DEPARTMENT OF THE AIR FORCE
Headquarters US Air Force
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Air Force Qualification Training Package
1C8X3-201D
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WORK CENTER MANAGER'S HANDBOOK
(Radar, Airfield, and Weather Systems Journeyman/Craftsman)

ACCESSIBILITY: Publications are available on RAWS Dashboard Site

RELEASABILITY: There are no releasability restrictions on this publication.

SECTION A: GENERAL

1. This Air Force Qualification Training Package (AFQTP) standardizes On-the-Job Training (OJT) tasks and constitutes an approved training program. The AFQTP is used by unit training managers, supervisors, trainers, trainees, and other training functions to plan, conduct, and document OJT.

2. Maintain this AFQTP according to AFI 36-2651. Submit recommended AFQTP improvements or corrections to the 334 TRS Training Development Flight at 334trs.raws.upgradetraining@us.af.mil or DSN: 597-2874.

3. Use this AFQTP in conjunction with other applicable AFJQS or the Career Field Education and Training Plan (CFETP) and locally assigned tasks to identify work center duty positions, evaluate newly assigned personnel, and identify individual training requirements.

SECTION B: SUMMARY OF CHANGES
Updated Solar Electro-Optical Network verbiage, 17 December 2020

BY ORDER OF THE SECRETARY OF THE AIR FORCE
OFFICIAL

DAVID A. MINEAU, Col, USAF
Director of Future Operations

Supersedes AFQTP 1C8X3-201D, dated 1 November 2017
OPR: HAF/A3OJ
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ABOUT THIS TRAINING PACKAGE

This handbook standardizes OJT, reduces training time, provides a logically organized training plan that yields immediate and measurable feedback, and provides a standard to measure task knowledge and performance during personnel evaluations.

MSgt Nate Edwards, TSgt Ron Hale, TSgt Eliope Paz, and TSgt Anthony O'Conner-Geiling, 334 TRS RAWS Training Development Flight, Keesler AFB, MS, revised this training package. The Training and Education Specialist was Mr. Philip Schulze. It was validated by 1C8X3 MAJCOM Functional Managers. MSgt Nate Edwards, MSgt Aaron Haynes, MSgt Bryan Albrecht, MSgt Kelly McKenzie, TSgt Ron Hale, TSgt Eliope Paz, TSgt Zachary Erickson, TSgt Anthony O'Conner-Geiling, TSgt John Perkins, TSgt David Brackett, TSgt Daniel White, TSgt Cassandra Mallory, TSgt Michael Cappelletti, TSgt Max Carrizales, TSgt Robert Banker, TSgt Corey Rhoads, TSgt Ryan Branham, TSgt Jacob Carlson, TSgt Domditer Chan, TSgt Christopher Smith, TSgt Christopher Hardy, TSgt Robert Barber, SSgt Patrick Trently, SSgt Mark Trusty, SSgt Stephanie Ramirez, and SSgt Jeremy Homrich, were consulted as subject matter experts.

For more information about Training Development Flight and a list of other available products, visit our home page at: RAWS Dashboard or contact Training Development Flight at: 334trs.raws.upgradetraining@us.af.mil or DSN: 377-4881.

TRAINING INSTRUCTIONS

INSTRUCTIONS FOR THE TRAINER

- Explain training package to the trainee.
- Ensure all TRs are available, if applicable.
- Assign module(s) for the trainee to complete and answer any questions the trainee may have.

MODULE 01
RADAR, AIRFIELD, AND WEATHER SYSTEMS (RAWS) MANAGEMENT

INTRODUCTION

Work center management is difficult, and people assigned to these positions must have a basic knowledge of management functions. You will constantly make important short-notice decisions that can either favorably or unfavorably impact the mission. You must recognize problems, develop and evaluate possible solutions, and make critical decisions to carry out solutions. Work Center Managers ***support the work centers that enable each MAJCOM to perform the AF mission.*** Applying basic management functions enable you to effectively make decisions and handle problems.

This module offers a brief explanation of management functions and then gives you credit for having the ability to apply these principles. You must realize the importance of your position as an AF Work Center Manager since the accomplishment of the mission revolves around you and your capabilities. This module will deliver a high-level understanding of the basic management functions and their effect on the work center.

RAWS MANAGEMENT FUNDAMENTALS

Management is the process of using all available resources to get the job done! The basic functions of management are:

- Planning
- Organizing
- Staffing
- Directing
- Controlling

The basic functions of management work together, in a cohesive manner, to enhance the effectiveness Work Center Managers have on their missions and subordinates.

PLANNING

Planning is a deliberate process every Work Center Manager should incorporate into their management strategy. Planning takes time up-front to save time during the execution process. Many managers do not dedicate enough time to planning.

Planning is looking at what tasks need to be accomplished, and assigning work center resources to accomplish these tasks. It is also deciding in advance how, when, and who will do the job. If you, as a manager, do not plan your work center activities, you are wasting time and leaving task accomplishment to chance. In a busy work center you may be left playing catch up with a feeling of uneasiness as you are constantly 'putting out fires'. Due diligence is required in this area. As the old saying goes, "Why put off till tomorrow what you can do today?"

Planning can include decisions such as who will perform Preventive Maintenance Inspections (PMIs) tomorrow. You can carry it further by planning who will do PMIs and which trainee(s) will receive training during the PMIs. More in-depth planning will include a more detailed itinerary. For example, plan that this Friday a certain technician will perform PMIs and provide training to a trainee on those PMIs while you accompany them to evaluate the adequacy of training provided. Additionally, you can conduct the on-site publication, tools, and other program reviews/inspections simultaneously.

Planning can expand into weeks, months, or longer. The premise of planning is to save time and increase the efficiency of your work center. The more complex the job or task, the more time needs to be spent in planning. Be prepared for plans to change. Job requirements and resources change often, sometimes with little notice. Short-range plans, such as who will do PMIs tomorrow, are less likely to need revision than long-range plans. Long-range plans should include milestones or checkpoints.

Resourceful managers devise ways to plan every task. Good planning increases your effectiveness as a manager. One test for planning is: "Can you illustrate, in general terms, what you have planned for your work center for the expected duration of your tour of duty?" For example:

- What are your training objectives?
- What are your expectations of your personnel?
- How are you measuring mission performance?
- How will you communicate accomplishments/issues with leadership?
- What processes can you make more efficient?

If you see problems in the work center, plan to solve these problems! Effective planning requires that managers gain the appropriate knowledge about their work centers and resources. Know your mission and the resources available to you--especially your people. You must know where you are and what you have before you can plan where you are going and how to get there.

The planning requirements for each work center are unique to the unit's mission and resources; however, the following best practices apply to many work centers, and should be considered by managers for implementation:

- Conduct weekly, or even daily maintenance meetings to assign maintenance tasks for that week and track status for open jobs.
- Direct Air Force Maintenance Quality Control Checklist (AFMQCCs) to be completed concurrently with all annual PMIs and hold technicians accountable for completion. This simple planning step ensures program compliance and prevents duplication of effort later.
- Ensure that the next 30 days of PMIs are being loaded each week, this prevents weekly PMIs from being missed and allows you as the Work Center Manager enough lead time to schedule technician availability for the more extensive upcoming PMIs.

- Create a tracker to document all work center items that need to be reviewed annually. Annual reviews are often overlooked and overdue. These items can include, but are not limited to, Equipment Inventory List(s) (EILs), Master PMI lists, Job Safety Training Outline(s) (JSTOs), Operating Instruction(s) OIs, Memorandum of Understanding (MOUs), Memorandum of Agreement (MOAs), Local Operating Procedure (LOPs), etc.
- Create a recurring schedule to inspect/review each program within your work center. This practice allows the Work Center Manager to hold program POCs accountable for keeping their programs in compliance.
- Formalize and publish procedures for requesting equipment downtime outside of scheduled PMI windows.
- Review all assessed questions for your work center's Management Internal Control Toolset (MICT) self-assessment checklists at least quarterly to ensure accuracy and compliance.
- Attend planning meetings with your unit's resource advisor and leadership to review/modify your work center's budget for each fiscal year. Consider training/TDY costs and office resources and advocate for funding with proper justifications.
- Review the unit's contingency checklists to ensure your work center's requirements are included and correctly incorporated. Coordinate updates with the Plans and Program Manager as needed.

ORGANIZING

Organizing enables personnel to work effectively to accomplish a goal. You and your personnel should understand the structure of your organization. Some things to consider are: Is your work center really set up the way you thought it was? Do you have any organization at all? Can you improve it?

A work center organizational chart, regardless of work center size, is a useful tool as a visual representation of organizational alignment and how your work center fits into the mission. It clarifies the work center structure so that everyone knows who is responsible for each specific task and exactly where they fit into the organization. The bottom line is you are the manager at the top in a functional block diagram for your work center and must make sure you and your personnel understand how they fit into the bigger picture of the mission.

FORMAL ORGANIZATION

Typically, there are two types of organizations: formal and informal. If you examine an organizational chart of your work center, or your squadron, you should notice a number of important things. The Commander is at the top, followed by the Superintendent or Senior Enlisted Manager (depending on type of unit), and on down to the work center. There is nothing inherently flexible about a formal organization. If you can organize efficiently, the structure will furnish an environment in which individual performance can contribute to the attainment of mission requirements.

INFORMAL ORGANIZATION

An informal organization refers to the informal working relationships that develop in organizations and how they contribute to or detract from the work culture. These encounters and interpersonal relationships either positively or negatively impact each employee's sense of belonging within the workplace. If these encounters are generally negative, work morale is typically poor. Likewise, if the overall tone and tempo in the work center is positive, morale is typically good. To put it simply, informal organization does have a significant influence on work center dynamics and ultimately mission accomplishment. This is because these relationships become the aggregate and predominant attitude which contribute to or reduce mission effectiveness. This means that informal organization dynamics in your work center can provide a high degree of flexibility if leveraged properly.

For example, perhaps you are the Work Center Manager or NCOIC with a highly driven and motivated assistant or subordinate. This can benefit you as the Work Center Manager because they can set the tone and free up your time from side tasks that may otherwise keep you from working on bigger issues. However, informal organization also has a negative flip side if not properly managed. In the same scenario, the assistant may begin to feel empowered to feel like they actually run the work center and can work to delegitimize you as the leader which can (and usually does) cause demoralization. If left unchecked, it could get to a point that you are being told what to do by a subordinate. In this case, the informal organization has taken control of the work center, and you have lost control. Proper organization and management will eliminate this undesirable situation. Managers must be aware of the informal organization, avoid fighting it, and even use it to increase work center effectiveness by capitalizing and investing in their personnel to leverage the best outcomes. This is one of the most challenging areas of leading a work center.

Now you have a basic knowledge of what organizing is and what it does. You also understand the two types of organizations, formal and informal, that can exist. Both types exist in any organization, and you must understand and know how to use them both.

STAFFING

Staffing is often confused with organizing. Organizing typically applies to groups while staffing typically applies to individuals. This section will provide the basics of staffing for you to evaluate and apply.

Managers at all levels have a responsibility for staffing their particular organization. The process of staffing your work center involves the ***manning of your work center through effective selection of personnel and properly placing them in the correct duty positions.*** The Work Center Manager is responsible for staffing the work center to ensure all maintenance, training, scheduling, and other responsibilities are met. You must choose the right person (trainer, NCOIC, assistant NCOIC, etc.) for each task or responsibility.

You must understand the requirements for your work center. Some good questions to ask are:

- "What do I have to accomplish?"

- "What personnel do I have to help me do the jobs?"
- "What are the mission essential requirements that must be filled?"

Now that you know what you have to do and what your resources are, plug the right people into the right jobs.

Finally, staffing allows you to place **responsibilities on personnel** and **observe their capabilities**. This can provide you with a basis for rating performance. Also remember that staffing is basically placing the right person in the proper place to accomplish specific tasks.

Keep in mind, this may not always be possible. Task assignments should challenge and motivate personnel to learn and grow into tomorrow's leaders through continuous development that pushes them out of their comfort zones. The degree to which you push them outside of their comfort zones will vary depending on each individual since not all personnel are the same. Each has a varying degree of strengths and weaknesses. You should work to improve weaknesses and fortify strengths through regular feedback.

A final note on staffing, be mindful of focusing/honing in on one individual as this could be viewed as favoritism and detract from work center morale. Ensure you are ***intentional*** about developing all personnel under your umbrella of management and leadership.

DIRECTING

Directing tasks and monitoring performance is the management function that deals with actual work. Directing leads subordinates to understand and effectively contribute to the accomplishment of the mission. You must have clearly stated goals and standards, and your subordinates must know and understand these in order to perform and meet goals and expectations. If personnel in your work center do not know or understand the unit's mission, work center goals, and/or their responsibilities, you must inform them. Communication and feedback are key aspects of expectations concerning task accomplishment and the level of performance expected or required.

After you follow the planning, organizing, and staffing functions, the work center is ready and expected to **perform**. Proper work center performance requires that you direct the efforts of your personnel toward mission accomplishment. There are three important elements of directing:

- Communication
- Motivation
- Leadership

Make sure your people know what you want them to do, motivate if and when needed, and provide leadership. Be careful! There is a fine line between effective directing and micro-managing. As a leader, you must provide your subordinates the opportunity to execute your directives to enhance their growth. There are times when mission essential time requirements may warrant a micro-management style. However, if overused, this will degrade morale and performance over time. In cases when personnel, whether individual or group, consistently underperform, the micromanagement style may be the only option.

This does not absolve you of your responsibility to develop and improve them. Conversely, as a manager and a supervisor, you may also need to re-assess and temper your expectations or ensure that you are effectively communicating your expectations to ensure personnel actually understand the standard. Regular honest self-reflection and outside mentorship can assist you in improving your leadership, management, and communication style to achieve the desired performance results.

CONTROLLING

Controlling is the next management function and is essentially following-up on the planning, organizing, staffing and directing functions by taking a structured approach to each issue you face. The control process involves 4 steps:

- Establish standards.
  - The equipment is required to operate at a 98% up-time rate.
- Measure performance against the standards.
  - Is the equipment operating at a 98% up-time rate?
- Identify problems so they can be corrected.
  - Is the cause of failure due to personnel, equipment, training, or management?
- Developing and implementing a corrective action plan(s)
  - How do I correct the problem and ensure the changes stick?

The controlling function is the management tool that identifies goals not met. Controlling also notes when goals were met! The controlling function in and of itself does not correct the deficiency, it simply determines if objectives were met and provides you a tool for navigating the 'way-ahead'. For example, if up-time rate requirements for operational equipment are not being met, the reason(s) could be:

- Faulty training plan.
- Faulty staffing placed someone as a trainer, and the training provided is ineffective.
- PMIs are being improperly performed.
- Management direction is weak.
- Supply system may contain deficiencies.
- Test equipment may not be properly calibrated.

The controlling function identifies that a problem exists, and management must correct the problem by developing a corrective action plan. Managers should follow-up to check if the corrective action plan is effective. If the corrective action is ineffective, you will need to repeat the process several times until you achieve the desired results. In big corporations, the controlling function normally deals in money. In the AF management environment, concern is for production, personnel, equipment reliability, and training. Operational rates must be met, and

personnel must be trained. ***The primary responsibility for controlling belongs to the Work Center Manager charged with executing plans!***

Management has the task of assuring objectives are accomplished. The statement, ***"Get out from behind your desk and look at your operation!"*** is a good piece of advice. Remember that management requires knowledge of what is happening. Sit in on training sessions. Ask trainees (and even qualified personnel) to show you how to do a task.

Monitor the performance of PMIs. **Be involved!** Remember the all-important question, **"Are the objectives being met?"** You can't know for certain if you are not involved.

SUMMARY

Management is a carefully designed process that involves planning, organizing, staffing, directing, and controlling resources to get the mission done. It is imperative you learn and apply good management techniques. To be successful, you must be **intentional** about each aspect of work center management mentioned in this module. It also means being accountable for both the successes and failures of the mission.

Planning saves valuable time. It establishes how a job is to be done, when it is to be done, and who is to do it.

Organizing, both formal and informal, establishes functional alignment and clear lines of authority. It establishes a favorable working relationship between the staff and work center and promotes harmony within the work center.

Staffing is the process of choosing the right person for a particular job or task. It takes advantage of individual skills to ensure maintenance and training goals are efficiently met, while incorporating possibilities to grow your subordinates.

Directing and monitoring performance is the process of applying sound management principles through communication, motivation, and leadership. It ensures work center efficiency by creating an environment where worker goals are in harmony with unit goals.

Controlling is the process that establishes standards, measures performance, identifies problems, and allows you to develop corrective action plans. Through feedback, it provides the information needed to determine work center objective accomplishment.

MODULE 02
RAWS WORK CENTERS

PREREQUISITE

- Module 01

INTRODUCTION

In this module, a brief description of different RAWS work centers will be provided. Those descriptions will outline the mission and activities that those work centers support and accomplish. The RAWS career field conducts multiple mission sets throughout the AF. Dependent on the unit of assignment, your mission set will change (i.e. Air Control Squadron (ACS), Radar Evaluation Squadron (RADES), Combat Comm, etc.). It is important as a Work Center Manager to understand the basic responsibilities of each of these units to assist in providing insight to subordinates as they relate to one another and potential requirements for personnel and to understand the scope of responsibilities leveraged on the career field.

OPERATIONS SUPPORT SQUADRON (OSS)

OSS MISSION

The RAWS mission in an OSS is to support the flying community by maintaining all navigational aids and weather systems assigned to the base. This equipment includes legacy and the modernized "Family of Systems" equipment. The Instrument Landing System (ILS) and Tactical Air Navigation System (TACAN) have been upgraded and are regionally monitored. RAWS technicians are responsible for coordinating with base support to correct any communication interruptions and directly interact with the Regional Maintenance Center (RMC) in completing repairs that can be accomplished by the on-base technicians. At any base, the legacy equipment could include radios at multiple sites, the Digital Audio Legal Recorder (DALR), Enhanced Terminal Voice Switch (ETVS), FMQ series (19, 22, 23), Digital Airport Surveillance Radar (DASR), Flight Data Input/Output (FDIO), Standard Terminal Automation Replacement System (STARS), and/or Next Generation Radar (NEXRAD). RAWS equipment is utilized by many other flights within OSS, such as weather extrapolating data from the FMQ-19 or the NEXRAD to create a forecast window for pilots and ground crew. Air Traffic Control uses flight data information from the FDIO, controls air traffic using the DASR and STARS, and communicates with the pilots via radios. Airfield Management uses information passed to them from our ETVS and subsequently passes it through the Primary Crash Alert System (PCAS) to notify Security Forces, Command Post, Fire department, and medical services during a flight line emergency.

RAWS DAILY MISSION

Day-to-day activities vary and provide a non-stop environment where a sense of job satisfaction and pride are afforded without the risk of boredom. The daily

workload includes; PMIs, cleaning, repair and logistic support of any and all assigned equipment. This includes not only the equipment itself, but the facilities as well. Whether it is conducting routine facility inspections, performing equipment repairs in conjunction with the RMC or coordinating efforts with other base functions, such as Civil Engineering, Communications Squadron, or Logistics Readiness Squadron (LRS), the day-to-day mission is never the same and is constantly evolving. Most days are spent repairing or re-tuning older radios used by the tower and Radar Approach Control (RAPCON), cleaning weather sensors, completing job documentation, and ordering parts. RAWS personnel maintain up to 20 additional duties to ensure compliance with local, state, and federal regulations, and are responsible for various equipment and vehicle accounts. RAWS personnel also facilitate many projects from modernizing equipment, coordinating the removal of hazardous materials from the sites, and upgrading the infrastructure and facilities. A large portion of time is spent training. The training program encompasses 300 or more individual tasks on dozens of various pieces of test and navigational equipment.

ENGINEERING AND INSTALATION SQUADRON (E&I)

E&I RAWS MISSION

This RAWS work center installs, removes, and relocates airfield communications equipment within the Air Traffic Control (ATC) tower/RAPCON. This includes the ETVS system, DALR systems, channel banks, Meteorological/Navigation (METNAV) systems, Navigational Aid Systems (NAVAIDS), ground-to-air radios, and associated equipment racks. RAWS work center projects consist of upgrading existing technologies.

AIR CONTROL SQUADRON (ACS)

ACS MISSION

The ACS is built around the AN/TPS-75. The AN/TPS-75 is a long range 240 NM radar system that works as a sensor with interlocking fields of vision that cover the entire Area of Responsibility (AOR). This provides the pilots and ground troops a safety function that protects them from mid-air collisions, incoming enemy attacks, and allows coordination of air to ground attacks. ACS RAWS Airmen have to be ready to set-up in any environment and defend the radar site from enemy combatants. Training in garrison is built around becoming deployment ready in both a 72 hour rapid Unit Type Codes (UTC) deployment capacity and filling a normal deployment cycle between the ACS units.

ACS RAWS DAILY MISSION

The main focus of RAWS troops while at home is to:

- Complete maintenance
- Maintain additional duty
- Complete deployment readiness training
- Train on reading tasks

Additionally, the AN/TPS-75 radar is used in conjunction with several other ACS work centers to complete the air picture. It is imperative the radar is kept operational not only to train the RAWS troops, but also to allow complete training for other work centers that rely on this system.

There are a multitude of maintenance tasks that require your proficiency in order to complete recurring preventative maintenance inspections, as well as your ability to troubleshoot and repair electro/mechanical issues with the AN/TPS-75 radar.

Additional duties are critical to the shop being able to function in-garrison. The maintenance of additional duties is paramount to being able to use test equipment, tools, vehicles, safety equipment and technical orders (TO).

