishing and distributing the 9S100 Job Knowledge Development Course (JKDC). The JKDC is developed from requirements identified in the JKDC JETS.

6.6.2. Career Knowledge Training

The JKDC is published to provide the information necessary to support career knowledge concurrent with the OJT process. When specified, the JKDC will be used to satisfy the career knowledge training requirements for competency rating upgrading. Personnel entered into training when a JKDC is not available, or when JKDC requirements have been waived, will satisfy the mandatory career knowledge requirements by studying the subject and task knowledge references identified by the supervisor in the JETS. This will be accomplished IAW AFI 36-2201.

6.6.2.1. JKDC Administration

The JKDC is administered jointly by the Air Force Institute for Advanced Distributed Learning (AFIADL) and the 312 TRS/DOE in accordance with AFI 36-2201 and this plan. Except as specified herein, the JKDC is administered using the same procedures and guidelines contained in AFI 36-2201 to administer Career Development Courses (CDCs).

6.6.2.2. JKDC Enrollment

Unit training managers initiate JKDC enrollment upon the trainee’s entry into Competency 5 training or upon request by the trainee’s supervisor (both are mandatory enrollments). Enrollments are processed through PC III or MILPDS. AFIADL sends a Welcome card (AFIADL Form 9) and a test answer sheet. Unit training managers must then contact 312 TRS/DOEX, 170 Griffin Street, Suite 18, Goodfellow AFB, TX 76908-4213 (DSN FAX 477-4501/ Commercial FAX 915-654-4501, DSN voice 477-4507/Commercial voice 915-654-4507, or via Email at 312trs.jkdc@goodfellow.af.mil) to coordinate shipment of JKDCs. Provide the following information when ordering: Course number, enrollee’s name, SSAN, rank, enrollment date, unit of assignment, the unit’s training POC, DSN number, and where JKDCs will be shipped. Upon receipt of the request, 312 TRS/DOEX processes the enrollment and ships the JKDC materials to the unit training manager for distribution to the trainee.

6.6.2.3. JKDC Time Limit

The supervisor will establish a completion schedule for the JKDC (normally not more than 30 days per volume). Enrollees who have not completed the JKDC 12 months from the date of enrollment, including the course examination, will be disenrolled. AFIADL may grant up to a 4-month extension to the 12-month time limit when unusual circumstances prevent completion

within the allotted time frame. Unit training managers should request extensions from AFIADL, with an info copy to 312 TRS/DOEX.

6.6.2.4. JKDC Course Examinations (CEs)

When the trainee has completed the last unit review exam (URE), the unit training manager orders the CE from AFIADL through PC-III or MILPDS. The unit training manager must also send a CE request to 312 TRS/DOEX giving the trainee's name, rank, SSAN, and test version number from the AFIADL test answer sheet. 312 TRS/DOEX sends the CE upon receipt of request. Allow 10 days to 3 weeks for mail time. The CE should be administered to the trainee within 30 calendar days of receipt, using the general CE administration instructions provided in the AFIADL catalog and any additional instructions contained inside the front cover of the CE. When unusual circumstances preclude administering the test within the 30-day time limit, the supervisor provides a letter of explanation to the TCO through the unit training manager. The TCO retains the test booklet until the test results are received from AFIADL, then destroys it. Unit TCOs maintain test control logs to account for the receipt, administration, and destruction of CEs according to AFI 36-2201 and the AFIADL Catalog. AFIADL provides the CE results to the unit training manager, identifying questions missed by learning objective (LO) numbers. The trainee's immediate supervisor reviews the CE results with the trainee and identifies areas for review training. Review training is required for all missed questions. The minimum passing score for the CE is 65 percent.

6.6.2.5. JKDC Retesting

If the trainee does not pass the CE, AFIADL forwards an alternate test answer sheet to the unit training manager. The training manager must then notify 312 TRS/DOEX to send the alternate CE, giving the same information as when ordering the initial CE. The alternate CE is administered contingent upon the commander's determination that all requirements for retesting are met IAW AFI 36-2201. Upon completion of the retest, the TCO forwards the completed answer sheet to AFIADL for scoring. The TCO retains the alternate CE test booklet until the test results are received from AFIADL, then destroys it. The trainee is automatically disenrolled from the JKDC upon failure of the CE retest. AFIADL notifies the unit training manager of the disenrollment action. The trainee's unit commander must evaluate the trainee IAW AFIs 36-2101 and 36-2201, then exercise one of the following options: (1) Consider JKDC waiver IAW AFIs 36-2101 and 36-2201, (2) Recommend withdrawal of the reporting identifier, return to previously awarded AFSC, or retraining, and (3) Process the member for separation according to AFI 36-3208.

6.6.2.6. JKDC Requests for Assistance

Requests for assistance should be submitted through the unit training manager (UTM). UTMs should forward requests for administrative assistance to AFIADL, while subject matter questions should be sent to 312 TRS/DOEX. Sending subject-matter questions to AFIADL will merely delay the answer, as AFIADL will forward them to 312 TRS for answers. Requests for subject-matter assistance may be made by letter, telephone or email. The author's name, address, DSN number, and email address are listed in the front cover of each JKDC volume.

6.6.2.7. JKDC Mailing and Handling

All JKDC materials and correspondence are mailed according to AFI 31-401. All CEs and CE answer sheets, regardless of classification, will be double wrapped with the inner envelope

conspicuously annotated with the following statement: CONTAINS JKDC TEST MATERIAL -- TO BE OPENED BY TEST CONTROL OFFICER ONLY. Handling of open CE test booklets and completed answer sheets by other than appointed TCOs and examinees, and discussion of CE items outside the testing environment are prohibited. Violators are subject to action under the Uniform Code of Military Justice, Article 92. Anyone becoming aware of a known or suspected compromise of CE test items will immediately report test compromise following AFIADL catalog instructions and notify 312 TRS/DOEX.

6.7. Modular Training

Basic training and retraining students attend initial skills training. Initial skills training is task-oriented training that prepares airmen for specific duty assignment requirements using training modules developed for systems operated and maintained by RI 9S100 personnel. Each of the four initial skills training courses will deliver training requirements and assignment-specific requirements tailored to the first duty assignment. Personnel currently holding RI 9S100 and being assigned to new duty positions will attend advanced training modules that will provide skills and knowledge tailored to the new position. In most cases, this training will consist of one or more courses taught at Goodfellow AFB. The aim of both the initial skills and advanced training is to deliver current, relevant knowledge and skills training for use at the next duty assignment. The MAJCOM formal training section will schedule advanced training for RI 9S100 personnel reassigned to new duties on an as required basis.

7. Community College of the Air Force. Off-duty education is a personal choice that is highly encouraged. Enrollment in CCAF occurs upon completion of basic military training. CCAF provides the opportunity to obtain an Associate in Applied Sciences Degree. In addition to its associates degree program, CCAF offers the following:

7.1. Occupational Instructor Certification. Upon completion of instructor qualification training, consisting of the instructor methods course and supervised practice teaching, CCAF instructors who possess an associates degree or higher may be nominated by their school commander/commandant for certification as an occupational instructor.

7.2. Degree Requirements. All airmen are automatically entered into the CCAF program. Prior to completing an associate degree, the RI 9S100 Competency 5 rating 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
Technical Education; Leadership, Management, and Military Studies; or General Education	
Total	64

7.2.1. Technical Education (24 Semester Hours): A minimum of 12 semester hours of Technical Core subjects/courses must be applied and the remaining semester hours applied from Technical Core/Technical Elective courses.

7.2.2. **Leadership, Management, and Military Studies** (6 Semester Hours): Professional military education and/or civilian management courses.

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

7.2.4. **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.

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

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

8. Career Field Path

8.1. Manpower Table

Table 8.1. Manpower Table									
	CMSgt	SMSgt	MSgt	TSgt	SSgt	SrA	A1C	Amn	AB
MAJCOM	X	X	X	X	X	X	X		
Air Staff		X	X						
Joint Service		X	X	X					
Numbered Air Forces				X	X				
Center Level	X	X	X	X	X	X	X		
Base Level		X	X	X	X	X	X		
Detachment		X	X	X	X	X	X		
FOA/DRU	X	X	X	X	X	X	X		

8.2. Enlisted Career Path

Table 8.2. Enlisted Career Path				
Education and Training Requirements	GRADE REQUIREMENTS			
	Rank	Average Sew-On	Earliest Sew-On	High Year Of Tenure (HYT)
Basic Military Training school				
Technical School (Competency 3) <u>Initial Skills</u> Fundamental Electronics Technical Applications: (Mandatory) <u>Modular Training</u> Subsurface Maintenance; Remote Sensing; Special Equipment Maintenance; or Subsurface Analysis. Mandatory (any grade) prior to award of reporting identifier.	Amn	6 months		
Upgrade To Competency 5 <u>Qualification Training</u> - Complete all duty-related tasks. <u>Job Knowledge Training</u> - Complete RI 9S100 JKDC.	A1C SrA	16 months 3 years	 28 months	 10 Years <small>Note: HYT currently raised to 12 years due to a selective reenlistment bonus option.</small>
Airman Leadership School (ALS) - Must be a SrA with 48 months time in service or be a SSgt Selectee. - Resident graduation is a prerequisite for SSgt sew-on (Active Duty Only). (AFRES may complete by correspondence course)	<u>Trainer</u> - ALS graduate. - Possess the same RI at a higher competency level than the trainee, and be certified to train others. - Must attend formal trainer's course and appointed by Commander.			
Upgrade To Competency 7 - Minimum rank of SSgt. <u>Qualification Training</u> - All duty-related tasks.	SSgt	5 years	3 years	20 Years
	<u>Certifier</u> - Possess at least a competency 7 in the same RI if possible, but not required. - SSgt or above (civilian equivalent) - Attend formal trainer's course and appointed by Commander. - Be a person other than the trainer.			
Noncommissioned Officer Academy (NCOA) - Must be a TSgt or TSgt Selectee. - Resident graduation is a prerequisite for MSgt sew-on (Active Duty Only).	TSgt MSgt	13.4 years 16.7 years	5 years 8 years	22 Years 24 Years
USAF Senior NCO Academy (SNCOA) - Must be a SMSgt or SMSgt Selectee (select MSgts may attend). - Resident graduation is a prerequisite for CMSgt sew-on (Active Duty Only).	SMSgt	19.6 years	11 years	26 Years
Upgrade To Competency 9 - Minimum rank of SMSgt. - Must be a resident graduate of SNCOA (Active Duty Only). - No specific career field training is required.	CMSgt	24.7 years	14 years	30 Years

NOTE: 9S100 promotion data is average based on analysis performed on data from 2000 and 2001.

Section C – Competency Rating Training Defined

This section defines all mandatory training requirements in the Reporting Identifier for each competency rating. This section provides a broad, general correlation of each competency rating to RI knowledge and skills requirements, and to mandatory requirements for entry into, award of, and retention of each competency rating.

9. Purpose. Competency rating training requirements in this reporting identifier are defined in terms of tasks and knowledge requirements. This section outlines the qualification requirements for each competency rating in broad, general terms and establishes the mandatory requirements for entry, award and retention of each competency rating. The specific task and knowledge training requirements are identified in the JETS in Part II, Sections A and B of this CFETP.

