COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

This instruction implements Air Force Policy Directive (AFPD) 21-1, *Maintenance of Military Materiel*, and provides directive guidance for maintenance management at the Air Force Materiel Command (AFMC) Centers organic depots as it applies to aircraft and associated aerospace equipment. Air Force Materiel Command Instruction (AFMCI) 21-100, is comprised of three volumes: **Volume 1**, *Depot Maintenance Principles*; **Volume 2**, *Depot Maintenance Production*; **Volume 3**, *Depot Maintenance Production Support*. A Volume and Chapter breakout is provided in **Attachment 2**. For policies and procedures adhered to planning and administering depot level contract maintenance programs, refer to Air Force Instruction (AFI) 63-101/20-101, *Integrated Life Cycle Management,* and AFI 63-138, *Acquisition of Services*. This publication applies to all AFMC Regular Air Force. This publication does not apply to United States Space Force, Air Force Reserve, or Air National Guard units. This publication applies to all AFMC military and civilian members and those with contractual obligation to comply with Air Force publications. However, if an AFRC unit is assigned or associated with AFMC where AFMC is the lead this guidance would be applicable to the AFRC unit. Headquarters (HQ) AFMC and Centers will develop supplements to implement the requirements of this instruction at their level and provide them to the Office of Primary Responsibility (OPR) of this instruction for review and approval before publishing. Supplements and addendums to this instruction will be written in accordance with (IAW) Department of the Air Force Manual (DAFMAN) 90-161, *Publishing Processes and Procedures* and must be provided to the OPR of this publication for review and approval prior to publication. Supplements are submitted to Air Force Materiel Command, Directorate of Logistics, Civil Engineering, Force Protection, and Nuclear Integration, Maintenance Division (AFMC/A4/10/A4M) @ **AFMC.A4M.Workflow@us.af.mil**. Center-level Supplements must

identify and document all Center required deviations (applicability, variance, exception, and differences in organizational placement of responsibilities/processes) in their supplement and addendums with the abbreviation (DEV). Place the (DEV) entry after the paragraph number and directly preceding the affected text, such as (AFSC) (DEV) Use the..., or (ADDED-AFSC) (DEV) Use the...). Only current and verified technical data, as authorized by Technical Order (TO) 00-5-1, *Air Force Technical Order System*, will be used for depot maintenance. All contractor requirements in this instruction must be included in a contract/grant/agreement to be enforceable. Refer recommended changes and questions about this publication to the OPR using Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication* (or equivalent). Route DAF Forms 847 (or equivalent) from the field through the Center to the appropriate Major Command (MAJCOM) functional manager. Ensure that all records created because of processes prescribed in this publication adhere to AFI 33-322, *Records Management and Information Governance Program*, and are disposed IAW Air Force Records Disposition Schedule (RDS), which is in the Air Force Records Information Management System (AFRIMS). The waiver approval authority for requirements throughout this instruction is the publication Approving Official. Submit requests for waivers through the appropriate chain of command to the Publication OPR for consideration, using DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval* (or equivalent).

SUMMARY OF CHANGES

This instruction has been substantially revised and restructured into three volumes and must be reviewed in its entirety. Major changes include the incorporation of Guidance Memorandums, corrections, clarifications, and relevant information from other directives.

Chapter 1

DEPOT MAINTENANCE MANAGEMENT

1.1. Depot Maintenance. This instruction provides command level policy, guidance, and staff coordination for the management of Air Force (AF), and applicable other service, aircraft, and aerospace equipment depot maintenance within the Air Force Sustainment Center (AFSC). AFSC provides oversight for the three Air Logistics Complexes (ALCs), the Geographically Separated Units (GSUs), and Non-Standard Organizations (NSOs) aligned under them. This instruction requires AFSC and Air Force Life Cycle Management Center (AFLCMC) to develop, implement, and maintain standardized depot maintenance processes and procedures for all activities required to perform depot maintenance for AF, and applicable other service, weapon systems and aerospace equipment at the ALCs, GSUs, and NSOs.

1.2. Weapons Systems and Equipment Readiness. Weapons systems and equipment readiness is the maintenance mission. The maintenance function ensures assigned aircraft and equipment are safe, serviceable, and configured to meet mission needs. Maintenance actions include, but are not limited to, inspecting, repairing, overhauling, modifying, preserving, refurbishing, troubleshooting, testing, and analyzing condition and performance. Supervisors must emphasize safety, quality, and timeliness in the performance of maintenance. Each supervisor and technician must foster the concept of quality maintenance to ensure the integrity and skill of maintainers are not degraded. Maintenance is accomplished on a preplanned scheduled basis to the greatest extent possible. Planning provides the most effective and efficient use of people, facilities, and equipment, reduces unscheduled maintenance, and allows for progressive actions towards maintaining and returning aircraft and equipment to safe operating condition. Maintenance concepts are described in TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and Procedures*, and TO 00-25-108, *Communications-Electronics Depot Support*.

1.3. Maintenance Concept. Per AFPD 21-1, organizational, intermediate, and depot maintenance capabilities for operational readiness will be maintained to ensure effective and timely response to peacetime operations, mobilizations, national defense contingencies and other emergencies.

1.3.1. Depot-level Maintenance provides the capability to maintain materiel coded for organizational, intermediate, and depot levels of maintenance.

1.3.2. Depot-level Maintenance is any action performed on materiel or software in the conduct of inspection, repair, overhaul, or the modification or rebuild of end-items, assemblies, subassemblies, and parts that requires extensive industrial facilities, specialized tools and equipment, or uniquely experienced and trained personnel that are not available in lower echelon-level maintenance activities, and is a function and, as such, is independent of any location or funding source. Depot-level maintenance and repair also includes the fabrication of parts, testing, and reclamation, as necessary; the repair, adaptive modifications or upgrades, changes events made to operational software, integration and testing; and in the case of either hardware or software modifications or upgrades, the labor associated with the application of the modification. **Note:** Guidance for the use of Additive Manufacturing to build replacement parts is prescribed in AFI 63-101/20-101.

1.4. Maintenance Discipline. It is the responsibility of all maintenance personnel to comply with all written guidance to ensure required repairs, inspections, and documentation are completed in a safe, timely, and effective manner. Supervisors are responsible for enforcing and establishing a climate that promotes maintenance discipline.

1.5. Technical Orders (TOs). AF TOs are published under the authority of the Secretary of the Air Force (SECAF). Compliance with TOs is mandatory, except as explained in TO 00-5-1.

1.6. Modification Management. A modification proposal is a recommendation to alter the form, fit, function, or interface of an item, subsystem, or system whose requirements are documented, reviewed, and approved using an AF Form 1067, *Modification Proposal*, or appropriate Joint Capabilities Integration and Development System (JCIDS) documentation as described in applicable AFI 10-series publications. Refer to AFI 63-101/20-101 for modification management procedures.

1.7. Maintenance Information System (MIS). MIS refers to automated maintenance information systems that support and enable maintenance business processes. MIS will be used to document maintenance actions and determine fleet health. All information entered will be accomplished IAW TO 00-20-2, *Maintenance Data Documentation*. MISs are clearly defined in TOs 00-20-1, 00-20-2, and 00-20-3, *Maintenance Processing of Reparable Property and the Repair Cycle Asset Control System*. Non-maintenance management information systems follow guidelines under separate AFIs.

1.8. Nuclear Weapons Related Materiel (NWRM). The accomplishment of depot maintenance on NWRM items, whether at organic or contract (commercial) sites, shall comply with AFI 20-110, *Nuclear Weapons-Related Materiel Management.*

1.9. Duty Shifts, Rest Periods and Temporary Personnel Actions. Depot maintenance personnel shall have their duty hours aligned to provide the best mission support. Civil service employee work hours are governed by the collective bargaining agreement and its local supplement and federal and state laws. Contractor employee work hours are governed by the contract, federal, and state laws. Consider union requirements and climatic conditions when determining work schedules; local work/rest schedules for extreme temperatures are recommended by the Medical Group commander.

1.10. Civilian Visitors. AFSC will not permit civilian visitors to operate any AF equipment or specialized vehicles. Civil service employees, contractor employees, and other civilian personnel who must operate AF equipment as part of their assigned duties are not considered civilian visitors.

1.11. Statutory Framework. Title 10 of the United States Code (USC) contains several sections addressing depot maintenance. When necessary, request an authoritative interpretation or explanation of the following Title 10 provisions from the appropriate functional legal office.