ACS DEPLOYMENTS

DEPLOYMENT READINESS

RAWS troops are expected to be able to rapidly deploy and set up in an austere environment with possible enemy contact. To facilitate this type of training multiple exercises are conducted throughout the year to increase proficiency for AN/TPS-75 set-up in different environments. These training exercises teach how to pack up UTC increments and set up in the field.

Pre-deployment training also involves more general requirements. All ACS troops take the Combat Arms Training and Maintenance (CATM) course to become qualified at a minimum on the M16/M4 weapons system with some deployments requiring additional qualification on the M9 weapons system. Certain deployments will call for extra deployment training such as Field Craft Hostile (FCH) facilitated at Fort McGuire-Dix to increase the Airmen's warfighting skills.

DEPLOYING

The overall mission of the ACS RAWS troop is to serve in a deployed location. The most common deployment that a RAWS troop will participate in is an established base deployment. Usually it will be one squadron's work center replacing another's. There is typically a one or two week turnover period for each deploying ACS. This turnover consists of doing equipment and stock inventories, additional duty turnover, equipment maintenance status briefs, and general site information. Once that is complete, the outgoing shop will continue to out-process and leave the site mission to the incoming ACS.

ACS troops need to be deployment ready at all times. Deployment taskings can come up at any time, and people can be removed from deployment for many different reasons.

AIR FORCE FLIGHT STANDARDS AGENCY (AFFSA)

HQ AFFSA MISSION

AFFSA is a Field Operating Agency (FOA) organized under the Deputy Chief of Staff, Operations, Plans and Requirements, Headquarters, Air Force. AFFSA's mission is to increase the maximum effectiveness of USAF global air operations. AFFSA's RAWS personnel are aligned under three directorates: XA (Airfield

Operations), XM (Air Traffic Control and Landing Systems (ATCALS) Maintenance), and XR (Requirements and Sustainment).

HQ AFFSA/XA

RAWS Operations, Procedures, And Training's Mission Is To:

- Interpret policy and procedures, and publish guidance based on 1C8 Career Field Manager (CFM) direction
- Assist w/development of AFMQCCs, Maintenance Special Instructions (MSIs), and Policy (i.e. AFI 13-204v4)
- Augment MAJCOM IG when requested

NOTE:

AFMQCCs can be found on the AFFSA website.

HQ AFFSA/XR

ATCALS Systems Managers' Mission Is To:

- Act as Subject Matter Expert (SME) for system development, sustainment and logistical support for all ATCALS centrally managed assets
- Coordinate operational issues affecting mission degradation w/lateral agencies (Program Office, Air Force Engineering and Technical Support (AFETS), Depot, etc.)

HQ AFFSA/XM

Remote Maintenance/Radar Evaluations' Mission Is To:

- Support Remote Maintenance Center Technicians (RMC Tech)
- Operate three RMCs
  - Conus RMC – Oklahoma City, OK
  - European RMC – Kapaun AS, Germany
  - Pacific RMC – Yokota AB, Japan
- Provide remote monitoring/maintenance on Fixed based NAVAIDs
- Provide 2nd TIER support for non-remotely maintained NAVAIDs
- Provide Advanced Maintenance support: DASR, Precision Approach Radar (PAR), ETVS, ATC Radios via AFETS

Radar Evaluations' Mission Is To:

- Perform Wind Turbine Analysis/Mitigation
- Perform Terminal ATC Radar Optimization
- Perform ATC Radar Site Selection

84TH RADAR EVALUATION SQUADRON (RADES)

MISSION STATEMENT:

The 84 RADES is a tenant unit located on Hill AFB, Utah, which falls under the 505th Test and Evaluation Group, Nellis AFB, Nevada. The squadron is a selectively manned unit. They evaluate, optimize, integrate, and monitor fixed and mobile long-range radar for both DoD and federal organizations. They provide support to national search and rescue efforts and forensic analysis on tracks of interest for North American Aerospace Defense Command (NORAD), Air Force Rescue Coordination Center (AFRCC), AF Safety Center and National Transportation Safety Board (NTSB). Develop and sustains systems and software for radar data recording, optimization, C2 testing and modeling to support Air Defense Sectors and Combatant Commanders in contingency ops:

OL-A, 84 RADES – JBER, AK

OL-B, 84 RADES – Rome City, NY

OL-C, 84 RADES – JBLM, WA

OL-D, 84 RADES – Wheeler Army Airfield, HI

Their mission is to provide the Warfighter responsive worldwide radar-centric planning, analysis, optimization, C2 testing, and constant evaluation. It supports nine major radar evaluation and special purpose programs of over 200 air defense, air surveillance, counter-narcotic radar sensors worldwide valued at $11B, and evaluates the impacts of large scale wind turbine farms and other obstructions to ensure large-scale radar coverage utilized by the DoD, Department of Homeland Security and the FAA.

SOLAR ELECTRO-OPTICAL NETWORK (SEON)

The 365 day a year mission of United States Air Force Solar Electro-Optical Network (SEON) is to monitor the sun for significant solar activity. Of particular interest are solar features, such as flares, coronal mass ejections, and other solar signatures identified by optical and radio emissions which propel highly energetic particles into the solar system. Depending on the trajectory of these particles, they may have the potential to severely impact military operations by disrupting satellites, communication networks, and other critical electrical infrastructure. The SEON network is owned and operated by the 2d Weather Squadron, 557 Weather Wing, based out of Offutt Air Force Base, who provide oversight to 5 detachments around the world located in Massachusetts, New Mexico, Hawaii, Italy, and Australia. Each detachment is strategically located to enable the network to maintain 24/7 solar patrol. The data collected by the SEON is forwarded to customers such as the Joint Space Operations Center, Offutt Air Force Base, Nebraska, National Oceanic, Atmospheric Administration's Space Environment Center, Boulder, Colorado, and Regional Warning Centre, Sydney, Australia. These agencies combine the data from across the SEON with a worldwide solar and geophysical database to provide tailored alerts, warnings, and forecasts to DoD and commercial customers. Some of the Department of Defense customers who utilize these products include high priority national space programs, North American Aerospace Defense Command, United States Strategic Command, and the United States Space Force.

COMBAT COMMUNICATIONS/AIR TRAFFIC CONTROL SQUADRON

1ST COMBAT COMMUNICATIONS SQUADRON (CBCS)

MISSION

To rapidly provide deployable communications and air traffic control throughout Europe, Africa, and the Middle East. The 1st CBCS also supports training, exercises, deployments, contingencies, and special military projects for the United Nations, Joint Chiefs of Staff, North Atlantic Treaty Organization, United States European Command, and the Department of State as directed by United States Air Forces in Europe.

AIR TRAFFIC CONTROL SQUADRON (ATCS)

MISSION

ATCS is a self-sustaining unit. Its primary missions are to provide combat ready Airmen to enable airpower basing maneuverability and total force engagement across the full range of military operations, rapidly deploy mobile navigational aids to any part of the world with little to no-notice, and provide the capability to support humanitarian assistance/disaster relief efforts. The equipment that can be found in an ATCS includes the TPN-19, MSN-7, MPN-14K, TRN-48 Deployable ATCALS Suite, and Deployable ILS.

RAWS TRAINING DEVELOPMENT FLIGHT

OPERATIONAL OVERVIEW

RAWS Training Development Flight is based at Keesler AFB, Mississippi and assigned to the 334th Training Squadron. RAWS Training Development Flight personnel are MAJCOM billets and operationally controlled by the CFM. Their mission is mostly driven by new equipment systems acquisitions and modifications. RAWS Training Development Flight works with many Program Management Offices (PMO) to develop initial qualification training packages. They also require SME reviews, typically from experts in the field utilizing the training products.

RAWS Training Development Flight's mission is also driven by personnel in the field! When a gap in training is identified (no training exists for a product) or there is a deficiency in a current training product, field personnel inform the MAJCOM Functional Manager (MFM). The MFM coordinates priority through the CFM who officially tasks RAWS Training Development Flight personnel to allocate resources to alleviate the issue. RAWS Training Development Flight currently has two mission sets.

- Initial Skills Training Development Mission (3-Level)
- On-the-Job (OJT) Development Mission (5/7-Level)

INITIAL SKILLS TRAINING DEVELOPMENT MISSION (3-LEVEL)

The initial skills training development mission is to develop the course material RAWS technical instructors use in the RAWS apprentice and supplemental courses. This allows the apprentice course to graduate around 200 students per

year for the RAWS community. It provides basic knowledge to a trainee before going to their first duty station.

OJT DEVELOPMENT MISSION (5/7-LEVEL)

This mission involves developing OJT tools used by trainers to train and qualify Airmen on equipment maintained and duties performed throughout their career. Those OJT tools are RAWS specific Air Force Job Qualification Standards (AFJQS) and Air Force Qualification Training Packages (AFQTP). Additionally, RAWS Training Development Flight assists with the development, standardization and publishing of the 1C8X3 Career Field Education and Training Plan (CFETP).

DEPLOYABLE ATCALS/CONTINGENCY RESPONSE UNITS

Based at Joint Base McGuire-Dix-Lakehurst, New Jersey and Travis Air Force Base, California, the Deployable ATCALS/Contingency Response Units consist of approximately 1000 Airmen in six groups, fourteen squadrons and more than 20 geographically separated operating locations aligned with major Army and Marine Corps combat units. The wing maintains a ready corps of light, lean and agile mobility support forces able to respond as directed by the 18th Air Force at Scott Air Force Base, Illinois, in order to meet Combatant Command wartime and humanitarian requirements.

2ND COMBAT WEATHER SYSTEMS SQUADRON (2 CWSS)

MISSION

Test, train, and maintain fielded weather systems technology to optimize joint coalition military operations.

PERSONNEL AND RESOURCES

2 CWSS is 50 military and civilian professionals, composed of two flights functionally aligned with three distinct sets; Weather Systems and Evaluation, Weather Systems Training, and Deployed Weather Systems Support. Each capability 2 CWSS provides is unique to the global Air Force mission and impacts every facet of terrestrial-based Air Force weather operations for the DoD. The squadron is an ACC tenant unit located at Hurlburt Field, Florida.

OPERATIONS

2 CWSS is the sole force provider of the Weather Systems Support Cadre, which deploys mobile maintenance teams to rapidly optimize the geographic combatant commanders' theater weather sensing strategies during contingency operations. They also test and evaluate both emerging and established weather technologies to inform global, regional, and tactical sensing strategies and enable strategic fixed-base (FMQ-19, FMQ-22, FMQ-23, etc..) and tactical weather systems such as the Tactical Meteorological Observation System and Portable Doppler Radar. They develop and conduct Deployed Weather Systems Training classes where weather Airmen are instructed how to use and maintain deployed weather systems to maximize joint warfighting capabilities.

SUMMARY

In this module, you learned how the RAWS career field has a multitude of different mission sets. You also saw the different missions of different units that RAWS personnel can go to and have a better understanding of the basic responsibilities of various units you may experience.

MODULE 03
WORK CENTER PROGRAMS

PREREQUISITE

- Modules 01 through 02

TRAINING REFERENCES

- AFH 23-123 V1, *Material Management Reference Information*
- AFH 23-123 V2, part 2, *Integrated Logistics System (ILS-S) Standard Base Supply System Operations*
- AFH 23-123 V3, *Air Force Equipment Management*
- AFI 13-204 V4, *Management of Ground Radar and Airfield Systems*
- AFI 23-101, *Air Force Material Management*
- AFI 91-202, *The US Air Force Mishap Prevention Program*
- AFMAN 23-122, *Material Management Procedures*
- AFMAN 91-203, *Air Force Occupational Safety, Fire, And Health Standards*
- TO 00-5-1, *AF Technical Order System*
- TO 00-25-195, *Air Force Technical Order System Source, Maintenance, and Recovery Coding of Air Force Weapons, Systems, and Equipments*
- TO 00-20-3, *Maintenance Processing of Repairable Property and the Repair Cycle Asset Control System*

INTRODUCTION

There are many work center programs managers are required to establish, track, and execute to effectively accomplish their mission. Often, one of the most daunting endeavors is to be thrown into the leadership position and be face-to-face with the wall of responsibility that comes with the job. Experienced managers may already have a general idea of what their duties entail. What if you don't have experience?

During job interviews, often the first question asked is, "What experience do you have?" If the answer is, "I don't have any experience!" then the response is often, "When you get some experience, come back!" Obviously, you can't get the experience if you can't get the job. In the military, you are afforded the opportunity to acquire the necessary experience.

This module identifies your major work center management responsibilities and provides guidance on establishing and running these programs. When you read the responsibilities and the "for examples," keep in mind that there are hundreds of Work Center Managers worldwide, and each has different backgrounds and levels of experience.

TRAINING MANAGEMENT

Training is considered by many to be the most vital work center program. Because of this, training management warrants its own section. Training Management is mentioned here to ensure Work Center Managers track training as a major program.

Training does not stop when trainees receive their 5 or 7-level. Work Center Managers should include proficiency training into their training plans. Proficiency tasks are the dash (–) tasks. These tasks are important for maintaining your equipment and continuing the mission into the future.

Please refer to **Module 4, *Training Management*** for an in-depth discussion on establishing and executing a thorough training program.

SAFETY MANAGEMENT

As the Work Center Manager, **YOU** are responsible for the safety of the resources under your control (personnel and equipment). This means that compliance is critical and could mean the difference between life and death or mission accomplishment/failure. You MUST be familiar with safety regulations, and be able to spot deviations from standards, lack of compliance, or equipment/training shortfalls before they become serious issues.

Safety and common sense go hand-in-hand. Safety infractions and accidents typically occur because personnel are careless and/or lack proper education. Take the example of a person standing in four inches of water using an electric drill and "snake" to unclog a shower drain. The person didn't realize he was in a dangerous situation because he didn't know better. **Education** is the solution!

SAFETY PROGRAM GUIDANCE

AFMAN 91-203

This is the Air Force's consolidated safety publication. It contains a description of, and references for, most safety programs you may encounter. The scope of this document is wide, so do not try to memorize its contents. This publication must be referenced and complied with for any safety related program or question.

AFI 13-204V4

Provides an overview of a typical RAWS work center safety program. Several vital sub-programs are listed and described, with references for further reading for each. This includes Lockout/Tag Out, Electrostatic Discharge, Lightning Protection, and Climbing.

AFI 91-202

Provides guidance for mishap prevention.

JOB SAFETY TRAINING

Are personnel aware of the requirements to have a Cardiopulmonary Resuscitation (CPR) trained observer present when working on energized equipment or when personnel are required to climb?

A JSTO is an outline of mandatory training items that Work Center Managers use to prepare Job Safety Training Guides (JSTG). Once the JSTG is prepared, supervisors train personnel upon initial assignment or when work conditions or tasks change. The JSTG identifies applicable safety, fire protection/prevention and health requirements for the specific work environment, and accomplishes this through both safety awareness and job safety training.

The JSTO contains two parts. Part 1 includes "MANDATORY" items that will be briefed to "ALL" personnel. Part 2 includes "JOB SPECIFIC" Safety Training Items. This part will only be accomplished as required based on job tasks. The Work Center Manager will select specific training subjects based on the needs of the job and provide application-level training. One of your requirements is to review and approve your work center's JSTO annually. Be sure to document this review and approval somewhere in your work center.

Complete JSTO guidance is listed in AFI 91-202, *The US Air Force Mishap Prevention Program*.

Part 1 of the JSTO may include the following items:

- Hazards of the job and specific safety guidance that applies to the workplace.
- Hazards of the work area environment to include awareness of the hazard communication program requirement, i.e., "employee's right to know."
- Proper personal lifting techniques.
- Location of medical facilities and procedures for obtaining treatment.
- Location and use, as appropriate, of emergency and fire protection equipment.
- Emergency procedures that apply to the workplace including: evacuation, fire reporting, emergency numbers, fire alarm, and fire extinguisher location(s).
- Requirements and procedures for reporting mishaps, occupational injury, and occupational illness.
- Reporting unsafe equipment, conditions, or procedures to a supervisor immediately.
- Requirements of the Air Force Traffic Safety Program.
- Purpose and location of AF Form 457, *USAF Hazard Report*.
- Location and content of Air Force Visual Aid (AFVA) 91–209, *Air Force Occupational Safety and Health Program*.
- Purpose of the AF Form 1118, *Notice of Hazard*.
- Risk Management awareness training.
- Fire extinguisher use.
- Fetal protection program awareness.

Part 2 of the JSTO may include (but is not limited to) the following items:

- Personal Protective Equipment (use, location, fit, care, limitations).

- Hazardous Energy Control (Lockout/Tagout).
- Hazard Communication.
- Bloodborne Pathogens.
- Hearing Conservation.
- Respiratory Protection Program.
- Fall Arrest System(s) and Pole/Tower Climbing.
- Wearing Jewelry in the workplace.
- Portable and fixed ladder safety.
- CPR Training.
- Flight Line Driving.

AF FORM 55

Document the training!

The most common method of documenting the completion of mandatory employee safety training is via the AF Form 55, *Employee Safety and Health Record*. Training should also be documented anytime there are changes in equipment, procedures, or processes that affect worker's safety, health or work environment. Along with training, the AF Form 55 is used to document initial issue Personal Protective Equipment (PPE).

COMMON WORK CENTER SAFETY ISSUES

Always be on the lookout for safety program discrepancies. Learn from the mistakes of others, and from previously documented deficiencies. Here is a list of common safety issues existing in the workplace:

- Not having properly documented AF Form 55s, Employee Safety and Health Record, for all personnel.
- Climbing Personal Fall Arrest System past service life, or no documented inspections.
- Rubber safety matting is not where it should be and is not an approved type of matting.
- Workbenches are improperly grounded.
- Annual performance tests not accomplished/documented for Electrostatic Discharge (ESD) work areas.
- Facilities with industrial batteries do not have eyewash bottles, safety goggles or face shields, baking soda, aprons, gloves, etc.
- Metal rimmed glasses without safety straps, watches, rings, and improper footwear are sometimes worn.
- PPE not being utilized as required.
- Annual JSTO reviews not accomplished/documented, or JSTO has outdated references.

- Hazard Communication (HAZCOM) program not approved by Bioenvironmental and Public Health offices.
- Personnel overdue on CPR certification.
- Fire extinguishers not checked monthly/overdue inspections.

RESOURCE MANAGEMENT

Work Center Managers must ensure the resources required to perform maintenance are available **where** and **when** they are needed. Some examples of these resources include (but not limited to):

- Personnel
- Test, Measurement, Diagnostic Equipment (TMDE)
- Tools
- Technical Data
- Supplies
- Support Equipment

When any maintenance resource is lacking, so is your ability to perform maintenance. This can result in degraded equipment or system operation, extended outages, and/or mission failure.

QUALITY ASSURANCE

As a Work Center Manager, you are charged to verify the quality of your training program, ensuring the capabilities of your Airmen to perform the daily operational mission requirements, and to ensure your equipment is operating in a capacity to meet mission needs. The process which this information is derived from is the inspections/evaluation process. There are multiple requirements for inspections that you will be responsible for overseeing. For some, you will verify that they are being accomplished (i.e. Equipment Evaluations) and others you may be required to have a more direct role (i.e. Personnel Evaluations). Inspections and Evaluations are required and directed as per AFI 90-201, *The Air Force Inspection System*, and included in chapter 7 of our governing AFI 13-204V4, *Management of Ground Radar and Airfield Systems*.

The Squadron Commander will appoint a work center self-assessment program manager who is responsible for the following:

- Overseeing the Self-Inspection/Assessment Program
- Overseeing MICT checklist per MAJCOM/wing guidance
- Providing all necessary documentation to the unit MICT Manager
- Adhering to the Commander's Inspection Program
- Utilizing AFI 13-204V4, Attachment 4, *Sampling Plan*, for all equipment inspections

There are many different Inspections/Evaluations and as the Work Center Manager it is your responsibility to ensure applicable assessments are being accomplished at the appropriate interval and documented appropriately. Below is a list of inspections/evaluations:

- Managerial Evaluations (ME)
- Personnel Evaluations (PE)
  - Individual Personnel Evaluations (IPE)
  - Special Personnel Evaluations (SPE)
  - Equipment Personnel Evaluations (EPE)
  - UTC PE
- Equipment Evaluations (EE)
  - UTC EE
- UTC Acceptance Inspections (AI)

CONDUCTING EVALUATIONS

- Evaluations will be conducted by:
  - A MSgt
  - Work Center Supervisor
  - 7-level technician
  - Evaluator cannot be the individual's trainer
- Selecting tasks to be evaluated:
  - Two-Thirds performance based
  - One-Third common knowledge core tasks
  - Tasks must be selected from individuals Individual Training Plan (ITP)
  - Select tasks not previously evaluated
- Documentation for all Personnel Evaluations will be completed on AFMQCC 100-1

NOTE:

Review AFI 13-204V4 for more detailed guidelines.

EVALUATOR BRIEF

If performing an evaluation, you must provide an Evaluator Brief prior to the start of the evaluation. This identifies the standards in which the evaluation is being conducted and informs the person performing the tasks of the expectations and guidelines which will be followed from that point forward.

NOTE:

Review AFI 13-204V4 for more detailed guidelines.

ME

MEs are a way for a Work Center Manager to see how their work center programs are doing.

NOTE:

Review AFI 13-204V4 for more detailed guidelines.

PE

The personnel evaluation program assesses the effectiveness of a work center's training program, technician competence, and technical and procedural data adequacy. These evaluations ensure systems are maintained in an effective and efficient manner to meet mission requirements. The evaluation can be accomplished on a system task or service-oriented function the technician is qualified to perform. Evaluators observe how well the processes are performed to determine if the technician demonstrates sufficient skill to accomplish the tasks. The four types of PEs are:

- Individual Evaluations
- Special Evaluations
- Equipment Personnel Evaluations
- UTC Evaluations
- Equipment Evaluations

IPE

Completed on all 1C8 enlisted personnel within one year of:

- Initial assignment to Organization
- Upon return to production work center after an absence of 1 year or more.