10. Specialty Qualification:

10.1. Competency 3:

10.1.1. Specialty Qualification. Airmen that apply skills, knowledge, and leading edge physical sciences to perform data collection, analysis, observation, study, experimentation, acquisition, maintenance, research and development, fielding of prototype and operational electronic sensors and systems on specialized geophysical, nuclear radiation, chemical, biological, electro-optic, radio-frequency, infrared discrimination, radar, and rapidly deployable and permanently installed airborne materials sampling platforms; process and analyze scientific data; derive, develop, and report first-hand signature information to national command authorities and warfighters. Airmen utilize the Tasking, Processing, Exploitation, and Dissemination (TPED) process, computer processing applications, and information operations. Related DoD Occupational Subgroup: 491 and 531.

10.1.1.1. Knowledge. Must possess fundamental knowledge of the following:

10.1.1.1.1. Electronic Principles. Including circuits, terms and calculations, circuit components, motors, logic functions, transmitters, receivers, antennas, computer theory, soldering and the use of various test measurements and diagnostics equipment.

10.1.1.1.2. Mathematics. Including basic and exponential algebraic equations and standard deviation calculations.

10.1.1.1.3. Sciences. Including atomic structure and properties of matter, dynamics and force, conservation of energy, fluid and thermodynamics, electromagnetic radiation, characteristics of wave propagation through various mediums (earth, water, atmosphere, and space), radioactivity, and nuclear reactions.

10.1.1.1.4. Phenomenology. Including geophysical, electro-optic, material, nuclear radiation, radar, and radio frequency.

10.1.1.1.5. Computer Technology. Including computer communications and networks; workstation operation, troubleshooting methods, and procedures; theory, operation, installation, and maintenance of electronic data processing equipment and their operating systems.

10.1.1.1.6. Logistics and Maintenance. Including maintenance practices and logistics management procedures.

10.1.1.1.7. Missions and organizations. Including community structure, roles and responsibilities, general principles, national and theater assets, and operational applications.

10.1.1.2. **Education.** Completion of high school or high school equivalency is mandatory for entry into this reporting identifier. Courses in physics, mathematics, and computer science are desirable.

10.1.1.3. **Training.** Completion of the Electronic Principles Course, the Technical Applications Fundamentals course, and one follow-on modular training course are mandatory for award of the reporting identifier.

10.1.1.4. **Experience.** There are no specific experience requirements for completion of initial skills training.

10.1.1.5. **Other.** Eligibility for a Top Secret Single Scope Background Investigation (TS-SSBI) security clearance according to AFI 31-501 is mandatory for award and retention of this specialty. Armed Services Vocational Aptitude Battery scores of 83 in Mechanical and 81 in Electronics are mandatory for entry into the reporting identifier. Minimum physical profile of 222221. Normal color vision. Electronic Data Processing Test (EDPT) score of 57.

10.1.2. **Training Sources and Resources.** Formal training is accomplished through courses at Lackland AFB TX and Goodfellow AFB TX. The current JETS identifies all tasks trained through these formal courses.

10.1.3. **Implementation.** Initial skills training for RI 9S100 personnel is satisfied upon successful completion of the above requirements.

10.2. Competency 5:

10.2.1. **Specialty Qualification.** The requirements for completion of training are: (1) qualification in and possession of RI 9S100; (2) complete qualification training requirements for current duty position; (3) complete job knowledge training as outlined in JKDC 9S100; (4) satisfactorily perform in current duty position; and (5) satisfactorily perform in duties for 15 months (9 months if a retrainee); and (6) recommendation of the immediate supervisor. Certain positions qualify for award of a special experience identifier (SEI). The requirements for award of an SEI follow in paragraph 10.5 (see AFI 36-2108 for further details).

10.2.1.1. **Knowledge.** All Competency 3 rating knowledge requirements apply.

10.2.1.2. **Education.** All Competency 3 rating education requirements apply. Upon completion of technician training requirements, members are encouraged to pursue continuing education through the Community College of the Air Force. Supervisors should assist by identifying continuing education courses applicable to assigned duties.

10.2.1.3. **Training.** All Competency 3 rating training requirements apply. Individual must successfully complete 9S100 JKDC. Must obtain certification of all tasks required to be fully trained in the present duty position. All individuals must be graduates of Airman Leadership school to assume the rank of SSgt.

10.2.1.4. **Experience.** Perform duties related to this career field: operating and/or maintaining data collection and material sampling systems; analyzing and exploiting measurements data and samples.

10.2.1.5. **Other.** Must maintain minimum physical profile and security clearance requirements as for Competency 3.

10.2.2. **Training Sources and Resources.** The current JETS identify tasks. Each unit maintains a master JQS listing training requirements for the position currently held by the individual.

10.2.3. **Implementation.** Upon entry into advanced training, unit training managers load the trainee into training status code “D”. Upon successful completion, this training code is removed. Unsatisfactory progress is recorded using appropriate training status code as listed in AFI 36-2201, Attachment 8.

10.3. Competency 7:

10.3.1. **Specialty Qualification.** Completion of Competency 5 training is a prerequisite for entry into Competency 7 training. To obtain and maintain this status, members must (1) possess the RI 9S100, (2) be a SSgt through MSgt; (3) complete all duty position requirements; (4) successfully complete any advanced training required by the current duty assignment; (5) successfully perform in the current duty position for 12 months; (6) recommendation of the immediate supervisor; and (7) successfully complete management training requirements IAW AFI 36-2201. Certain positions qualify for award of a special experience identifier (SEI). Paragraph 10.5 lists these SEI award requirements.

10.3.1.1. **Knowledge.** All Competency 3 rating knowledge requirements apply. The same knowledge requirements apply for Competency 5; however, individuals should, through continuing education, acquire additional, in-depth knowledge about techniques, systems, and data associated with this career field. For example, completion of the Technical Applications Collections course taught at Goodfellow AFB provides basic career broadening knowledge for all 9S100 personnel.

10.3.1.2. **Education.** All Competency 3 rating education requirements apply. Individuals must be Airman Leadership School graduates before promotion to SSgt. Individuals should pursue continuing education to obtain their CCAF degree or another degree related to this career field. Additionally, all individuals must be NCO Academy graduates to assume the rank for MSgt.

10.3.1.3. **Training.** All Competency 5 rating training requirements apply. No formal training is required for advancement to Competency 7. Individuals must complete training on all tasks related to their duty position and remain qualified in those tasks.

10.3.1.4. **Experience.** Advancement to Competency 7 requires individuals to have successfully worked at the Competency 5 level and proficiently performed all tasks related to their present duty position.

10.3.1.5. **Other.** Must maintain minimum physical profile and security clearance requirements as for Competency 3.

10.3.2. **Training Sources and Resources.** The current JETS identify tasks. Each unit maintains a master JQS listing training requirements for the position currently held by the individual.

10.3.3. **Implementation.** This tier is tied to the individual’s grade; no specific actions are required for entry into this tier. Personnel in qualification training should be entered into training status

code “D” and removed when training is complete. Unsatisfactory progress is tracked using appropriate training status code as listed in AFI 36-2201, Attachment 8.

10.4. **Competency 9:**

10.4.1. **Specialty Qualification.** Completion of Competency 7 requirements is a prerequisite for entry into Competency 9 training. To obtain this status, members of this career field must (1) possess the RI 9S100, (2) be a SMSgt or CMSgt; (3) satisfactorily perform in current duty position; and (4) complete the SNCOA in residence (for CMSgt). There are no career-field-specific knowledge/training requirements to advance to the Competency 9 although certain duty positions require qualification training. All members must successfully complete continuation training required by their duty positions and successfully complete any advanced training for which they are selected. This tier is tied to the individual’s grade; no specific actions are required for entry into this tier.

10.4.1.1. **Knowledge.** All Competency 3 – 7 rating knowledge requirements apply. Competency 9 individuals should obtain knowledge in managing personnel, technical operations, acquisition programs, and logistics functions through continuing education.

10.4.1.2. **Education.** SMSgts must attend the SNCO Academy for promotion to CMSgt.

10.4.1.3. **Training.** No formal training is required for advancement to Competency 9.

10.4.1.4. **Experience.** To advance to Competency 9, individuals must have successfully worked at the Competency 7 level and proficiently performed all tasks related to their present duty position.

10.4.1.5. **Other.** Must maintain minimum physical profile and security clearance requirements as for Competency 3.

10.4.2. **Training Sources/Resources.** None

10.4.3. **Implementation.** This tier is tied to the individual’s grade; no specific actions are required for entry into this tier.

10.5. Special Experience Identifier Requirements. SEIs are used for identifying experience and training that may be needed for contingency taskings. Award of the SEI is a MFM and 9S100 CFA responsibility. This award is generated by the immediate supervisor and validated by the site commander. Each site should ensure SEIs are awarded as appropriate for proper personnel tracking. Each unit loads their individuals via the appropriate personnel data system. Requirements for award of the SEI follows:

10.5.1. **SEI 058 - Atmospheric Research Equipment Specialist (ARE)** - (1) possess the RI 9S100, (2) complete all Competency 5 training requirements for the 9S100 career field pertinent to this area, (3) have six months experience as an ARE maintenance technician, and (4) obtain supervisor's recommendation for award of the SEI.

10.5.2. Award and removal of an SEI requires MFM and 9S100 CFA approval. Submit written justification as appropriate.

Section D - Resource Constraints

11. Purpose. This section identifies known resource constraints which preclude optimal/desired training from being developed or conducted, including information such as cost and manpower. Narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training are included. Also included in this section are actions required, office of primary responsibility, and target completion dates. Resource constraints will be, as a minimum, reviewed and updated annually.

12. Competency 3 Training:

12.1. Constraints. N/A

12.1.1. Impact.

12.1.2. Resources Required.

12.1.3. Action Required.

12.2. OPR/Target Completion Date. N/A

13. Competency 5 Training:

13.1. Constraints. N/A

13.1.1. Impact.

13.1.2. Resources Required.

13.1.3. Action Required.

13.2. OPR/Target Completion Date. N/A

14. Competency 7 Training:

14.1. Constraints. N/A

14.1.1. Impact.

14.1.2. Resources Required.

14.1.3. Action Required.

14.2. OPR/Target Completion Date. N/A

Section E. Transitional Training Guide

15. Not used at this time.

Part II

Section A - Job Education Training Standard (JETS)

1. Implementation. This JETS will be used to identify technical training provided by AETC for the 3- competency level Technical Applications Specialist course with class beginning 17 Oct 02. Training for the follow-on ABR courses will start with classes beginning on 14 Jan 03.

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

2.1. Lists in Column 1 (*Tasks, Knowledge, and Technical Reference*) the most common tasks, knowledge, and technical references (TR) necessary for airmen to perform duties in the 3-, 5-, and 7-competency levels.

2.2. *As a minimum, trainees must complete all critical tasks for competency level upgrade.* Critical tasks will be determined by the supervisor relative to the duty position individual is assigned to.

2.3. Wartime tasks. In response to a wartime scenario, all tasks in the 3-competency course will be taught.

2.4. Provides certification for OJT. Columns 3A, B, C, D, and E are used to record completion of tasks and knowledge training requirements. Task certification should be documented per AFI 36-2201.

2.5. Shows formal training and correspondence course requirements. Columns 4 A, B, and C show 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 initial skills training course, correspondence course, and read-ahead material. See CDC listing maintained by the unit training manager for current JKDC listings (also found at

<http://www.maxwell.af.mil/au/afiadl/curriculum/catalog/html/catalogtoc.htm>).

2.6. **Qualitative requirements.** Attachment 1 contains the *Proficiency Code Key* used to indicate the level of training and knowledge provided by resident training and career development courses.

