

**BY ORDER OF THE COMMANDER
501ST COMBAT SUPPORT WING**

**501ST COMBAT SUPPORT WING
INSTRUCTION 21-101**



29 AUGUST 2023

Maintenance

***TOOL CONTROL AND
EQUIPMENT MANAGEMENT***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: The e-publishing website at: www.e-Publishing.af.mil or 501 CSW publications are available on the 501 CSW publication site at: <https://usaf.dps.mil/sites/501csw/KMC/Lists/PublicationStatus/501%20CSW.aspx>

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 422ABG/CC

Certified by: 501CSW/CC,
(Colonel Brian A. Filler)

Supersedes: 501CSWI21-101, 23 January 2023

Pages: 8

This publication implements Department of the Air Force Instruction (DAFI) 21-101, *Aircraft and Equipment Maintenance Management*. It provides program guidance for use and management of Consolidated Tool Kits (CTK), equipment, and hazardous material (HAZMAT). It provides assigned units with World Wide Identification (WWID) codes. This instruction applies to all personnel assigned to the 501st Combat Support Wing (501 CSW) and does not apply to Air Force Reserve Command (AFRC) units or to the Air National Guard (ANG). Ensure that all records created as a result of processes prescribed in this publication are maintained IAW AFI 33-322, *Records Management and Informative Governance Program*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command.

SUMMARY OF CHANGES

This publication has been substantially revised and must be completely reviewed in its entirety.

1. Overview. Positive control and accountability of tools, equipment and electronic devices used on aircraft parking aprons, runway and taxi areas are essential for the elimination of FOD (Foreign Object Debris). The purpose of this publication is to provide 501 CSW agencies the necessary guidance to implement a solid program to control tools and equipment taken onto the airfield or maintenance facilities. Due to the diverse nature of the 501 CSW agencies, one size does not fit all when it comes to tool control policy. Some units may have only a few items, while others account for hundreds of pieces of equipment. To comply with this instruction, units must establish a program or demonstrate that existing programs meet the intent of positive tool and equipment accountability and control.

1.1. This document has been divided into two separate sections: Supporting Agencies, and Aerospace Equipment/Munitions Storage Agencies.

1.1.1. Supporting agencies are defined as agencies that enter the flightline or aerospace equipment maintenance industrial areas to provide mission support such as Security Forces, Civil Engineering, Communications, etc.

1.1.2. Aerospace Equipment/Munitions Storage Agencies are defined as agencies that that enter the flightline or aerospace equipment maintenance industrial areas to provide mission support such as Aerospace Ground Equipment (AGE), Crew Chiefs, Armament, Munitions, etc.

1.1.3. TDY units to RAF Fairford (RAFF) and RAF Welford (RAFW) will coordinate tool control procedures prior to arrival. Home station procedures may be followed, however, host units must provide local procedures for lost tool/dropped objects.

1.2. Definitions.

1.2.1. Tool: Device/instrument used to perform maintenance and repair of Real Property facilities, roadways, airfields, power distribution systems, airfield lighting, aircraft barriers, and utility functions.

1.2.2. Equipment: A device required to accomplish a task or carry out work, such as surveyor's transit, portable generator, etc.

1.2.3. Electronic Device: Portable items such as land mobile radios (LMR), cell phones, and laptop computers.

1.2.4. Airfield: Includes all areas of the installation involved in aircraft operations, such as taxiways, parking ramps, hardstands, and the runway.

1.2.5. Aerospace equipment: Includes all equipment (such as AGE) that is used to service aircraft and aircraft systems.

1.2.6. Aerospace maintenance facilities: Includes all aerospace maintenance areas including buildings/docs, aircraft maintenance hangers, and munitions storage area.

2. Tool Control for Aerospace Equipment/Munitions Storage Agencies.

2.1. Tool and Equipment Security, Control, Accountability.

2.1.1. Tool rooms will be locked to prevent unauthorized access during non-duty hours and when CTK custodians are not present. An Entry Authorization Letter (EAL) will be used to identify personnel authorized access to tool rooms. Personnel authorized access will be given the key code to the tool room(s).

2.1.2. TCMMax will be used for accountability and control of tools and equipment. If TCMMax is not available, or when issuing CTK items to outside agencies, an AF Form 1297 *Temporary Issue Receipt* will be filled out and signed by the CTK custodian and/or Section Chief. AF Form 1297 will be maintained until all items on receipt have been returned. A locally approved form may be used during power outages or other contingencies where TCMMax and AF Form 1297 are unavailable. Non-maintenance units that are not required to utilize a tool control system are exempt from this requirement.