NOTE:

Review AFI 13-204V4 for more detailed guidelines.
Does not apply to MSgt-CMSgt, unless they are
task qualified to maintain equipment.

SPE

Conducted on an as needed basis when:

- After major modification of equipment/system and are required within 60 days of acceptance on a sampling of assigned active duty personnel.
- Reevaluation of an individual who received a Not In Compliance (NIC) result from previous evaluation and will be conducted within 90 days of notification of recertification by supervisor.
- If his/her qualification status revoked for any reason other than supervisor decertification.

NOTE:

Review AFI 13-204V4 for more detailed guidelines.

EPE

- Conducted to ensure technicians meet proficiency requirements
- Must evaluate the technicians ability to determine when equip/facility should be reported for possible termination of service and under what condition the equip/facility can be returned to service
- Evaluations should be accomplished during Unit Effectiveness Inspection (UEI) Capstone events at the inspector's discretion, unless prescribed by a formal agreement.

EE

An EE is important to a Work Center Manager because it will show them how well the equipment is working and being maintained. During the UEI Capstone event, the respective IG team will validate and verify the results of the unit's self-inspection.

PUBLICATIONS MANAGEMENT

Publications Management incorporates all official publications applicable to the work center and equipment you are assigned to. This includes:

- TOs
- Technical Instructions (TIs)
- Commercial Off-the-Shelf Manual (COTS)
- Air Force Maintenance Special Instructions (AFMSI)
- Time-Compliance Technical Order (TCTO)
- System Support Management or Directive (SSM/SSD)
- Local Work Cards (LWC)
- Any other official publications that manage and direct the equipment directly.

Work Center Managers are responsible for validating what publications they need based on what equipment they have, as well as making sure modification documents are properly executed and documented. As listed above, publications come in many different forms, due to our equipment in the career field being associated with various outside agencies. Managers are charged with oversight of the Technical Order program in their respective work centers. The work center Technical Order Distribution Office (TODO) works with the Technical Order Managers (TOMA) to manage traditional Air Force publications. COTS manuals are publications involving outside commercial agencies, such as test equipment manufacturers. For the management of these publications, the TODO will work with the owning agency (the manufacturer) as they are the publication managers.

Your work center TODO will be the heart of this program. A TODO is added to an account by completing an AFTO Form 43. It must be routed to the approval office listed in Block 2 of the AFTO 43. Your TODO will manage your work center eTools, which are mobile computers that will store all work center equipment publications. While properly setup eTools maintain Technical Orders

automatically, your TODO needs to manually load all your publications into the Master eTool so that all your eTools will have all required publications, to include TOs, TIs, COTS Manuals, AFMSIs, and TCTOs.

NOTE:

Ensure your TODO has access to these sites to perform their duties:

AIR FORCE TECHNICAL ORDER FIELD SUPPORT TEAM: HTTPS://CS2.EIS.AF.MIL/SITES/12982/

This is the central support team for all things TOs and eTools. All instructions required for maintaining eTools can be found here.

ADX PORTAL: HTTPS://WWW.ADX.FAA.GOV/PORTAL/

This is where you access manuals for DASR, STARS, FDIO, ETVS, DALR, and more. Your TODO needs to request membership with the Air Force Community inside the ADX Portal

TO

TOs are the most common type of publication that managers will use. It effects the majority of the 1C8 career field as well as many others. They are the main publication used for Air Force assets, and are broken down into many different categories that apply to a broad spectrum of systems.

TI

TIs are associated with equipment that is managed through an outside agency, separate from the Air Force, but the equipment is owned by the Air Force (an example would be the GPN-30 DASR, owned by the Air Force but managed by the Federal Aviation Administration (FAA). These publications are controlled by that outside agency, and released for DoD use either through ETIMS or their respective website.

NOTE:

Although many TIs have TO numbers associated with them, the TOs loaded in ETIMS are cover pages only. Your TODO must also download the actual manual from the applicable agency, and load it to your Master eTool as a local supplement.

COTS

COTS Manuals are instructions from the manufacturer that are specific to items that are not Air Force owned. They are purchased through Government Purchase Card (GPC) funds, such as test equipment, universal power supplies, climbing equipment and any items for the work center that are not related to the functionally of the end item equipment.

AFMSI

These publications can be found on the AFFSA website. They provide maintenance instructions to specific equipment owned by the Air Force.

TCTO

TCTOs are modifications that have been authorized for the equipment. As the name implies, these are time-compliant instructions that may require extra parts (kits) to complete. TCTO's will be sent to your office either by email notification, or by mail, with a date to be completed. As soon as you receive a TCTO, you should schedule for whatever down-time the instruction is requesting to have it completed as soon as possible. Once the work has been completed, it will need to be documented in Integrated Maintenance Data System (IMDS) for the end item records. This process will be covered in later chapters of the Work Center Managers Handbook.

SSM/SSD

SSM/SSDs are the FAA equivalent to TCTOs. Air Force users may not accomplish SSM/SSDs until an Air Force TCTO has been issued against the equipment. The FAA will route all SSM/SSDs through the Air Force Program Office, and a TCTO will then be issued through ETIMS.

Once you receive the TCTO notification, read the document thoroughly, schedule your downtime as mentioned before, complete the instructions, and document in IMDS to record the maintenance. When your work center has completed the TCTO, typically the owning agency will request a notification of completion. This will require some research on your part, because every agency has a different system. The DASR (GPN-30) and NEXRAD (WSR-88D) have separate websites to record completion, but some systems just require you to notify your MAJCOM A3 (or equivalent Command). SSM/SSDs cover a broad spectrum of equipment, thus guidance is limited to cover every step. It is the Work Center Manager's responsibility to familiarize themselves with each process.

TO CHANGE REQUEST (REPLACES AFTO 22)

If a TO needs to be corrected, whether it is an improper tolerance, outdated procedure, or misleading instructions, a change request can be submitted through ETIMS. This process does not always apply to your equipment. Some equipment have manuals that are maintained by outside agencies, and in such cases, a different process is involved. The DASR website, for example, has their own link to submit changes to the TI.

LWC

LWC are produced by the work center with the guidance of the official publication for the procedure. You can consolidate procedures from many different publications into one document to ease maintenance. When the CM-300 radios were implemented, they came with an FAA instruction as well as COTS for the test equipment. Instead of swapping between publications, you could create a LWC to detail every step. LWCs must be approved via AF Form 673, which is signed by the Group Commander, authority delegated by the Group Commander, or authority identified by MAJCOM guidance. LWCs should follow the instructions of their originating document as closely as possible.

TMDE MANAGEMENT

TMDE is any device used to maintain, evaluate, measure, calibrate, diagnose or otherwise examine materials, supplies, equipment, and systems to identify or isolate actual or potential malfunctions/discrepancies/deficiencies or decide if they meet operational specification established in technical publications. In a RAWS work center this can include torque wrenches, scales, oscilloscopes, signal generators, voltmeters, etc. As a RAWS Work Center Manager, it is your responsibility to ensure you have serviceable and reliable test equipment to properly maintain and align your RAWS systems per the system's TOs. Calibrated test equipment is absolutely crucial to the operation of a RAWS work center.

MANAGEMENT

Your work center should already have test equipment. However, you still need to review your authorization listing (i.e., Customer Authorization/Customer Receipt Listing (CA/CRL) and Air Force Equipment Management System/Defense Property Accountability System) to check the allowances and stock numbers for equipment and quantities you are authorized to have on hand. Allowances are periodically changed, and you may discover overages/shortages in your inventory. This requires constant balancing. You need to review this semi-annually at a minimum.

CALIBRATION TYPES

There are different types of calibrations required for test equipment. These include initial, periodic, limited, and special calibrations.

INITIAL CALIBRATION

An initial calibration is required to be conducted by Precision Measurement Equipment Laboratory (PMEL) on newly sourced test equipment before use in the shop. When you order an item and it arrives, you will coordinate initial calibration with PMEL.

PMEL will require an AFTO Form 350 tag for initial calibration with the following information:

- Owning Work Center (OWC) account number
- Equipment description
- National Stock Numbers (NSNs)/part numbers
- Contact information for your shop
- Write "INITIAL CALIBRATION" in the discrepancy block

Send the item to PMEL. After the initial calibration, your PMEL organization will place the new test equipment on the Master ID Listing/schedule and the equipment will be calibrated on a periodic interval.

LIMITED CALIBRATION

Limited calibrations will be conducted when there are certain features or functions that are not calibrated, are unable to be calibrated, or if the test

equipment could only be calibrated to specifications within certain ranges. It is up to the Work Center Manager to determine if the test equipment's limitations meet mission requirements. If it does meet requirements, you may continue using the equipment inside the limitations specified on the label. If the TMDE is unable to be calibrated to the needed range, you need to begin the process of turning in and sourcing new equipment.

SPECIAL CALIBRATION

Special calibrations should be conducted when something happens to the equipment that adversely affects its accuracy or measurement abilities. Send the equipment to PMEL if it was dropped, left in an extreme climate for extended periods of time, or if you have serious doubts about the accuracy of the information the equipment is providing. You will coordinate with your PMEL organization and attach an AFTO Form 350 that is filled out similarly to the initial calibration tag, except you will write "SPECIAL CALIBRATION" and write why the equipment is not performing as expected.

TRAINING

One of the best ways to keep your TMDE program healthy and to minimize downtime and costs is to ensure personnel are trained and proficient on the operation and setup of test equipment. Many of the sensors and elements used on a daily basis are extremely sensitive and expensive. For example, keying a transmitter into a power sensor without an attenuator attached is a very expensive and easily avoidable mistake. Put together reference material, slideshows, and spend as much time as necessary to ensure these costly mistakes are kept to a minimum.

CALIBRATION SCHEDULING CONFLICTS

Look closely at your master equipment schedule and try to identify potential scheduling conflicts that could impact mission effectiveness. For example, you may have two power meters in your work center. It would be wise to ensure the two power meter calibration intervals are staggered so at any given point your work center has at least one power meter on-hand and able to complete PMIs, troubleshoot equipment, and train personnel. If both your power meters are on the same calibration interval, they will be sent to PMEL at the same time, and you will be left short-handed and unable to complete work until the power meters return.

IDENTIFICATION AND LABELS

There are many different types of labels and decals you will encounter when dealing with TMDE. Some you will encounter more frequently than others. Here we will identify those so you can become more familiar with your TMDE account and how to locate/maintain accountability of your equipment.

AFTO FORM 65 AND 66

These are aluminum or polyester bar code labels that are attached by PMEL before use by the OWC. They have the equipment's PMEL number listed on the bottom. This number can be matched up to your listing to make sure you are turning in the correct item for calibration when it is due. These labels should never come off the equipment.

AFTO Form 65 (Aluminum)

AFTO Form 66 (Polyester)

AFTO FORM 256

No Calibration Required (NCR) Labels are affixed to TMDE that does not require calibration and is listed in the Calibration Maintenance Schedule (CMS) or applicable TOs as NCR. Organizations that have NCR equipment are responsible for affixing the AFTO 256 and must be validated with either a PMEL K-Stamp, inspection/production stamp, or initials of the user of the test equipment.

AFTO Form 256

AFTO FORM 108 AND 394

TMDE Certification Labels are white labels affixed to the TMDE if <u>ALL</u> specifications of the calibration authority are met. This means the test equipment has no special considerations, all functions and features of the equipment are calibrated and no limitations exist. These labels contain valuable information including the PMEL Identification Number in the upper right-hand corner, the authority (TO) that the equipment is calibrated by, a special comments block, an area for the certifier to put the K-Stamp, and also the date calibrated and the next calibration due date.

AFTO Form 394

AFTO Form 108

AFTO FORM 99 AND 398

Limited Calibration Certification Labels are yellow labels affixed to the TMDE if there are special considerations for the equipment. PMEL will affix one of these labels instead of the white AFTO 108 or 394 if there were certain features or functions that were not calibrated, were unable to be calibrated, or if the test equipment could only be calibrated to specifications within certain ranges. These labels contain similar information as the labels above and also have a block in the lower right-hand corner for the end user to initial, showing they are aware of the limitations of the equipment. The Work Center Manager must ensure the signed AFTO Form 398 is within equipment testing specifications.

AFTO Form 99

AFTO Form 398

DOCUMENTATION

Documentation is critical to TMDE Management. To help with the TMDE program, Work Center Managers should have a 6-part folder and/or an electronic file for the TMDE Coordinator tracking this information. The TMDE Coordinator Folder should be maintained in your file plan and shall contain the following items:

- Appointment Letter reflecting the primary and alternate TMDE Coordinators
- Current TMDE Master ID Listing
- TMDE Quarterly Master Equipment Schedule
- Copies of hand receipts
- A copy of the base instruction
- Any handouts provided by PMEL

Some of these items, such as the appointment letter, are standard items for most folders and are self-explanatory. Other items/sections in the folder contain beneficial information helpful for managing the TMDE program.

The Master ID Listing should be contained in the second tab. This listing is a valuable tool containing information that will assist you in planning and scheduling maintenance events in the work center. It includes the PMEL Identification Numbers, the certifying laboratory name, equipment nomenclature and part numbers, manufacturers name, equipment serial number, last calibration

date, the next due date, notes concerning details about the equipment, and much more. This listing has many uses but is used most when performing TMDE inventories or when ordering new equipment.

The TMDE Quarterly Master Equipment Schedule should be contained in the third tab. This listing contains similar information as the Master ID Listing, the main difference being that it forecasts which pieces of test equipment are due for calibration for the upcoming quarter. Use this listing to your advantage when coordinating maintenance down time for equipment, PMIs, or training events. It would be difficult to conduct an output power check for a radio when your only power meter is at PMEL!

Hand receipts (AF Form 1297) should be kept in the fourth tab and are used to ensure accountability of the equipment as it leaves your possession and gets shipped to PMEL or other organizations. Document the equipment on the hand receipt by OWC account number, part number, serial number, and any additional items that are required for the calibration such as sensors, elements, adapters, or power cords. The hand receipt will serve as a record and a reminder to make sure that all of your test equipment makes it back to your shop.

Any additional information or handouts that you get from PMEL including training, guidance, and deficiency reports should be kept in the last tab.

Together, these items are meant to build a comprehensive folder to help you, the Work Center Manager, better manage your TMDE program.

SECURITY AND CONTROL

TMDE should be secured and controlled in a similar manner as the tools in your tool management program. TMDE should be kept in a locked cabinet or room when not in use. Additionally, TMDE should be signed in/out to maintain accountability. Storage cabinets and shelves should be lined with padding or foam to ensure that delicate sensors and elements are protected.

TOOLS MANAGEMENT

Tool Management is a program that affects most work done in a work center. It is vital to the smooth operation of the work center, and a well-managed tool program will increase productivity. Let's start with the definition of a Tool Management Program. A Tool Management Program is a set of standardized procedures for security, control, and accountability of tools and equipment. The objectives of the Tool Management Program are to prevent and eliminate Foreign Object Damage (FOD) to aircraft, engines, missiles, training and support equipment, and to reduce costs through strict, effective control and accountability of assets.

NOTE:

Refer to AFI 13-204V4 for an exhaustive tools management requirements list.

MANAGEMENT

When first implementing or reviewing your Tool Management Program, one of the first questions you should ask yourself is: Does the work center have

sufficient and serviceable tools to perform its job? Do your subordinates often come to you and ask where a tool is or if there is one in the work center? If so, you may consider ordering these tools and placing them into your inventory. Coordinate with Quality Assurance for approval and use of locally designed tools or equipment that may be needed to perform or complete specific jobs.

Once you have identified all the tools you need, you will need to organize them in a way that is comprehensive and makes the most sense for completing tasks. Once this has been completed, you will have the beginnings of a Consolidated Tool Kit (CTK).

CTKS

CTKs are any sets of tools that are packaged together for a specific purpose. For example, if you know a certain recurring task will require a hammer, two 7/16" wrenches, and a flathead screwdriver, it may be helpful to arrange your tool kit so those tools are designated for that task and should not be signed out unless performing that task. In other instances, it may be advantageous to arrange them by placing all the wrenches with the wrenches and screwdrivers with the screwdrivers. You'll want to consider the type, size, contents and number of CTKs required for your work center.

Once you have decided on the inventory of each tool kit, you need to assign a location for each tool by either foam inlay cut outs, shadowed layouts, labels, or silhouettes. No more than one item should be stored in a cutout, shadow, or silhouette except for tools issued in sets such as drill bits, Allen wrenches, or paired items such as gloves. Discard easily removable pocket clips and spare parts from tools when possible prior to placement in tool kits, because these items may slip or fall off and present a FOD hazard or may damage the equipment. Personally purchased tools are not authorized to be part of the tool kit.

Equipment and accessories that do not present a FOD potential and will not leave the work center, support section, or tool room, need not be included in a CTK. However, this equipment must have designated storage locations established. This can be in a large tool chest that remains inside the work center or a specific location on a specific shelf. Though not required, utilizing inlay cutouts, shadowed layouts, and silhouettes will ensure accountability of tools. Designated storage locations must be labeled to identify the contents.

MARKING

Now, that you have a well-equipped and organized tool kit, it's time to mark all your tools for accountability purposes. Some units mark their tools and equipment with the standard Equipment Identification Number (EID) to help prevent loss or theft.

The EID is a number that identifies a tool and ties it back to a specific base, unit, and shop. It is a 9-digit number consisting of a 4-digit World Wide Identification Code (WWID) and a 5-digit combination of numbers and letters that uniquely identifies each individual tool and tool kit. The EID must be permanently marked on each tool, preferably by laser etching or engraving. Prior to etching tools and equipment, consult applicable technical orders to ensure no special circumstances apply for the item being etched such as fiberglass handled hammers and safety glasses. If the item cannot be marked, etched, or stamped, annotate the additional

designator on the CTK contents list. In certain instances, etching or engraving is not practical or permitted. For example, it would be difficult to engrave small tools and/or items such as drill bits or Allen wrenches in sets, etc. Items like these will be maintained in their original container marked with the EID, along with the number of tools contained. Each part of the container is counted as an individual item. For items that physically or mechanically check tolerances that require calibration, do not etch, or stamp an EID in any manner that will affect calibration or the ability to calibrate. If you have grease guns, spray bottles, pump oilers, or similar containers in your tool kit, mark the outside of the container with not only the EID but the type of grease, fluid, or other liquid with the Military Specification (MILSPEC). If no MILSPEC exists, the item will be marked with the manufacturer's name, part number/NSN from the applicable Safety Data Sheet (SDS).

If consumables such as safety wire, adhesives, or solder are regularly required for performing a task, they may be placed in CTKs and marked as described above. Items that are assembled and are not intended to be disassembled during use require only one mark/etch/stamp and one entry in the Master Inventory List (MIL). Tools not controlled through CTK procedures such as personal mini flashlights and multi-tools are NOT authorized on the flightline, or in any maintenance area.

Storage cabinets/drawers will be labeled to identify the contents. If containers are used to hold or apply substances classified as hazardous materials, ensure labeling requirements are in accordance with all required regulations.

DOCUMENTATION

You have all the tools required for your work center, they are organized and shadowed in their respective kits, and all the tools are permanently marked with their unique EID. Now, you must complete an inventory and create a MIL. The MIL should include all tools in General Inventory as well as all tools in all CTKs. A specific MIL is required for each CTK, and it will list every single item stored inside that CTK. The better you document the tools up front, the easier it will be in the long run to find and identify the tool if it were lost and the easier it will be to order if it were broken.

NOTE:

It is wise to include the manufacturer's name, part numbers, a short but detailed description of the tool, and quantity on hand.

Tool sets will be identified on the MIL by total number of items in the set. For example, an Allen wrench set should be annotated as 9 each Allen wrenches + container for a total of 10. Consumable items will be identified on the MIL as consumable items to help with reordering and accountability.

A comprehensive inventory of all CTKs should be accomplished annually at minimum and documented. When this time comes, you will be happy that you put in that extra effort to shadow, silhouette, and mark all your tools as it will make the inventory go quickly, easily, and leave little doubt it is correct.

SECURITY

At this point, you have a lot of time, money, and effort vested into the development of your tool kits. Now, you need to ensure that all your tools stay in your tool kits and do not "grow legs" or wind up deep inside a high-voltage system or worse yet, on a taxiway or runway!

Security is one of most important aspects of your Tool Management Program; however, it is probably the simplest in practice. All CTKs should be locked, controlled in a locked room or cabinet, and access should be limited to only a small number of personnel to include your CTK Custodians. Tool kits should only be unlocked long enough for CTK Custodians to sign out tools to technicians and to sign them back in and to complete an inventory. Minimizing the time the tool kit is unlocked and open will minimize the likelihood of an unauthorized removal of a tool.

ACCOUNTABILITY

Another simple, but equally important aspect of your Tool Management Program is accountability. Accountability is knowing where tools are and who has responsibility of them at all times. It sounds like a daunting task; however, much like securing your tools, the process of maintaining accountability of the tools and the personnel using them is very simple.

Accountability can be kept one of two ways: either a simple sign out log or a computer program or software. Either one that you use should track the following at a minimum: the EID of the tool, date and time of sign out, and who issued the tool, and who received them. It also should track the date and time of when the tool was signed back in and who received them.

Dispatchable CTKs are to be signed out as a complete kit, that's to say that you cannot sign out individual tools from them. The individual assumes responsibility of the kit from the time it is issued until it is returned. Before the kit is signed out, the issuer and the recipient are to perform an inventory and both individuals must be aware of the condition of the tool kit when it is issued. Likewise, when the tool kit is signed back in, both individuals must complete an inventory and be aware of the condition of the kit before it is signed it back in. The individual receiving the tool kit when it was signed out cannot sign the kit back in alone.