2.7. Becomes a job qualification standard (JQS) for on-the-job training when placed in AF Form 623, On-The-Job Training Record, and used according to AFI 36-2201. When used as a JQS, the following requirements apply:

2.7.1. **Documentation.** Document and certify completion of training according to current Air Force instructions.

2.7.1.1. **Converting from Old Document to CFETP.** Use the new CFETP to identify and certify all past and current qualifications. Document according to current Air Force instructions.

2.7.1.2. **Documenting Career Knowledge.** When a JKDC is not available, the supervisor identifies JETS training references that the trainee requires for career knowledge and ensures, as a minimum, that trainees cover all mandatory items specified in AFMAN 36-2108, Airman Classification. For two-time JKDC exam failures, supervisors identify all JETS items corresponding to the areas covered by the JKDC. The trainee completes a study of JETS references, undergoes evaluation by the task certifier, and receives certification on the JETS. At

this point, a waiver may be requested (see AFIs 36-2101 and 36-2201 for details). *NOTE:* Career knowledge must be documented prior to submitting a JKDC waiver request.

2.7.1.3. **Decertification and Recertification.** When an airman is found to be unqualified on a task, the supervisor shall erase previous certification and enter airman into qualification training. Appropriate remarks are entered on the AF Form 623a, On-The-Job Training Record Continuation Sheet, as to the reason for decertification. The individual is recertified using the normal certification process.

2.7.2. **Training Standard.** Tasks are trained and certified to the “go” level. “Go” means the individual can perform the task without assistance and meets the local requirements for accuracy, timeliness, and correct use of procedures. This equates to a “3c” in the proficiency code key. AFQTPs, when available, shall be used to identify Air Force standardized procedures. Local requirements for accuracy, timeliness and use of procedures shall be applied accordingly.

2.7.3. **Task Numbering.** All tasks have been numbered relative to the attachment number. This allows greater flexibility, enabling future modifications to be made without affecting the entire document. For those required to use the Core Automated Management System (CAMS), this numbering scheme also enables easy importation into the CAMS database.

2.8. Is a guide for development of promotion tests used in the Weighted Airman Promotion System (WAPS). Specialty Knowledge Tests (SKTs) are developed at the USAF Occupational Measurement Squadron by senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of JETS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the WAPS catalog (available at <http://www.afpc.randolph.af.mil/testing/>). Individual responsibilities are listed in the WAPS catalog.

2.9. Contains the following attachments:

2.9.1. Attachment 1, Proficiency Code Key. Used to indicate the level of training and knowledge provided by resident training and the JKDC.

2.9.2. Attachment 2, Electronic Principles Job Education Training Standard (JETS). Identifies level of training and knowledge provided by the electronic principles course.

2.9.3. Attachment 3, RI 9S100 Technical Applications Fundamentals JETS. Covers Air Force indoctrination, community mission and organization, and technical knowledge and skill requirements applicable to all RI 9S100 members.

2.9.4. Attachment 4, RI 9S100 Subsurface Maintenance JETS. Use as required.

2.9.5. Attachment 5, RI 9S100 Remote Sensing JETS. Use as required.

2.9.6. Attachment 6, RI 9S100 Ground Based Collections JETS. In this attachment, the training requirements column has been divided into two columns. The O column spells out the training requirements for the operator course and the M column spells out the training requirements for the maintenance course. Use as required.

2.9.7. Attachment 7, RI 9S100 Subsurface Analysis JETS. Use as required.

2.9.8. Attachment 8, RI 9S100 Workstation JETS. Use as required.

2.9.9. Attachment 9, RI 9S100 JKDC JETS. Covers technical and career knowledge needed to progress to the competency 5 level.

3. Recommendations. Report JETS inadequacies and/or unsatisfactory performance of individual course graduates to 312TRS/DOE, 170 Griffin Street, Suite 21, Goodfellow AFB TX 76908-4213. Reference specific JETS paragraphs. A 24 hour Customer Service Information Line (CSIL) has been installed for the supervisor's convenience to identify demonstrated over- or under-training on performance/knowledge items listed in the training standard. For a quick response to any training concerns, call the CSIL, DSN 477-3350, anytime day or night.

BY ORDER OF THE SECRETARY OF THE AIR FORCE
OFFICIAL

GLEN D. SHAFFER, Maj Gen, USAF
Director of Intelligence, Surveillance and
Reconnaissance
DCS/Air and Space Operations

Attachments

1. Qualitative Requirements
2. Electronic Principles JETS
3. RI 9S100 Technical Applications Fundamentals JETS
4. RI 9S100 Subsurface Maintenance JETS
5. RI 9S100 Remote Sensing JETS
6. RI 9S100 Ground Based Collection JETS
7. RI 9S100 Subsurface Analysis JETS
8. RI 9S100 Workstation JETS
9. RI 9S100 JKDC JETS

THIS BLOCK IS FOR IDENTIFICATION PURPOSES ONLY

NAME OF TRAINEE		
PRINTED NAME (Last, First, Middle Initial)	INITIALS (Written)	SSAN
PRINTED NAME OF CERTIFYING OFFICIAL AND WRITTEN INITIALS		
N/I	N/I	

QUALITATIVE REQUIREMENTS

PROFICIENCY CODE KEY		
	SCALE VALUE	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 only help 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		
<p>* 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)</p> <p>** 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.</p> <p>- This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or JKDC.</p> <p>/X This mark is alone in course columns to show that training required but not given due to limitations in resources.</p>		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
2.1. ELECTRONICS SUPPORT SUBJECTS TR: TO 31-1-141-1; 00-25-234, AFR 700-13, AFR 80-23									
2.1.1. Safety							B		
2.1.2. First Aid							B		
2.1.3. Electrostatic Discharge (ESD) Control							B		
2.1.4. Electromagnetic Effects (EMP/EMI)							B		
2.1.5. Metric Notation TR: TO 31-1-141-2; 31-1-141-5									
2.1.5.1. Powers of Ten							B		
2.1.5.2. Electrical Prefixes							B		
2.2. USE TEST EQUIPMENT TR: TO 31-1-141-1; 31-1-141-7, 31-1-141-8; 31-1-141-9, 31-1-141-10									
2.2.1. Analog Multimeter							2b		
2.2.2. Digital Multimeter							2b		
2.2.3. Oscilloscope							2b		
2.2.4. Signal Generator							2b		
2.3. BASIC CIRCUITS TR: TO 31-1-141-2; 31-1-141-9; 31-1-141-5									
2.3.1. Direct Current (DC)									
2.3.1.1. Terms							B		
2.3.1.2. Theory							B		
2.3.1.3. Calculations							B		
2.3.2. Alternating Current (AC)									
2.3.2.1. Terms							B		
2.3.2.2. Calculations							B		
2.4. BASIC CIRCUIT COMPONENTS									
2.4.1. Resistors TR: TO 31-1-141-2; 31-1-141-15									
2.4.1.1. Theory							B		
2.4.1.2. Color Code							B		
2.4.1.3. Troubleshoot							2b		
2.4.2. Inductors TR: TO 31-1-141-2; 31-1-141-15									
2.4.2.1. Theory							B		
2.4.2.2. Troubleshoot							2b		
2.4.3. Capacitors TR: TO 31-1-141-2; 31-1-141-5, 31-1-141-15									
2.4.3.1. Theory							B		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
2.4.3.2. Troubleshoot							2b		
2.4.4. Resistive-Capacitive-Inductive (RCL) Circuits Theory TR: TO 31-1-141-2; 31-1-141-5									
2.4.4.1. Basic							B		
2.4.4.2. Resonant							B		
2.4.4.3. Frequency Sensitive Filter							B		
2.5. ELECTROMAGNETIC DEVICES									
2.5.1. Transformers TR: TO 31-1-141-2; 31-1-141-5, 31-1-141-15									
2.5.1.1. Theory							B		
2.5.1.2. Troubleshoot							2b		
2.5.2. Relays and Solenoids TR: TO 31-1-141-2; 31-1-141-3									
2.5.2.1. Theory							B		
2.5.2.2. Troubleshoot Relays							2b		
2.5.3. Motor Theory TR: TO 31-1-141-2; 31-1-141-9									
2.5.3.1. Direct Current (DC)							B		
2.5.3.2. Alternating Current (AC)							B		
2.5.4. Generator Theory TR: TO 31-1-141-2; 31-1-141-9, 31-1-141-13									
2.5.4.1. Direct Current (DC)							B		
2.5.4.2. Alternating Current (AC)							B		
2.5.5. Synchro/Servo TR: TO 31-1-141-2; 31-1-141-9									
2.5.5.1. Theory							B		
2.5.5.2. Fault Isolate							b		
2.5.6. Transducer Theory TR: TO 31-1-141-3; 31-1-141-13							B		
2.6. SOLID STATE DEVICES									
2.6.1. Diodes TR: TO 31-1-141-4; 31-1-141-15									
2.6.1.1. Theory							B		
2.6.1.2. Troubleshoot							2b		
2.6.2. Bipolar Junction Transistors TR: TO 31-1-141-4									
2.6.2.1. Theory							B		
2.6.2.2. Troubleshoot							2b		
2.6.3. Special Purpose Device Theory TR: TO 31-1-141-4									

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
2.6.3.1. Zener Diode							B		
2.6.3.2. Light Emitting Diode (LED)							B		
2.6.3.3. Liquid Crystal Display (LCD)							B		
2.6.3.4. Integrated Circuits (IC)							B		
2.6.3.5. Metal Oxide Semiconductor Field Effect Transistor (MOSFET)							B		
2.6.3.6. Operational Amplifiers							B		
2.7. TRANSISTOR AMPLIFIER CIRCUITS TR: TO 31-1-141-1; 31-1-141-4									
2.7.1. Theory							B		
2.7.2. Stabilization							B		
2.7.3. Coupling							B		
2.7.4. Troubleshoot							2b		
2.8. POWER SUPPLY CIRCUITS TR: TO 31-1-141-3; 31-1-141-4, 31-1-141-9; 31-1-141-15									
2.8.1. Theory									
2.8.1.1. Rectifiers							B		
2.8.1.2. Filters							B		
2.8.1.3. Voltage Regulators							B		
2.8.2. Troubleshoot							2b		
2.9. WAVE GENERATING CIRCUITS TR: TO 31-1-141-3; 31-1-141-4, 31-1-141-10									
2.9.1. Theory									
2.9.1.1. Oscillators							B		
2.9.1.2. Multivibrators							B		
2.9.1.3. Waveshaping Circuits							B		
2.9.2. Fault Isolate							2b		
2.10. DIGITAL NUMBERING SYSTEMS TR: TO 31-1-141-5									
2.10.1. Conversions									
2.10.1.1. Binary							B		
2.10.1.2. Octal							B		
2.10.1.3. Hexadecimal							B		
2.10.1.4. Binary Coded Decimal							B		
2.10.2. Binary Math Operations							B		
2.11. DIGITAL LOGIC CIRCUITS TR: TO 31-1-141-4; 31-1-141-9									