   1.11.1. USC § 2460, *Definition of depot-level maintenance and repair*.

   1.11.2. USC § 2464, *Core logistics capabilities*.

   1.11.3. USC § 2466, *Limitations on the performance of depot-level maintenance of materiel*.

   1.11.4. USC § 2469, *Contracts to perform workloads previously performed by depot-level activities of the Department of Defense: requirement of competition.*

1.11.5. USC § 2470, *Depot-level activities of the Department of Defense; authority to compete for maintenance and repair workloads of other Federal agencies.*

1.11.6. USC § 2472, *Prohibition on management of depot employees by end strength.*

1.11.7. USC § 2474, *Centers of Industrial and Technical Excellence: designation; public-private partnerships.*

1.11.8. USC § 2476, *Minimum capital investment for certain depots.*

1.12. Metrics and Reporting. HQ AFSC will develop and provide metrics and reports to higher headquarters as requested. The broad metrics areas include, but are not limited to, Functional Check Flight (FCF) performance, flying hour execution reporting, financial, production, quality, manpower, training, capacity, capability, and infrastructure. Each of these broad categories may contain significant numbers of sub-metrics that are useful for depot operations. Standard metrics will be directed as needed in specific data calls and guidance from higher headquarters.

1.12.1. Program Offices (POs) may provide a performance assessment report to AFSC for Depot Maintenance activities. HQ AFLCMC and HQ AFSC should collaborate on performance assessment reporting.

1.12.2. HQ AFSC will ensure the ALCs report on Mission Essential Tasks (METs) in the Defense Readiness Reporting System (DRRS) as outlined in AFI 10-201, *Force Readiness Reporting*.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Headquarters Air Force Materiel Command, Directorate of Logistics, Civil Engineering, Force Protection, and Nuclear Integration (HQ AFMC/A4/10) will:

2.1.1. Ensure development, implementation, and sustainment of the capability necessary to satisfy depot maintenance requirements for DAF managed equipment.

2.1.2. Develop and implement a logistics requirements determination process for prioritizing requirements IAW Air Force Manual (AFMAN) 63-143, *Centralized Asset Management Procedures*.

2.1.3. Ensure development and implementation of depot maintenance (contract or organic) strategies, plans, procedures, and collect then report data to satisfy statutory requirements, including:

2.1.3.1. Core logistics capability IAW Title 10, USC § 2464.

2.1.3.2. 50/50 stipulations and data reporting IAW Title 10, USC § 2466.

2.1.3.3. Centers of Industrial and Technical Excellence (CITEs) and Public-Private Partnerships (PPPs) IAW Title 10, USC § 2474.

2.1.4. Ensure development and implementation of processes for assessing organic depot maintenance workload requirements and for making Depot Source of Repair (DSOR) recommendations for non-Core workloads and source of repair decisions IAW AFI 63-101/20-101, and AFMAN 63-122, *Depot Source of Repair Planning and Activation.*

2.1.5. Ensure development and implementation of productivity and work specification procedures to ensure performance to budget. Provide financial planning and prepare budgets for depot maintenance requirements through the Planning, Programming, Budgeting and Execution (PPBE) including the Program Objective Memorandum (POM) and the Annual Planning and Programming Guidance (APPG) processes.

2.1.6. Ensure processes are developed to determine and substantiate depot maintenance workload.

2.1.7. Ensure procedures to assess process improvement are implemented and ensure technical orders contain all required data.

2.1.8. Ensure a surge contingency plan is in place that provides:

2.1.8.1. Guidance and procedures for a responsive capability to accelerate, surge, or compress depot maintenance or modifications.

2.1.8.2. Procedures for approval or disapproval from the requesting Program Manager (PM) of AFMC projection of cost/impacts.

2.1.9. Develop and publish AF Depot Maintenance Master Plan (DMMP).

2.1.10. Ensure robust corrosion prevention program for fielded assets which will:

2.1.10.1. Collect and report corrosion related cost data as required by the AF Corrosion Control and Prevention Executive.

2.1.10.2. Develop funding forecasts to mitigate newly discovered corrosion problem areas.

2.1.10.3. Support PM/Product Support Manager (PSM)/Product Group Manager (PGM) and cognizant engineering authority in developing substitution strategies for hazardous and expanded standards chemicals (to include Cd, Cr 6+, strontium chromate, lead, etc.).

2.1.11. Ensure Serialized Item Management (SIM) techniques are implemented.

2.1.12. Ensure a process to control and document cannibalizations (CANN) is established to include written guidance on individual responsibilities and specific procedures for CANN actions.

2.1.13. Establish a Precision Measurement Equipment Laboratory (PMEL) Program, and ensure it complies with DAFMAN 21-113, *Air Force Metrology and Calibration (AFMETCAL) Management*, and TO 00-20-14, *Air Force Metrology and Calibration Program*.

2.1.14. Ensure depot activities document and report flying hours, equipment inventory, status, utilization, and equipment reliability and maintainability deficiencies/improvements.

2.1.15. Ensure a Quality Assurance (QA) Program is established. The QA Program will include a Maintenance Standardization and Evaluation Program (MSEP). The MSEP and QA Program will be established IAW **Volume 3, Chapter 8** of this instruction.

2.1.16. Ensure the allocation of resources to meet all mission requirements. Ensure the maintenance organizations are not overly tasked with augmentation duties outside maintenance functional areas.

2.1.17. Ensure depot maintenance activation and business planning are accomplished. Support development of depot maintenance requirements and planning for new system acquisitions.

2.1.18. Ensure AF depot maintenance transition plans and manufacturing process procedures are implemented.

2.1.19. Ensure accurate data on Core, 50/50, and PPP is collected and maintained for data call reporting from Headquarters Air Force (HAF).

2.1.20. Ensure the DSOR decision for contract versus organic CITE support is validated for contract partnership workload that is CITE-related.

2.1.21. Ensure the development and implementation of a process through which depot maintenance activities can request and receive engineering disposition for nonconforming technical problems that are outside published authority and new/revised procedures to facilitate equipment troubleshooting and repair procedures IAW Air Force Materiel Command (AFMCMAN) 63-1202, *Engineering Technical Assistance Request (ETAR) Process.*

2.1.22. Ensure development and implementation of procedures and training for successful execution of Depot Purchased Equipment Maintenance (DPEM) IAW AFMAN 63-143.

2.1.23. Ensure development and implementation of an Aircraft and Equipment Decontamination Program IAW **Volume 2, Chapter 12** of this instruction.

2.1.24. Ensure development and implementation of Foreign Object Damage (FOD) and Dropped Object Prevention (DOP) Programs IAW **Volume 2, Chapter 4** of this instruction.

2.1.25. Ensure a radiation protection program IAW AFI 48-109, *Electromagnetic Field Radiation (EMFR) Occupational and Environmental Health Program*, is established when applicable.

2.1.26. Ensure a Command focal point is identified for environmental, safety, and occupational health requirements, compliance, and worker protection issues. Refer to AFPD 90-8, *Environment, Safety, and Occupational Health Management and Risk Management*, AFI 32-7001, *Environmental Management*, and AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, for additional guidance.

2.1.27. Ensure strict adherence to technical data and management procedures IAW 00-5 series TOs to include TO Library management.

2.1.28. Ensure development and implementation of a Depot Maintenance Training Program ensuring maintenance is only performed by personnel who are trained, qualified, and certified, unless under the direct supervision of a trainer or certifier, IAW **Volume 1, Chapter 4** of this instruction.

2.1.29. Ensure standardization of maintenance discipline, procedures, organizational structures, compliance, and management philosophy, IAW **Volume 1, Chapter 1** of this instruction.

> 2.1.29.1. Ensure development and implementation of standard depot maintenance programs detailing the roles, responsibilities, and methodology for how aircraft, engines and commodities are planned, scheduled, inducted, handled, overhauled, repaired, tested, certified, and delivered back to the customer.

> 2.1.29.2. Ensure development and implementation of standardized processes, procedures and responsibilities for depot maintenance production, materiel management, and associated support activities.

2.1.30. Ensure a nuclear surety program is implemented (if applicable) IAW Department of Air Force Instruction (DAFI) 91-101, *Air Force Nuclear Weapons Surety Program.*

> 2.1.30.1. Depot activities using Nuclear Certified Equipment (NCE) in/for normal operations will be included in the NCE management program IAW AFI 63-125, *Nuclear Certification Program.*

> 2.1.30.2. For units possessing NCE, ensure personnel are trained in the proper use of nuclear flagwords and mishap and deficiency reporting instructions IAW AFMAN 91-221, *Weapons Safety Investigations and Reports*, and DAFI 91-204, *Safety Investigations and Reports.*

2.1.31. Ensure an impoundment program is developed IAW **Volume 1, Chapter 5** of this instruction.

2.1.32. Ensure procedures are developed to control tools, equipment, and electronic devices IAW **Volume 2, Chapter 3** of this instruction.

2.1.33. Incorporate all Lead Command requirements.

2.1.34. Ensure a Cyber Assurance Program that prevents, detects, and remediates cyber incidences IAW Air Force 17 Series publications and **Volume 1, Chapter 6** of this instruction.