Tool Accountability System (TAS) is a common term used to describe an approved computer program/software that provides inventory control over CTK/tool room content. When a TAS is used, the MIL resides in the TAS, but a hard copy of the MIL must reside with each dispatchable CTK. A TAS is used to track many things including the issuance and receipt of all assigned tools, equipment, tool kits, HAZMAT items, and eTools; authorizations/restrictions for special tools/equipment; CTK and Support Section inspections; and spare, lost, damaged, and/or removed tools. Units are required to electronically back up their respective TAS database at least once a month and the backup must be stored on a system separate from the computer that houses the tool control system.

ETOOLS

eTools are electronic devices used expressly for maintenance functions. The most common eTool you will encounter will most likely be an iPad® or a ruggedized

laptop but may also include desktop computers and Portable Maintenance Aids (PMA). Dispatchable eTools should be managed just as any other tool in a tool kit with a few additional requirements. These include ensuring only serviceable, fully charged eTools with the most current technical data are available for checkout and, in the event of damage, be sure to make maximum use of warranties. eTools may be stored inside a lockable docking station that can be secured inside a locked tool room or cabinet.

LOST AND BROKEN TOOLS

Lost tools are a serious matter as they pose a serious threat to equipment, aircraft and safety. When a tool is discovered missing, a search of the work area should be conducted by all available personnel. If the tool is not located during this search, lost tool procedures should be initiated.

This begins with the notification of the chain of command. Ensure lost item/tool report is initiated IAW locally established procedures. If at any time during the investigation the item/tool is found, notify chain of command. If the item/tool is not found, ensure lost item/tool report is completed IAW locally established procedures.

For damaged/broken tools, you should determine if the damage was due to neglect or misuse of the tools and if so, this should be addressed. Any damaged/broken tools should be documented in inventory control system. The tool should be replaced by either warranty or new purchase and be placed back into inventory.

SUPPLY MANAGEMENT

Supply is a large subject area. This section provides a brief overview of managing work center supplies. It will help you gain a foundational working knowledge of the supply system and how to use it to your advantage. You must understand how to use the supply system to be a top-notch Work Center Manager. Make the system work for you, or you will end up working for the system. In theory, the supply and repair cycle should be the same no matter where you go. However, some of these processes can vary slightly or significantly from base-to-base. By arming yourself with these foundational principles, you will be better equipped to navigate the local supply processes that may apply at your duty station whether at a fixed base, remote assignment, or deployed location.

SUPPLY CODES, TERMS, AND DEFINITIONS

Work Center Managers must be familiar with frequently used supply codes, terms, and abbreviations. The following definitions and explanations should help you understand supply terminology.

AWAITING PARTS (AWP) – term used to describe parts that are on order for a job. Typically this refers to a job status designation in the IMDS. When you are awaiting parts, you will have a document number, tracking number, or some other form of tracking number which indicates that supplies/parts have been ordered through supply or some other vendor (FAA, etc…) and has processed your request. Work centers can track these items by viewing the D19 AWP validation listing daily. Ask your local supply how to obtain this document.

BUDGET CODE – the purpose of a budget code is for supply to determine whether items are centrally procured, investment, or Supply Management Activity Group (SMAG). Not typically used at the work center level.

BENCH STOCK (B/S) – a program established to keep high use, replaceable, or high fail items on hand. In RAWS work centers, the purpose is to mitigate delay in performing routine maintenance. In short, B/S usually contains consumable type items like bulbs, fuses, and air filters. Typically B/S items are Expendability, Recoverability, Repairability Category (ERRC) coded as XB3 meaning they are disposable after use. In some cases, items such as fuses may contain precious metals which require certain disposal and tracking procedures.

NOTE:

AFI 23-101 Chapter 5 is an excellent resource to learn more about the B/S program.

DEMAND LEVEL – stock level for a specific item that is based upon past user demands. Tracked by supply in an attempt to meet projected future demand.

DUE-IN FROM MAINTENANCE (DIFM) – a term used to describe a part of the repair cycle process and how a maintenance function is to dispose of broken/faulty parts. DIFM indicates a part is repairable and must be turned in to supply once an ordered replacement has been delivered. The specific action to take is based on how the individual part is ERRC coded (XB3, XF3, XD2, NF3, NF4).

NOTE:

TO 00-20-3 is an excellent resource to learn more about the DIFM codes.

DUE-OUT – an obligation assumed and recorded by any supply echelon to issue at a subsequent date; commonly referred to as a back order.

END ITEM – the final unit or system that parts are requisitioned for. For example, when ordering a circuit card for the DASR, the DASR is the end item.

ALLOWANCE SOURCE CODE (ASC) – a 7-position code for items authorized in the Air Force Equipment Management System. This code is originated from a specific mission. That mission is only authorized certain equipment to support it. You must have an authorized ASC to purchase equipment assets through the Air Force supply system. For example, maintaining a TACAN system requires certain tools/test equipment. The ASC for a TACAN on your equipment R14 justifies your ability to have certain test equipment on hand associated with that function. The test equipment itself also has an ASC tying it to a certain function **'in support of'**. You must review your ASC listing semi-annually and compare it to your R14. This is usually done during the annual equipment inventory. This is often an overlooked part of equipment modernization projects. If your mission changes, your ASCs will change as well. An example of this is replacing legacy radios with new CM-300 radios. With this upgrade, most likely your support equipment required will change.

EQUIPMENT ITEM – an item coded as NF3 or NF4 that is field recoverable and managed within the Air Force Equipment Management System (AFEMS).

The work center equipment custodian will work closely with the LRS equipment section to ensure accountable equipment items are properly inventoried and accounted for on the EIL.

EXPENDABLE – describes an item's disposition depending on how its coded in the supply system. Items that are accountable, such as test equipment are considered 'non-expendable' since they are used and maintained for long periods of time, while parts such as circuit cards and system replaceable parts are considered expendable and repairable at the field or depot level. These codes can also be found in FEDLOG.

NOTE:

AFH 23-123v1 is an excellent resource for a breakdown of codes.

ERRC – a 3-digit code assigned to an item for management purposes in the supply system that indicates its expendability, level of repair, and cost. The first digit indicates expendability (X= expendable, N= non-expendable. The second digit indicates the level of repair (B= user, F= field, D= depot). The third digit indicates cost category.

NOTE:

AFH 23-123v1 is an excellent resource for a breakdown of codes.

LEVELS OF MAINTENANCE – describes the three levels of maintenance described by the ERRC code (B= user level, F= field level, or D= depot level). The basic concept of repair is to perform repairs at the lowest level of maintenance, to the fullest extent possible, with good management and quality assurance, while at the same time complying with LRS requirements and disposition codes.

MINIMUM RESERVE AUTHORIZATION (MRU) – a term used in the management of the B/S program to establish, order, and maintain adequate stock for B/S levels based on normal consumption.

MISSION CAPABLE (MICAP) – a term used to describe parts order priority in the context of urgency. If you order a part 'MICAP', it means the system in question is not 'mission capable' for parts and signifies you should order it at the highest priority possible (Urgency Justification Code (UJC) code). When ordering parts MICAP, it also bypasses the upfront funds requirement and puts your unit in debt for the cost of the part. ***This is where supply abuse happens frequently.*** Many places, not having adequate funds on hand, may decide to order parts MICAP for convenience purposes rather than for actual mission deterioration. Example: A base having a single TACAN that is inoperable for parts would be a proper use of MICAP parts ordering versus ordering an ETVS radio processor card MICAP when there are redundant radio processor cards or multichannel radio backups available. Work center supervisors have the responsibility to ensure supply discipline and proper management/usage of resources they are responsible for.

NSN – An identification number associated with a specific item for the purposes of procurement and replacement of items.

REPAIR CYCLE ASSET – an item subject to the repair cycle process. Several factors play into what is considered a repair cycle asset such as the ERRC code and the SMR code listed in the specific equipment Illustrated Parts Breakdown (IPB) TO for that sub-assembly, which determines what level the item can be serviced at.

SOURCE, MAINTENANCE, AND RECOVERABILITY CODE (SMR) - An SMR code is assigned to each assembly and part identified in the TO's IPB. The SMR code provides maintenance activities with repair level responsibilities, support method (i.e. procure, manufacture, etc.), and disposition instructions.

NOTE:

TO 00-25-195 is an excellent resource for information concerning SMR codes.

STANDARD REPORTING DESIGNATOR (SRD) – a 3-digit code that identifies the type of aircraft or major end item in the LRS supply system and in IMDS. Work with your local LRS Customer Service Department if you do not have a listing of SRD's for all systems you maintain.

URGENCY JUSTIFICATION CODE (UJC) – a code used when ordering parts to justify the urgency of receiving a replacement that is listed on a functional and equipment basis. Be sure to apply supply discipline when ordering parts to avoid abusing the supply system.

URGENCY OF NEED DESIGNATOR (UND) – identifies how seriously mission capability is hindered when required materiel is unavailable. Requisitioning programs also use this code to determine priority. The urgency of need designator occupies the first position of the UJC. IMDS usually includes help boxes when ordering parts on screen 72 to ID the proper UJC code.

NOTE:

AFH 23-123v1 is an excellent resource for more information on UND.

SUPPLY DISCIPLINE

As the Work Center Manager, you are responsible for seeking ways to reduce costs, improve efficiency, and ensure the proper and effective use of all resources under your control to ensure the mission is accomplished. Nowhere is this more evident than in supply management, where you have a direct hand in controlling assets and costs, where supply abuse could result in waste of limited resources (tools, equipment, and funds). As a member of the DoD, you are charged with the responsibility and obligation to safeguard property from theft, abuse, waste, and unauthorized use. This section discusses a few important areas designed to help improve your supply management skills.

Proper supply discipline depends on the use of common sense and proper training. Have you ever observed "hit or miss" or "swaptronics" maintenance? The technician is unsure of the cause of equipment failure and removes items from B/S or orders several components from supply. After changing the parts, the original symptoms remain. Later, the equipment problem is isolated in a different subassembly and quickly repaired. Several of the removed components cannot be

reused and are trashed. Good training and proper attention to supply discipline eliminates this kind of waste. Treat every item as if it is your last item and no more supplies are available.

Supply discipline means doing everything in your power to do your job with minimum cost to the Air Force. Supply discipline not only applies to spending money when you don't need to, but also making sure equipment and supplies are properly accounted for, protected from loss or damage, used for their intended purpose, and returned to the supply system when no longer needed. Here are some examples of supply discipline:

- Use equipment and supplies for their intended purpose.
- Safeguard property. Secure consumable items such as tape, paint, batteries, etc., to protect from improper use or pilferage.
- Adhere to Air Force instructions and guidelines pertaining to ordering, storage, issue, and turn-in of supply items.
- Continually screen B/S and turn in excesses, or decrease levels if necessary. Establish MRA levels when needed.
- Perform immediate repair or turn-in of unserviceable items.
- Prevent hoarding of supplies. If items are hoarded, it indicates a need for adjustment to B/S (MRAs or increased levels).
- Look for new ways to conserve. For example, can XB3 items be repaired? When someone says "We've always done it this way," think of a better way.

SUPPLY POINT

A supply point is established when a valid need to have certain XD or XF items immediately available at the point of intended use (the equipment location or work center) exists. This usually means for mission critical systems where redundancy is minimal or non-existent. ***Supply points are not B/S!*** In fact, supply points operate as "an extension of warehouse stock." If those parts are needed for mission critical failures, you still need to complete an entire part order in IMDS, or via LRS, and also perform the repair cycle process as if the part was in the supply warehouse.

BENCH STOCK

A well-developed B/S is a life saver where repair time is concerned. Your B/S should contain XB3 items consumed by your work center on a regular basis. Keep in mind that expedited requisitioning is expensive. Lack of on-hand stock also delays fix actions. Therefore, your B/S should also contain those XB3 items critical to equipment restoration. Be sure you review and know what items are on your B/S program to ensure it is up to date and ready to serve your work center's needs. Many Work Center Managers have spent funds on items they already had on hand and this could have been averted if they would have consulted their B/S program.

SUMMARY

This module discussed the programs Work Center Managers are responsible for. It started off with the Training Program and how effective training amplifies the ability of the work center to successfully accomplish its mission. Module 3 then explained the importance of a safety program and some key areas where the Work Center Manager should focus to ensure their personnel and equipment are maintained properly. The Resource Management portion listed out important items the Work Center Manager should track to accomplish their mission effectively.

Module 3 discussed Quality Assurance. This program is vital to maintaining a high quality work center by conducting Personnel, Equipment, UTC, and Managerial evaluations. Next, it talked about the importance of the Publications Management program and listing the different methodologies of acquiring and updating their publications libraries.

This module finished with the TMDE Program and how Work Center Managers track, calibrate, and utilize their test equipment to execute their mission. The TMDE portion led into the Tools Program and how to track, calibrate, and utilize tools effectively. The final provided a comprehensive overview of the Supply Program to help Work Center Managers balance their supply resources in a fiscally responsible manner to complete their mission.

MODULE 04
TRAINING MANAGEMENT

PREREQUISITE

- Modules 01 through 03

TRAINING REFERENCE(S)

- AFH 36-2235 V11, *Information for Designers of Instructional Systems Application to Unit Training*
- AFI 13-204V4, *Management of Ground Radar and Airfield Systems*
- AFI 21-101, *Aircraft and Equipment Maintenance Management*
- AFI 33-103, *Requirements Development and Processing*
- AFI 36-2650, *Maintenance Training*
- AFI 36-2651, *Air Force Training Program*
- AFI 36-401, *Civilian Training, Education, and Professional Development*
- CFETP 1C8X3, *Radar, Airfield & Weather Systems (RAWS)*

INTRODUCTION

One of the main responsibilities of the Work Center Manager is to manage an effective training program. This module is to help develop and maintain a work center training program. The two governing documents for training are AFI 36-2651 and the 1C8X3 CFETP. AFI 36-2651 covers the AF training program. The CFETP covers career progression and training requirements. Skilled and trained personnel are critical to the AF in providing a strong national defense capability. The AF OJT Program provides training for personnel to attain knowledge and skill qualifications required to perform duty in their specialty. RAWS technicians track their training in Training Business Area (TBA). TBA can be found on the AF Portal. The Work Center Manager should always work closely with the Unit Training Manager (UTM). The UTM reports training status to the unit commander every month. There are 3 components to the Air Force OJT Program:

- Job knowledge
  - Satisfied by the Career Development Course (CDC), designed to provide basic knowledge across a wide spectrum of subjects pertaining to the RAWS career field.
- Job Proficiency
  - Hands-on training provided on the job, allowing the trainee to gain proficiency in tasks performed in the work center.
- Job Experience
  - Gained during and after upgrade training, to build confidence and competence.

Upgrade progression is in 4 steps during a trainee's career:

- Apprentice (3-level): Newly assigned Airmen to your work center that need to be guided by supervisors and trainers. These Airmen should focus on CDCs and upgrade training.
- Journeyman (5-level): Proficient at basic tasks like theory and fault indications. These Airmen should focus on standby and proficiency training.
- Craftsman (7-level): Direct supervisors and trainers. Craftsmen should be focused on training the lower skill level Airmen and improving leadership abilities.
- Superintendent (9-level): Strategic level knowledge and responsibilities. Superintendents should be focused on management and manpower issues. They guide Craftsmen into future Superintendents.

INITIAL TRAINING DOCUMENTATION

This section covers Training Requirements and Initial Training Documentation. Supervisors are to conduct and document an Initial Orientation with all newly assigned personnel. Training is tracked and documented in TBA.

TRAINING REQUIREMENTS

Supervisor, Trainer and Trainee responsibilities are spelled out in AFI 36-2651. Skill level upgrade requirements are spelled out in the 1C8X3 CFETP. This section is just an overview of some of the requirements. Supervisors are required to develop a Master Training Plan (MTP) that includes: Master Task List (MTL), current 1C8X3 CFETP, AFJQS tasks and milestones for training. This MTP should be based on mission and upgrade requirements of the work center. Training tasks can be identified as the following:

- 5: required for 5-level upgrade
- 5-: required for 5-level upgrade if at your location
- 7: required for 7-level upgrade
- 7-: required for 7-level upgrade if at your location
- -: not required by CFETP but can be added to the MTP for proficiency training and upgrade progression by the Work Center Manager

INITIAL ORIENTATION AND EVALUATION

TBA will automatically create the Initial Orientation and Initial Evaluation journal entries for newly assigned personnel. These journal entries spell out what the Supervisor is required to cover. When evaluating newly assigned 5/7-levels, the Work Center Manager should evaluate the individual's previous qualifications. This should be done the same way as conducting training, discussed below.

TRAINING PLAN CREATION

Work Center Managers can use AFI 36-2651 Attachment 3, AFH 36-2235 Vol 11 Chapter 4, your UTM, and the How to Guide in this module to help create a training plan. The Work Center Manager needs to first determine the mission. After the mission has been defined, they need to identify the training requirements to complete it. They should start with the 1C8X3 CFETP. This will include core (5/7) and non-core (–) tasks. Core tasks are for upgrade to 5/7-level and non-core (–) for equipment proficiency. It is important to include equipment and non-equipment non-core tasks (–) in your MTP to continue proficiency training and mission completion. Failure to include more than just core tasks will eventually cripple your mission due to lack of technician knowledge and capabilities. Work Center Managers can use The TBA Application User's Guide as a reference.

1C8X3 CFETP

The CFETP is the primary document used to identify life-cycle education and training requirements. It serves as a road map for career progression and outlines requirements that should be satisfied at appropriate points throughout the career path. The CFETP also specifies the mandatory task qualification requirements for award and maintenance of an Air Force Specialty Code (AFSC). Deployment/UTC task requirements can be identified with a symbol to assist commanders in prioritizing training. Use the CFETP to plan, conduct, evaluate, and document training. If errors in the 1C8X3 CFETP are found, contact RAWS Training Development at 334trs.raws.upgradetraining@us.af.mil or your MFM.

GENERAL CFETP PARTS

Part I. Provides information necessary for overall management of the specialty and will be maintained as part of the work center master training plan.

- Section A—explains why and how everyone uses the CFETP and who approves it.
- Section B—identifies career field progression information, duties and responsibilities, training strategies, and career field path.
- Section C— provides a general sense of each skill level with specific specialty knowledge and skills and mandatory requirements for entry, award, and retention of each skill level.
- Section D—indicates resource constraints (some examples are funds, manpower, equipment, facilities).
- Section E—identifies transition training guide requirements for 5 and 7-level Airmen.

Part II. Includes the following:

- Section A—contains the Specialty Training Standard (STS) identifying the duties, tasks, and TRs to support training, AETC conducted training, core and home station training tasks, deployment/unit type code tasks, and correspondence course requirements.
- Section B—contains the Course Objective List and training standards to determine Airmen training requirements.

- Section C—identifies available support materials. When developed, use a Qualification Training Plan to support proficiency training.
- Section D—identifies a training course index.
- Section E—identifies MAJCOM unique training requirements.

CFETP TRAINING PLAN USE

The 1C8X3 CFETP will identify the requirements for 5- and 7- level upgrade. The Work Center Manager and trainer should always check to see if they have the most current 1C8X3 CFETP on hand before conducting training. Also, in the 1C8X3 CFETP is a Proficiency Code Key that describes the levels that tasks should be taught to. For example, Proficiency Code "1a" means the trainee can do simple parts of the task and can name parts, tools and simple facts about the task, but needs to be told or shown how to do most of the task. When selecting tasks from the 1C8X3 CFETP, any tasks that have a "5" or "7" in the CORE & WARTIME TASKS column are required to be in the MTP. Tasks that have "5-" or "7-" in that column are required if that work center has those tasks as part of their mission set. The 1C8X3 CFETP also has list of AFJQS and AFQTP that are applicable to our AFSC. Some of these may be required for upgrade training.

AFJQS

RAWS Training Development at Keesler AFB manages, reviews, updates and creates AFJQSs. AFJQSs are a list of tasks to qualify on a piece of equipment and track training. Some AFJQS contain training modules with knowledge questions that need to be completed by the trainee. The Work Center Manager and trainer should always check to see if an AFJQS has modules or Knowledge Evaluations before signing off the trainee in TBA. There are two ways to access an AFJQS:

- The first way is through TBA. The trainer will search for the AFJQS and click "***View Verbiage***." This will bring up the PDF version of the AFJQS.
- The second way is to go to the RAWS dashboard website then follow the links to the AFJQS they need.

AFJQS also have 5 and 7 level core tasks. If the work center has the AFJQS loaded to their MTP, then those tasks must be completed. If errors in AFJQSs are found, please contact RAWS Training Development at 334trs.raws.upgradetraining@us.af.mil.

AFQTP

RAWS Training Development also manages, reviews, updates and creates AFQTPs. AFQTPs are reference material to help the trainee better understand a subject. They are broken down into modules. Unlike AFJQSs, AFQTPs are not used to track training. They are a handbooks that explain material when training references don't exist, or have been identified as insufficient to explain the material. The Work Center Manager and trainer should always check to see if they have the most current AFQTP on hand before conducting training.

- AFQTPs can be found on the RAWS dashboard website. If errors in AFQTPs are found, please contact RAWS Training Development at 334trs.raws.upgradetraining@us.af.mil.

MTP

The MTP serves two purposes:

- To ensure 100% task coverage by the work center and
- To provide a guide on how to train personnel.

The MTP is created using tasks from the 1C8X3 CFETP, AFJQS and locally created tasks, if needed. These tasks will also make up the MTL. The Work Center Manager will load all core tasks from the 1C8X3 CFETP along with any other tasks that are accomplished in their work center. If the CFETP task is an AFJQS, then the Work Center Manager will add that AFJQS to their MTP. An example would be if the work center maintains an AN/FMQ-13 Wind Measuring Set, then the MTP will have AFJQS 1C8X3-202N loaded to it. The MTP will also have milestones for tasks.