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
2.11.1. Theory									
2.11.1.1. Gates							B		
2.11.1.2. Flip-flops							B		
2.11.1.3. Counters							B		
2.11.1.4. Registers							B		
2.11.1.5. Combinational Logic Circuits							B		
2.11.2. Troubleshoot							2b		
2.11.3. Digital to Analog (DA) and Analog to Digital (AD) Convertors Theory TR: TO 31-1-141-13							B		
2.12. BASIC COMPUTER FUNDAMENTALS TR: TO 31-1-141-6C; 31-1-141-9									
2.12.1. Computer Theory									
2.12.1.1. Hardware							B		
2.12.1.2. Software									
2.12.1.2.1. Operating Systems							B		
2.12.1.2.2. Virus Protection							B		
2.12.1.2.3. Diagnostics							B		
2.12.1.2.4. Applications							B		
2.12.1.3. Peripherals							B		
2.12.2. Network Theory									
2.12.2.1. Components							B		
2.12.2.2. Types							B		
2.12.2.3. Topologies							B		
2.12.2.4. Communication Mediums							B		
2.13. BASIC COMMUNICATIONS THEORY									
2.13.1. Antenna TR: TO 31-1-141-12							B		
2.13.2. Transmission Lines TR: TO 31-1-141-7; 31-1-141-8, 31-1-141-9; 31-1-141-13							B		
2.13.3. Waveguides TR: TO 31-1-141-9; 31-1-141-11							B		
2.13.4. Transmitters TR: TO 31-1-141-4; 31-1-141-9; 31-1-141-13									
2.13.4.1. Amplitude Modulation (AM)							B		
2.13.4.2. Frequency Modulation (FM)							B		
2.13.5. Receivers TR: TO 31-1-141-4; 31-1-141-9; 31-1-141-13									

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
2.13.5.1. Amplitude Modulation (AM)							B		
2.13.5.2. Frequency Modulation (FM)							B		
2.14. SOLDER AND DESOLDER TR: TO 00-25-234, 1-1A-14, 31-1-141-15									
2.14.1. Terminal Connection							2b		
2.14.2. Printed Circuit Board (PCB)							2b		
2.14.3. Multipin Connector							2b		
2.14.4. Coaxial Connector							2b		
2.15. ASSEMBLE SOLDERLESS CONNECTORS TR: TO 1-1a-14; 31-1-141-15									
2.15.1. Crimped Connection							2b		
2.15.2. Coaxial Connector							2b		
2.15.3. Multipin Connector							2b		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
AF INDOCTRINATION									
3.1. TRAINING TR: AFIs 36-2101, 36-2201, 36-2247, 37-160V1									
3.1.1. Training responsibilities									
3.1.1.1. Trainee									
3.1.1.2. Trainer									
3.1.1.3. Supervisor									
3.1.2. Evaluate training program									
3.1.3. Identify training requirements									
3.1.4. Plan and supervise OJT									
3.1.4.1. Prepare job qualifications standards									
3.1.4.2. Conduct training									
3.1.4.3. Monitor effectiveness of training									
3.1.4.3.1. Career knowledge									
3.1.4.3.2. Job proficiency upgrade/qualification									
3.1.5. Evaluate effectiveness of training programs									
3.2. AIR FORCE OCCUPATIONAL SAFETY AND HEALTH (AFOSH) PROGRAM									
3.2.1. Principles and objectives of safety programs TR: AFIs 32-2001, 40-201; AFOSH Standards 91-50, 91-66, 127-56 TOs 00-25-234, 00-110N-2, 31-1-141-1									
3.2.2. Lockout/tagout awareness TR: 29 CFR 1910.147									
3.2.3. Hazardous waste operations and Emergency Response TR: AFI 32-4001; 29 CFR 1910.120; AFOSH Std 48-8									
3.2.4. Perform first aid/CPR TR: American Red Cross Standard First Aid Student Workbook									
3.2.5. DOD Federal Hazards Communication Training Program TR: AFOSH Std 161-21-1W									
3.2.6. Use fire extinguishers TR: AFOSH Standard 127-56									
3.3. LOGISTICS									
3.3.1. Processes and Principles TR: AFDD 40									
3.3.2. Supply TR: AFI 23-110									
3.3.2.1. Basic AF supply system principles									
3.3.2.2. Use AF supply system procedures									

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
3.3.3. Maintenance									
3.3.3.1. Functions and responsibilities of maintenance management TR: AFI 21-116, Local Guidance							A		
3.3.3.2. CAMS TR: AFI 21-116; TO 00-20-2									
3.3.3.2.1. Functions of CAMS							A		
3.3.3.2.2. Open, close, update, schedule/defer, jobs (workstation) and input general code data (indirect labor)							-		
3.3.3.2.3. Produce Job Snap Shot							-		
3.3.3.2.4. Produce Job Control Log							-		
3.3.3.2.5. Order parts & supplies							-		
3.4. PUBLICATIONS									
3.4.1. AF publications									
3.4.1.1. Use AF publications/AFEPL TR: AFI 37-160V7							b		
3.4.1.2. Use MAJCOM pubs/local operating instructions TR: AFI 37-160V7							b		
3.4.1.3. Use TO/TIs TR: AFPD 21-3, TI 0-1-01; TOs 00-5-1, 00-5-2, 00-5-2-2, 00-5-15							b		
3.4.2. Maintain TI/TO libraries TR: TI 0-1-01; TOs 00-5-1, 00-5-2, 00-5-2-2, 00-5-15							-		
3.4.3. TI/TO deficiencies program TR: TO 00-5-1							A		
3.4.4. Use Foreign Clearance Guide TR: DoD Foreign Clearance Guide							-		
3.5. SUPERVISION AND MANAGEMENT TR: AFPs 35-49, 36-2241 Vol 1 & 2									
3.5.1. Brief newly assigned personnel TR: AFIs 36-2903, 36-2905, 91-301									
3.5.1.1. Mission							-		
3.5.1.2. Orientation to work center							-		
3.5.1.3. Security							-		
3.5.1.4. Safety							-		
3.5.1.5. Responsibilities							-		
3.5.2. Assign personnel to positions							-		
3.5.3. Orient new personnel							-		
3.5.4. Plan/schedule									
3.5.4.1. Work assignments							-		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
3.5.4.2. Shifts							-		
3.5.4.3. Priorities							-		
3.5.5. Establish/interpret									
3.5.5.1. Work methods/controls							-		
3.5.5.2. Performance standards							-		
3.5.5.3. Priorities							-		
3.5.5.4. Local operating instructions							-		
3.5.6. Evaluate space/personnel/resource requirements							-		
3.5.7. Coordinate work with other personnel							-		
3.5.8. Evaluate work performance of subordinate personnel TR: AFI 36-2403							-		
3.5.9. Resolve technical problems encountered by subordinate personnel							-		
3.5.10. Counsel personnel and provide guidance to assist individuals in resolving problems							-		
3.5.11. Initiate action to correct substandard performance of personnel TR: AFIs 36-2907, 36-3208, 36-2503							-		
3.5.12. Initiate action to commend superior performance of personnel TR: AFI 36-2803, CENSUP AFI 36-2803							-		
3.5.13. Conduct performance feedback sessions TR: AFP 39-15							-		
3.5.14. Prepare TR: AFH 37-137									
3.5.14.1. Trip reports							-		
3.5.14.2. Briefings/tours							-		
3.5.14.3. Personnel actions requests							-		
3.5.14.4. Correspondence							-		
3.5.14.5. Messages							-		
3.5.14.6. Performance reports TR: AFI 36-2403							-		
3.5.15. Perform self-assessments TR: AFI 90-501							-		
3.5.16. Contract management TR: AFMAN 64-108; FAR 37.101							-		
3.5.17. Project authorizations TR: Local Instructions							-		
3.5.18. Contractor protocol TR: AFMAN 64-108; FAR 37							-		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
TECHNICAL KNOWLEDGE									
3.6. MATH PRINCIPLES TR: TO 31-1-141, Vol V; <u>College Algebra</u> , 2nd Edition, Gilbert, Spencer and Gilbert; <u>Elementary Statistics</u> , 3rd Edition, Johnson									
3.6.1. Basic algebraic equations							B		
3.6.2. Exponential equations							B		
3.6.3. Mean and standard deviation							B		
3.7. GENERAL SCIENCES TR: <u>Physics</u> , 5th Edition, Addison-Wesley, 1992; Arthur Beiser									
3.7.1. Atomic structure and properties of matter							B		
3.7.2. Dynamics/Force							B		
3.7.3. Conservation of momentum and energy							B		
3.7.4. Fluid dynamics							B		
3.7.5. Thermodynamics									
3.7.5.1. Temperature and expansion							B		
3.7.5.2. Heat/heat transfer							B		
3.7.5.3. Thermal behavior of gases							B		
3.7.6. Electromagnetic radiation							B		
3.7.7. Frequency spectrum							B		
3.7.8. Wave propagation									
3.7.8.1. Types							B		
3.7.8.2. Medium							B		
3.7.8.3. Effects							B		
3.7.9. Light characteristics TR: <u>Physics for Scientists and Engineers</u> (3rd Ed.), Volume II, Saunders College Publishing, 1990, Serway, Raymond A									
3.7.9.1. Reflection							B		
3.7.9.2. Absorption							B		
3.7.9.3. Diffraction							B		
3.7.10. Radioactivity TR: <u>General Physics</u> , Giancol1,1984; <u>Van Nostrand's Scientific Encyclopedia</u> , Considine, 1989; <u>Principles of Nuclear Physics</u> , Atomic Weapons Training Group, 1969									
3.7.10.1. Types							B		
3.7.10.2. Interactions							B		
3.7.10.3. Effects							B		
3.7.11. Nuclear reactions									

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
3.10.1. Community structure							A		
3.10.2. Roles and responsibilities							A		
3.10.3. General principles							A		
3.10.4. National and theater assets							A		
3.10.5. Operational applications							A		
3.11. CAREER INFORMATION TR: AFI 36-2101, RI9S100 CFETP									
3.11.1. Progression in RI 9S100							A		
3.11.2. Duties of RI 9S100							A		
<u>TECHNICAL SKILLS AREA</u>									
3.12. COMPUTER APPLICATIONS TR: Applicable User's Guides									
3.12.1. Use small computer system software									
3.12.1.1. Operating system							2b		
3.12.1.2. Data base							2b		
3.12.1.3. Word processing							2b		
3.12.1.4. Spreadsheet							2b		
3.12.1.5. Electronic forms							2b		
3.12.1.6. E-mail							2b		
3.12.1.7. Internet browsers							2b		
3.12.1.8. Presentation (graphics) application							2b		
3.12.2. Use input/output/storage devices							2b		
3.12.3. Maintain/Install computer hardware systems TR: TO 31-1-141-Series							2b		
3.12.4. Install software							-		
3.12.5. Computer communications and networks							B		
3.12.6. Computer/Network security							B		
3.12.7. Internet Document Markup							2b		
3.13. WORKSTATIONS TR: Applicable User's Guides									
3.13.1. Operations theory									
3.13.1.1. UNIX							B		
3.13.1.2. System administration							B		
3.13.2. Operate/maintain							2b		
3.13.3. Use input/output/storage devices							2b		
3.14. TROUBLESHOOTING METHODS AND PROCEDURES TR: TOs 31-1-141-Series									

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
3.14.1. Decision making and problem solving 3.14.2. Troubleshooting techniques							B		
							B		