2.1.35. Work with HAF Functional Area Managers (FAMs) to ensure the appropriate METs are loaded into DRRS for each ALC.

2.2. Headquarters Air Force Life Cycle Management Center (HQ AFLCMC) will:

2.2.1. Create a horizontal integration team consisting of PMs, PSMs, AFSC Supply Chain Managers, Defense Logistics Agency (DLA), AFSC Maintenance Groups, field units, and contractors for all AF managed sources of repair, to design critical paths for specific repair actions.

2.2.2. Establish and communicate a process to AFSC, regarding aircraft and commodity component condition prior to induction for maintenance, as the first aspect of a critical path. This process will include:

2.2.2.1. Depot Pre-Induction Inspection (PII) activities with field units synchronized with the Home Station Check (HSC), Phase Inspections, or Isochronal Inspections.

2.2.2.2. PIIs for Commercial Derivative Aircraft (CDA) synchronized with the A and C checks as identified in the Maintenance Planning Document.

2.2.3. Create a process to ensure parts and non-parts supportability prior to maintenance work package execution, as the second aspect of a critical path. For further guidance; reference AFMAN 63-143.

2.2.4. Retain aircraft and commodity component baseline information (i.e., configuration management and structural knowledge) throughout all scheduled and unscheduled maintenance activities.

2.2.5. Ensure technical data accuracy, IAW TO 00-5-1 and AFMAN 63-143.

2.2.6. Establish and communicate a process to AFSC pertaining to information required to report Consolidated Sustainment Activity Group-Maintenance (CSAG-M) Fund 6 Depot Maintenance 6 Percent Capital Investment Plan budget exhibit data, as outlined in DoD 7000.14-R, *Financial Management Regulation,* Volume 2B, Chapter 9, *Defense Working Capital Fund Budget Justification Analysis*.

2.2.7. Establish an Aircraft Structural Integrity Program (ASIP), IAW DAFI 63-140, *Aircraft Structural Integrity Program and Air and Space Equipment Structural Management*.

2.2.8. Provide AFMC with using MAJCOM data that is needed for reporting upon request.

2.2.9. Ensure Depot Field Team (DFT) requirements are developed and implemented IAW **Volume 2, Chapter 10** of this instruction.

2.2.10. Provide support to AFSC to ensure Ground Instructional Trainer Aircraft (GITA) are maintained IAW **Volume 2, Chapter 11** of this instruction.

2.2.11. Designate the organizations that will document, reconcile, and report, on the schedules indicated by HQ Air Force Materiel Command, Air, Space and Cyberspace Operations, Test and Evaluations Division (AFMC/A3/6/A3F), all flying hours executed by AFLCMC, and by agencies (commercial or other) contracted by the AFLCMC. Ensure there are no conflicts with hours reported by AFSC.

2.3. Headquarters Air Force Sustainment Center (HQ AFSC) will:

2.3.1. Ensure sustainment and modernization of depot facilities, processes, and equipment using new technologies, production enhancements, and development of consolidated support facilities.

2.3.1.1. Review existing depot capabilities for capital equipment investments and associated facility requirements to modernize, replace, or update to ensure depots are adequately equipped to support existing depot maintenance workloads.

2.3.1.2. In collaboration with PMs/PSMs/PGMs, ensure capital investment actions are accomplished to provide for depot maintenance activities.

2.3.1.3. Provide facilities and support (e.g., standard tools/equipment and access to Command approved MISs) for organizations performing depot maintenance or providing technical assistance at operating locations.

2.3.2. Ensure an orientation program is developed and conducted for all personnel newly assigned to all unit maintenance activities.

2.3.3. Establish procedures and controls for local manufacture.

2.3.4. Establish procedures and responsibilities for obtaining, documenting, and monitoring the Oil Analysis Program (OAP) IAW **Volume 2, Chapter 9** of this instruction.

2.3.5. Appoint a Stock Record Account Number (SRAN) engine manager (if a host unit), or a Unit Engine Manager (UEM) (if a tenant unit), to accomplish duties outlined in TO 00-25-254-1, *Comprehensive Engine Management System Engine Configuration, Status, and TCTO Reporting Procedures.*

2.3.6. Develop, implement, and maintain a standardized Quality Assurance Program IAW **Volume 3, Chapter 8** of this instruction.

2.3.7. Ensure depot maintenance requirements are considered by airfield management.

2.3.8. Establish a weight and balance (W&B) program IAW **Volume 2, Chapter 12** of this instruction.

2.3.9. Establish a Functional Check Flight (FCF) Program IAW **Volume 3, Chapter 7** of this instruction.

2.3.10. Establish a waste management program IAW AFMAN 32-7002.

2.3.11. Establish and enforce a flight Precious Metals Recovery Program, as applicable, IAW DAFI 23-101, *Materiel Management Policy*, and TO 00-25-113, *Conservation and Segregation of Critical Alloy and Precious Metal Bearing Parts and Scrap.*

2.3.12. Ensure personnel are provided the appropriate Personal Protective Equipment (PPE) IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire and Health Standards.*

2.3.13. Ensure configuration control is maintained IAW TO 00-20-2.

2.3.14. Develop an Aircrew Egress Systems Maintenance Program IAW **Volume 2, Chapter 7** of this instruction.

2.3.15. Develop a Housekeeping Program IAW **Volume 1, Chapter 3** of this instruction.

2.3.16. Develop procedures for depot maintenance support to grounded aircraft, engines, or major end items IAW **Volume 2, Chapter 12** of this instruction.

2.3.17. Develop a program for management of land mobile radios and personal electronic and communication devices IAW **Volume 1, Chapter 6** of this instruction.

2.3.18. Ensure effective management of the Center's maintenance training program IAW DAFMAN 36-2689, *Training Program*, AFI 36-2650_AFMCSUP, *Maintenance Training*, and **Volume 1, Chapter 4** of this instruction. Provide aircraft, personnel, and equipment to support the maintenance training program.

2.3.19. Ensure continuous process improvement activities are conducted in all depot maintenance units; ensure improvement results are appropriately implemented and measured.

2.3.20. Ensure ALCs support the Air Base Wing (ABW) Crash Damaged or Disabled Aircraft Recovery (CDDAR) program when requested. For specific CDDAR requirements, reference TO 00-80C-1, *Crashed, Damaged, Disabled Aircraft Recovery Manual* and local operating instructions (OIs).

2.3.21. Ensure the accomplishment of depot maintenance on NWRM items complies with AFI 20-110 and AFI 20-110_AFMCSUP, *Nuclear Weapons-Related Materiel Management*.

2.3.22. Develop, implement, and maintain standardized processes and procedures to address Contract Field Teams (CFT) requirements.

2.3.23. Establish an execution process for the design teams' (reference **paragraph 2.2.1** of this chapter) prioritized sequence to ensure a mechanic-centric focus and sequenced daily standard work for all repair activities.

2.3.24. Establish a critical chain process for the scheduled tasks per day to set and accomplish high-touch labor to schedule goals.

2.3.25. Maintain maintenance records of current configuration in Reliability and Maintainability Information Systems (REMIS) IAW TO 00-20-2 and maintain up to date technical data throughout all scheduled and unscheduled maintenance activities.

2.3.26. Ensure depot activities document and report: flying hours; equipment inventory, status, and utilization; and equipment reliability and maintainability deficiencies and/or improvements. (Reference: DAFI 21-103, *Equipment Inventory, Status, and Utilization Reporting* and TO 00-20-2.)

2.3.27. Establish a process to integrate tool and equipment management with aircraft, missile, and commodity component supportability actions on non-parts supportability elements IAW TO 00-25-4, *Depot Maintenance of Aerospace Vehicles and Training Equipment*.

2.3.28. Develop, implement, and maintain Missile Maintenance policy and implementation procedures.

2.3.29. Provide to AFMC monthly, a single consolidated Defense Integrated Financial Management System (DIFMS) report.

2.3.30. Establish a process to determine, document, and communicate to HQ AFMC/A4/10 information required to report CSAG-M on Fund 6 Depot Maintenance 8 Percent Capital

Investment Plan budget exhibit data as outlined in DoD 7000.14-R, Volume 2B, Chapter 9. On an annual basis, report the following:

2.3.30.1. Status, current year, and future year, of each investment program (i.e., funding category) to include Capital Investment Program (CIP), Restoration/Modernization, Productivity Enhancements, Military Construction (MILCON), and Equipment.

2.3.30.2. Contributions to composite sales rate reductions for each budget year, in terms of workload type and man-hours by workload type, as part of the annual depot maintenance sales rate build process.

2.3.30.3. Contributions, current year, and future year, to aircraft and engine planned and actual input/output production schedules (Requirements Review and Depot Determination [R2D2] and revised).