2.1.3. The following World Wide Identification (WWID) codes are currently assigned to RAF Welford and RAF Fairford. All tools, CTKs, and non-Custodian Authorization/Custody Receipt Listings (CA/CRL) will have a nine-digit Equipment Identification (EID) number formatted in the following manner:

2.1.3.1. Base (first and second character): RAF Welford (RW)/RAF Fairford (RD)

2.1.3.2. Unit (third character): example: 420 MUNS (M)

2.1.3.3. Shop (fourth character): example: Munitions Support Equipment RAF Welford (P)

2.1.4. The CTK custodian will assign the remaining five digits to complete the CTK and EID number (e.g., RWMP00000).

2.2. Inventory Requirements.

2.2.1. CTKs, Spare Tools, and equipment positioned in authorized facilities outside of tool rooms (e.g. VPA) require pre/post use inventories and a printed CTK MIL approved/signed by the Flight Chief and kept with applicable CTKs. In the event TCMMax is not available, document inspections on a locally manufactured form. As a minimum, the form will include CTK Number, Employee Number, Tool Number and Nomenclature, CTK/Tool Destination, Out Date/Time, In Date/Time, and Signature.

2.2.2. CTK inventories will be conducted quarterly and documented in TCMMax.

2.2.3. Perform and document 100 percent annual/change of custodian inventories on all CTKs to include Spare Tools CTKs.

2.2.4. In the event of a single person shift, as the same individual that signs out a CTK cannot sign it back in, that same individual will request an individual from a different section to conduct and document the end of day inventory and close the CTK.

2.3. Warranted Tool Management.

2.3.1. For all tools under manufacturer's warranty, information must be tracked to ensure warranty work can be accomplished when needed. Warranties will be utilized to their maximum extent possible.

2.3.2. Unserviceable warranted tools and equipment will be tagged with an AFTO Form 350, Repairable Item Processing Tag, identified in TCMMax, removed from CTK, and coordinated for replacement/repair as applicable.

2.4. HAZMAT and Consumables Procedures.

2.4.1. HAZMAT will be marked with appropriate EID for organization/CTK. Consumable items such as batteries and blades do not require markings when stored with their intended tool/equipment, as long as they are reflected in TCMMax.

2.4.2. Perform weekly HAZMAT inventories and document in TCMMax.

2.4.3. Verify/certify Safety Data Sheets (SDS) when HAZMAT is received from HAZMAT Pharmacy.

2.4.4. Strict controls over the issue and use of HAZMAT items will be utilized through quantity control, based on job requirements. HAZMAT items with the earliest expiration date will be used first.

2.4.5. HAZMAT with expired service/shelf life will be identified and segregated immediately.

2.5. Transfer of Tools and Equipment.

2.5.1. Tools and equipment that are signed out to an individual may be transferred to another individual before being returned to CTK or work center tool room.

2.5.2. When transferring tools and equipment, individuals involved will accomplish a joint inventory and the transfer will be documented in TCMMax, or on an AF Form 1297 when TCMMax is unavailable. A locally approved form may be used during power outages or other contingencies where TCMMax and AF Form 1297 are unavailable.

2.6. Broken, Replacement, Lost/Missing and Spare Tools.

2.6.1. All personnel are responsible for care and accountability of tools used on the job.

2.6.2. Broken tools will be returned to the owning CTK custodian as soon as practical. The CTK custodian will replace the broken tool with a spare if available. Document broken tools on MIL and in TCMMax if they cannot be replaced immediately and secure the tool(s) until they can be properly disposed. Additionally, the CTK custodian will fill out 501CSW Form 21-02, *Broken/Removed Tool Log*, to document the broken tool and its replacement.

2.6.3. If a tool is discovered as missing, the individual will stop the operation and a thorough search of the worksite will be conducted. Every effort will be made to locate missing tools prior to stopping the search.

2.6.4. If the missing tool cannot be found after searching the worksite, the following actions will be taken:

2.6.4.1. Munitions personnel involved in the lost tool will immediately notify Munitions Control to initiate the applicable Emergency Action Checklist(s). The individual who lost the tool will complete 501CSW Form 21-01, *Lost Tool/Object Report*. The search will not be terminated without approval from the Munitions Squadron Superintendent.

2.6.4.2. All other aerospace equipment agencies will immediately contact their work centers and will complete 501CSW Form 21-01, *Lost Tool/Object Report*. The search will not be terminated without approval from their respective Squadron Superintendent.

2.6.5. Spare Tools will have a posted current approved access letter. Access to spare tools will be limited to individuals approved in writing by the Flight Chief.

2.6.6. TCMax and the MIL will be updated to reflect any changes in CTK inventory due to tools being broken, lost, or replaced.

2.7. PPE Procedures.

2.7.1. Individual issue PPE will be marked with first initial, last name, and employee number (e.g., J. Doe 1234) IAW AFI 21-101_USAFE-AFAFRICA Supplement.