ATTACHMENT 4. RI 9S100 SUBSURFACE MAINTENANCE JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
4.1. SAFETY									
4.1.1. General safety practices TR: TO 00-25-234, AFOSH STDs 91-50, 91-66; AFI 91-301, 91-302							B		
4.1.2. Handle compressed gasses TR: TO 42B5-1-2							2b		
4.1.3. Personal protective equipment TR: AFOSH STD 91-31							2b		
4.1.4. Hazardous energy control and tags TR: AFOSH STD 91-45, 91-66							2b		
4.1.5. DOD Hazardous Communication Training Program TR: AFOSH STD 161-21-1W							B		
4.1.6. Hazardous Material Handling and Waste Management and Emergency Response TR: AFI 32-4001; 29 CFR 1910.120; AFOSH STDs 48-8, and 91-43							A		
4.1.7. Environmental responsibilities TR: AFOSH STD 91-301							A		
4.1.8. Soldering TR: AFOSH STD 91-31							A		
4.1.9. Material handling and storage TR: AFOSH STD 91-46							B		
4.2. MAINTENANCE PRACTICES									
4.2.1. Corrosion control theory TR: TO 1-1-689, 31Z-10-37; AFI 21-105; AFI 21-116, TO 1-1-8; TO 31-1-75; TO 42B-1-6							B		
4.2.2. Maintain wiring and cabling TR: TO 00-25-234; TO 00-20-8							2b		
4.2.3. Apply workmanship standards TR: TO 00-25-234; TO 31-1-75							2b		
4.2.4. Use, maintain and control tools TR: TO 32-1-101; TO 32-1-151; TO 32-1-2; AFMAN 23-110, Vol 2, CD							2b		
4.2.5. Test Measurement Diagnostic Equipment Principles TR: TOs 31-1-141-1, 31-1-141-7, 31-1-141-9, 31-1-141-10, 33K-100; 00-20-14, 00-25-234, 33-1-27 33K-1-100; AFI 21-116, 21-113							B		
4.2.6. Electrostatic Discharge Control (ESD) theory TR: TO 00-25-234							2b		
4.3. MAINTENANCE MANAGEMENT PRINCIPLES TR: AFCSIs 21-560 V2, 21-561 V2, 21-570 V2, CENI 21-8, CENR 57-2, DODI 5000-2 AFSup 1									
4.3.1. Specific technique maintenance management TR: AFI 21-110; CENI 21-101							B		
4.3.2. Core Automated Management System (CAMS) TR: AFCSIs 21-560 V2, 21-561 V2, 21-570 V2; CENI 21-106									
4.3.2.1. Functions of CAMS							B		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
4.3.2.2. Use CAMS							2b		
4.3.3. Historical records - plant in place records TR: CENI 21-101; TOs 00-20-1, 00-20-8, 00-35D-2, 00-20-1; AFI 21-116							B		
4.3.4. Configuration control TR: DODI 5000-2 AF Sup 1, CENR 57-2, AFI 21-116; TO 00-20-1							B		
4.3.5. Trend analysis TR: AFI 21-116, AFCSIs 21-560 V2, 21-561 V2, 21-570 V2							A		
4.3.6. TCTI/TCTO program TR: TO 00-5-1, Para 2-6, 00-5-15							B		
4.3.7. Maintenance Standardization Evaluation Program TR: AFI 21-116, CEN Sup 1 to AFI 21-116							A		
4.3.8. Quality Deficiency Program TR: TO 00-35D-54							A		
4.3.9. Maintenance documentation TR: AFIs 21-116, 23-110V2 PT13, 23-215, AFIND 9									
4.3.9.1. DD Form 1149, Requisition and Invoice/Shipping Document							b		
4.3.9.2. AFTO 350, Reparable Item Processing Tag							2b		
4.3.9.3. DD157X, Condition Tag							2b		
4.3.9.4. DD 1348-6, DOD Single Line Item Requisition System Document							b		
4.3.9.5. DD 1348-1, DOD Single Line Item Release/Receipt Document							b		
4.3.9.6. AF Form 2005, Issue/Turn-in Request							b		
4.3.9.7. Outage requests							b		
4.4. SUPPLY AND TRANSPORTATION TR: AFI 21-116, AFI 23-215, AFM 23-110, CENI 21-Series, TI -06 Series									
4.4.1. USAF supply system									
4.4.1.1. Forward supply point							2b		
4.4.1.2. Bench stock system							2b		
4.4.1.3. Equipment accounts							B		
4.4.2. Use supply procedures									
4.4.2.1. USAF logistics							b		
4.4.2.2. Contractor logistics							b		
4.4.3. Shipping, packing, and handling TR: AFPD 23-2, TOs 00-25-234, 00-35D-54, 00-110N Series; TI 00-85A-16, CENI 24-1									
4.4.3.1. Requirements (ESD, Addresses, Weight, DOT)							B		

ATTACHMENT 4. RI 9S100 SUBSURFACE MAINTENANCE JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
4.4.3.2. Use proper transportation procedures							b		
4.4.3.3. Hazardous materials shipping requirements							B		
4.5. PUBLICATIONS									
4.5.1. TI/TO library TR: TOs 00-5-1, 00-5-2, 00-5-2-2, 00-5-102, 00-5-15, TI 0-1-01									
4.5.1.1. Understand TODO functions							A		
4.5.1.2. Perform TODA functions							2b		
4.5.1.3. Use technical publications							2b		
4.5.2. AFTO 22 program TR: AFI 21-116; TO 00-5-1							2b		
4.5.3. Preventive maintenance workcards TR: AFI 21-116, TO 00-5-1, TO 00-20-1, TO 00-20-8							B		
4.6. FIELD SUBSYSTEM TR: TIs 2-1-1, 2-ADSN/F-1, 2S-LP/BB-1, 2-ADSN/SFS-1									
4.6.1. Seismometer (23900 and KS 54000) TR: TIs 2S-LP/BB-1, 2S-XSPV20171A/23900A-1, 2SE-HL22350A-1									
4.6.1.1. Theory of operation							B		
4.6.1.2. Operate/Maintain							2b		
4.6.1.3. Troubleshoot							2b		
4.6.1.4. Remove and replace							2b		
4.6.2. Remote Terminal (SPRT/LPRT/BBRT) TR: TIs 2-RT-1, 2SE-NFSC3960-1									
4.6.2.1. Theory of operation							B		
4.6.2.2. Operate/Maintain							2b		
4.6.2.3. Troubleshoot							2b		
4.6.2.4. Remove and replace							2b		
4.6.3. Sensor Site (Wellhead, Battery Charger, Cables) TR: TO 31W3-10-Series, TIs 2-1-1, 2S-LP/BB-1, 2P-BC3378-1, 2P-DCPS-1, 2-FS/FDA-1									
4.6.3.1. Theory of operation							B		
4.6.3.2. Operate/Maintain							2b		
4.6.3.3. Troubleshoot							2b		
4.6.4. Seismic Array Controller Rack (all components) TR: TIs 2-ADSN/F-1, 2-ADSN/SFS-1, 2SAC-Series									
4.6.4.1. Theory of operation							B		
4.6.4.2. Operate/Maintain							2b		
4.6.4.3. Troubleshoot							2b		
4.6.5. Intrasite communications (RDL, cable plant)									

ATTACHMENT 4. RI 9S100 SUBSURFACE MAINTENANCE JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
TR: TO 31W3-10-Series, TIs 2RDL-Series									
4.6.5.1. Theory of operation						B			
4.6.5.2. Operate/Maintain						2b			
4.6.5.3. Troubleshoot						2b			
4.6.6. Host interface (Joint Analysis Workstation, CIM) theory of operation TR: TI 2-ADSN/F-1, ITI 2WS-CIM/UG-1						B			
4.6.7. Power subsystem TR: TIs 2P-UPS/12-1, 2P-SPS5087-1									
4.6.7.1. Theory of operation						B			
4.6.7.2. Operate/Maintain						2b			
4.6.7.3. Troubleshoot						2b			
4.6.8. Workstation TR: TIs 2-ADSN/F-1, 2-ADSN/SFS-1, 2WS-Series									
4.6.8.1. Theory of operation						B			
4.6.8.2. Operate/Maintain						2b			
4.6.8.3. Troubleshoot						2b			
4.7. COMMUNICATIONS SYSTEM TR: <u>The Complete Modem Reference</u> , Gilbert Held, 3rd Edition, ISBN: 0471154571; <u>Internetworking Lans and Wans, Concepts, Techniques, and Methods</u> , Gilbert Held, ISBN: 0471935689; TIs 2SAC-MDM201-1, 2SE-CM/25X0-1, 2SE-CM/V322X-1									
4.7.1. Modems theory of operation						B			
4.7.2. WAN theory of operation						B			
4.7.3. LAN									
4.7.3.1. Theory of operation						B			
4.7.3.2. Operate/Maintain						2b			
4.7.3.3. Troubleshoot						2b			
4.7.4. Communication Interfaces (RS232, DB25, DB9, BNC, RJ11)						B			
4.8. HEADQUARTERS SYSTEM TR: TIs 2-ADSN/HQ/SATN-1, 2-ADSN/HQ/SATN-2, 2-NDC-2									
4.8.1. Data Acquisition subsystems									
4.8.1.1. Data Acquisition Manager (DAM) Terminal theory of operation						B			
4.8.1.2. National Data Center (NDC) Monitor theory of operation						B			
4.8.1.3. AFTAC Seismic Network (ASN) Monitor theory of operation						B			
4.8.1.4. DOS II Monitor theory of operation						B			
4.8.2. Central Analysis subsystem									