2.3.31. Develop, implement, and maintain standardized processes and procedures to execute the CIP within the Defense Working Capital Fund (DWCF) as outlined in DoD 7000.14-R, Volumes 1-15, hereafter known as the Working Capital Fund (WCF).

2.3.32. Develop, implement, and maintain standardized processes and procedures to ensure AFSC MILCON and Facility Sustainment, Restoration and Modernization (FSRM) projects are properly represented and vetted to/through the AFMC corporate process IAW DAFI 32-1020, *Planning and Programming Built Infrastructure Projects.*

2.3.33. Ensure a Center Point of Contact (POC) is identified for Environment, Safety, and Occupational Health (ESOH) requirements, compliance, and worker protection issues. For additional guidance, reference AFPD 90-8, DAFI 32-7001, AFMAN 32-7002, and DAFMAN 91-203. Additionally, ensure that information and risk impacts on system related ESOH hazards are conveyed to the appropriate AFLCMC PO.

2.3.34. Develop an annual process to implement DoD 4151.18-H, *Depot Maintenance Capacity and Utilization Measurement Handbook.* Report the following when requested:

2.3.34.1. Capacity and utilization of organic depot maintenance operations by workload type for all shops and areas performing direct labor, including DFTs, and for the previous Fiscal Year (FY), current FY, and next three projected FYs.

2.3.34.2. Unutilized or Underutilized Plant Capacity Fund 30 Budget Exhibit at the conclusion of the annual data call.

2.3.35. Establish a process to ensure personnel assigned to measure depot capacity and utilization, complete Defense Acquisition University course, LOG 0260.

2.3.36. Serve as lead organization for marking legacy depot items that meet requirements for Item Unique Identification (IUID) marking and registration in the IUID registry IAW AFMCI 20-104, *Item Unique Identification.*

2.3.37. Ensure corrosion control and prevention is implemented IAW AFMCI 21-105, *Corrosion Program and Marking of Aerospace Equipment*.

2.3.38. Provide AFMC with using MAJCOM data that is needed for reporting upon request.

2.3.39. Appoint in writing, a Center Support Equipment Manager to act as the Depot Maintenance Functional Manager (DMFM) to perform FAM duties, as they apply to depot

support equipment only, IAW DAFI 10-401, *Operations Planning and Execution*, DAFI 23-101, DAFMAN 23-122, *Air Force Equipment Management Interim Guidance,* if applicable, TO 00-25-240, *Uniform Repair/Replacement Criteria for Selected USAF Support Equipment (SE),* TO 35-1-24, *Air Force Economic Repair/Replacement Criteria for Selected Warner Robins Air Logistics Complex (ALC) Managed Support Equipment (SE)*, TO 35-1-25, *Economic Repair Criteria Support Equipment*, and TO 35-1-26, *Air Force Economic Repair/Replacement Criteria for Selected WR-ALC Managed Support Equipment*, where applicable.

2.3.40. Ensure DFT requirements are developed and implemented IAW **Volume 2, Chapter 10** of this instruction**.**

2.3.41. Ensure GITA are maintained IAW **Volume 2, Chapter 11** of this instruction.

2.3.42. Ensure consumable parts are properly disposed of IAW DAFI 23-101, DAFI 23-101_AFMCSUP, *Materiel Management Policy*, and **Volume 3, Chapter 6** of this instruction.

2.3.43. Develop, implement, and maintain standardized Center level guidance for parts disposal ensuring ALC personnel properly identify demilitarization requirements and properly dispose of consumable parts. Parts disposal process oversight will be at AFSC center level utilizing Management Internal Control Toolset (MICT) Self-Assessment Checklist (SACs) IAW DAFI 90-302.

2.3.44. Develop, implement, and maintain a process to track facility and equipment conditions that lead to maintenance delays IAW **Volume 3, Chapter 5** of this instruction.

2.3.45. Ensure the allocation of resources to meet all mission requirements. Ensure the maintenance organizations are not overly tasked with augmentation duties outside maintenance functional areas.

2.3.46. Designate the organizations that will document, reconcile, and report, on the schedules indicated by HQ AFMC/A3F, all flying hours executed by AFSC, and by agencies (commercial or other) contracted by the AFSC. Ensure there are no conflicts with hours reported by AFLCMC.

2.3.47. Maintain program management responsibility for the Aircraft Battle Damage Repair (ABDR) program. For additional guidance, reference Air Force Sustainment Center (AFSCI) 10-202, *Aircraft Battle Damage Repair Forces*.

Chapter 3

SAFETY, HOUSEKEEPING, AND SECURITY

3.1. General Safety Guidance. Maintenance personnel are exposed to a large variety of hazardous situations, machinery, equipment, and chemicals. Supervisors must be knowledgeable of and implement the Voluntary Protection Program. They must also enforce Defense Explosive Safety Regulation (DESR) 6055.09_AFMAN 91-201, *Explosives Safety Standards*, DAFI 91-202, T*he US Air Force Mishap Prevention Program*, DAFMAN 91-203 requirements, TOs, AFIs, Command and Center-level instructions applicable to their operations and ensure personnel are educated on safety requirements applicable to the job. Examples of hazardous situations and programs covered in the applicable technical data, TOs and AFIs include, but are not limited to confined space, fall protection, chemical safety, interior spray painting, explosive safety, and respirator safety. Engineering controls will be used in lieu of Personal Protective Equipment PPE where risks and life cycle costs can be effectively reduced to more acceptable levels. If conflicting guidance exists, the weapon system specific technical data will take precedence.

3.1.1. Job Hazard Analysis (JHA). JHAs will be conducted on all work processes, where appropriate, to identify potential fire, safety, and health hazards, determine appropriate training and PPE, and include preventative measures in procedures to mitigate the hazards. Refer to DAFI 91-202 for additional guidance.

3.1.2. Safety mishap investigations have authority over impoundments until such time the Safety Single Investigating Official (SIO) or Safety Investigation Board (SIB) president submits in writing that they are releasing the impoundment back to the Impound Official. All request for access and to perform maintenance or teardown activities must be approved in writing by the SIO or SIB president. Refer to DAFI 91-204 for aircraft and equipment involved in accidents, mishaps, or incidents.

3.1.3. Dull Sword Investigation and Reporting. HQ AFSC will ensure local procedures are developed for the Dull Sword investigation, reporting, and distribution IAW DAFI 91-204 and AFMAN 91-221. The installation (or Complex if assigned) Weapons Safety Manager is the OPR for this program.

3.2. Housekeeping. HQ AFSC will ensure the local development, implementation, and maintenance of general workplace housekeeping procedures IAW DAFMAN 91-203. Emphasis will be placed on ensuring workplace personnel follow proper work procedures, PPE use, and hygiene IAW work center specific Job Safety Training Outline (JSTO).

3.3. Security. HQ AFSC will ensure adequate Protection Levels are maintained IAW the A/C Protection Level Designation as outlined in DAFI 31-101, *Integrated Defense (ID)*, along with all associative manpower and Integrated Base Defense Security System (IBDSS) requirements.

Chapter 4

MAINTENANCE TRAINING

4.1. Maintenance Training. Air Force Materiel Command, Directorate of Logistics, Civil Engineering, Force Protection, and Nuclear Integration, Resource Integration Division, Workforce Development Branch (HQ AFMC/A4PT) will develop a Depot Maintenance training program to include and identify initial, recurring, and qualification training required by personnel to perform assigned duties. All training will be documented in a MIS as validation of completion of training. Training is essential to establish, improve, and sustain unit capabilities and is one of the most important responsibilities of commanders and supervisors. Commanders and supervisors must give priority support to training. When balancing resources, (e.g., aircraft, support equipment, facilities, tools, funding, personnel, etc.), maintenance training carries an equal priority with the production workload.

4.1.1. The AFMC depot maintenance training program will be accomplished IAW AFI 36-2650_AFMCSUP.

4.1.2. HQ AFMC/A4PT will establish and chair a Maintenance Training Manager (MTM) and Production Acceptance Certification (PAC) Working Group that:

4.1.2.1. Includes representation from HQ AFMC/A4/10, ALC Maintenance Training Managers, Complex PAC Program Managers, Complex Civilian Training Plan (CTP) Managers, and other representatives as required.

4.1.2.2. Advises HQ AFMC/A4/10 on depot maintenance training and PAC issues.

4.1.2.3. Resolves depot maintenance training, PAC, and Special Skills Qualification (SSQ) related problems.

4.1.2.4. Proposes standardization of depot maintenance training PAC and SSQ activities.

4.1.2.5. Establishes procedural guidance for implementation of this instruction and HQ AFMC/A4/10 depot maintenance training PAC and SSQ initiatives.

4.1.2.6. Processes revisions to this instruction and input on all other directives that impact depot maintenance training, PAC, and SSQ Programs.