MILESTONES

Milestones are timeframes in which the trainee will complete tasks. Milestones are flexible and contingent upon learning abilities of trainees. If trainee timelines are not being met, this is not an inspection deficiency unless it is a trend throughout the work center. Milestones can also be used to break your MTP into task groups within TBA. These task groups can help you manage your training program. The Work Center Manger can break the tasks into monthly or quarterly task groups and load each group to their trainees as they complete groups. If this is done, the Work Center Manger needs to keep track of the total number of upgrade tasks for 5- and 7-level to provide to the UTM monthly.

NOTE:

For more information on how to develop a MTP, use AFI 36-2651, Attachment 3, and the How to Guide in this module.

The Work Center Manager sets the milestones for their training plan. Milestones are to identify where trainees should be at in their training based on a timeline. When creating milestones Work Center Mangers should know these points can be flexible due to things like leave, TDY, or various taskers like Honor Guard. If training is stopped for any reason, it should be documented in the trainees' TBA records as a journal entry. These milestones can be managed in TBA using the Manage Milestone menu, see "How to" guide. It can also be managed in a written training plan if the Work Center Manager wants one.

JOURNAL ENTRIES

Journal entries are records for the trainee, trainer, Work Center Manager, and the UTM. Journal entries should be made anytime the trainee is not being trained, such as the trainee being on leave or TDY. Journal entries can also be used to document formal courses the trainee attends and when milestones are met. Most work centers establish a process to make journal entries on a trainee in upgrade training regularly. It's important for the trainer and/or supervisor to document the trainee's attitude and aptitude towards training, so deficiencies can be identified early.

FORMAL TRAINING COURSES

Formal training courses are taught by trained instructors. A list of courses can be found in the 1C8X3 CFETP and on the RAWS dashboard website under Useful Information. Formal courses are for either specific equipment or specific procedures. Work Center Managers can work with their UTM to get these courses scheduled for their personnel.

ADVANCED DISTRIBUTED LEARNING SERVICE (ADLS)

Some AFJQS have courses on ADLS for the trainee to complete. View the AFJQS to find out how to complete the course, or go to or go to ADLS.

CONDUCTING TRAINING

Supervisors are responsible for explaining to trainees the relationship of training to career progression. While the supervisor's primary responsibility is to plan a program outlining specific short term mission related goals for the trainee, overall success depends on the supervisor's ability to advise and assist Airmen to reach long range career objectives. Supervisors will take an active role in the trainee's career progression.

Conducting training should be done face-to-face. First, the Work Center Manager should evaluate their current personnel to see who is best equipped to become trainers. Trainers need to be qualified on the tasks they are training on and have attended the Air Force Training Course (AFTC) taught by either the UTM or the Base Training Manager. Once the individual has completed AFTC, they can have the trainer role added to them in TBA. This is done by the UTM. Once this is complete, the Work Center Manager will assign trainers to trainees using TBA (See How to Guide for instructions). Proper OJT often requires completing a task more than once, especially when training 3-level Airmen. Pointing and talking about a training task does not replace having the trainee perform the task with hands-on training. Do not forget to use your TO, including the theory of operation portion, when training an Airman on a task. The following steps should be completed when conducting training:

- Start task in TBA
- Explain TBA task to trainee
- Explain the purpose of the task to trainee
- Demonstrate task to trainee
- Answer questions from trainee about the task
- Have trainee practice steps and assist as necessary
- Answer questions from trainee about the task
- Evaluate trainee on task performance or knowledge evaluations
- Repeat steps as needed
- Complete task in TBA

CAREER DEVELOPMENT COURSE (CDC)

CDCs are another important part of upgrade training. Your UTM manages the program, and the trainee's supervisor administrates the program.

NOTE:

Guidelines for the CDC program can be found in AFI 36-2651.

HOW TO GUIDES

How to guides:

- Create Milestones
- Create MTP

SUMMARY

This module discussed how to find training requirements along with initial orientation and evaluation. This module discussed how to find training requirements, along with initial orientation and evaluation; and provided an overview of the 1C8X3 CFETP, AFQJSs, AFQTPs, and the MTP. This module also guided you on how to create your MTP and where to get formal training courses.

MODULE 05
IMDS MANAGEMENT

PREREQUISITE

- Modules 01 through 04

TRAINING REFERENCES

- AFCSM 21-556 V2, *Introduction to IMDS CDB*
- AFCSM 21-560 V2, *C-E Equipment Status & Inventory Reporting*
- AFCSM 21-561 V2, *Maintenance Events*
- AFCSM 21-563 V2, *Job Data Documentation*
- AFCSM 21-564 V2, *Status & Inventory*
- AFCSM 21-566 V2, *Inspection & Time Change*
- AFCSM 21-568 V2, *Time Compliance Technical Order*
- AFCSM 21-569 V2, *Personnel Management*
- AFCSM 21-570 V2, *Training Management*
- AFI 21-103 Chapter 6, *Equipment Inventory, Status and Utilization Reporting*
- TO 00-20-2, *Maintenance Data Documentation*

INTRODUCTION

This Module is to be used as an IMDS Guide for IMDS procedures. These screens shown are for training purposes only. It would be beneficial to you as a Work Center Manager to develop a quick reference binder for your Airmen to refer to that contains your local work center information. Additionally, it is best practice to have everyone in your work center trained on how to open and close jobs, and make job data entries. Relying on one Airmen or NCO in your shop to complete JDD is a good way to set your shop up for failure. All RAWS technicians should be familiar with how to make inputs in IMDS and have access.

EQUIPMENT STATUS REPORTING (ESR) SCREENS

WEEKLY ITEMS

- 376 – Pushing PMIs to 380
- 996 – Reconciling PMIs/Open ESR Jobs
- 383 – Shows all open ESR jobs
- 122 – Supervisory Review Recent maintenance action

MAINTENANCE DOCUMENTATION

- 996 –Opening Red and Amber Jobs

- 997 – Job Updates, Maintenance Side
- 997 – Job Updates, Delay

EQUIPMENT/PMI MANAGEMENT

- 800 – Adding/Modifying/Deleting Equipment
- 772 – PMI Run Report
- 466/467 – Creating/Loading Job Standards (JSTs)
- 372 – Scheduling JSTs/PMIs
- 997 – Amber and Red PMI Reporting

TCTO PROCEDURES

- 419 - Adding TCTO
- 420 - Adding TCTO
- 421 - Adding TCTO to Equip ID's
- 525 - Printed Report
- 89 - Manually Schedule Job Control Numbers (JCNs) (Green Jobs)

PERSONNEL MANAGEMENT

- 589 – Work Center Roster Inquiry
- 340 – Load Personnel Into IMDS
- 405 – Lose Personnel to Outside
- 406 – Gain Personnel from Outside

ANNUAL ITEMS

- 228 – Equipment Inventory Listing
- 772 – Master PMI Listing Report

ADDITIONAL INFO

- 100 – Shows all maintenance actions on Job Data Documentation (JDD) screen for a specific timeframe
- 499 – Manually Load Parts to JCN
- 907 – JDD Corrections
- 54 – Cancel JCN/Defer Jobs
- 146 – Common Work Center Event (WCE) Closure Issue
- DD2875 IMDS Access form/Profiles/Privileges

WEEKLY ITEMS

376 – PUSHING PMIs

This screen is used to populate PMIs onto the 380 screen. This takes the dates that are in the database from the 372 screen to populate those PMIs

- 1. Change this to Performing Work center
- 2. All Equipment for Input
- 3-4. Not used

- 5. Work Center mnemonic
- 6. Input the number of days you want to schedule in the Future Days to Schedule Items block, however you need to process the 376 screen weekly
- 7. Priority 03

NOTE:

Code 03 is for routine maintenance.

- **Job Following box** must be checked to schedule consecutive PMIs otherwise PMI will not show all scheduled maintenance from 90 day run.
- XMIT – Transmit this screen at least 3 times and verify your 380 against the master PMI list or 90 day run.

996 – RECONCILING PMIs/OPEN ESR JOBS

This screen is used to track PMIs on the ESR side (only red and amber), without inputting PMI times on this screen the equipment will report a 100% up-time rate, this will flag your mx practices at the MAJCOM level. This screen also allows work centers to report critical outages to the MAJCOM by inputting information into the Missions Impacted area.

- Get 122 Snapshot of the PMI being reconciled
- 1. Input Equip ID of PMI being Reconciled

- 2. Use the PMI number on the 122 screen
- 3. The Date/Time the PMI started being accomplished
- 4. E
- 5-7. Do not use
- 8. The Date/Time the PMI was completed
- 9. Copy from 122 Snapshot
- 10. Red for Red PMI, Amber for Amber PMI
- 11. Input narrative of the PMI, ex. 28 day Servicing and Lubrication
  - Correct: 28 day Servicing and Lubrication
  - Incorrect: PMI complete

SUPERVISORY REVIEW

This screen is used to verify personnel within the work center are properly documenting maintenance in JDD. This is done at the end of the week, however, it is highly recommended the Work Center Manager accomplishes this every 2-3 days, to spread the workload throughout the week.

- Go to your work center screen (**WKC**GRAWS) Your local work center name may be different.
- "Recent Maintenance Actions"

Verify the following:

- 1. TM (Type Maintenance) – verify technician used proper symbol
- 2. Corrective Action – job and reference (if possible) and signature
- 3. UP (Units Produced) – MX complete "1" or MX not complete "0"
- 4. TIME – make sure time reflects what actual maintenance time to include travel time both there and back.
- 5. Symbol – Verify correct symbol (G=Green, A=Amber, R=Red)

- If this is Amber or Red you will have to verify information on 997 using inquiry function

- 6. Supervisory Reviewed – Click on "no" or "corrected" once you have reviewed the item.
- 7. Type Transaction – if there are no corrections, use "Update JDD…"
- 8. Event ID – confirm that this is the correct number that you reviewed.
- Click "Xmit"

383 – OPEN INCIDENT LOG (OIL) REPORT

This screen is used to get an OIL report. This report shows all open maintenance documentation that has been accomplished for the week. The MOC personnel should be reviewing this report with the Work Center Manager to verify the information and check for errors.

- Work Center ID: Work Center mnemonic (example: OSAM)

MAINTENANCE DOCUMENTATION

996 – OPENING RED AND AMBER JOBS

This screen is used to open RED and AMBER jobs

- 1. This can be found on the EIL snapshot or use the check box

- 2. ex. 181032001
- First 5 digits are the Julian Date. The last 4 digits are assigned by the database managers
- 3. Use the Date/Time the equipment was called out
- 4. Initial Downtime code of "U" for Unknown will be entered until such time as maintenance can determine the exact problem.

- 5. Estimated Time in Compliance, make it Friday @1630
- 6. Do not use
- 7. Is used to upgrade or downgrade status (Red-Amber or Amber-Red) or to allow more than 26 delays or comments.
- 8. Do not use
- 9. AA000, this is for the whole equipment, however this will change later
- 10. Red for complete equipment outage, Amber for degraded equipment performance.
- 11. Make Comments in ESR.
  - Example
    - Julian Date/Time/Equipment Name & Discrepancy
      - Add what the discrepancy is **BEFORE** it is troubleshot
      - 18103/0800/CC2 OTS
      - CC2 is OTS (W*e don't know if it's the TED, PIP or Op card yet, so none of that should be in the narrative*)
- 12. The date you open the job plus 10 minutes more than the current time
- 13. Input the Work Center mnemonic
- 14. Amber or Red, same as block 10.
- 15. 0100
- 16. 01 for Red, 02 for Amber
- 17. C if it Caused downtime, D if it Did not cause downtime

997 – JOB UPDATES, MAINTENANCE SIDE

This screen is used to document maintenance, whereas the delay side of the screen is to document why maintenance is not actively being accomplished

- 1. This can be pulled from a 122 snapshot, from the 230 or 383 screen.
  - 122 screen - You must click on the checkbox next to the Event ID "Include Equipment Status Report (Comm-Electronics (C-E) Only)"

  - 383 screen shows all open ESR Jobs
- 2. Is used:
  - If you have opened a job sequential
  - To upgrade/downgrade status (Red-Amber or Amber-Red)
  - To allow more than 26 delays or comments

- 3. This will be left blank
- 4. This will be auto filled from the opening of the job
- 5-9. Auto filled or not used, but should always be updated to current status if needed.
- 10. Only use on the final entry of the job. All delays need to be closed to close the job.
- 11. Use the most appropriate WUC, not AA000
- 12. Set for the following Friday @1630. If awaiting parts, type PARTS in the Date section and leave the time block blank.
- 13. Julian Date/actions taken
- Transmit when complete, make sure the selection box at the top says "Change"

997 – JOB UPDATES, DELAY SIDE

Delays are utilized for when maintenance is not actively being accomplished i.e., awaiting parts, awaiting downtime, awaiting research.

- 1. This will be auto filled
- 2. Only used if you have opened a job sequential
- 3. This is for which delay you are on

- 4. Start Date/description of why work is being delayed
  - This will coincide with when maintenance has stopped
- 5-8. Auto filled or not used
- 9. Use Check box to utilize the most appropriate code
- 10. Stop Date/Time of the delay closing

- This will coincide with when the reason for the delay has stopped and maintenance is beginning i.e., part received/performing Remove and Replace (R&R)

- 11. Input the most appropriate Work Unit Code (WUC) available
- 12. Leave blank
- 13. Julian Date/Reason for Delay//
  - 18245/Awaiting parts//
- 14. Julian Date/Reason delay is being closed//
  - 18245/MIP (Maintenance in Progress)//

EQUIPMENT/PMI MANAGEMENT

800 – ADDING/MODIFYING EQUIPMENT

This screen is the first step in adding a piece of equipment to your work center. This screen is also used to modify the information you find on your EIL.

NOTE:

Information to obtain before starting this screen.

  - Prime Remote: This code is work center dependent. Go to !work center ID, (!OSAM). On the top right of the screen you'll see Remote ID. This is the code that goes here. It will be the same for ALL equipment
  - Manufacturer/Serial Number
  - Descriptive information i.e., radio frequency
- 1. Use pre-existing Equip ID or create ID for new equipment. If creating new equipment, click on check box and go down the list from there. The last 3 of the ID will be the last 3 of the serial number.
- 2. Standard Reporting Designator (SRDs) are pre-existing codes. Click on check box and find equipment.
- 3. This will also be pre-existing, click on check box and find equipment.
- 4. This will be the serial number of the equipment being added or modified.
- 5. Geological code of where the asset is. FBNV=Davis-Monthan AFB.
- 6. Work Center mnemonic
- 7. Command Code 1C = ACC
- 8. Davis-Monthan Prime Remote ID: GTR
- 9. The Date/Time the equipment will be gained to the account
- 10. The Date/Time the equipment will be active to the account. Blocks 9 and 10 are typically the same.
- 11-12. Not used
- 13. Y – Local & Reliability and Maintainability Information System (REMIS) Inventory/Status
- 14. This will create Automated History, so yes for this always
- 15. Manufacturer Name
- 16. Same as block 9
- 17. The physical location of the asset. If location is not available click the load location box.
- 18. Description, for radio you can put frequency, for antennas you can put which tower/antenna number it is.

772 – PMI RUN

This screen will normally be used by Deployable units to help track PMIs within the few months of deploying equipment or until processes and accessibility are established to perform job inputs in IMDS.

- 1. Under the Report section, Select Inspection Schedule
- 2. Under the Level section:
  - 2.1. Select Work Center
  - 2.2. Enter Work Center ID
- 3. Enter the Start date you would like to start the report
- 4. Enter how many days you would like this report for
- 5. Select Performing Work Center

- 6. Select Print All Inspections
- 7. Click XMIT
- 8. If a message does not pop up at the bottom, select messages at the top and continue through the prompts in order to print out the PMI Run.

PMI CREATION PROCEDURES

- Load a PMI and assign a JST.
- Load the JST created to a Work Center.
- Load the JST to and Equipment ID and assign a sequence number.
- Check the Master ID List to ensure PMI is loaded correctly.

466 – ADDING/MODIFYING PMI/JST

This screen is used to create JST's. JST's are useful because they standardize PMIs, meaning a 336-day on a GRT-21 has the same JST throughout all like items, meaning the JST will not be the same for a GRT-22 336-day PMI.

- 1. This will be pre-existing, click on check box and find equipment.
- 2. For RAWS it will always be Inspection
- 3. This will be generated after you press transmit when creating a JST. If modifying a JST, you will find this number on the Master PMI Listing
- 4. Not used
- 5. Type the PMI Narrative to include all references and forms that are utilized. (i.e. AFI's, T.O.'s, AFMQCC's, AFMSI's)
- 6. Click on checkmark and work your way through the listing…for example,
  - 7 day: 03107

- 28 days: 03128
- 56 day: 03156
- 168 day: 03268
- 336 day: 03336

NOTE:

Refer to -06 manuals, IMDS WUC listing, or T.O. 00-20-2 Appendix I for listing and definitions of support general codes.

- 7. This will be the frequency of the PMI
- 8. This will be days because our PMIs are tracked by days
- 9. Always none
- 10. Always A. This will set the 6 position of the JCN.
- 11. Auto-Processing always checked
- 12. 3
- 13. Always JFP is to be used only for input equipment
- 14. **From Completion Date/Time:** Always used for equipment items

  From Due Date/Time: For PMIs that need to occur on specific days of the year, month… (i.e. Monthly Fire Extinguisher Checks).

467 – CREATING JSTs/PMIs

This screen is used to assign the JST you created to a Work Center and to populate the information that will show up on the 122 snapshot. After completing this screen go to screen 372 to load the JST to an Equipment ID and process an accomplishment date.

- 1. Load for new PMI
- 2. Always 1
- 3. Work Center Numeric
- 4. Not used

- 5. Input how long the PMI should usually take
- 6. Will be the same WUC from 466 block 6.
  - 7 day: 03107
  - 28 days: 03128
  - 56 day: 03156
  - 168 day: 03268
  - 336 day: 03336
- 7. Symbol of the PMI
  - R- If it takes the ENTIRE equipment out of service (Not Mission Capable)
  - A- If it brings a PORTION of the Equipment out of service (Partial Mission Capable)
- 8. Generated from the 466 screen
  - Can be found on the Master PMI Listing
- 9. Not used
- 10. How many people it takes to accomplish the PMI, Always at least 2
- 11. Use the same information from 466 block 5.

372 – SCHEDULING PMIs

This screen is used to assign the JST created to an Equipment ID and schedule PMIs to a future date. You want to get all PMIs due on the equipment to populate on the same day as the 336 day PMI.

- 1. Change to what you are intending to do.
- 2. Input Equipment ID
- 3. Input JST for the PMI you are needing to accomplish. Click the JST button for available JST's

- 4. Input due date for that individual PMI
- 5. Not Used
- 6. Always C-E Equipment Only
- 7. Red and Amber PMIs are a Yes, Green PMIs are blank.

TCTO PROCEDURES

419 – ADDING TCTO BY EQUIPMENT DESIGNATOR

This screen is your first step in loading a TCTO into IMDS

- 1. Found at the top right of the first page of the TCTO
- 2. This is the TO number for the TCTO
- 3. Input the name of the TCTO
- 4. Always End Item TMS
- 5. This is a pre-existing code, use the check box and find the equipment.
- 6. 1C03 = 355 OSS

- 7. First 2 digits of the WUC, usually AA
- 8. Use appropriate code, will be found in the TCTO
- 9. If we are accomplishing the TCTO it will be Field
- 10. Click what applies
- 11. Found at top right of TCTO
- 12. The date you received the TCTO
- 13. Found at top right of TCTO
- 14. Add time to accomplish to date received and convert to Julian date
- 15. Found in main body of TCTO

420 – ADDING TCTO BY SHOP DATA

This screen is utilized after the completion of the 419 screen

- 1. Found at the top right of the TCTO
- 2. R Type for normal ATCALS equipment
  - Radios
  - ETVS
  - FMQ

  - STARS
- 2. C Type for
  - Radios
  - Antennas
  - FDIO
- 3. Pre-existing code, click on check box and find equipment
- 4. Not used

- 5. 001
- 6. Not Used
- 7. Found in main body of TCTO
- 8. Work Center Number: Block 8a: G; Block 8b: Work Center mnemonic
- 9. Found in main body of TCTO
- 10. Choose one
- 11. Title of TCTO

421 – ADDING TCTO TO EQUIPMENT IDs

This screen is used to input the TCTO to all affected Equipment IDs

- 1. Found on top right of TCTO
- 2. R Type for normal ATCALS equipment
  - Radios
  - ETVS
  - FMQ
  - STARS
- 2. C Type for
  - Radios
  - Antennas

- FDIO
- 3. Pre-existing code, click on check box and find equipment
- 4. Put the equipment ID the TCTO is to be accomplished on, if this TCTO is for multiple Equipment ID i.e., radios, use the bottom of the screen.
- 5. add check mark on the box If multiple Equipment is affected by this TCTO, checkmark "Load All"

  NOTE: The "ALL" option may time out on large databases. Use during non-peak hours.
- 6. Not Used
- 7. Usually 17, click check box for list of available codes, use the most applicable code.
- 8. The date the entry is being made.
- 9-12. Not used
- 13. All other Equipment ID that the TCTO is applicable to.

525 – PRINTED REPORT

This screen will process a report that needs to be stapled to the TCTO

- 1. Found on top right of TCTO

089 – TCTO SCHEDULING

This screen is used to create manual JCNs, this will create a job on the 380.