2.8. Rag Procedures.

2.8.1. Procedures to ensure positive accountability and control of rags will be established when necessary by individual units.

2.9. Locally Manufactured or Developed Tools/Equipment.

2.9.1. 420 MUNS Quality Assurance will coordinate all procedures for locally manufactured tools utilized by squadron personnel.

2.9.2. All other units will follow formalized local manufactured or developed tools/equipment procedures as required by their applicable guidance.

2.10. FSR/DFT/CFT Procedures.

2.10.1. Field Service Representatives, and Depot and Contract Field Teams requiring tool support are required to follow procedures listed in this instruction when working on equipment assigned to all units within the 501st CSW.

2.11. Decentralized CTKs, Tools, and Equipment.

2.11.1. For decentralized CTKs, tools and equipment outside of tool rooms/support equipment, follow guidelines/procedures listed throughout this instruction.

2.12. Permanently Stored Response Equipment.

2.12.1. 501 CSW currently does not have any permanently stored/located response equipment in trailers or vehicles.

3. Tool Control for Supporting Agencies.

3.1. **General.** Everyone who performs duties on the airfield or in aerospace maintenance facilities is responsible for safeguarding their equipment against loss by ensuring accountability before and after each trip. All tools in aircraft-related maintenance areas will be marked with permanent identifiers and tracked by the owning work center. All personnel in aircraft-related maintenance areas will perform a 100% accounting of their tools upon entry and before exiting these areas. Lost or missing tool/equipment items within the airfield or aerospace maintenance facilities will be reported to the work center custodian or supervisor

immediately. Extreme measures will be taken with locating missing item(s). If missing item(s) are not located immediately, the supervisor will contact the Flight Safety office at 314-247-4589, +44-01285-71-4589 or 314-247-3387 immediately for instructions on further actions. 501CSW Form 21-01, *Lost Tool/Object Report*, will be completed by the individual who lost the item and given to RAF Fairford Flight Safety within five duty days to be filed.

3.2. Program Elements. To be in compliance with this instruction, units must establish a program or demonstrate that existing programs meet the intent of tool and equipment accountability and control. A solid tool control program in the context of this instruction must include the following:

3.2.1. Master Inventory Listing (MIL): A listing of all items dispatched out. Individual tool boxes will include an inventory of all items in that box.

3.2.2. Daily Inventory Log: Proof of physical accountability of all items on the MIL before and after each duty day or shift.

3.2.3. Sign In/Sign Out Log: Method to show custodial responsibility of items checked out for use on the airfield or in aerospace maintenance facilities. NOTE: Ideally, a second person (if available) should sign in the item upon turn-in.

3.2.4. Program continuity book: Specific contents are at the discretion of the flight chief/section NCOIC (or equivalent) but should include shop policy and the MIL.

3.2.5. For additional guidance on CTK program elements, refer to Chapter 8, paragraph 8.2 in DAFI 21-101.

3.3. Products Available. While not all are mandatory for non-aircraft maintenance units, the following products are readily available:

3.3.1. Computer based tool accountability; units that do not already have a computer program to control tools may use any Air Force approved program such as the Tool Accountability System (TAS), TCMax, or any other approved tool accountability system. These are computer programs developed for the Air Force and primarily designed for aircraft maintenance units, but the software is very adaptable for any unit. Contact your unit computer administrator before installing any software. Non-maintenance units that are not required to utilize a tool control system are exempt from this requirement.

3.3.2. 501CSW Form 21-01, *Lost Tool/Object Report*. This report is required and will be completed by the individual losing the tool/object anytime a tool/object is lost on the airfield or in an aerospace maintenance facility. If this situation arises, immediately contact Quality Assurance (420 MUNS/QA) for guidance on completing the form. 501CSW Form 21-01 can be found at:

3.3.3. 501CSW Form 21-02, *Broken/Removed Tool Log*. Inventory and Control Log may be used to sign tool kits or other equipment out and to document inventory upon return. AFGSC Form 140 can be found at: <https://static.e-publishing.af.mil/production/1/afgsc/form/afgsc140/afgsc140.pdf>.

BRIAN A. FILLER, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 1 October 2021

AFMAN 33-363, *Management of Records*, 1 Mar 08

Prescribed Forms

501CSW Form 21-01, *Lost Tool/Object Report*

501CSW Form 21-02, *Broken/Removed Tool Log*

Adopted Forms

AFTO Form 350, *Reparable Item Processing Tag*

AF Form 847, *Recommendation for Change of Publication*

AF Form 1297, *Temporary Issue Receipt*

Abbreviations and Acronyms

CFT—Contracting Field Team

CTK—Composite Tool Kit

DFT—Depot Field Team

FSR—Field Service Representative

MIL—Master Inventory List

PPE—Personal Protective Equipment

SDS—Safety Data Sheet