4.1.2.7. Recommends Lead Maintenance Complex assignments for AFMC command SSQs.

4.1.3. The HQ AFSC will ensure the use of standardized Command developed training courses.

4.1.3.1. All maintenance production personnel required to access Logistics Evaluation Assurance Program (LEAP) to provide corrective/preventive action plans for Quality Assurance (QA) findings/deficiencies must successfully complete the LEAP Responsible Person course, CRXMAO0007101SU – *Logistics Evaluation Assurance Program (LEAP) (Module 2 – Responsible Person).*

4.2. Maintenance Certification Program. HQ AFMC will develop a program to document the certification of employees, both civilians and military, to perform depot maintenance and accept/stamp completion of assigned work. This program will apply to all depot maintenance

personnel certifying Work Control Documents (WCDs). In this program, tasks will be identified with required training and any other applicable qualification requirements that must be completed prior to task certification. Specific career field/series training will be identified using AF approved Career Field Education and Training Plans (CFETPs) or equivalent command civilian training plans. Criteria must be established to decertify and recertify employees as required.

4.2.1. The definition of a task for the purpose of this program is any necessary activity in the completion of an industrial process or procedure involving a product or product-related service. The tasks must be identifiable, trainable, and auditable.

4.2.2. All tasks and required training will be documented in an electronic database as validation of completion of certification requirements and proof of an employee's certification. All personnel assigned to AFSC aircraft/missile maintenance units, military and civilian, will use the Training Scheduling System (TSS) MIS to document recurring training requirements and certifications.

4.2.3. Employee training records will be reviewed per AFI 36-2650_AFMCSUP.

4.2.4. WCDs may only be stamped by personnel meeting the certification requirements of the program as specified in AF CFETP or equivalent command civilian training plan. If the series of work does not have an established command civilian training plan, the CTP Manager will develop one. A certified employee will be issued an identifying stamp and use the stamp on the WCD upon completion of the work validating that work performed meets all applicable requirements.

4.2.5. When work is identified as "*critical*" then a secondary certification or "*second set of eyes*" is required to verify the work completed has met the requirements. To determine if a task is critical, the following criteria will be used:

4.2.5.1. A catastrophic failure of an end item.

4.2.5.2. An end item failure that may affect safety of flight.

4.2.5.3. An end item failure that may present an imminent safety or health hazard or affect a life support system.

4.2.6. Production Acceptance Certification (PAC) Program. The PAC Program documents employee certification to perform and accept completion of assigned work. The PAC program applies to all depot maintenance personnel certifying WCDs. Employees certify (i.e., stamp) that the work they performed meets all technical data, safety, and other applicable directives.

4.2.6.1. HQ AFMC/A4PT will develop, implement, and maintain standardized policy for the depot maintenance PAC Program and maintain the TSS MIS.

4.2.6.1.1. Documentation to track employees' PAC qualifications and certifications will be maintained in TSS.

4.2.6.1.2. External training certifications will be transcribed into TSS using the transcription date and certified by supervisor and employee.

4.2.6.2. HQ AFSC will:

4.2.6.2.1. Develop, implement, and maintain standardized procedures to accomplish transcription tasks. Ensure compliance with depot maintenance PAC directives and policies.

4.2.6.2.2. Ensure PACs meet all technical data, safety, and other applicable directives.

4.2.6.2.3. Develop, implement, and maintain standardized procedures to ensure PAC tasks are reviewed in coordination with the WCD reviews. PAC Tasks will include a noun descriptor and performance statement. All PAC tasks will be identifiable, trainable, and auditable.

4.2.6.2.4. Ensure PAC trained mechanics are assigned to the work control documents they are certified to perform and accept during non-parts supportability planning.

4.3. Special Skills Qualifications (SSQs). SSQs are skills so specialized that they require extensive technical knowledge and proficiency demonstration. Most of these skills are governed by military specifications or higher-level regulatory guidance, are safety related, or have a significant impact on cost. Qualification and requalification requirements for SSQs established by this manual and by local ALCs are mandatory for PAC certification. HQ AFMC will develop qualification/disqualification/requalification requirements for all SSQs.

4.4. Mandatory SSQs.

4.4.1. HQ AFSC will:

4.4.1.1. Develop, implement, and maintain standardized SSQs for common Mission Design Series (MDS) across the ALCs.

4.4.1.2. Ensure all SSQ waivers are submitted in writing through HQ AFSC to HQ AFMC for action.

4.4.1.3. Develop, implement, and maintain procedures for the following mandatory Command SSQs:

4.4.1.3.1. Aircraft Engine Run-up.

4.4.1.3.2. Engine Test Cell Operation.

4.4.1.3.3. Aircraft Towing.

4.4.1.3.4. Airframe Jacking and Leveling.

4.4.1.3.5. Explosive Devices.

4.4.1.3.6. Refuel/Defuel Operations.

4.4.1.3.7. Aircraft Cabin/Cockpit/Fuselage Pressurization.

4.4.1.3.8. Aircraft Canopy Rigging.

4.4.1.3.9. Flight Control Rigging.

4.4.1.3.10. Aircraft Egress Systems.

4.4.1.3.11. Fuel Cell Repair.

4.4.1.3.12. Fiberglass Radome Repair.

4.4.1.3.13. Parachute Repair and Packing.

4.4.1.3.14. Soldering.

4.4.1.3.15. Liquid and Gaseous Oxygen Handling and Equipment Maintenance.

4.4.1.3.16. Selective Brush Plating.

4.4.1.3.17. Temper Etching.

4.4.1.3.18. Brazing.

4.4.1.3.19. Welding.

4.4.1.3.20. Thermal Spraying.

4.4.1.3.21. Engine Blade Blending.

4.4.1.3.22. Aircrew Flight Equipment.

4.4.1.3.23. Auxiliary Power Unit (APU), Air Turbine Motor (ATM), Integrated Power Package (IPP), and Gas Turbine Compressor (GTC) Operation.

4.5. PAC Task Related Recurring Training Requirements (RTRs).

4.5.1. Task Related RTRs. These RTRs are required to perform specific tasks. Task related RTRs shall be linked to specific tasks as assigned and shall cause automatic decertification if not completed on time. Employees may have task related training without being assigned the specific tasks. PAC task certification will not be granted until the applicable task related training requirements are completed. This list is not all inclusive.

4.5.2. HQ AFSC will develop, implement, and maintain procedures for Recurring Training Requirements (RTRs) specific to the work requirements and the following mandatory RTRs:

4.5.2.1. Aircraft Egress Cockpit Familiarization.

4.5.2.2. Aircraft Jet Engine Borescoping.

4.5.2.3. Aircraft Jet Engine Inlet Inspection.

4.5.2.4. Confined Space.

4.5.2.5. Weapons/Explosive Safety Training.

4.6. Special Certification Roster (SCR).

4.6.1. The SCR is a management tool providing supervisors a clear and concise listing of personnel who have been appointed to perform, evaluate, and/or inspect work of a critical nature. Only maintenance requirements that have a definite potential for personnel injury or damage to equipment will be included in the SCR.

4.6.2. HQ AFSC will develop, implement, and maintain standardized procedures on the following SCR items:

4.6.2.1. Exceptional Release.

4.6.2.2. Weight & Balance Certification.

4.6.2.3. Impoundment Authority.

4.6.2.4. Calibration Limitation Approval (Reference TO 00-20-14).

4.6.2.5. Red-X sign-off.

4.6.2.5.1. This roster will identify those personnel authorized, as required, to certify Red-X items on aircraft/equipment forms.

4.6.2.5.2. Red-X sign-off does not apply to WCDs.

Chapter 5

IMPOUNDMENT PROGRAM

5.1. Aircraft, Major End Item, and Equipment Impoundment. Aircraft, major end item, or equipment is impounded when intensified management is warranted due to system or component malfunction or failure of a serious or chronic nature. Refer to DAFI 91-204 for aircraft and equipment involved in accidents, mishaps, or incidents.

5.2. Impoundment Terms.

5.2.1. Impoundment. Impoundment is the isolation or control of access to an aircraft, major end item, or equipment and applicable historical records so an investigation can be completed.

5.2.2. Impoundment Authority. The Impoundment Authority is the individual authorized to impound aircraft, major end item, or equipment. The Maintenance Group Commander (MXG/CC), or equivalent, will designate Impoundment Authorities. The Impoundment Authority will select the Impoundment Official.

> 5.2.2.1. Following ground, explosives or flight related mishaps as defined in DAFI 91-204 and all applicable 91 series AFMANs, safety mishap investigations have authority over impoundments until such time the safety SIO or SIB president submits in writing that they are releasing the impoundment back to the Impoundment Official.

> 5.2.2.2. All request for access and to perform maintenance or teardown activities must be approved in writing by the SIO or SIB president.