- 1. Input JCN, use Julian date and 5000 code
- 2. Found on top right of the TCTO
- 3. Equip ID that the job is being loaded to.
- 4. Today's date and 10 minutes in the future
- 5. Q for special inspect
- 6. G, A, R, based on the TCTO data
- 7. 03

- 8. not used
- 9. check performing work center
- 10-11. Not used

PERSONNEL MANAGEMENT

589 – WORK CENTER ROSTER INQUIRY

- 1. Select User ID Roster:
  - This will return all Employee numbers and User IDs for the work center
- 2. Enter Work Center
- 3. Click Xmit

340 – LOAD PERSONNEL

Maintenance Personnel Information (340-MPR) *Required Fields Unit G

Load 1

Employee Number*	User ID	Name* 2	Grade* 3	Service Component 4	Labor Code* 5	Security Clearance 6
		DOE, JOHN	003 √	Active Military	100 √	4 √

7 Email Address	
JOHN.DOE@US.AF.MIL	Note: Do NOT load invalid email addresses. The email address will be used by the next location to help locate the individual's information to facilitate gaining them.

Work Center	Work Hours Remaining In Month	Duty Air Force Specialty Code			Primary Air Force Specialty Code		
		Prefix	DAFSC	Suffix	Prefix	PAFSC	Suffix
RAWS √ 8	160 ? 9		1C833 √ 10			1C833 √ 11	

Optional Information

Control Air Force Specialty Code			Supervisor Employee Number	UMD Number	Personnel Accounting Symbol	Birth Month	F22 IMIS
Prefix	CAFSC	Suffix					
	1C833 √ 12		12345 13		?	03 14	

Gain/Loss Date	Work Center Assignment Date	Shift	Crew	PRP Status	Evaluation Date	TDY Return Date	Authorized Cross-Workcenter JDD
[]	12345 [] 15			√	? []	[]	

MSEP/CSEP/NOSEP Date	MSEP/CSEP/NOSEP Exemption
? []	

16 Xmit ☐ Check To Bypass Screen Input

Select Return Menu
- ○ Maintenance Personnel Utilities
- ○ Training Course Utilities
- ○ OJT Training Utilities
- ○ Job Qualification Standard Utilities
- ◉ None

This screen will assign member an Employee number and possibly a USER ID. Only to be used if Database Manager (DBM) allows.

- 1. Select Load
- 2-4 Self Explanatory
- 5. Labor Code 100
- 6. Security Clearance
  - 3 = Top Secret
  - 4 = Secret
- 7. Email Address, (af.mil address)
- 8-12. Self-Explanatory
- 13. Supervisor's IMDS Employee Number
- 14-15: Self-Explanatory
- 16. Click Xmit

405 – LOSE PERSONNEL TO OUTSIDE

This screen will allow you to Lose Personnel from your IMDS Work Center Roster and allow other IMDS Work Centers to gain that person. Only to be used if DBM allows.

- Enter IMDS Employee number of member leaving work center.
- Primary Hours Remaining will be the hours remaining in the month.

  Click Xmit

406 – GAIN PERSONNEL FROM OUTSIDE

This screen will allow you to Gain Personnel into your IMDS Work Center Roster that already have an account, from a previous base, and were placed in loss status from their previous base. Only to be used if DBM allows.

1. You can utilized either:
   - Employee number
   - Old Enterprise Location Code (ELC)
   - User ID
   - Email Address
2. Type in Name of Individual
3. Type in Work Center you wish to assign the person to
4. New Labor code will be 100
5. Primary Hours will be the hours remaining in the current month assigned
6. Click Xmit

```
EQ-ID  ----DESCRIPTIVE NOUN-----  OWN- -WUC-  -JST-  --------------JOB STANDARD NARRATIVE--------------   Y  S       N  -DUE---
       -LOCATION-                 -WC-         WCE                                                       M  R   FREQ T  -DATE--

EQUIP DESIG:  AS1181UR
C1078  UHF GRC ANTENNA            OSAM 03336  00045  ANTENNA CORROSION CONTROL INSPECTION,               R  Y    336 D  20DEC17
       TWR                                           VSWR CHECK.
EQUIP DESIG:  AT197GR
C0106  UHF GRC ANTENNA            OSAM 03336  00061  ANTENNA CORROSION CONTROL INSPECTION,               R  Y    336 D  20DEC17
       TWR                                           VSWR CHECK.
EQUIP DESIG:  FMQ019  R                          2                        3                                 4
RF066  AUTOMATIC MET SYSTEM       OSAM 03107  00001  7 DAY CEILOMETER AND VISIBILITY LENS CLEANINGS       G  N      7 D  30MAR18
1      DMAFB                                         T.O. 31M1-2FMQ19-1 PARA 7-9.1 AND 7-9.6                                    5
                                  OSAM 03128  00129  28 DAY SERVICING AND LUBRICATION                     A  Y     28 D  30MAR18
                                                     T.O. 31M1-2FMQ19-6WC-1 1-002 TO 1-004
                                  OSAM 03336  00158  ANNUAL RECORDS REVIEW                               G  N    336 D  30MAR18
                                                     AFI 13-204V4 CH 15
                                  OSAM 03156  00003  56 DAY SERVICING AND LUBRICATION                     A  Y     56 D  27APR18
                                                     T.O. 31M1-2FMQ19-6WC-1 PAGES 1-002 TO 1-005
                                  OSAM 03184  00004  84 DAY SERVICING AND LUBRICATION/CORROSION CONTROL   R  Y     84 D  25MAY18
                                                     T.O. 31M1-2FMQ19-6WC-1 CARDS 1-006 TO 2-001
                                  OSAM 03268  00030  168 DAY FUNCTIONAL TESTS                            R  Y    168 D  17AUG18
                                                     T.O. 31M1-2FMQ19-6WC-1 CARDS 3-001 TO 3-037
                                  OSAM 03336  00036  336 DAY FUNCTIONAL TESTS/CALIBRATIONS               A  Y    336 D  01FEB19
                                                     T.O. 31M1-2FMQ19-6WC-1 CARDS 3-038 TO 4-009
```

Note:

If rejected, check with the previous work center to ensure they placed the individual in Loss Status.

ANNUAL ITEMS

772 – PRINTED REPORT

This screen is extremely important for the management of your PMIs. Annually you will review this document to verify several factors. The most important thing to verify is that all PMIs are showing a future date, or, if there is a date in the past, there is an open PMI on the 380. If the date is in the past and there isn't an open PMI, it means there is more than likely an open suspense and the PMI will never schedule through a 376 push. You should review this with the EIL report and verify all the equipment on the EIL has PMIs loaded to it on the Master PMI Listing.

1. Equipment ID

2. JST. These numbers represent what the PMI is

- The 00129 JST for the GOSAM work center means that it is a 28 day inspection on the FMQ-19. Whereas the 00045 JST is an Antenna check on a UHF antenna. All UHF antennas have the same JST loaded to it. If there is equipment without a JST loaded it, which means that screen 372 was not utilized.

3. Make sure all required PMIs are loaded to the equipment. If not, you will either have to create the PMIs using the 466/467 screens or load pre-existing JSTs using the 372 screen.

4. Green PMIs = NO, Amber and Red PMIs = Yes

- If there is an issue, update ESR reportable block on 372.

5. All dates should line up to fall on the 336 day PMI. This example is not

```
1 FMQ019  R        R  000000000AMS066 3 RF066  OSAM  FAD  Y  Y  1C  1C              G 5 17NOV05  0730  DMAFB       Y  Y  15DEC05
  2 NOMEN: AUTOMATIC MET SYSTEM           PEC CODE:                                  A  17NOV05  0730  SUPPLY FACTOR:
    REMOTES PRI/SEC: GFP/ 4          OVERHAUL DATE:                  LOCAL OPT:
    STATUS: FMC       EVENT:
```

correct

- 17 Aug 18 to 1 Feb 19 is 197 days. These PMIs will need to be rescheduled using the 372 screen

228 – EQUIPMENT INVENTORY LISTING

This is a listing that shows all the equipment on your account. All of this content comes from the 800 screen. This listing should be verified annually by a 100% hands on inventory to validate all equipment is still in place and active.

1. Shows the Equip Designator

2. Shows the Nomenclature

3. Shows the Equip ID

4. Shows the Prime Remote ID

5. Shows the Gain/Loss and the Active/Inactive dates and Times

499 – MANUALLY LOAD PART INFORMATION TO JDD

This screen is to manually load Part information into JDD if parts are ordered through supply VIA 2005.

1. Select Load

2. Type in USER ID

3. Type JCN of job part will be loaded to.

4. Type in Mark For IAW AFH23-123V2 Part 1 Table 5.14.

- TRIC: ISU
- Type Of Issue Request: Maintenance Issue (type organization codes V, G, I, 7, 8, or 9), all MICAP except CE (type organization A or B), and AWP with TEX E
- See Note e. for first 7 position of Mark For. If not general or administrative supplies.

5. Enter WCE part will be ordered under

6. NSN of part number being ordered

7. Equipment ID

8. Part Nomenclature

9. WUC of Part being ordered

10. Work Center

11. SRD for equipment end item

12-14. Technical Order: Reference where part information is found

15. Quantity of part ordered

16. Quantity of parts Due-out

17. Unit of Issue (EA, FT, BX etc.)

18. Owning Command (0D-USAFE, 1C-ACC, 0J-AETC etc.)

19. Priority: IAW AFH 123V2 Part 1 Table 2.35.

- 00 – Initial MICAP recurring due-out
- 01 – Any reportable MICAP recurring due-out.
- 02 – A(X) UJC
- 03 – B(X) UJC
- 04 – C(X) UJC

20. Urgency Justification Code: IAW AFH-123V2 Part 1 Table 5.9

- Navigational Aids Equipment
  - 1D – MICAP (Equipment out of commission
  - JD – MICAP (Equipment operating in a limited or restricted capacity)
  - AD – RED Job
  - BD – Amber Job
  - CD – Green Job

- Communication/Meteorological Equipment
  - 1E - MICAP (Equipment out of commission
  - JE - MICAP (Equipment operating in a limited or restricted capacity)
  - AE – Red Job
  - AD – Amber Job
  - CD – Green Job
- Radar Equipment
  - 1C - MICAP (Equipment out of commission
  - JC - MICAP (Equipment operating in a limited or restricted capacity)
  - AC – Red Job
  - AC – Amber Job
  - CC – Green Job

21. Remote ID: If unknown, Go to Screen WKC(XXXXX). i.e. WKCGRAWS and look for Remote ID at to right.
22. Type in Document number received from supply.
23. Destination Code: Supply can help if unknown
24. Estimated Delivery Date: Enter if known.
25. Select Recurring
26. Select ERRC Code for part ordered.
27. Click Xmit.

499 – MANNUALLY UPDATE PART INFORMATION TO JDD

ILS-S (Supply) Data Update/Inquiry (499-SRM)

Change 1 Document Number* J123AB12345678 Deployed Code

Reference Data

User ID Of
Order USERID1
Backorder

Required Delivery Date

Event ID 123456789 Mark For 00RB123ABCAA0D
WCE 001 Stock Number 1234567891011
Equipment ID RB123 Nomenclature Part
WUC/LCN AAAA0
Work Center BRAWS SRD ABC

Technical Order

Commercial Manual T.O. Figure 1 Index 1

Status Data

2 Quantity 3
Ordered 1 Issued 1 Killed Due-Out

Unit Of Issue EA
Owning Command 0D
Priority 03 Urgency Justification Code AE
Remote ID ABC Due-In Document Number J123AB12345678

Delivery

Location Destination A12 Estimated Delivery Date 1212

Codes

TEX Code ☐ Issue Exception Code 5
Demand Code Recurring ☐ Back Order Asset MICAP
ERRCD XD2 - Repairable Condemned Depot Level
Project Code ☐ F-22 IMIS Condition Code
Advice Code Force Activity Designator Code

Supply

Action Number Action Type

4 **Issue**

Issue Date 12123 [] Issue Time 0730

Status

Depot Status Status Indicator

Next Option Refresh Current Screen

Xmit 5

When Part is received you must manually update the part information.

Inquire Document number to update via 499 screen

1. Type Transaction: Change

2. Issues: Change this number to how many parts you have received.

3. Due Out: Change this to the number of parts you have or still have Due Out. Leave blank if all parts received.

4. If all parts are received, enter the date the final part was received.

5. Click Xmit

907 – JDD CORRECTIONS

Job Data Correction will allow you to change all inputs made on a specific Detailed Data Records (DDR)

1. Select "Job Data Correction" this will allow you to type in all information needed at the top of the screen

2. Even ID: enter the JCN

3. WCE: Enter the WCE number for entry needing edits

4. DDR: Enter the DDR number for entry needing edits

5. Xmit.

A screen will pop up (On Equipment Maintenance (129-DDC)) where you can make the necessary changes.

On Equipment Maintenance (129-DDC) JCN 170662001001 *Required Fields Unit G

Corrections

Start Time* 1000 Stop Date* 19113 [] Stop Time* 1005

Check To Bypass Date Edits When Deployed

Serial Number
MDS/C-E SRD
WUC BDM

Equipment ID RB160
Performing Work Center* GAFS1

Type Maintenance*	Component Position	WUC/LCN*	Action Taken*	When Discovered*	How Malfunction*	Units Produced
B	0	AAABA	R	D	255	1

Crew Size*	Category Of Labor*	Symbol*	Corrected By User ID*	Owning Command	Tag
2	1 - Military, Regular Duty Hours	A	USERID	0D	171641

Activity Identifier	Repeat	Recurr

Discrepancy

TACAN NO ID OUTPUT.

Corrective Action

Removed and replaced part. OPS Check Compete. System Returne
d to User. //ABC//

Xmit

54 – CANCEL EVENT OR WCE

These procedure are to be used in the case of accidental or incorrect opening of an Event (JCN) or WCE

Event Utilities (54-CME) Unit G

Event Maintenance
Add Work Center Event (73/84)
Details (111)
Narrative (139)
Cancel
Defer (142)
Schedule/Reschedule
Re-Open History Event And Add WCE To On/Off Equipment
Cancel All Work Center Events

WCE Maintenance
Details (111)
Narrative (139)
Cancel
Defer (142)
Schedule/Reschedule
Change Work Center Event Stop (140)

Work Center Event Maintenance (Cancel)
Event ID WCE Notify Performing Work Center
Xmit

1. Select "Cancel" Under Event Maintenance (to delete the Job) or WCE Maintenance (to delete a WCE) this will allow you to type in all information needed at the bottom of the screen.

2. Even ID: enter the JCN

3. WCE: Enter the WCE number for entry needing edits (if Applicable)
4. Xmit.

NOTE:

All DDR's must be deleted or this will not work.

54 – RE-OPEN HISTORY EVENT AND ADD WCE

These procedure are to be used if a new WCE is needed. Example would be if multiple parts need to be ordered that will require an "R" action taken code and Not Repairable This Station (NRTS) documentation.

1. Select "Re-Open History Event And Add WCE To On/Off Equipment"
2. Even ID: enter the JCN
3. Xmit.

54 – DEFER EVENT AND/OR WCE

If Event (JCN) or WCE was not properly deferred during job data entry, it may be manually inputted via these procedures.

1. Select "Defer" Under Event Maintenance (to defer the Job) or WCE Maintenance (to defer a WCE) this will allow you to type in all information needed at the bottom of the screen.
2. Even ID: enter the JCN
3. WCE: Enter the WCE number for entry needing edits (if Applicable)
4. Xmit.

5. Enter the defer code.
6. Click Xmit.

146 – MAINTENANCE START/COMPLETION

This procedure is use in the instance that a job will not close due to somebody selecting "Job Following" at some point. A quick check would be to look at a snapshot of the job.

```
                    MAINTENANCE SNAPSHOT INQUIRY          29/APR/19 16:29

TRIC: QMS  UNIT: G     DMS/RDMS IND: D

EVENT-ID  EQUIP-ID TCTO-CODE        REP/REC SYM PRI SORTIE-NO  CP  COMPLETED
171290008   RBG26                            G   03              07AUG17
DISCREPANCY: INSPECTION OF ECU INSTALLATION AND WIRING CONFIGURATION
             TCTO NBR 1GRN029                 GRND DATE= 17151

--------------------------------------------------------------------------------
************************ ON-EQUIPMENT WORK CENTER EVENTS ************************
--------------------------------------------------------------------------------
WCE-SEQ  PWC  EQUIP-ID  WUC/LCN        J/F SYM R/I SRD IN-SHP  WCE-ACTION
  001   GAFS1  RBG26                    Y   G      BNH   NO    COMP    07AUG17
NARR: PERFORM INSPECTION BASED ON TO 31R4-2GRN29-539-WA-1
```

If you see a "Y" under the J/F column, that means that somebody selected the Job Following box and the below actions need to be taken to remedy the issue.

1. Enter JCN
2. Enter WCE needing closed
3. Enter date and time Job needs to be Closed
4. Status: Select from the drop down. Below are some of the most used:

- 2 - Stop Work Center Event
- 3 – Close Event
- 4 – Stop WCE And Close Event

4. Click Xmit.

IMDS ACCESS FORM/PROFILES

FILLING OUT DD FORM 2875

Each IMDS local data base manager approves access to IMDS. You must submit a DD Form 2875 to them for your Airmen's access. Each base may have different roles set up in the form of "profiles". Below is list of commonly used profiles. If these do not work for your mission needs, work with the DBM to create profiles that do. Listing out screen names, TRIC

codes, and background report needs will help the DBM create profiles that work for you. Type of request:

- Initial: for first time users. You can create a profile for them in IMDS if the IMDS DBM allows. See Manning Procedures in this handbook.
- User ID: for personnel who have previously had a user ID. Check the box and type their previous User ID in the space provided.

Date: Self Explanatory

System Name: IMDS

Location: enter the base you are assigned to

PART I:

1. Name: Self Explanatory

2. Organization: Self Explanatory

3. Office Symbol: Enter your office symbol utilized in IMDS

4-9: Self Explanatory

10. IA Training and Awareness Certification Requirements:

- Check the "I have Completed Annual Information Awareness Training" if you have completed Cyber Awareness Challenge.
- Enter the date you completed the training.

11. User Signature: Type out Name. Wait to sign until all parts are complete.

12. Date: Self Explanatory

PART II

13. Justification for Access: To document/schedule maintenance and ordering parts to maintain navigational aids utilized in support of the flying mission for your location.

14. Type of Access Required: Check Authorized

15. User Requires Access to: Check Unclassified

16. Verification of Need to Know: Check the box

16a. Not Used

17-20b: Fill out your supervisors information

21-25: Filled out by Information Assurance Officer (IAO) if applicable at your base.

7. 26. Pre filled when Part I, 1 Is filled out.
8. 27. Enter the users IMDS Employee number and profiles needed for access.

PART III

9. 28-32: Filled out by Unit Security Manager.

PROFILES/PRIVLEGES

Profile listing may change depending on structure/manning of the work center, but here is a general layout:

PROFILE ID (FOR SRA AND BELOW)

10. JDD BASIC: BASIC JDD PROFILE
11. COMM MAINTENANCE CONTROL: ESR MONITOR
12. COMM PRODUCTION W/C: WORK CENTER PERSONNEL OTHER THAN NCOIC
13. CAMS/SBSS INTERFACE USER: USED TO ORDER AND MANAGE THE UPDATE AND RETRIEVAL OF PARTS

PROFILE ID (FOR SSGT TO INCLUDE ABOVE PROFILE ID'S)

14. LOCATIONS: LOAD, CHANGE, INQUIRE, DELETE LOCATION
15. P & S TCTO MONITOR: ALL TRIC FOR THE TCTO SUBSYSTEM
16. MOCC: MAINTENANCE OPERATIONS CONTROL CENTER
17. JDD CANCEL: ALLOWS USER TO CANCEL WORKCENTER EVENTS
18. JDD-SUPERVISION: JDD PROFILE FOR SUPERVISION
19. JOB SUPPRESSION: ABILITY TO SUPPRESS JOBS

PROFILE ID (FOR TSGT AND ABOVE TO INCLUDE ABOVE PROFILE ID'S)

20. PERSONNEL: MANAGES PERSONNEL ACTIONS
21. PERSONNEL TRANSFER: DELETES AND TRANSFERS PEOPLE BETWEEN UNITS

NOTE:

For personnel needing to run reports, you will need to be granted "background privileges" as well

SYSTEM AUTHORIZATION ACCESS REQUEST (SAAR)

PRIVACY ACT STATEMENT

AUTHORITY: Executive Order 10450, 9397; and Public Law 99-474, the Computer Fraud and Abuse Act.
PRINCIPAL PURPOSE: To record names, signatures, and other identifiers for the purpose of validating the trustworthiness of individuals requesting access to Department of Defense (DoD) systems and information. NOTE: Records may be maintained in both electronic and/or paper form.
ROUTINE USES: None.
DISCLOSURE: Disclosure of this information is voluntary; however, failure to provide the requested information may impede, delay or prevent further processing of this request.

TYPE OF REQUEST ☐ INITIAL ☐ MODIFICATION ☐ DEACTIVATE ☒ USER ID USERID — **DATE (YYYYMMDD)** 12345678

SYSTEM NAME (Platform or Applications) Integrated Maintenance Data System (IMDS) — **LOCATION (Physical Location of System)** BASE

PART I *(To be completed by Requestor)*

1. NAME (Last, First, Middle Initial) Self Explanatory	2. ORGANIZATION Self Explanatory
3. OFFICE SYMBOL/DEPARTMENT Self Explanatory	4. PHONE (DSN or Commercial) Self Explanatory
5. OFFICIAL E-MAIL ADDRESS Self Explanatory	6. JOB TITLE AND GRADE/RANK Self Explanatory
7. OFFICIAL MAILING ADDRESS Self Explanatory	8. CITIZENSHIP ☒ US ☐ FN ☐ OTHER — 9. DESIGNATION OF PERSON ☒ MILITARY ☐ CIVILIAN ☐ CONTRACTOR

10. IA TRAINING AND AWARENESS CERTIFICATION REQUIREMENTS *(Complete as required for user or functional level access.)*
☒ I have completed Annual Information Awareness Training. **DATE (YYYYMMDD)** 12345678

11. USER SIGNATURE Self Explanatory — **12. DATE (YYYYMMDD)** 12345678

PART II - ENDORSEMENT OF ACCESS BY INFORMATION OWNER, USER SUPERVISOR OR GOVERNMENT SPONSOR *(If individual is a contractor - provide company name, contract number, and date of contract expiration in Block 16.)*

13. JUSTIFICATION FOR ACCESS
To document/schedule maintenance along with order parts to maintain navigational aids utilized in support of the flying mission for Location.