ATTACHMENT 4. RI 9S100 SUBSURFACE MAINTENANCE JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
4.8.2.1. Subsurface Operations Manager (SOM) Terminal theory of operation							B		
4.8.2.2. Analysis Terminals theory of operation							B		
4.8.2.3. Evaluator Terminals theory of operation							B		
4.9. USE THE FOLLOWING TMDE									
4.9.1. Frequency counters							2b		
4.9.2. Time domain reflectometer							2b		
4.9.3. Earth tester							2b		
4.9.4. Line megohm meter							2b		
4.9.5. Arrestor tester							2b		
4.9.6. Step attenuator							2b		
4.9.7. Watt meter							2b		
4.9.8. Audio oscillator							2b		
4.9.9. AM/FM modulation meter							2b		
4.9.10. DC power supply							2b		
4.9.11. Audio test set/communications tester							2b		
4.9.12. Spectrum analyzer							2b		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
5.1. ORBITAL MECHANICS									
5.1.1. Kepler's laws TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993							B		
5.1.2. Newton's Law of Universal Gravitation TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993							B		
5.1.3. Ellipse parameters TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993							B		
5.1.4. Perturbations TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993							B		
5.1.5. Types of orbits TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993							B		
5.1.6. Orbital geometry									
5.1.6.1. Zenith TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993							B		
5.1.6.2. Nadir TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993; <u>RADEC Instrumentation Handbook</u> , Sandia National Laboratories 1984							B		
5.1.6.3. Zenith angle TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993							B		
5.1.6.4. Earth central angle TR: <u>Build 4 Integrated Correlation And Display System (ICADS) Users Manual</u> , Sandia National Laboratories, December 1997							B		
5.1.6.5. Eclipse TR: <u>NUDET Detection System Description (Block II GPS/NDS Satellites with WSRP)</u> , Sandia National Laboratories, April 1989							B		
5.1.6.6. Elevation angle TR: <u>Build 4 Integrated Correlation And Display System (ICADS) Users Manual</u> , Sandia National Laboratories, December 1997							B		
5.1.6.7. Depression angle TR: <u>Build 4 Integrated Correlation And Display System (ICADS) Users Manual</u> , Sandia National Laboratories, December 1997							B		
5.1.6.8. Azimuth angle TR: <u>Remote Sensing, Principles and Interpretation</u> , Sabins, Floyd. Jr., 1987. Remote Sensing Enterprises, Inc.							B		
5.1.7. SATELLITE SYSTEMS CHARACTERISTICS									
5.1.7.1. Celestial sphere TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993							B		
5.1.7.2. Period TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993							B		
5.1.7.3. Attitude							B		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
TR: <u>Space Operations Orientations Course Handbook</u> , 3rd Ed., 1993, 21st Crew Training Squadron									
5.1.7.4. Ephemeris TR: <u>Build 4 Integrated Correlation And Display System (ICADS) Users Manual</u> , Sandia National Laboratories, December 1997						B			
5.1.7.5. Almanac TR: <u>Build 4 Integrated Correlation And Display System (ICADS) Users Manual</u> , Sandia National Laboratories, December 1997						B			
5.1.7.6. Orbital parameters TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993						B			
5.1.7.7. Ground tracks TR: <u>Space Handbook - An Analyst's Handbook</u> , Vol. II (AU-18), Air University Press, Dec 1993						B			
5.2. PHENOMENOLOGY									
5.2.1. Electro-Optic TR: <u>Modern Optical Engineering</u> , 2nd Edition, McGraw-Hill, Inc., 1990; Smith, Warren J., <u>Lasers</u> , Wiley-Interscience, 1988; Milonni, Peter W. and Eberly, Joseph H., <u>The Infrared Handbook</u> , revised edition, Environmental Research Institute of Michigan, 1985; Wolfe and Zissis, Editors						B			
5.2.2. Nuclear radiation TR: <u>Effects of Nuclear Weapons</u> , Gladstone & Dolan, US DoD 1977						B			
5.2.3. Radar TR: <u>Introduction to Radar Systems</u> , McGraw-Hill, 1980, Merrill I. Skolnik; <u>Radar Handbook</u> , 2nd Edition, McGraw-Hill, 1990, Merrill I. Skolnik; <u>Introduction to Airborne Radar</u> , Hughes Aircraft Co, 1983, G. W. Stimson; <u>Principles of Modern Radar</u> , Chapman & Hall, 1987, Edited by Jerry L. Eaves & Edward K. Reedy						B			
5.2.4. Radio frequency TR: <u>High Frequency Techniques: Recent Advances and Applications</u> , Bhattacharyya, A. Wiley and Sons. 1995						B			
5.3. DETECTOR PRINCIPLES TR: <u>RADEC Instrumentation Handbook</u> , Sandia National Laboratories, 1984, ARII Software System Requirements Specification, Sandia National Laboratories, 19 July 1984									
5.3.1. Optical Locator TR: <u>Advanced RADEC I System Description</u> , Sandia National Laboratories, Dec 1982, <u>NUDET Detection System Description (Block II GPS/NDS Satellites with WSRP)</u> , Sandia National Laboratories, April 1989						B			
5.3.2. Fluorescent Altimeter TR: <u>Advanced RADEC I System Description</u> , Sandia National Laboratories, Dec 1982, <u>NUDET Detection System Description (Block II GPS/NDS Satellites with WSRP)</u> , Sandia National Laboratories, April 1989						B			
5.3.3. Non-Imaging Radiometer/Bhangmeter TR: <u>Modern Optical Engineering</u> , 2nd Edition, McGraw-Hill, Inc., 1990; Smith, Warren J., <u>Lasers</u> , Wiley-Interscience, 1988; Milonni, Peter W. and Eberly, Joseph H. <u>The Infrared Handbook</u> , revised edition, Environmental Research Institute of Michigan, 1985; Wolfe and Zissis, Editors						B			
5.3.4. EMP/RF TR: <u>NUDET Detection System Description (Block II GPS/NDS Satellites with WSRP)</u> , Sandia National						B			

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
Laboratories, April 1989									
5.3.5. X-ray Locator/ Detector TR: <u>Advanced RADEC I System Description</u> , Sandia National Laboratories, Dec 1982, <u>Defense Support Program Mission B Description</u> (ARI and ARII), The Aerospace Corporation; <u>NUDET Detection System Description</u> (Block II GPS/NDS Satellites with WSRP), Sandia National Laboratories, April 1989; <u>Global Burst Detector (GPS/NDS Block II Systems)</u> , Sandia National Laboratories, July 1985						B			
5.3.6. Gamma TR: <u>Defense Support Program Mission B Description</u> (ARI and ARII), The Aerospace Corporation, 20 March 1985						B			
5.3.7. Neutron TR: <u>Defense Support Program Mission B Description</u> (ARI and ARII), The Aerospace Corporation, 20 March 1985						B			
5.3.8. Energetic Particle TR: <u>Defense Support Program Mission B Description</u> (ARI and ARII), The Aerospace Corporation, 20 March 1985						B			
5.3.9. Dosimeter TR: <u>NUDET Detection System Description</u> (Block II GPS/NDS Satellites with WSRP), Sandia National Laboratories, April 1989						B			
5.3.10. Charge-coupled devices (CCDs) TR: <u>The Infrared Handbook</u> , revised edition, Environmental Research Institute of Michigan, 1985; Wolfe and Zissis, Editors						B			
5.3.11. Laser detector TR: <u>Modern Optical Engineering</u> , 2nd Edition, McGraw-Hill, Inc., 1990; Smith, Warren J., <u>Lasers</u> , Wiley-Interscience, 1988; Milonni, Peter W. and Eberly, Joseph H. <u>The Infrared Handbook</u> , revised edition, Environmental Research Institute of Michigan, 1985; Wolfe and Zissis, Editors						B			
5.3.12. Infrared TR: <u>Infrared Detectors and Systems</u> , Dereniak & Boreman, Wiley and Sons, 1996; <u>Fundamentals of Infrared, Detector Operations and Testing</u> , Vincent, J. D. Wiley & Sons 1990									
5.3.12.1. Scanning						B			
5.3.12.2. Staring						B			
5.3.12.3. Multispectral						B			
5.3.13. Spectral TR: <u>Remote Sensing: Models and Methods for Image Processing</u> , 2 nd edition, Academic Press, 1997, Robert A Schowengerdt; <u>Introductory Digital Image Processing A Remote Sensing Perspective</u> , Prince Hall, 1996, John R. Jensen									
5.3.13.1. Multispectral						B			
5.3.13.2. Hyper-spectral						B			
5.3.14. Radar TR: <u>Introduction to Radar Systems</u> , McGraw-Hill, 1980, Merrill I. Skolnik; <u>Radar Handbook</u> 2nd Edition, McGraw-Hill, 1990, Merrill I. Skolnik; <u>Introduction to</u>									

ATTACHMENT 6, RI 9S100 GROUND BASED COLLECTION JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided			
		A	B	C	D	E	A Comp. 3		B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course O	Course M	Course	Course
6.1. SAFETY										
6.1.1. General safety practices TR: TO 00-25-234, AFOSH STDs 91-50, 91-66; AFI 91-301, 91-302							A	B		
6.1.2. Handle compressed gasses TR: TO 42B5-1-2							2b	2b		
6.1.3. Personal protective equipment TR: AFOSH STD 91-31							2b	2b		
6.1.4. Hazardous energy control and tags TR: AFOSH STD 91-45, 91-50, 91-66							-	2b		
6.1.5. DOD Hazardous Communication Training Program TR: AFOSH STD 161-21-1W							-	B		
6.1.6. Hazardous Material Handling and Waste Management and Emergency Response TR: AFI 32-4001; 29 CFR 1910.120; AFOSH STDs 48-8, and 127-43							-	A		
6.1.7. Soldering TR: AFOSH STDs 91-5, 91-31, 161-2; TO 42B5-1-2							-	A		
6.2. MAINTENANCE PRACTICES										
6.2.1. Corrosion control theory TR: TO 1-1-689, 31Z-10-37; AFI 21-105; AFI 21-116, TO 1-1-8; TO 1-1-689; TO 1-1-689 App. B; TO 31-1-75; TO 42B-1-6							-	B		
6.2.2. Maintain wiring and cabling TR: TO 00-25-234; TO 00-20-8							-	2b		
6.2.3. Maintain tubing, fittings and valves TR: TO 00-25-223, SWAGELOK Tube Fitters Manuel							-	2b		
6.2.4. Apply workmanship standards TR: TO 00-25-234, TO 31-1-75							-	2b		
6.2.5. Use, maintain and control tools TR: TO 32-1-101; TO 32-1-151; TO 32-1-2; AFMAN 23-110, Vol 2, CD							-	2b		
6.2.6. Test measurement diagnostic equipment principles TR: TOs 31-1-141-1, 31-1-141-7, 31-1-141-9, 31-1-141-10, 33K-100, 00-20-14, 00-25-234, 33-1-27, 33K-1-100; AFI 21-116, 21-113							-	B		
6.2.7. Electrostatic Discharge Control (ESD) theory TR: TO 00-25-234							-	2b		
6.3. MAINTENANCE MANAGEMENT PRINCIPLES TR: AFCSIs 21-560 V2, 21-561 V2, 21-570 V2, CENI 21-8, DODI 5000-2 AFSup 1, CENR 57-2										
6.3.1. Specific technique maintenance management TR: CENI 21-101							-	B		
6.3.2. Core Automated Management System (CAMS) TR: AFCSIs 21-560 V2, 21-561 V2, 21-570 V2; CENI 21-106										
6.3.2.1. Functions of CAMS							-	-		
6.3.2.2. Use CAMS							-	-		

ATTACHMENT 6, RI 9S100 GROUND BASED COLLECTION JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided			
		A	B	C	D	E	A Comp. 3		B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course O	Course M	Course	Course
6.3.3. Historical records - plant in place records TR: CENI 21-101; TOs 00-20-1, 00-20-8, 00-35D-2, 00-20-1, AFI 21-116							-	B		
6.3.4. Configuration control TR: DODI 5000-2 AF Sup 1, CENR 57-2, DoDI 5000.2, AF Sup 1; AFD 10-6, AFI 10-601, 21-116, 23-101, 21-109; TO 00-20-1							-	B		
6.3.5. TCTI/TCTO program TR: TO 00-5-1,00-5-15							-	B		
6.3.6. Maintenance Standardization and Evaluation Program TR: AFI 21-116, CEN Sup 1 to AFI 21-116							-	A		
6.3.7. Quality deficiency program TR: TO 00-35D-54							-	A		
6.3.8. Maintenance documentation TR: AFIs 21-114, 21-116, 23-2110, 23-215, CEN Sup 1 to 21-116, AFIND 9										
6.3.8.1. DD Form 1149, Requisition and Invoice/Shipping Document							-	2b		
6.3.8.2. AFTO 350, Reparable Item Processing Tag							-	2b		
6.3.8.3. DD157X, Condition Tag							-	2b		
6.3.8.4. DD 1348-6, DOD Single Line Item Requisition System Document							-	2b		
6.3.8.5. DD 1348-1, DOD Single Line Item Release/Receipt Document							-	2b		
6.3.8.6. AF Form 2005, Issue/Turn-in Request							-	2b		
6.4. SUPPLY AND TRANSPORTATION TR: AFI 21-114, AFI 21-116, AFI 23-215, AFM 23-2110, CEN Sup1 to 21-116, CENI 21-Series, TI -06 Series										
6.4.1. USAF supply system										
6.4.1.1. Forward supply point							-	2b		
6.4.1.2. Bench stock system							-	2b		
6.4.1.3. Equipment accounts							-	B		
6.4.2. Supply procedures										
6.4.2.1. USAF logistics							-	B		
6.4.2.2. CPSG logistics							-	B		
6.4.3. Material shipping, packing, and handling TR: AFD 23-2, TOs 00-25-234, 00-35D-54, 00-110N Series; TI 00-85A-16, CENI 24-1										
6.4.3.1. Requirements (ESD, Addresses, Weight, DOT)							-	B		
6.4.3.2. Proper transportation procedures							-	B		
6.4.3.3. Hazardous materials shipping requirements							-	B		
6.5. PUBLICATIONS										