5.2.3. Impoundment Official. The Impoundment Official is the single point of contact for the affected aircraft, major end item, or equipment and is responsible for controlling, monitoring, and investigating the impounded aircraft, major end item, or equipment. The Impoundment Official ensures only authorized personnel have access to the impounded aircraft, major end item, or equipment. Aircraft, major end item, or equipment records will be controlled at the discretion of the Impoundment Official.

5.2.4. Authorized Personnel. Authorized Personnel are individuals directly involved in the management, making safe, troubleshooting, or repair of impounded aircraft, major end items, or equipment.

5.2.5. Impoundment Release Authority. The Impoundment Release Authority is an individual authorized to release aircraft, major end items, or equipment from impoundment. The MXG/CC, or equivalent, or their designated representatives have authority to release the impounded aircraft, major end item, or equipment.

5.2.6. Isolation Area. The Isolation Area is an area designated by the Impoundment Authority to locate aircraft, major end items, or equipment. Aircraft may be isolated on the flightline or in hangars. The isolation area will be marked off using cones, ropes, or placards indicating the impoundment condition and isolation area.

5.3. Reasons for Impoundment of Aircraft, Major End Items, and Equipment. The following conditions require mandatory impoundment of aircraft, major end items, or equipment.

5.3.1. When the Impoundment Authority determines, extraordinary measures are required to ensure the safe operating condition of a specific aircraft, major end item, or equipment, to

address any degradation of aircraft airworthiness or serious anomaly, or after the 2nd repeat/recur of a safety-of-flight maintenance discrepancy.

5.3.2. Following an aircraft ground or flight related mishap as defined in DAFI 91-204 and DAFMAN 91-223, *Aviation Safety Investigations and Reports*.

5.3.3. Following an un-commanded flight control movement.

5.3.4. When there is an inadvertent ordnance release or an explosive mishap.

5.3.5. For engine anomalies to include but not limited to:

5.3.5.1. Unselected propeller reversal.

5.3.5.2. Flameout/stagnation (for single engine aircraft).

5.3.5.3. Unselected power reversal.

5.3.5.4. Engine case penetration, rupture, or burn-through from an internal engine component.

5.3.5.5. When an aircraft experiences a loss of thrust sufficient to prevent maintaining level flight at a safe altitude. This includes all cases of multiple engine power loss or roll back.

5.3.5.6. Internal engine damage due to a Foreign Object (FO) which can be isolated to the engine and requires removal for repair will result in the engine being impounded. Aircraft impoundment is not required.

5.3.5.7. Engine damage while in transport.

5.3.6. When an in-flight fire occurs.

5.3.7. When an aircraft experiences an in-flight loss of all pitot-static system instruments or all gyro stabilized attitude or direction indicators.

5.3.8. When there is evidence of intentional damage, tampering, or sabotage.

5.3.9. When there are physiological incidents attributable to aircraft systems or cargo (crew becomes ill during flight).

5.3.10. Impoundment Authorities have discretion to determine whether impoundment is warranted when:

5.3.10.1. An aircraft landing gear fails to extend or retract.

5.3.10.2. When an aircraft has been confirmed as being contaminated with chemical, biological, or radiological materials in the aftermath of a terrorist incident and the residual hazard cannot be satisfactorily removed.

5.4. Impoundment Responsibilities. HQ AFSC will develop, implement, and maintain standardized impoundment processes and procedures that enables investigative efforts to systematically proceed with minimal risk relative to intentional/unintentional actions and subsequent loss of evidence.

5.4.1. At a minimum, the program will:

5.4.1.1. Use established checklists to guide the sequence of actions.

5.4.1.2. Ensure security and appropriate access to impounded aircraft, major end item, or equipment records are maintained.

5.4.1.3. Define what maintenance can be performed in conjunction with the maintenance required to release the aircraft, major end item, or equipment from impoundment. Maintenance actions will be limited to those required to make the aircraft, major end item, or equipment safe.

5.4.1.4. Ensure the Impoundment Official is supported by a team of qualified individuals that is dedicated to determining the cause of the impoundment. Impoundment team members will be relieved of all other duties until released by the Impoundment Official.

5.5. Impoundment Process and Procedures. HQ AFSC will develop, implement, and maintain standardized impoundment processes and procedures.

5.5.1. When the Impoundment Authority directs impoundment, a Red X symbol will be placed in the applicable AFTO Form 781A, *Maintenance Discrepancy and Work Document* (or electronic equivalent) or AFTO Form 244, *Industrial/Support Equipment Record*, with a statement indicating the reason for impoundment and the name of the assigned Impoundment Official. Reference TO 00-20-1 for additional detail.

5.5.2. HQ AFSC will establish impoundment documentation procedures for Aircraft, Major End Items, and Equipment inducted into Programmed Depot Maintenance (PDM) when forms are closed or unavailable.

Chapter 6

WORKPLACE COMMUNICATIONS, COMMUNICATIONS SECURITY AND MAINTENANCE CYBER DISCIPLINE

6.1. Workplace Communications. Effective maintenance requires efficient communication. Radios must be available to expedite personnel, equipment, material, and maintenance data throughout the maintenance complex. Unit commanders will develop communication plans according to mission requirements.

6.1.1. Land Mobile Radio (LMR) Management. Maintenance communications that are reliable, redundant, and effective are essential for efficient maintenance operations. HQ AFSC will develop, implement, and maintain a standardized LMR management program IAW DAFI 17-210, *Radio Management*. At a minimum, the program will address training, allowances, control, and etiquette.

6.1.2. Personal Devices. HQ AFSC will develop, implement, and maintain standardized procedures for personal electronic devices, (e.g., cell phones, smart watches, pagers, portable music/video players, electronic games, etc.) to include:

6.1.2.1. The use and proper control of personal electronic and communication devices.

6.1.2.2. Storage of personal electronic devices.

6.1.2.3. Government Supplied electronic devices.

6.1.2.4. Contractor supplied electronic devices.

6.1.2.5. Workplace Distractions.

6.1.3. Electronic devices are prohibited as mandated by applicable safety, security (classified), privacy, special access, or technical directives (e.g., technical orders, process orders, or other technical data recognized by TO 00-5-1).

6.2. Communications Security (COMSEC).

6.2.1. COMSEC Controlled Cryptographic Item (CCI) Accountability. The Air Force COMSEC/Central CCI Authority is the Cryptologic and Cyber Systems Division, Joint Base San Antonio-Lackland, Texas. HQ AFSC will develop, implement, and maintain standardized procedures for COMSEC/CCI Accountability.

6.2.2. Installed COMSEC/CCI accountability will be accomplished IAW AFMAN 17-1302-O, *Communications Security (COMSEC) Operations*, and DAFI 23-101, *Air Force Material Management*. **Note:** AFMAN 17-1302-O is accessible through the AF e-Pubs Warehouse Management System (WMS) at the following link: **https://wmsweb.afncr.af.mil/wms/**.

6.2.2.1. HQ AFSC will ensure all serially controlled and serially tracked COMSEC/CCI information is entered into the MIS IAW TO 00-20-2.

6.2.2.2. Maintain serial number inventory accountability and physical security for all COMSEC/CCI issued or removed to Facilitate Other Maintenance (FOM).

6.2.2.3. Questions concerning COMSEC/CCI accountability can be directed to the Air Force CCI Central Authority at **aflcmc.hncls.cciworkflow@us.af.mil**

6.2.3. COMSEC Training. All personnel authorized to access/handle CCI must complete annual training per AFMAN 17-1302-O through the use of, and documented on, DD Form 2625, *Controlled Cryptographic Item (CCI) Briefing*. Training will be recorded and maintained in TSS.

6.3. Maintenance Cyber Discipline (MCD). MCD is a focus on daily cyber hygiene activities which requires continuous attention to mitigate daily threats by creating a culture of cyber awareness, discipline, and strict compliance. HQ AFSC will develop a cyber-assurance program IAW Air Force 17 series publications and TO 31S5-4-ETOOL-1, *ETOOL and Commercial Mobile Device Setup and Management*.

6.3.1. Electronic Tools (eTools). eTools are portable electronic devices (PEDs) (such as a laptop computer or handheld device) that operate in a disconnected mode and/or, are certified to inter-operate on AF networks, are mission critical because they are the primary method for viewing electronic technical publications, and, in some cases, are used to exchange maintenance data with an approved MIS at the point of maintenance. The MCD guidance below establishes requirements for developing and implementing daily/periodic cyber mitigation processes.

6.3.1.1. HQ AFSC will ensure eTools are used for official and authorized purposes only and will develop local procedures as needed for the use, storage, content update, security, and cyber hygiene processes necessary to support the approved use of all assigned eTool devices IAW Air Force 17-series publications and **Volume 2, Chapter 3** of this instruction.