14. TYPE OF ACCESS REQUIRED: ☒ AUTHORIZED ☐ PRIVILEGED

15. USER REQUIRES ACCESS TO: ☒ UNCLASSIFIED ☐ CLASSIFIED *(Specify category)* ☐ OTHER

16. VERIFICATION OF NEED TO KNOW
I certify that this user requires access as requested. ☒

16a. ACCESS EXPIRATION DATE *(Contractors must specify Company Name, Contract Number, Expiration Date. Use Block 27 if needed.)*

17. SUPERVISOR'S NAME (Print Name) Self Explanatory	18. SUPERVISOR'S SIGNATURE	19. DATE (YYYYMMDD) 12345678
20. SUPERVISOR'S ORGANIZATION/DEPARTMENT Self Explanatory	20a. SUPERVISOR'S E-MAIL ADDRESS Self Explanatory	20b. PHONE NUMBER 123-4567
21. SIGNATURE OF INFORMATION OWNER/OPR	21a. PHONE NUMBER	21b. DATE (YYYYMMDD)

22. SIGNATURE OF IAO OR APPOINTEE	23. ORGANIZATION/DEPARTMENT	24. PHONE NUMBER	25. DATE (YYYYMMDD)

DD FORM 2875, AUG 2009 PREVIOUS EDITION IS OBSOLETE. Adobe Professional 8.0

26. NAME *(Last, First, Middle Initial)*

Self Explanatory

27. OPTIONAL INFORMATION *(Additional information)*

Employee #: Enter IMDS Employee Number. If this is for a new user, you will first create a profile in IMDS for them. Please see Manning Procedures in this Handbook.

NOTE *Profiles arrangement may differ depending on structure of work center.*
Profiles requested to be loaded:
PROFILE ID (For SrA and Below)
- JDD BASIC: BASIC JDD PROFILE
- COMM MAINTENANCE CONTROL: ESR MONITOR
- COMM PRODUCTION W/C: WORK CENTER PERSONNEL OTHER THAN NCOIC
- CAMS/SBSS INTERFACE USER: USED TO ORDER AND MANAGE THE UPDATE AND RETRIEVAL OF PARTS

PROFILE ID (For SSgt to include Above PROFILE ID's)
- LOCATIONS: LOAD, CHANGE, INQUIRE, DELETE LOCATION
- P & S TCTO MONITOR: ALL TRIC FOR THE TCTO SUBSYSTEM
- MOCC: MAINTENANCE OPERATIONS CONTROL CENTER
- JDD CANCEL: ALLOWS USER TO CANCEL WORKCENTER EVENTS
- JDD-SUPERVISION: JDD PROFILE FOR SUPERVISION
- JOB SUPPRESSION: ABILITY TO SUPPRESS JOBS

PROFILE ID (For TSgt and Above to include Above PROFILE ID's)
- PERSONNEL: MANAGES PERSONNEL ACTIONS
- PERSONNEL TRANSFER: DELETES AND TRANSFERS PEOPLE BETWEEN UNITS

PART III - SECURITY MANAGER VALIDATES THE BACKGROUND INVESTIGATION OR CLEARANCE INFORMATION

28. TYPE OF INVESTIGATION		28a. DATE OF INVESTIGATION *(YYYYMMDD)*	
Filled out by Unit Security Manager		12345678	
28b. CLEARANCE LEVEL		28c. IT LEVEL DESIGNATION	
Filled out by Unit Security Manager		[X] LEVEL I [ ] LEVEL II [ ] LEVEL III	
29. VERIFIED BY *(Print name)*	30. SECURITY MANAGER TELEPHONE NUMBER	31. SECURITY MANAGER SIGNATURE	32. DATE *(YYYYMMDD)*
Filled out by Unit Security Manager	123-4567		12345678

PART IV - COMPLETION BY AUTHORIZED STAFF PREPARING ACCOUNT INFORMATION

TITLE:	SYSTEM	ACCOUNT CODE
	DOMAIN	
	SERVER	
	APPLICATION	
	DIRECTORIES	
	FILES	
	DATASETS	
DATE PROCESSED *(YYYYMMDD)*	PROCESSED BY *(Print name and sign)*	DATE *(YYYYMMDD)*
DATE REVALIDATED *(YYYYMMDD)*	REVALIDATED BY *(Print name and sign)*	DATE *(YYYYMMDD)*

DD FORM 2875 (BACK), AUG 2009

Reset

SUMMARY

This module explained various procedures and what they are used for within IMDS. It is to be used as a reference to accomplish IMDS procedures. The Work Center Manager should keep track of their work center's equipment documentation at all times.

MODULE 06
PROJECT AND PROGRAM MANAGEMENT

PREREQUISITE

- Modules 01 through 05

TRAINING REFERENCE(S)

- AFI 13-204V4, *Management of Ground Radar and Airfield Systems*
- AFI 33-103, *Requirements Development and Processing*
- Defense Acquisition University (DAU) website
- Project Management Fundamentals, E-Learning CBT
- Project Management Body of Knowledge (PMBOK ® Guide Sixth Edition)

INTRODUCTION

This module is to help guide Work Center Mangers in the project and program management area. A project refers to a specific, singular endeavor to deliver a tangible output. A program refers to multiple projects which are managed and delivered as a single package. As a Work Center Manager, you will potentially oversee many projects (from coordinating Commander's calls to acquisition, siting, and installation of new systems) and project teams for your unit. You should be familiar with project management fundamentals to enhance the effectiveness of your projects and keep them on-time, on-budget, and within scope.

PROGRAM MANAGEMENT

A program has no defined end date, like the safety or training programs. A program the 1C8X3 career field may encounter is working in or alongside a PMO. This section will provide you with an overview of the different program management types and various examples of how you may interact with PMOs.

WORK CENTER PROGRAM MANAGEMENT

Work Center Managers will manage multiple programs within their work center, such as training, safety and TMDE programs. These programs ensure the work center is trained and prepared to accomplish the mission in a safe manner. References for the different work center programs are in **Module 3** of this AFQTP.

PMO

The PMO manages the life cycle of equipment. A 1C8X3 may be assigned to one of these PMOs. Also, Work Center Managers may also interact with PMOs to complete projects within their work center.

As an example, let's say the PMO for a radar system is planning the upgrade and installation of a remote interface module for a radar system. They have 50 of

these radars throughout the Air Force inventory and will utilize the civilian project team to coordinate actions with Work Center Managers at every location. You, as the Work Center Manager, will directly coordinate resources, logistics, lifecycle sustainment, limitations and schedules with the PMO (or their project team). You will also ensure your leadership is engaged and knowledgeable on the planned installation so they can continue mission execution effectively. In a sense, you are a leading liaison for the PMO, their project team, and your leadership.

If you are assigned to a PMO, a good place to look for training is DAU website. On DAU website, the 1C8X3 personnel can take the ***ACQ 101: Fundamentals of Systems Acquisition Management*** to get a better understanding of the processes within the PMO. DAU also provides Contracting Officer's Representative training. As always, check with your local UTM, Base Contracting Office and MFM for more training and references.

PROJECT MANAGEMENT

A normal project for the 1C8X3 AFSC is equipment installs. You may be called on to be a project manager for an equipment modification or install in your local work center. This section will provide the Work Center Manager with an overview and references for project management. AFI 13-204V4 discusses Project Management and should be used by the Work Center Managers when tasked to be the Project Manager. For additional training see E-Learning website for the Fundamentals of Project Management training.

A project is defined as a temporary endeavor undertaken to create a unique product, service, or result and is usually born as a result of:

- Organization Needs (due to high costs, we may choose to combine functions or outsource – e.g., RMC)
- Customer Requests (New office space)
- Technological Advances (CM300/350 radios, upgrades to existing equipment)
- Legal Requirements (FAA, National Weather Service (NWS) or Host Nation regulations)
- Ecological Impacts (decrease environmental impacts)

Projects can come from many sources, however, as a RAWS Work Center Manager, you will participate in projects originating from primarily two sources:

- Downward directed
- Bottom up, or work center/customer request

As the Work Center Manager, you are required to assign a project manager to any project that arises. This section will provide the Work Center Manager with an overview and references for project management.

PHASES OF PROJECT MANAGEMENT

Project Managers have a unique job of identifying and fitting together all the pieces of the puzzle in order to ensure effective and efficient implementation. In

order to do this, you must be organized and thorough in your duties. The Project Management Institute (PMI) has established a five section approach to projects to help establish effective organization and implementation of projects. These sections are known as Process Groups and are as follows:

- Initiate
- Plan
- Execute
- Monitor & Control
- Close

Process Groups may overlap and iterate within each project and each group interacts in some way with the other process groups. The following outlines the basic structure of what happens in each group.

INITIATE

Effectively initiating a project is the most vital part of project management. This process group establishes everything to occur during the project. It is extremely important to obtain, define and understand the overall ***scope*** of the project. Scope defines the product, service, or result boundaries and acceptance criteria and clearly states what a project will deliver when completed. It should be clear and concise enough to provide the lateral limits of project team interaction and expectations. This will help prevent ***scope creep*** where more and more actions and responsibilities are added to the project, draining unexpected resources.

If the project was downward directed, the actions normally completed during the Initiate Process Group are done at a higher headquarters level like a Program Management Office (PMO).

However, if the project is born from the base level (bottom up), there are many actions that must take place prior to moving on to the Plan Process Group. The Initiate Process Group includes collecting information that allows the project to start. Project Manager involvement at this stage is essential to ensuring the rest of the project flows smoothly.

When a need is discovered that requires a project to implement solutions, you will have to determine what the requirements are. It is essential you identify all requirements at this stage. Identifying requirements can be considered the most difficult process when initiating a project, as many stakeholders don't fully know what they need/want. If pieces are left out, it could put your project over budget, off-schedule, or potentially kill it all together leaving a lot of wasted time, effort, and money in its wake. You must determine whether you have in house SMEs that have the technical knowledge to identify all the requirements necessary or if you will need to seek outside assistance.

If you need outside assistance to determine the requirements, first identify what type of agency you will need:

- Communications Lines (copper, fiber, CAT V, etc.)

  - For communications projects, fill out a WOMS ticket/AFTO Form 229 and submit through the local Communications Squadron's Plans and Programs Flight.

NOTE:

MPTO 00-33D-2002 should be used as a guide when filling out the WOMS ticket/AFTO 229.

  - Any additional questions can be directed to the Communications Squadron's Plans & Programs Flight.

- RAWS associated equipment
  - For RAWS associated equipment projects, contact AFFSA for guidance.
- Other
  - Examples of "other" projects may be an office move or equipment relocation.
  - You may need to fill out an AF Form 332 for Civil Engineering requirements, a Cyber Infrastructure Planning System (CIPS) requirement development worksheet (obtained from the Communications Squadron), or open a ticket with the Communications Focal Point.

A key ingredient to ensuring you have identified all the necessary requirements is identifying and utilizing all stakeholders in the project. A stakeholder is defined as people, groups, or organizations that could impact, or be impacted by, the project. Some examples of usual RAWS stakeholders may include, but are not limited to:

- Flight and squadron leadership
- MAJCOM Functional
- AFFSA
- FAA
- NWS
- Users
- Communications Squadron
- Civil Engineering Squadron
- Other SMEs

Get input from all stakeholders prior to proceeding to the plan section of your project. Once you have identified and consulted all stakeholders, and obtained all necessary information (i.e., technical solutions, requirements, etc.), you can move on to the Planning Process Group for your project.

NOTE:

If you want to change the operation, use or appearance of AF centrally supported equipment/systems, you must use the Modification

Proposal process outlined in AFI 13-204V4. Also consult with the PMO for the specific equipment/system.

PLAN

Planning collects relevant information to the project to create a smoother transition through execution, monitoring and controlling the project. It defines and refines objectives and develops courses of actions required to attain those objectives. Planning is an iterative process that will occur throughout the project as significant changes occur or new data is learned about the project.

There are many relevant processes to accomplish in the planning phase, such as establishing regular meetings, creating schedules, coordinating resources, and much more.

The Plan Process Group uses the outputs from the Initiate Process Group, such as the tech solution, as an input for its work. Most planning occurs before any of the work, or Execute Process Group, begins and encompasses all of the preparation necessary to fulfill the requirement. The following are the more common actions occurring during the Plan phase:

- Requirements review/validation
- Site Surveys
- Identify logistic support requirements
- Development/Validation of Technical Solutions and Costs
- Project Materials acquisition/storage
- Allied support coordination

Requirements and/or tech solutions identified in the Initiate stage will now need to be validated and costs identified. Requirement identification is a responsibility of leadership and PMOs. It is your responsibility as a Work Center Manager to ensure everyone on your team understands who is responsible for what, and what the finalization of a project looks like. Technical solutions are identified by utilizing SMEs.

For downward directed projects, this is usually the point where the Work Center Manager gets involved.

- Site Surveys
- Identify logistics support
- Project Materials Acquisitions/Storage
- Allied Support Coordination
- Review Engineering & Installation project packages/amendments

NOTE:

Consider downtime, sustainment/life cycle management (funding, 2nd level support, contracts, parts, manpower), dates/times, escorts.

Once all planning elements are in place, the project moves into the Execute Process Group, which is where the work happens.

EXECUTE

Work is accomplished by following the project plan. During this process, project managers will coordinate resources, manage stakeholder engagement, integrate and perform the actions of the project.

This process group is where the majority of the project resources (time, money, manpower) are expended. It is also the main process group where changes will occur to overcome unexpected issues.

During the direct execution phase of a project, it is common to hold regular meetings to ensure all stakeholders are informed of project activities, timelines, resources, and budget. It is important to ensure leadership is fully aware of the status of project execution and knowledgeable on all delays or advancements.

As an example, imagine you are coordinating the installation of a new system. You may have a teleconference with the PMO for the system explaining the status of material delivery they initiated and when your maintenance personnel will be available to assist installation. After this meeting, you may have a less formal briefing for your flight, squadron, or group leadership to explain the status of the project.

This process group will last until the project is complete and close-out actions begin.

MONITOR & CONTROL

Monitoring and Control is an iterative action incorporated into every phase and process of managing a project. Every stage of a project requires some form of control. This process group includes tracking, reviewing, and regulating project progress and performance against the project plan within the project scope. Additionally, it is the mechanism used to identify areas which require project plan changes.

Monitoring is collecting project performance data, producing performance measures, and reporting/disseminating performance information.

Controlling is comparing actual performance with planned performance, analyzing variances, assessing trends for process improvement, evaluating alternatives, and recommending appropriate corrective actions when needed.

Continuing with the system installation example, this process group will readily identify potential issues in every phase. During the initiate phase, it may be necessary to identify which stakeholders hold the most influence and control information flow to only those necessary to reduce the likelihood of delays. During the planning phase, you may discover plans are being created that are outside the scope of the project and must be rectified and discussed. During the execution phase, monitoring may identify a lack of training to accomplish a certain task that must be fixed to finish the installation.

CLOSE

Once all project requirements have been met and all work has been carried out to the satisfaction of all stakeholders, activities in the Close Process Group ensure that all loose ends are tied up and the project is officially ended.

NOTES:

Dispose of excess project materials, AFTO 747 signed, CIPS records updated, documents and equipment turned over to owning activity (as-builts, etc.), historical records created, DD 1354 (real property) completed as required, equipment put into operational use.

Closing includes 3 major activities:

- Delivering the product to the customer. If you finalized the installation of a new system, this would include using the newly installed system for the mission.
- Redeploying project resources includes reallocating manpower resources to work on other actions. It usually means returning to normal operations.
- Post-project review is the action of assessing performance of the project and capturing lessons learned. This data may show where additional training is needed or processes that will require refinement to streamline future projects.

Close-out includes collecting and filing all pertinent files in relation to the project. In the instance of a freshly installed system, this will mean filing all email correspondence, ensuring siting information is well-documented for future requirements, and properly acknowledging the actions of your personnel.

SUMMARY

This module provided Work Center Managers with an overview of Program management that was broken down into Work Center programs and PMOs. It also discussed Project Management and the phases in which the project gets accomplished.

MODULE 07
BUDGET & MANPOWER MANAGEMENT

PREREQUISITE

- Modules 01 through 06

TRAINING REFERENCE(S)

- AFI 10-201, *Force Readiness Reporting*
- AFI 10-244, *Reporting Status of Air and Space Expeditionary Forces*
- AFI 10-401, *Air Force Operations Planning and Execution*
- AFI 13-204V4, *Management of Ground RADAR and Airfield Systems*
- AFI 38-205, *Expeditionary Manpower Management*
- AFI 64-117, *Government Purchase Card Program*
- AFI 65-601v1, *Budget Guidance and Procedures*
- Title 10 USC §117

INTRODUCTION

Resource Management is critical to enabling a unit to conduct its mission. It ranges from funds to managing people and equipment. This module covers financial and personnel management.

Work centers use many types of funds to accomplish the mission from Operation and Maintenance (O&M) funds placed in the AF supply system to GPC financial activities. Whatever the case, it is the Work Center Manager's responsibility to foresee all possible purchases within a given time period including office supplies, equipment repairs and/or replacement, etc. Sometimes it is not possible to plan for unexpected purchases, hence the need for Unfunded Requirements (UFR).

To understand budgeting, it is important to first know about the AF Resource Management System (RMS) and the responsibilities of individuals within the system including the Work Center Manager. The RMS is comprised of the Work Center Manager and the Cost Center Manager (CCM) or Resource Advisor (RA). This module covers using the RMS, GPC, Funded and UFRs, responsibilities, the funding process, multiple funding types, financial planning, and the shortfall process. The first area covered in this module is the RMS components and their responsibilities.

Manpower is another resource that needs to be utilized properly. This module will cover Alpha Roster, Unit Manning Document (UMD), and Unit Personnel Management Roster (UPMR).

WORK CENTER LEVEL BUDGETING

As a Work Center Manager, it is a requirement to create and manage a budget which accounts for all operational expenses for multiple Fiscal Years (FYs). Spend plans and execution plans typically focus on one FY and Program Objective Memorandums (POMs) focus on a 5-year plan.

Sometime during the second quarter of the FY, the CCM or RA will notify the Work Center Manager to provide budget inputs for the next FY. Do not get caught unprepared! This notice can cause a good deal of frustration if a manager has no idea of the amount needed to operate the work center next year. Plan and prepare in advance to provide an accurate input by looking at two main areas: new mission requirements and historical data. Conduct financial budget planning throughout the year as issues arise, and not as a response to requests for budget inputs. The D04 lists all orders placed on a specific Julian date and can be used to view all parts have successfully been ordered for that day. The D04 can be acquired through IMDS, or your local supply liaison. The M30 is a monthly listing that shows all of the outstanding orders that have not been received, but funds have been allocated for. Together, these can be used in forecasting funds throughout the year.

FISCAL YEAR

The FY is broken into four quarters, each containing their own significant budget actions and requirements. The budget process regularly fails to flow exactly as planned due to Congressional delays, leadership priorities, and resource availability. Below are some normal actions and requirements for each quarter.

1ST QUARTER

Oct 1 starts the fiscal year and continuation funding is typically still being utilized. Real funding for the year drops in roughly December, this can be utilized for GPC purchases, TDY expenditures, etc.

2ND QUARTER

In February, you begin working on the budget for next fiscal year. You need to allocate for the Execution Plan. Near the midyear the work center accounts for mission failure, safety, red jobs, and UFRs.

3RD QUARTER

This time period of Mar/Apr managers account for end of year purchases. This would include TDYs, GPCs, furniture, office supplies, etc. You would follow your RA's requirements for said items. Be ready to execute funds. If you can't execute the funds, you may lose them.

4TH QUARTER

These months are used to purchase from the lists that were created such as UFR, Integrated Priority Listing (IPL), and anything else that pops up.

FUNDING REQUIREMENTS

It is important to look down the road at least 18 – 60 months to determine if any mission changes will take place. For example, suppose E&I is scheduled to install a new digital microwave radio shot between AFB X's unmanned radio site and transmitter site. The following questions and or statements can help determine project maintenance costs.

- Will new TMDE need to be purchased? If so, what is the total cost?
- Are initial spares required, and are spares locally funded?
- Will items be added to B/S and how much will they cost?
- Are any special tools required? If so, what is the cost?
- Is formal training required? If so, what are the TDY costs?
- Will extra trips to the site be necessary? If so, what is the added cost of transportation?
- Are there any out-of-pocket expenses such as local purchase of C-coded items to support the installation?
- Are there any additional support costs?

NOTE:

Get quotes for allied support early. Know the GPC limits for products/services as this can affect the project timeline. Can the base Communications Squadron perform the work? Does the Civil Engineering Squadron have a Blanket Purchase Agreement (BPA) for needed services?

Work closely with the RA or CCM to accurately project the additional costs incurred by this mission change. Make sure this information is included in the budget estimate for next FY along with proper justification for the additional funding requirement.