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided			
		A	B	C	D	E	A Comp. 3		B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course O	Course M	Course	Course
6.5.1. TI/TO library TR: TOs 00-5-1, 00-5-2, 00-5-2-2, 00-5-102, 00-5-15, TI 0-1-01										
6.5.1.1. Understand TODO functions						-	A			
6.5.1.2. Perform TODA functions						-	2b			
6.5.1.3. Use technical publications (include operational guides)						2b	2b			
6.5.2. TI/TO Deficiency Program (AFTO Form 22) TR: AFI 21-116 TO 00-5-1						-	2b			
6.6. GROUND BASED COLLECTION MISSIONS TR: General Subjects Security Classification Guide										
6.6.1. National, DoD, and R&D customer relationships						A	A			
6.6.2. Reactor Products Program TR: RPP Security Classification Guide, 1 Oct 97						-	A			
6.6.3. Nuclear Debris Collection and Analysis						-	A			
6.6.4. Nuclear Plant Program						-	A			
6.6.5. Molecular Collection Analysis - chemical and biological TR: Molecular Research Office Slides; MCA Security Classification Guide, 1 Oct 97; The R&D of Standardized Sampling and Analysis Methods for indoor Biocontaminants, TMKB Mini-GFU Docs, New Brunswick manual						-	A			
6.6.6. Missions, treaties, and targets						A	A			
6.6.6.1. Nuclear reactors TR: <u>General Physics</u> , Giancol1,1984; <u>Van Nostrand's Scientific Encyclopedia</u> , Considine,1995; <u>Principles of Nuclear Physics</u> , Atomic Weapons Training Group, 1969						-	A			
6.6.6.2. Nuclear weapons TR: Nuclear Energy and Proliferation Workshop notes COVID-96-0663, Nov 96, K/NSP-121; <u>The Undeclared Bomb</u> , Leonard S. Spector, Ballinger Publishing Co., 1988, A Carnegie Endowment Book						-	A			
6.6.6.3. Chemical agents TR: AFR 355-7 Potential Military Chemical/Biological Agents and Compounds, Chemical and Biological Proliferation Course						-	A			
6.6.6.4. Biological agents TR: AFR 355-7 Potential Military Chemical/Biological Agents and Compounds, Chemical and Biological Proliferation Course						-	A			
6.7. GROUND BASED PLATFORM SAMPLES TR: CENI 10-23-1, 10-14-1, AFM 51-12, TO 00-23-203, 12M5-4-1-123, 12M5-4-2-2, FED-STD-209										
6.7.1. Lifecycle						A	A			
6.7.1.1. Radioactive decay						-	B			
6.7.2. Threats and outcomes of contamination						A	A			
6.7.3. Meteorological effects and sample degradation						A	A			

ATTACHMENT 6, RI 9S100 GROUND BASED COLLECTION JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided			
		A	B	C	D	E	A Comp. 3		B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course O	Course M	Course	Course
6.7.4. Identification, storage, packing, timeliness, and transportation							2b	2b		
6.8. GROUND BASED COLLECTIONS TRAVEL REQUIREMENTS										
6.8.1. Use Foreign Clearance Guide TR: DoD Foreign Clearance Guide							-	2b		
6.8.2. Foreign travel familiarization (Passport, Visa, country/area clearance, etc)							-	B		
6.9. GROUND BASED COLLECTION PLATFORMS										
6.9.1. Automatic Cryogenic Rectifier (ACR) TR: TI 3D-ACR-1										
6.9.1.1. Principles of operation (all modes)							B	B		
6.9.1.1.2. Characteristics of a gas							-	B		
6.9.1.1.3 Relationship of pressure, volume, temperature							-	B		
6.9.1.2. Structural and facility power requirements							-	B		
6.9.1.3. Operate the ACR and use forms TR: TI 3D-ACR-1, CENI 10-23 and 10-23-1							2b	2b		
6.9.1.4. Perform operator maintenance TR: TI 3D-ACR-6										
6.9.1.4.1. Perform operator PMRs							2b	2b		
6.9.1.4.2. Leak check							2b	2b		
6.9.1.4.3.1. Helium system							2b	2b		
6.9.1.4.4. Replace air compressor							2b	2b		
6.9.1.4.5. Replace inlet air filter							2b	2b		
6.9.1.5. Maintain TR: TI 3D-ACR-1, 3D-ACR-6										
6.9.1.5.1. Sample air system							-	2b		
6.9.1.5.2. Helium system							-	2b		
6.9.1.5.3. Argon system							-	2b		
6.9.1.5.4. Temperature sensing system							-	2b		
6.9.1.5.5. Control system							-	2b		
6.9.1.5.6. Power distribution system							-	2b		
6.9.1.6. Ancillary equipment										
6.9.1.6.1. Principles of operation TR: ITI 33A1-SVRS88104-1, ITI 33A1-SVRS88102PCU-1, TI 33A1-VSCD3113-1							-	B		
6.9.1.6.2. Maintain TR: ITI 33A1-SVRS88104-4-1, ITI 33A1-SVRS88102PCU-1, TIs 33A1-SVRS88104-6, 33A1-SVRS88102-6,							-	2b		

ATTACHMENT 6, RI 9S100 GROUND BASED COLLECTION JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided			
		A	B	C	D	E	A Comp. 3		B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course O	Course M	Course	Course
33A1-VSCD3113-1										
6.9.1.7. Troubleshoot and repair						-	2b			
6.9.2. Ground Filter Unit (GFU) TR: TI 13-GFU-1										
6.9.2.1. Principles of operation						B	B			
6.9.2.2. Structural and facility power requirements						-	B			
6.9.2.3. Operate the GFU and use Forms TR: TI 13-GFU-1, CENI 10-14 and 10-14-1						2b	2b			
6.9.2.4. Perform operator maintenance TR: TI 13-GFU-6										
6.9.2.4.1. Filter guide rail cleaning						2b	2b			
6.9.2.5. Maintain GFU TR: TI 13-GFU-1, 13-GFU-6						-	2b			
6.9.2.6. Troubleshoot and repair						-	2b			
6.9.3. Improved ground filter Unit (IGFU) TR: TI 13-IGFU-1										
6.9.3.1. Principles of operation						B	B			
6.9.3.2. Structural and facility power requirements						-	B			
6.9.3.4. Operate the IGFU and use Forms TR: TI 13-IGFU-1, CENI 10-14 and 10-14-1						b	b			
6.9.3.5. Perform IGFU unique operator maintenance TR: TI 13-IGFU-6										
6.9.3.5.1. Filter guide rail cleaning						b	b			
6.9.3.6. Maintain IGFU TR: TI 13-IGFU-1, 13-IGFU-6						-	b			
6.9.4. Advance Ground Filter Unit TR: TI 13-AGFU-1, 13-AGFU-2										
6.9.4.1. Principles of operation						-	B			
6.9.4.1.1. Detector theory										
6.9.4.1.1.1. Anti/Coincidence Counting						-	A			
6.9.4.2. Structural and facility power requirements						-	B			
6.9.4.3. Remote monitoring and health interpretation						-	2b			
6.9.4.4. Operate the AGFU TR: TI 13-AGFU-1, 13-AGFU-2						2b	2b			
6.9.4.5. Maintain TR: TI 13-AGFU-2										
6.9.4.6.1. Blower assembly and filter path						-	2b			
6.9.4.6.2. Control subsystem						-	2b			
6.9.4.6.3. Analysis subsystem						-	2b			
6.9.4.6.4. Calibration subsystem						-	2b			

ATTACHMENT 6, RI 9S100 GROUND BASED COLLECTION JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided			
		A	B	C	D	E	A Comp. 3		B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course O	Course M	Course	Course
6.9.4.6.5. Barcode subsystem							-	2b		
6.9.4.6.6. Power subsystem (UPS)							-	2b		
6.9.4.6.7 Communication equipment (modem and line)							-	2b		
6.9.4.7. Troubleshoot and repair							-	2b		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
<p>7.1. SEISMIC</p> <p>TR: Applicable Analysis Instructions; Reference 11, Center Discrimination Procedures, DON OI 10-2; TI 02 ADSN HQ-1 AFTAC Distributed Seismic Network; Bolt, Bruce, <u>Earthquakes</u>, W.H. Freeman and Company, 1988; Richter Charles F., <u>Elementary Seismology</u>, W.H. Freeman and Company, 1958; Bolt, Bruce, <u>Nuclear Explosions and Earthquakes</u>, W.H. Freeman and Company, 1976; Lay, Thorne and Wallace, <u>Modern Global Seismology</u>, Academic Press, 1995; <u>Earthquake Interpretations</u>, Colorado School of Mines, 1972. Simon, Ruth B.; <u>Monitoring Underground Nuclear Explosions</u>, O. Dahlman and H. Israelson, 1977</p>									
7.1.1. Theory and application									
7.1.1.1. Field subsystem							B		
7.1.1.2. HQ Subsystem							B		
7.1.1.3. Array characteristics							B		
7.1.2. Data analysis									
7.1.2.1. Theory and application							B		
7.1.2.2. Distinguish signal from noise and background							2b		
7.1.2.3. Differentiate between natural and man-made events							2b		
7.1.2.4. Perform signal measurement							2b		
7.1.2.5. Recognize/identify later phases							2b		
7.1.2.6. Determine signal types							2b		
7.1.2.7. Determine signal azimuth							2b		
7.1.2.8. Associate SP and LP data							2b		
7.1.2.9. Form events							2b		
7.1.2.10. Apply event refinement techniques									
7.1.2.10.1.							Validity	2b	
7.1.2.10.2.							Location	2b	
7.1.2.10.3.							Distance	2b	
7.1.2.10.4.							Depth	2b	
7.1.2.10.5.							Magnitude	2b	
7.1.2.11. Use analysis tools							2b		
7.1.2.12. Validate automatic signal detection							2b		
7.1.3. Use application software							2b		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
<p>7.2. HYDROACOUSTIC TR: CENR 10-103; Applicable Center Publications; 17 Series TIs; Analysis Handbook; Operator's Handbook; The McGraw-Hill Encyclopedia of Ocean and Atmosphere Sciences, McGraw-Hill, Inc., 1980, Parker, Sybil P., Editor-in-chief</p> <p>7.2.1. Theory and application</p> <p>7.2.1.1. Field subsystem</p> <p>7.2.1.2. Headquarters subsystem</p> <p>7.2.1.3. Locations</p> <p>7.2.2. Data analysis</p> <p>7.2.2.1. Theory and application</p> <p>7.2.2.2. Signal types</p> <p>7.2.2.3. Data processing</p>									
						A			
						A			
						A			
						A			
						A			
						A			