6.3.1.2. HQ AFSC will develop, implement, and maintain guidance that ensures eTools standardization, management, and configuration control to include contingency eTool comm-out/cyber-out operating procedures.

6.3.1.3. HQ AFSC will coordinate with their Chief Information Officer/A6 or equivalent to publish eTool sustainment and support procedures to ensure AFSC units remain compliant with requirements directed in applicable Air Force 17-series publications and TO 31S5-4-ETOOL-1.

6.3.1.4. eTools are procured IAW AFI 63-138 and sustained IAW AFI 63-101/20-101.

6.3.1.5. eTools must be configured IAW TO 31S5-4-ETOOL-1.

6.3.1.6. Assigned eTool users will not install, download, or access any unauthorized files or software on any eTool (e.g., games, mp3s, tablet, phone applications).

6.3.1.7. Users will not use, access, or insert unauthorized external media devices into any eTools.

6.3.1.8. eTools do not include Portable Maintenance Aids (PMA).

6.3.2. Portable Maintenance Aids (PMA).

6.3.2.1. PMAs such as electronic devices and test equipment are issued, and configuration managed by a system PM.

6.3.2.2. PMA functionality across AF weapon systems must be approved by the applicable program manager IAW AFI 63-101/20-101. This ensures the program's product support strategy identifies and supports interrelationships and integration with programs and processes both inside and outside the program's current Program Executive Officer (PEO)

portfolio; it also ensures the program's product support strategy aligns to AF enterprise priorities.

6.3.3. HQ AFSC will establish procedures that prohibit the introduction of government or personal cellular/personal communications system and/or radio frequency (RF), infrared (IR) wireless devices, and other devices such as cell phones, tablets, and devices that have photographic or audio recording capabilities into areas (e.g., rooms, offices) where classified information is stored processed or discussed IAW AFMAN 17-1301, *Computer Security (COMPUSEC)*.

6.3.3.1. Waiver requests will be coordinated with AFMC to ensure adherence to Telecommunication Electronics Material Protected for Emanating Spurious Transmissions (TEMPEST) requirements IAW Department of Defense Directive (DoDD) 8100.02, *Use of Commercial Wireless Devices, Services, And Technologies In The Department Of Defense (DoD) Global Information Grid (GIG)*, written approval by the AF Certified TEMPEST Test Authority and the Enterprise Authorizing Official IAW DAFI 31-101, and AFMAN 17-1301.

6.3.3.2. Maintenance Group Commanders or equivalents with approved waivers will coordinate with the Communication Squadron Cyber Security Liaison and/or Information System Security Managers to identify specific requirements and publish local guidance on restrictions of the use of PEDs in classified processing areas.

Chapter 7

ADDITIONAL PROGRAM REQUIREMENTS

7.1. Aircraft Structural Integrity Program (ASIP). HQ AFSC will assist in the development, implementation, and maintenance of standardized procedures governing the ASIP program.

7.2. Repair Network Management (RNM). For RNM policy, reference DAFI 20-117, *Repair Network Management*. HQ AFSC will develop, implement, and maintain Repair Network processes and procedures to include the following:

7.2.1. Establish oversight procedures for evaluating intermediate-level maintenance performance and adherence to standards, IAW DAFI 90-302 and/or other appropriate AFSC performance reviews. Ensure oversight procedures include assessments for software requirements to accommodate -6 test cell standards, if appropriate.

7.2.2. Establish and provide oversight for intermediate-level metrics in terms of schedule (Availability), quality (Performance), and cost (Affordability) as required by DAFI 20-117.

7.2.3. Develop metrics to evaluate intermediate-level maintenance performance.

7.3. Team Spirit Inspection Program (TSIP). TSIP is an in-person reviews by owning units of on-going and completed work on aircraft undergoing Programmed Depot Maintenance (PDM)/Modification on a non-interference basis. HQ AFSC will develop, implement, and maintain guidance for TSIP at the ALCs.

LYLE K. DREW, Brig Gen, USAF
Director of Logistics, Civil Engineering, Force
Protection and Nuclear Integration

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

Title 10, United States Code § 2460, *Definition of depot-level maintenance and repair*

Title 10, United States Code § 2464, *Core logistics capabilities*

Title 10, United States Code § 2466, *Limitations on the performance of depot-level maintenance of materiel*

Title 10, United States Code § 2469, *Contracts to perform workloads previously performed by depot-level activities of the Department of Defense: requirement of competition*

Title 10, United States Code § 2470, *Depot-level activities of the Department of Defense; authority to compete for maintenance and repair workloads of other Federal agencies*

Title 10, United States Code § 2472, Prohibition on management of depot employees by end *strength*

Title 10, United States Code § 2474, *Centers of Industrial and Technical Excellence: designation; public-private partnership*

Title 10, United States Code § 2476, *Minimum capital investment for certain depots*

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AFI 20-110_AFMCSUP, *Nuclear Weapons-Related Materiel Management*, 24 January 2019

AFI 23-101_AFMCSUP, *Materiel Management Policy*, 10 December 2021

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFI 36-2650_AFMCSUP, *Maintenance Training*, 3 March 2023

AFI 48-109, *Electromagnetic Field Radiation (EMFR) Occupational and Environmental Health Program*, 1 August 2014

AFI 63-101/20-101, *Integrated Life Cycle Management*, 30 June 2020

AFI 63-125, *Nuclear Certification Program*, 16 January 2020

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DAFMAN 23-122, *Materiel Management Procedures*, 27 October 2020

DAFMAN 36-2689, *Training Program*, 31 March 2023

DAFMAN 90-161, *Publishing Processes and Procedures*, 18 October 2023

DAFMAN 91-203, *Air Force Occupational Safety, Fire and Health Standards*, 25 March 2022

DAFMAN 91-223, *Aviation Safety Investigations and Reports*, 20 September 2022

AFMAN 17-1301, *Computer Security (COMPUSEC)*, 12 February 2020

AFMAN 17-1302-O, *Communications Security (COMSEC) Operations,* 9 April 2020

AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, 4 February 2020

AFMAN 63-122, *Depot Source of Repair Planning and Activation*, 21 January 2020

AFMAN 63-143, *Centralized Asset Management Procedures*, 18 December 2020

DESR 6055.09_AFMAN 91-201, *Explosives Safety Standards*, 6 June 2020

AFMAN 91-221, *Weapons Safety Investigations and Reports*, 26 March 2020

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TO 00-20-3, *Maintenance Processing of Reparable Property and the Repair Cycle Asset Control System*, 17 December 2021

TO 00-20-14, *Air Force Metrology and Calibration Program*, 30 November 2023

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TO 00-25-254-1, *Comprehensive Engine Management System Engine Configuration, Status and TCTO Reporting Procedures*, 1 February 2022

TO 00-80C-1, *Crashed, Damaged, Disabled Aircraft Recovery Manual*, 21 June 2023

TO 31S5-4-ETOOL-1, *eTool and Commercial Mobile Device*, 1 September 2023

TO 35-1-24, *Air Force Economic Repair/Replacement Criteria for Selected Warner Robins Air Logistics Complex (ALC) Managed Support Equipment (SE),* 21 September 2023

TO 35-1-25, *Economic Repair Criteria Support Equipment,* 28 July 2023

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Prescribed Forms

None

Adopted Forms

DD Form 2625, *Controlled Cryptographic Item (CCI) Briefing*

DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval*

DAF Form 847, *Recommendation for Change of Publication*

AF Form 1067, *Modification Proposal*

AFTO Form 244, *Industrial/Support Equipment Record*

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

Acronyms and Abbreviations

ABDR—Aircraft Battle Damage Repair

ABW—Air Base Wing

AF—Air Force

AFI—Air Force Instruction

AFLCMC—Air Force Life Cycle Management Center

AFMC—Air Force Materiel Command

AFMCI—Air Force Materiel Command Instruction

AFMCMAN—Air Force Materiel Command Manual

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFRIMS—Air Force Records Information Management System