The above information should give a basic concept of how to financially prepare for new or changing mission requirements. The information is not all-inclusive as there may be other areas to consider. Use personal experience and help from the maintenance staff to cover all the bases.

HISTORICAL DATA

As mentioned earlier, it's a good idea to retain D04 reports and any other available detail listings. The cost information can be used as a baseline for projecting next year's operating costs. When reviewing historical operating cost data, be sure to consider the items listed in the Historical Operating Cost Data.

Reviewing Historical Operating Cost Data	
Type	**Description**
DUO	Are there any obligated DUO items for which current FY funds are unavailable? Are there valid requirements for these DUO? If so, include their cost in next year's budget projection.
Safety Equipment	Is there a need for ladders, safety shoes, safety glasses, gloves, etc.? If so, do these items need replacing? Do not forget to check the safety board items. For example, check the safety board to ensure there is a first aid kit. Is the seal broken; is it due for an inspection; and do items need replacement?
Individual Issue	Are work gloves or hard hats required for all personnel? Check the condition of everyone's equipment to see which items need replacing and project funds accordingly.
Office Supplies	This is probably the toughest area to estimate. The best advice is to calculate last year's expenditures and go from there. Have enough supplies on hand to meet minimum requirements.
Tools	Inventory the CTKs and/or have personnel check their toolboxes to determine if there is a need to purchase tools for next year. The Base's GPC store can provide cost information, if needed.
Fuel	If a work center has a vehicle assigned, how much money is required for fuel, oil, etc.?
Base Supply	Use D04 reports to determine the current amount spent this year. Make sure requirements are correct and make the appropriate cost projection.
Stock Fund	Each unit has to pay for XD and XF repair cycle assets also known as DIFM items. Unless returning a completely serviceable item to Base Supply, the work center does not get full reimbursement for the original issue.
TDY's	Be sure to project for all TDY requirements. Although TDY funds may come from another CC, be sure to identify any anticipated travel.
B/S	What items will need to be resupplied for B/S? Ensure stock levels are taken into account to not fall below required levels.

UNFUNDED REQUIREMENTS

- Now that next year is planned, what about those unexpected expenses that just seem to pop up? How are those expenses planned or funded? If an individual needed money for an emergency, they would go to the bank for a loan. It's a similar process on the job.

- It's virtually impossible to project all monetary requirements. Suppose a cable duct collapses and crushes two cables. Now the shop has to replace two runs of 200-pair cable, and each run is 150 feet. If not provided organically by the unit, cables must be purchased. When funds are unavailable, how are the cable expenses covered? Submit an UFR to the unit RA.
- Explain the situation, itemize the purchase materials, and state the priority of the job. RAs may have slightly different local procedures so be prepared to justify all requirements to the fullest. If this request is truly an emergency, funds will be made available.
- End of year spending (August/September) typically involves a massive amount of unobligated funds across the Air Force. This is a prime opportunity to give UFRs to the RA to allocate the funds for any unplanned projects or enhancements for your organization. If you can show you have a plan to spend excess funds earlier than other units, you are more likely to receive the desired funds.

NOTE:

Typically UFR funds are gained from funds that were not executed as planned. Sometimes, a funded requirement drops and leaves excess funding laying around. Many times the funds are shared across bases/organizations under the same MAJCOM.

MANPOWER

As a Work Center Manager, it is important to understand how manpower is determined, allocated and adjusted in order to meet the mission.

ALPHA ROSTER

This is the main document that identifies assigned personnel to the organization. It is important to check this document for accuracy periodically. The information provided by this document for work center members may include:

- Name
- Rank
- Office symbol
- Duty Title
- Duty start date
- Date of Rank (DOR)
- Duty/Career/Primary AFSC
- Total Active Federal Military Service Date (TAFMSD)
- Date of Separation (DOS)
- Supervisor

UMD

The UMD lists the unit funded manpower authorizations. This document shows how many positions (by rank and skill level) are authorized for your work center including position numbers.

If you are severely undermanned or have a huge project in the works keep your leadership informed and reach out to your functional manager. The MAJCOM functional can/may provide a manpower assist with TDY bodies to help with mission surge or manning shortfall.

This document also shows if you are projected to get a change in manning/number of positions. Should you need to initiate a change, your unit would need to submit an Authorization Change Request (ACR).

UPMR

This document identifies which personnel are assigned to which position numbers for your organization. This will let you know if you are under/overmanned, for your work center. This is instrumental to making sure you have the proper skill levels filled with the right personnel. Your work center will be at a disadvantage if you mismanage these authorizations.

SPECIAL EXPERIENCE IDENTIFIER (SEI)

SEI codes are used to identify Airmen's experience with either a specific equipment or position. SEI codes can be found in the *Air Force Enlisted Classification Directory* (AFECD).

SUMMARY

To meet inherent Work Center Manager financial management responsibilities, it is important to have a basic understanding of the Resource Management process, know how to project budget requirements, and control spending to remain within the projected FY target. Hopefully this chapter removes some of the mystery about the budget process and gives a good idea of how to project and manage resources wisely. For more information, check with the CCM or unit RA. Additionally, you should also have a better understanding of how your work center manning is determined, and how to make changes if necessary.

MODULE 08
DEPLOYMENT MANAGEMENT

PREREQUISITE

Modules 01 through 07

TRAINING REFERENCE(S)

- AFI 10-201, *Force Readiness Reporting*
- AFI 10-244, *Reporting Status of Air And Space Expeditionary Forces*
- AFI 10-401, *Air Force Operations Planning and Execution*
- AFI 10-403, *Deployment Planning and Execution*
- AFI 36-3802, *Force Support Readiness Programs*

INTRODUCTION

As a Work Center Manager, you will have to deal with deployments. This module will give you some insight on the whole process and what you can do to prepare.

- Understand the concept of deployment.
- Ensure personnel are prepared to deploy.
- Ensure the work center can still perform the mission when Airmen are deployed.

CONCEPT OF DEPLOYMENT

What is a deployment? The technical definition is "a quality or capability of military forces which permits them to move from place to place while retaining the ability to fulfill their primary mission." Simply stated, deployment is the act of moving personnel and/or equipment to another location to accomplish the assigned mission. Advanced logistics planning is central to an effective deployment program. We do this through the Air and Space Expeditionary Forces (AEF) concept.

AEF CONCEPT

The AEF concept provides forces and support on a rotational and relatively predictable basis. The AEF 'force generation' construct establishes a predictable, standardized battle rhythm to ensure operational forces are organized, trained, equipped, and ready to respond to combatant commanders' requests for forces.

Using a rotational capacity construct, deployed units undergo a period of dwell (i.e., time spent at home station) before entering another deployment/mobilization vulnerability period. The Air Force relies on the AEF as a force management tool to sustain capabilities while rapidly responding to emerging crises. The Air Force supports global Combatant Commanders requirements through a combination of

assigned, attached (rotational), and mobility forces that may be forward deployed, transient, or operating from home station.

AEF BATTLE RHYTHM

The AEF operates on a 24-month life cycle. This cycle includes periods of normal training preparation, and deployment vulnerability. During initial in-processing at your assigned unit, your members will be placed in a tempo band. For most forces, the majority of the AEF battle rhythm is in normal training. This means forces typically concentrate on unit missions and basic proficiency events. Post-deployment reconstitution is included in this period.

AEF SCHEDULE

The AEF schedule operates on two 12-month life cycles that align with the global force management cycle and coincides with FYs. Prior to the beginning of every AEF cycle, the AFSC Functional Area Managers will revalidate the deployment-to-dwell period alignment of their respective capability areas and realign forces if necessary. Every 12 months a new 24-month AEF schedule is established.

AEF INDICATORS (AEFI)

All airmen should receive AEFIs within 15-days of their Date Arrive Station. For individuals assigned to readily available forces, their AEFI will correspond to the same AEF period as the unit's UTC. For individuals assigned to the Institutional Force, the AEFI will correspond to an AEF vulnerability period determined by the Airman's commander or equivalent. Except in cases of reaching forward, individuals will deploy during their associated AEF vulnerability period.

TASKINGS

When your unit is in its tempo band vulnerability timeframe, they are in their window to deploy. The Unit Deployment Managers (UDMs) will check a document daily called Time Phased Force and Deployment Data (TPFDD). This document will show UTCs tasked along with deployment dates, what training will be needed, and how many personnel specifically are being tasked. The UDM will ask the Work Center Manager for names for the tasking(s). Then it will be up to you to keep the work center balanced.

UTC

A UTC refers to equipment, personnel or both. As a Work Center Manager, you should regularly consult with your UDM and determine if your personnel are assigned to UTCs. This practice will reduce many scheduling and maintenance conflicts. As an example, let's say nine RAWS personnel are required to augment the existing workforce currently maintaining a TPN-19 at base "Y." As such, spare parts identified for the TPN-19 at base "Y" will be stored in a war readiness storage area on or near that base. What about those nine RAWS maintenance personnel? The personnel are grouped and assigned to UTCs. This is a 6-digit alphanumeric code used to readily identify a team of personnel and equipment.

Further in our example, 7FVLX is a UTC that identifies a need for 9 RAWS personnel to support particular deployed mission sets. In our combat environment, ***there are two Combatant Commanders*** that require RAWS personnel to support

their missions. They will each request support from the 7FVLX UTC. Personnel whose AEFI align with their vulnerability window are susceptible to support these taskings.

Now you, as the Work Center Manager, have been tasked to support two separate UTC taskings from your current resource pool. You will need to select two Airmen for the first tasking and an additional one for the second tasking. The remaining maintenance personnel will come from other units in the same AEFI.

Not only are you losing manpower by supporting deployed missions, you must ensure your home-station mission requirements are being met as well! That is the challenge of managing resources as a Work Center Manager.

AEF REPORTING TOOL (ART)

AEF Reporting Tool is a tool your Commander uses to gauge the readiness of their unit. This metric is done monthly. This is to make sure that if you have a UTC that requires two 5-levels and can only fill it with 3-levels you would report this deficiency with a get-well date. It is necessary to mention any changes to the UDMs. Status of Resources and Training System compliments ART by focusing on equipment and training.

STATUS OF RESOURCES AND TRAINING SYSTEM (SORTS)

SORTS is your Commander's assessment of the unit's ability to execute the mission. Resource readiness accounts for the ability of the unit to provide trained personnel and equipment for the unit's mission scope. The UMD is the document that drives the SORTS reporting, not the UTCs. The Work Center Manager is responsible for reporting the status of their resources and training to the UDM office monthly.

RECALLS

Recalls are a test of the unit's ability to respond at any given time. Recalls reflect flexibility and preparation. The basic recall objective should be for the commander to have 100% of their personnel on-hand at any given time to meet an emerging crisis. Mobility personnel are normally required to report with their personal bags (and other applicable bags) packed and ready to go. Bag inspections ensure compliance with the local requirements. It is the Work Center Manager's duty to ensure personnel comply. Mobility requirements are constantly being tested, challenged, and revised.

DEPLOYMENT PLANNING

Deployment planning is a two-sided topic. The first is preparing individuals assigned to a UTC to support the deployed tasking. The second is having a plan to keep the work center running efficiently. This may require extensive training and devising projected work schedules to accomplish both. Assess the situation, develop a work center contingency plan, and be prepared to implement it should the need arise.

CONTINGENCY TRAINING AND WORK CENTER TASK COVERAGE

Once you are familiar with the type of equipment your personnel will deploy to maintain, it will be important to tailor the work center training program to ensure personnel receive maximum training on that equipment. When your personnel do deploy, your work center must still perform its assigned mission. You must ensure your work center is prepared to be effective while not fully manned.

SUMMARY

Once again, the Work Center Manager is the main player in accomplishing an important job. Take time to understand the AEF concept and prepare your work center and personnel. If you effectively identify deployment taskings, prepare Airmen for the tasking, and continue the work center's mission when personnel are deployed, your unit will successfully meet the mobility challenge.

GLOSSARY

TERM	DEFINITION
ACR	Authorized Change Request
ACS	Air Control Squadron
ADLS	Advanced Distributed Learning Service
AEF	Air and Space Expeditionary Forces
AEFI	AEF Indicators
AFCFM	Air Force Career Field Functional Manager
AFEMS	Air Force Equipment Management System
AFETS	Air Force Engineering and Technical Support
AFFSA	Air Force Flight Standards Agency
AFJQS	Air Force Job Qualification Standard
AFMQCC	Air Force Maintenance Quality Control Checklist
AFQTP	Air Force Qualification Training Package
AFRCC	Air Force Rescue Coordination Center
AFSC	Air Force Specialty Code
AFTC	Air Force Training Course
AFVA	Air Force Visual Aid
AI	Acceptance Inspection
AOR	Area of Responsibility
ART	AEF reporting tool
ASC	Allowance Source Code
ATC	Air Traffic Control
ATCALS	Air Traffic Control and Landing Systems
ATCS	Air Traffic Control Squadron
AWP	Awaiting Parts
B/S	Bench Stock
BPA	Blanket Purchase Agreement
C-E	Comm-Electronics
CA/CRL	Customer Authorization/Customer Receipt Listing
CATM	Combat Arms Training and Maintenance
CBCS	Combat Communications Squadron
CCM	Cost Center Manager
CDC	Career Development Course
CFETP	Career Field Education and Training Plan
CFM	Career Field Manager
CIPS	Cyber Infrastructure Planning System

CJQS	Command Job Qualification Standard
CMS	Calibration Maintenance Schedule
COTS	Commercial Off-the-Shelf Manual
CPR	Cardiopulmonary Resuscitation
CTK	Consolidated Tool Kit
CWSS	Combat Weather Systems Squadron
DALR	Digital Audio Legal Recorder
DASR	Digital Airport Surveillance Radar
DAU	Defense Acquisition University
DBM	Database Manager
DDR	Detailed Data Records
DIFM	Due-In From Maintenance
DOR	Date of Rank
DOS	Date of Separation
DUO	Due Out
EE	Equipment Evaluations
EIL	Equipment Inventory List
EIN	Equipment Identification Number
ELC	Enterprise Location Code
EPE	Equipment Personnel Evaluations
ERRC	Expendability, Recoverability, Repairability Code
ESD	Electrostatic Discharge
ESR	Equipment Status Reporting
ETVS	Enhanced Terminal Voice Switch
FAA	Federal Aviation Administration
FCH	Field Craft Hostile
FDIO	Flight Data Input/Output
FOA	Field Operating Agency
FOD	Foreign Object Damage
FY	Fiscal Year
GPC	Government Purchase Card
HAZCOM	Hazard Communication
IAO	Information Assurance Officer
ILS	Instrument Landing System
IMDS	Integrated Maintenance Database System
IPB	Illustrated Parts Breakdown
IPE	Individual Personnel Evaluations
IPL	Integrated Priority Listing

ISD	Instructional System Development
ITP	Individual Training Plan
JCN	Job Control Numbers
JDD	Job Data Documentation
JST	Job Standards
JSTG	Job Safety Training Guide
JSTO	Job Safety Training Outline
KE	Knowledge Evaluation
LOP	Local Operating Procedure
LRS	Logistics Readiness Squadron
LWC	Local Work Cards
ME	Managerial Evaluations
METNAV	Meteorological/Navigation
MFM	MAJCOM Functional Manager
MICAP	Mission Capable
MICT	Management Internal Control Toolset
MILSPEC	Military Specification
MIP	Maintenance In Progress
MOA	Memorandum of Agreement
MOC	Maintenance Operation Center
MOU	Memorandum of Understanding
MRU	Minimum Reserve Authorization
MSI	Maintenance Special Instructions
MTL	Master Training List
MTP	Master Training Plan
MX SUPT	Maintenance Superintendent
NAVAIDS	Navigational Aid System
NCR	No Calibration Required
NEXRAD	Next Generation Radar
NIC	Not In Compliance
NORAD	North American Aerospace Defense Command
NRTS	Not Repairable This Station
NSN	National Stock Numbers
NTSB	National Transportation Safety Board
NWS	National Weather Service
O&M	Operation and Maintenance
OCR	Office of Collateral Responsibility
OI	Operating Instruction

OIL	Open Incident Log
OJT	On-the-Job Training
OPR	Office of Primary Responsibility
OSS	Operations Support Squadron
OWC	Owning Work Center
OWS	Operational Weather Squadron
PAR	Precision Approach Radar
PCAS	Primary Crash Alert System
PE	Personnel Evaluations
PMA	Portable Maintenance Aids
PMEL	Precision Measurement Equipment Laboratory
PMI	Preventive Maintenance Inspections
PMI	Project Management Institute
PMO	Program Management Office
POM	Program Objective Memorandums
PPE	Personal Protective Equipment
Q-Flight	Qualification Training Flight
QA	Quality Assurance
R&R	Remove and Replace
RA	Resource Advisor
RADES	Radar Evaluation Squadron
RAPCON	Radar Approach Control
RAWS	Radar, Airfield, and Weather Systems
REMIS	Reliability and Maintainability Information System
RMC	Regional Maintenance Center
RMS	Resource Management System
SDS	Safety Data Sheet
SEON	Solar Electro-Optical Network
SMAG	Supply Management Activity Group
SME	Subject Matter Expert
SMR	Source, Maintenance, and Recoverability Code
SORTS	Status of Resources and Training System
SPE	Special Personnel Evaluations
SRD	Standard Reporting Designator
SSM/SSD	System Support Management or Directive
STARS	Standard Terminal Automation Replacement System
STS	Specialty Training Standard
TACAN	Tactical Air Navigation System

TAFMSD	Total Active Federal Military Service Date
TAS	Tool Accountability System
TBA	Training Business Area
TCTO	Time Compliance Technical Order
TI	Technical Instructions
TM	Type Maintenance
TMDE	Test, Measurement, Diagnostic Equipment
TO	Technical Orders
TODO	Technical Order Distribution Office
TOMA	Technical Order Managers
TPFDD	Time Phased Force and Deployment Data
TR	Training Reference
TRSS	Training Support Squadron
UDM	Unit Deployment Managers
UEI	Unit Effectiveness Inspection
UFR	Unfunded Requirements
UJC	Urgency Justification Code
UMD	Unit Manning Document
UND	Urgency of Need Designator
UP	Units Produced
UPMR	Unit Personnel Management Roster
UTC	Unit Type Code
UTM	Unit Training Manager
WCE	Work Center Event
WUC	Work Unit Code
WWID	World Wide Identification Code

TRAINING REFERENCE(S)

TR	PUB DATE
AFCSM 21-556 V2, Introduction to IMDS CDB	1 Dec 2017
AFCSM 21-560 V2, C-E Equipment Status & Inventory Reporting	1 Dec 2017
AFCSM 21-561 V2, Maintenance Events	1 Dec 2017
AFCSM 21-563 V2, Job Data Documentation	1 Dec 2017
AFCSM 21-564 V2, Status & Inventory	1 Dec 2017
AFCSM 21-566 V2, Inspection & Time Change	1 Aug 2017
AFCSM 21-568 V2, Time Compliance Technical Order	1 Aug 2017
AFCSM 21-569 V2, Personnel Management	1 Aug 2017
AFCSM 21-570 V2, Training Management	1 Jun 2016
AFH 23-123 V2, part 2, Integrated Logistics System (ILS-S) Standard Base Supply System Operations	8 Aug 2013
AFH 23-123 V1, Material Management Reference Information	8 Aug 2013
AFH 23-123 V3, Air Force Equipment Management	8 Aug 2013
AFH 36-2235 V11, Information for Designers of Instructional Systems Application to Unit Training	1 Nov 2002
AFI 10-201, Force Readiness Reporting	
AFI 10-244, Reporting Status of Air and Space Expeditionary Forces	3 Mar 2016
AFI 10-401, Air Force Operations Planning and Execution	7 Dec 2006
AFI 10-403, Deployment Planning and Execution	20 Sep 2012
AFI 13-204 V4, Management of Ground RADAR and Airfield Systems	18 Jan 2017
AFI 21-101, Aircraft and Equipment Maintenance Management	21 May 2015
AFI 21-103 Chapter 6, Equipment Inventory, Status and Utilization Reporting	16 Dec 2016
AFI 23-101, Air Force Material Management	12 Dec 2016
AFI 36-2650, Maintenance Training	2 May 2019
AFI 36-2651, Air Force Training Program	3 Jan 2019
AFI 36-3802, Force Support Readiness Programs	9 Jan 2019
AFI 36-401, Civilian Training, Education, and Professional Development	31 May 2018
AFI 38-205, Expeditionary Manpower Management	24 May 2012
AFI 64-117, Government Purchase Card Program	22 Jun 2018
AFI 65-601 v1, Budget Guidance and Procedures	24 Oct 2018
AFI 91-202, The US Air Force Mishap Prevention Program	24 Jun 2015
AFMAN 23-122, Material Management Procedures	14 Dec 2016

AFMAN 91-203, Air Force Occupational Safety, Fire, And Health Standards	11 Dec 2018
CFETP 1C8X3, Radar, Airfield & Weather Systems (RAWS)	6 Feb 2018
Defense Acquisition University (DAU) website	
Project Management Body of Knowledge (PMBOK ® Guide Sixth Edition)	
Project Management Fundamentals, E-Learning CBT	
TO 00-20-2, Maintenance Data Documentation	15 Mar 2016
TO 00-20-3, Maintenance Processing of Repairable Property and the Repair Cycle Asset Control System	10 Jul 2017
TO 00-25-195, Air Force Technical Order System Source, Maintenance, and Recovery Coding of Air Force Weapons, Systems, and Equipments	01 Oct 2012
TO 00-5-1, AF Technical Order System	15 Feb 2019

NOTE: Included reference(s) are for training use only. Technicians must use reference(s) from their publication source; e.g. ETIMS, e-PUBS, etc… when performing operational duties. Send feedback, updates, or any questions to RAWS Training Development at 334trs.raws.upgradetraining@us.af.mil