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
8.1. Identify basic facts about workstation operating systems TR: <u>Unix in a Nutshell</u> , O'Reilly and Associates, 1994, Daniel Gilly									
8.1.1. Basic characteristics of operating systems							B		
8.1.2. File structure and file system							B		
8.2. Perform basic operations of a workstation operating system TR: <u>Unix in a Nutshell</u> , O'Reilly and Associates, 1994, Daniel Gilly									
8.2.1. Use operating system commands							2b		
8.2.2. Use vi text editor							2b		
8.2.3. Customize the operating system							2b		
8.3. Use Graphical User Interface TR: <u>Answerbook</u> , Sunsoft									
8.3.1. Customization							2b		
8.3.2. Tools							2b		
8.4. Maintain workstation networking TR: <u>Managing NFS and NIS</u> , O'Reilly and Associates, 1994, Hal Stern; <u>TCP/IP Network Administration</u> , O'Reilly and Associates, 1994, Craig Hunt							2b		
8.5. Write shell script TR: <u>CShell Field Guide</u> , Anderson and Anderson, 1986, Prentice Hall; <u>Learning the Korn Shell</u> , O'Reilly and Associates, 1993, Bill Rosenblatt							2b		
8.6. Perform system administration duties TR: <u>Essential System Administration</u> , O'Reilly and Associates, 1995, Aeleen Frisch									
8.6.1. System configuration							2b		
8.6.2. Manage system processes							2b		
8.6.3. Managing devices							2b		
8.6.4. Use backup, restore, and tar utilities							2b		
8.6.5. Install operating system							2b		
8.6.6. Diagnostics and Troubleshooting							2b		
8.6.7. Maintain system security TR: <u>Practical UNIX and Internet Security, 2nd Edition</u> , O'Reilly and Associates, 1996, Simson Garfinkel and Gene Spafford							2b		
8.6.8. System Startup and Shutdown							2b		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
<u>ELECTRICAL KNOWLEDGE</u>									
9.1. ELECTRICAL CIRCUIT OPERATION TR: TO 31-1-141-2; 31-1-141-9									
9.1.1. Direct current (DC)									
9.1.2. Alternating current (AC)									
9.1.3. Identify common circuit component operating principles									
9.1.4. Basic industrial wiring									
9.1.5. Troubleshooting and problem solving TR: TO 31-1-141-5									
<u>TECHNICAL KNOWLEDGE</u>									
9.2. MATH PRINCIPLES TR: TO 31-1-141, Vol V; <u>College Algebra, 2nd Edition</u> , Gilbert, Spencer and Gilbert; <u>Elementary Statistics</u> , 3rd Edition, Johnson									
9.2.1. Solve basic algebraic equations									
9.2.2. Solve exponential equations									
9.2.3. Number system conversions									
9.3. WAVE THEORY TR: <u>Physics</u> , 5th Edition, Addison-Wesley, 1992; Arthur Beiser									
9.3.1. Atomic structure and properties of matter									
9.3.2. Electromagnetic spectrum									
9.3.3. Wave propagation TR: <u>Physics for Scientists and Engineers (3rd Ed.)</u> , Volume II, Saunders College Publishing, 1990, Serway, Raymond A.									
9.3.3.1. Reflection/Refraction									
9.3.3.2. Diffusion/Dispersion									
9.3.3.3. Absorption/Attenuation									
9.3.3.4. Constructive/Destructive Interference									
9.3.4.5. Doppler shift									
9.3.4.6. Diffraction									
9.3.4.7. Effects of different media									
9.4. PHENOMENOLOGY									
9.4.1. Geophysical TR: <u>Earthquakes</u> , W.H. Freeman and Company, 1988; Richter, Charles F.; <u>Elementary Seismology</u> , W.H. Freeman and Company, 1958; Bolt, Bruce, <u>Modern Global Seismology</u> , Academic Press, 1995									
9.4.1.1. Fundamentals									
9.4.1.2. Sources									
9.4.1.3. Detection									

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
9.4.1.4. Signal Processing								A	
9.4.2. Electro-Optic TR: Modern Optical Engineering, 2nd Edition, McGraw-Hill, Inc., 1990, Smith, Warren J.: Lasers, Wiley-Interscience, 1988, Milonni, Peter W. and Eberly, Joseph H., The Infrared Handbook, revised edition, Environmental Research Institute of Michigan, 1985, Wolfe and Zissis, Editors									
9.4.2.1. Fundamentals								B	
9.4.2.2. Sources								A	
9.4.2.3. Detection								A	
9.4.2.4. Signal Processing								A	
9.4.3. Material TR: AFPAM 32-4019, Chemical-Biological Warfare Commanders Guide; Chemical and Biological Warfare Proliferation Course: Defense Against Toxin Weapons, David R. Franz, US Army, Fundamentals of Microbiology, 4th edition, Bejamin/Cummings Publishing Company, 1994, I. Edward Alcamo									
9.4.3.1. Chemical									
9.4.3.1.1. Fundamentals								B	
9.4.3.1.2. Sources/Delivery methods								A	
9.4.3.1.3. Detection								A	
9.4.3.1.4. Signal Processing								A	
9.4.3.2. Biological									
9.4.3.2.1. Fundamentals								B	
9.4.3.2.2. Sources/Delivery methods								A	
9.4.3.2.3. Detection								A	
9.4.3.2.4. Signal Processing								A	
9.4.3.3. Nuclear Particulate									
9.4.3.3.1. Fundamentals								B	
9.4.3.3.2. Sources								A	
9.4.3.3.3. Detection								A	
9.4.3.3.4. Signal Processing								A	
9.4.4. Nuclear radiation TR: Effects of Nuclear Weapons, Gladstone & Dolan, US DoD 1977									
9.4.4.1. Fundamentals								B	
9.4.4.2. Sources								A	
9.4.4.3. Detection								A	
9.4.4.4. Signal Processing								A	
9.4.5. Radar									

ATTACHMENT 9, RI 9S100 JOB KNOWLEDGE DEVELOPMENT COURSE JETS

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
<p>TR: <u>Introduction to Radar Systems</u>, McGraw-Hill, 1980, Merrill I. Skolnik; <u>Radar Handbook, 2nd Edition</u>, McGraw-Hill, 1990, Merrill I. Skolnik; <u>Introduction to Airborne Radar</u>, Hughes Aircraft Co, 1983, G. W. Stimson; <u>Principles of Modern Radar</u>, Chapman & Hall, 1987, Edited by Jerry L. Eaves & Edward K. Reedy</p>									
9.4.5.1. Fundamentals							B		
9.4.5.2. Sources							A		
9.4.5.3. Detection							A		
9.4.5.4. Signal Processing							A		
9.4.6. Radio frequency									
TR: <u>High Frequency Techniques: Recent Advances and Applications</u> , Bhattacharyya, A. Wiley and Sons. 1995									
9.4.6.1. Fundamentals							B		
9.4.6.2. Sources							A		
9.4.6.3. Detection							A		
9.4.6.4. Signal Processing							A		
<u>COMMUNITY MISSION AND ORGANIZATION</u>									
9.5. MISSION AND ORGANIZATION									
9.5.1. Community structure							A		
9.5.2. National organizations							A		
9.5.3. Intelligence cycle							A		
9.5.4. Collections management							A		
9.5.5. Data Distribution Systems							A		
9.5.6. Missions and Organizations to which 9S100s are assigned							A		
9.6. CAREER INFORMATION									
TR: AFI 36-2101, RI9S100 CFETP									
9.6.1. History of the 9S100							A		
9.6.2. Duties of RI 9S100									
9.6.2.1. Subsurface analysis							A		
9.6.2.2. Subsurface maintenance/Field support							A		
9.6.2.3. CsDs/Airborne Depot Maintenance/Engineering/Support							A		
9.6.2.4. CsDs Field Maintenance							A		
9.6.2.5. Patrick AFB							A		
9.6.2.6. Det 45							A		
9.6.2.7. Det 46							A		
9.6.2.8. NAIC							A		
9.6.2.9. 566 IOS							A		

1. Tasks, Knowledge and Technical References	2. Core tasks	3. Certification For OJT					4. Proficiency Codes Used to Indicate Training/Information Provided		
		A	B	C	D	E	A Comp. 3	B Comp. 5	C Comp. 7
		Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	Course	Course
9.6.2.10. NAFS								A	
9.6.2.11. AIA								A	
9.6.2.12. CMO								A	
9.6.2.13. Liaisons								A	
9.6.2.14. Instructor								A	
<u>TECHNICAL SKILLS AREA</u>									
9.7. LOGISTICS TR: AFI 21-116, AFI 23-215, AFM 23-110									
9.7.1. USAF supply system									
9.7.1.1. Forward supply point								A	
9.7.1.2. Bench stock system								A	
9.7.1.3. Equipment accounts								A	
9.7.2. Functions and responsibilities of maintenance management TR: AFI 21-116, Local Guidance								A	
9.8. COMPUTER COMMUNICATIONS AND NETWORKS TR: <u>The Complete Modem Reference</u> , Gilbert Held, 3rd Edition, ISBN: 0471154571; <u>Internetworking Lans and Wans, Concepts, Techniques, and Methods</u> , Gilbert Held, ISBN: 0471935689									
9.8.1. WAN								A	
9.8.2. LAN								A	
9.8.3. Military networks								A	
9.8.4. Routers, hubs, switches								A	

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 performance progress check.

5. Standard. The standard is 70% on written examinations. Standards for performance measurement are indicated in the objectives 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 parts 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.

7. Course Objective List. These objectives are listed in the sequence taught by Block of Instruction.

7.1. Initial Skills Course. A detailed listing of the initial skills course objectives may be obtained by written request to 312 TRS/DOE, Goodfellow AFB TX 76908-4213.

7.2. 7-Skill Level Course. Is not available at this time.

Section C - Support Material

8. Air Force Qualification Training Packages (AFQTP)

8.1. The current listing of AFQTPs can be obtained at the following Internet address: <https://wwwmil.keesler.af.mil/81trss/qflight/>. Many of the products can be downloaded directly from the web. These are not mandatory for this career field but may be of use for those individuals needing qualification in areas that are covered by an AFQTP.

9. Computer Based Training Products

9.1. Air Force computer based training products can be found at <http://afcbt.den.disa.mil>.

Section D - Training Course Index

10. Purpose. This section of the CFETP identifies training courses available for the specialty. The current listing of USAF Formal Schools can be obtained at the following Internet address: <https://etca.keesler.af.mil/>.

11. Air Force In-Residence/Mobile Training Team (MTT) Courses

COURSE NUMBER	TITLE	LOCATION	USER
X3AZR9S100 019	Subsurface Analysis	Goodfellow AFB	AF
X3AZR9S100 020	Subsurface Systems Maintenance	Goodfellow AFB	AF
X3AZR9S100 021	Remote Sensing Systems Analyst	Goodfellow AFB	AF
X3AZR9S100 022	Special Equipment Maintenance	Goodfellow AFB	AF
X3AZR9S100 027	Special Equipment Operator	Goodfellow AFB	AF
X3AZR9S100 025	Workstation Administration	Goodfellow AFB	AF
X3AZR9S100 026	Collection Management	Goodfellow AFB	AF

11. Air Force Institute for Advanced Distributed Learning (AFIADL) Courses

COURSE NUMBER	TITLE	LOCATION	USER
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Area reserved for future use

12. Exportable Courses/Information

COURSE NUMBER	TITLE	LOCATION	USER
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Area reserved for future use

13. Courses Under Development/Revision

COURSE NUMBER	TITLE	LOCATION	USER
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X3AZR9S100 028	Technical Applications Collection	Goodfellow AFB	AF
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Section E - MAJCOM Unique Requirements

NOTE: There are currently no MAJCOM unique requirements. This area is reserved.