AFSCI—Air Force Sustainment Center Instruction

ALC—Air Logistics Complex

ANG—Air National Guard

APPG—Annual Planning and Programming Guidance

APU—Auxiliary Power Unit

ASIP—Aircraft Structural Integrity Program

ATM—Air Turbine Motor

CANN—Cannibalization

CCI—Controlled Cryptographic Item

CDA—Commercial Derivative Aircraft

CDDAR—Crashed Damaged Disabled Aircraft Recovery

CFETP—Career Field Education and Training Plan

CFT—Contract Field Team

CIP—Capital Investment Program

CITE—Center of Industrial and Technical Excellence

COMSEC—Communications Security

CSAG-M—Consolidated Sustainment Activity Group-Maintenance

CTP—Civilian Training Plan

DAFMAN—Department of the Air Force Manual

DAF—Department of the Air Force

DAFI—Department of the Air Force Instruction

DESR—Defense Explosive Safety Regulation

DEV—Deviation

DFT—Depot Field Team

DIFMS—Defense Industrial Financial Management System

DLA—Defense Logistics Agency

DMFM—Depot Maintenance Functional Manager

DMMP—Depot Maintenance Master Plan

DoDD—Department of Defense Directive

DOP—Dropped Object Prevention

DPEM—Depot Purchased Equipment Maintenance

DRRS—Defense Readiness Reporting System

DSOR—Depot Source of Repair

DWCF—Defense Working Capital Fund

ESOH—Environmental Safety and Occupational Health

eTOOLS—Electronic Tools

FAM—Functional Area Manager

FCF—Functional Check Flight

FO—Foreign Object

FOD—Foreign Object Damage

FOM—Facilitate Other Maintenance

FSRM—Facility Sustainment, Restoration and Modernization

FY—Fiscal Year

GTC—Gas Turbine Compressor

GITA—Ground Instructional Trainer Aircraft

GSU—Geographically Separated Unit

HAF—Headquarters Air Force

HQ—Headquarters

HSC—Home Station Check

IAW—In Accordance With

IBDSS—Integrated Base Defense Security System

IPP—Integrated Power Package

IR—Infrared

IUID—Item Unique Identification

JCIDS—Joint Capabilities Integration and Development System

JHA—Job Hazard Analysis

JSTO—Job Safety Training Outline

LEAP—Logistics Evaluation Assurance Program

LMR—Land Mobile Radio

MAJCOM—Major Command

MCD—Maintenance Cyber Discipline

MDS—Mission Design Series

MET—Mission Essential Task

MICT—Management Internal Control Toolset

MILCON—Military Construction

MIS—Maintenance Information Systems

MSEP—Maintenance Standardization and Evaluation Program

MTM—Maintenance Training Manager

MXG/CC—Maintenance Group Commander

NCE—Nuclear Certified Equipment

NSO—Non-Standard Organization

NWRM—Nuclear Weapons Related Materiel

OAP—Oil Analysis Program

OI—Operating Instruction

OPR—Office of Primary Responsibility

PAC—Production Acceptance Certification

PDM—Programmed Depot Maintenance

PED—Portable Electronic Device

PEO—Program Executive Officer

PGM—Product Group Manager

PII—Pre-Induction Inspection

PM—Program Manager

PMA—Portable Maintenance Aid

PMEL—Precision Measurement Equipment Laboratory

PO—Program Office

POC—Point of Contact

POM—Program Objective Memorandum

PPBE—Planning, Programming, Budgeting and Execution

PPE—Personal Protective Equipment

PPP—Public-Private Partnership

PSM—Product Support Manager

QA—Quality Assurance

R2D2—Requirements Review and Depot Determination

RDS—Records Disposition Schedule

REMIS—Reliability and Maintainability Information System

RF—Radio Frequency

RNM—Repair Network Management

RTR—Recurring Training Requirements

SAC—Self-Assessment Communicator

SCR—Special Certification Roster

SECAF—Secretary of the Air Force

SIB—Safety Investigation Board

SIM—Serialized Item Management

SIO—Single Investigating Official

SRAN—Stock Record Account Number

SSQ—Special Skills Qualification

TEMPEST—Telecommunication Electronics Material Protected for Emanating Spurious Transmissions

TO—Technical Order

TSIP—Team Spirit Inspection Program

TSS—Training Scheduling System

UEM—Unit Engine Manager

USC—United States Code

W&B—Weight and Balance

WCD—Work Control Document

WCF—Working Capital Fund

WMS—Warehouse Management System

Office Symbols

AFMC/A3/6/A3F—Air Force Materiel Command Air, Space and Cyberspace Operations, Test and Evaluations Division

AFMC/A4/10—Air Force Materiel Command, Directorate of Logistics, Civil Engineering, Force Protection, and Nuclear Integration

AFMC/A4/10/A4M—Air Force Materiel Command, Directorate of Logistics, Civil Engineering, Force Protection, and Nuclear Integration, Maintenance Division

AFMC/A4/10/A4MY—Air Force Materiel Command, Directorate of Logistics, Civil Engineering, Force Protection, and Nuclear Integration, Maintenance Division, Aviation Support Equipment, Depot Maintenance Policy, and Maintenance Training Branch

AFMC/A4PT—Air Force Materiel Command, Directorate of Logistics, Civil Engineering, Force Protection, and Nuclear Integration, Resource Integration Division, Workforce Development Branch

Terms

Capability—The ability to execute a specified course of action.

Cognizant Engineering Authority—An organization or individual delegated engineering authority by the USAF Technical Airworthiness Authority.

COMSEC Material—Item designed to secure or authenticate telecommunications. COMSEC material includes, but is not limited to key, equipment, devices, documents, firmware, or software that embodies or describes cryptographic logic and other items that perform COMSEC functions.

Depot Maintenance—Any action performed on materiel or software in the conduct of inspection, repair, overhaul, or the modification or rebuild of end-items, assemblies, subassemblies, and parts that requires extensive industrial facilities, specialized tools and equipment, or uniquely experienced and trained personnel that are not available in lower echelon-level maintenance activities, and is a function and, as such, is independent of any location or funding source and may be performed in the public or private sectors (including the performance of interim contract support or contract logistic support arrangements. Depot-level maintenance and repair also includes the fabrication of parts, testing, and reclamation, as necessary; the repair, adaptive modifications or upgrades, changes events made to operational software, integration, and testing; and in the case of either hardware or software modifications or upgrades, the labor associated with the application of the modification.

Engineering Technical assistance Request (ETAR)—The document and process for organizations to request and receive disposition instructions, from the cognizant engineering organization, when published technical data is inadequate for the task at hand.

Electronic Tools (eTools)—eTools are portable electronic devices (PEDs) (such as a laptop computer or handheld device) that operate in a disconnected mode and/or, are certified to inter-operate on AF networks, are mission critical because they are the primary method for viewing electronic technical publications, and, in some cases, are used to exchange maintenance data with an approved MIS at the point of maintenance. The guidance below establishes requirements for developing and implementing daily/periodic cyber mitigation processes.

Organic—Assigned to and forming an essential part of a military organization.

Organic depot maintenance—Maintenance performed by a military service under military control using government owned or controlled facilities, tools, test equipment, spares, repair parts, and military or government civilian personnel.

Public-private partnership—An agreement between an organic depot maintenance activity and one or more private industry or other entities to perform work or utilize facilities and equipment. Program offices, inventory control points and logistics commands may be parties to such agreements.

Source of repair—An industrial complex (organic or commercial) with required technical capabilities to accomplish repair, overhaul, modification, or restoration of specific types of military hardware or software.

Surge—The act of expanding an existing repair depot maintenance repair capability to meet increased requirements by adjusting shifts or by adding equipment, spares, repair parts, and skilled personnel to increase the flow of repaired or manufactured materiel to the using activity or for serviceable storage.

Attachment 2

VOLUME/CHAPTER BREAKDOWN

Table A2.1. Volume/Chapter Breakdown.

VOLUME 1 DEPOT MAINTENANCE PRINCIPLES	VOLUME 2 DEPOT MAINTENANCE PRODUCTION	VOLUME 3 DEPOT MAINTENANCE PRODUCTION SUPPORT
Chapter 1	**Chapter 1**	**Chapter 1**
Depot Maintenance Management Principles	Depot Maintenance Production Labor Entry	Depot Maintenance Work Measurement
Chapter 2	**Chapter 2**	**Chapter 2**
Roles and Responsibilities	Work Control Documents and Technical Data	Depot Maintenance Production Support
Chapter 3	**Chapter 3**	**Chapter 3**
Safety, Security, and Housekeeping	Tools and Equipment Management	Operational Workloading, Planning, and Scheduling Control
Chapter 4	**Chapter 4**	**Chapter 4**
Maintenance Training	Foreign Object Damage/Dropped Object Prevention Programs	Sunshade Management
Chapter 5	**Chapter 5**	**Chapter 5**
Impoundment	Maintenance Operation Center and Aerospace Vehicle Distribution Officer	Depot Maintenance Plant Management
Chapter 6	**Chapter 6**	**Chapter 6**
Workplace Communications and Maintenance Cyber Discipline	Depot Engine Management	Material Management
Chapter 7	**Chapter 7**	**Chapter 7**
Additional Program Requirements	Aircrew Egress Systems Maintenance Program	Functional Check Flight Program
	Chapter 8	**Chapter 8**
	Maintaining Commercial Derivative Aircraft	Quality Assurance
	Chapter 9	

	Oil Analysis Program	
	Chapter 10	
	Depot Field Teams	
	Chapter 11	
	Ground Instructional Trainer Aircraft	
	Chapter 12	
	Additional Program Requirements	