

**BY ORDER OF THE COMMANDER
90TH MISSILE WING**

90TH MISSILE WING INSTRUCTION 21-200

2 DECEMBER 2014



Maintenance

**TOOL, EQUIPMENT, AND CONSUMABLES
MANAGEMENT**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction establishes policy and procedures for Tools and Equipment Management and will be used in conjunction with AFI 21-200. The objectives of this instruction are to prevent and eliminate foreign object damage (FOD) to missiles, training and support equipment, and to reduce costs through strict effective control and accountability of assets within the 90th Missile Wing. This includes 90th Munitions Squadron (90 MUNS), 90th Missile Maintenance Squadron (90 MMXS), 90th Maintenance Operation Squadron (90 MOS), 90th Maintenance Group Quality Assurance and all 90th Missile Wing agencies dispatching to perform maintenance on munitions/missiles, training and support equipment located at Launch Facilities and Missile Alert Facilities. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Comply with AFI 33-332, *The Air Force Privacy and Civil Liberties Program*, for documents containing Privacy Act information. For Official Use Only information, comply with DoD 5200.1-R, paragraph AP3.2, and AFI 31-401, *Information Security Program Management*. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*, route AF Form 847s from the field through the appropriate functional's chain of command. See Attachment 1 for Glossary of References and Supporting Information.

SUMMARY OF CHANGES

This publication has significant changes and requires complete review. It includes the 90th Munitions Squadron and changes all references from the Tool Accountability System (TAS) to TCMax.

PART 1. This section applies to all dispatching 90 MXG sections and personnel.

1. Program Guidance:

1.1. Security, control, and accountability of tools and consumables.

1.1.1. Store tools and consumables in a designated location for positive control and ease of inventory. Prior to dispatch, Composite Tool Kits (CTKs) or individual tools will be accounted for on a log or load list which lists (as a minimum) those fields of data found on the AF Form 1297. Authorized tool custodian/monitors will issue CTKs and annotate accountability for the dispatched CTK on the log.

1.1.2. Master Inventory Lists (MILs) and Inventory Lists (ILs) will include the nomenclature and quantity, for each CTK item, by drawer/section number (see Figure 1 below). MILs shall contain the date signed, name, rank and signature of the NCOIC. Maintain MIL copies in the section's administrative files, issuing tool room and respective CTK. Tool sets with their own container (i.e. drill bits) shall include an IL specific to the given tool set.

Figure 1. DRAWER 5

Description	Quantity	
Socket Extension--1.5"	1	
Socket Extension--3.0"	2	

1.2. Inventory Procedures.

1.2.1. Inspect/inventory all CTKs quarterly regardless of utilization levels and document inspectors name, rank, and the date accomplished in Tool Accountability System (TCMA).

1.2.2. Account for consumables by quantity/unit of issue and replenish them as they are used.

1.2.3. Maintenance teams shall inventory CTKs prior to dispatch and prior to departing any job site.

1.2.4. Handle lost or missing items IAW paragraph 1.6.

1.2.5. Tool rooms shall visually inspect all CTKs for accountability and document discrepancies/completion at the beginning of each tool room shift.

1.3. Warranted tool management: Owning work center custodian or monitor shall track tools and equipment under warranty and take appropriate action with the vendor to replace broken or faulty tools/equipment.

1.4. Control and management of replacement, expendable and consumable hand tools, HAZMATs, and other items contained in CTKs.

1.4.1. Empty spaces (spaces not occupied by a tool) are not permitted in CTKs. Update the MIL, IL, TCMax per provisions in AFI 21-101, paragraph 10.4.1.3, immediately after a tool is permanently removed from a CTK and eliminate the empty space.

1.4.1.1. Use of TCMax or other AF approved tool control/inventory system per provisions in AFI 21-101, paragraph 10.4.1.3.

*** NOTE: TAS is no longer supported by the Air Force; TCMax has been approved for use of Air Force tool control/inventory.**

1.4.2. Maintain CTKs in Fully Mission Capable (FMC) status at all times. Segregate, secure, and control all unserviceable tools.

1.4.3. Process repairable tools for repair and dispose non-repairable items in a timely manner. Maintain a supply of spare tools to ensure mission continuity consistent with historical failure rates for a given item.

1.4.4. Immediately update the IL and TCMax or other AF approved system per provisions in AFI 21-101, paragraph 10.4.1.3, when tools are unserviceable and/or removed from the CTK. Replace unserviceable and repairable tools with projected repair cycle time greater than the next scheduled mission requirement with a spare tool (if available). Minor defects that do not significantly degrade the performance of a given tool will not be cause for replacement of a CTK item, consistent with technical guidance.

1.4.5. Replace expendable/consumable items from spare tool inventories as needed following each dispatch.

1.4.6. Segregate, secure, control and maintain an IL for spare tool stocks. Do not etch, stamp or otherwise mark. Maintain an inventory of spare tools IAW AFI 21-200.

1.4.7. Control HAZMAT and turn in all items for proper disposition.

1.5. Transfer of tools/CTKs at the job site: The losing and gaining team at a job site shall accomplish a complete inventory prior to transfer and document the transfer on an AF Form 1297 or equivalent.

1.6. Procedures for lost or missing tools.

1.6.1. The maintenance team shall notify Missile Maintenance Operations Center (MMOC) or Munitions Control (90 MUNS Control) for hardness degrade determination and shall await further instructions from MMOC/90 MUNS Control, if a tool/item cannot be found during inventory.

1.6.2. The responsible team shall initiate a Lost Tool Report (see Attachment 2) and route as shown therein. An initial search shall be completed within 4 hours on base or as soon as reasonable off base of discovering the item is missing, and subsequent initial notifications completed within 8 hours on base and as soon as reasonable off base of loss. The secondary search and secondary notifications shall be completed within 24 hours of loss whenever possible. Update TCMax or other AF approved system per provisions in AFI 21-101, paragraph 10.4.1.3, and associated ILs to reflect the current inventory status of the CTK if the tool cannot be immediately found and replace the tool as soon as possible to return the CTK to FMC status.

1.6.3. QA will maintain completed reports for trend analysis.

1.7. Assignment of Equipment Identification Designators (EIDs). Each CTK must be etched, stamped, or otherwise permanently marked with the section's Worldwide Identification code (WWID). Sections shall use the remaining 5 digits of the EID to identify the tools stored in a CTK. Assigned WWIDs for 90 MXG maintenance activities are listed in Attachment 3 of this Instruction.

1.8. Issue and control of Personal Protective Equipment (PPE). Each individual shall inventory their gear prior to departing for the work site and report missing items IAW paragraph 1.6.

1.9. Account for all rags when used in the performance of maintenance. Each rag dispatched to a job site must be accounted for prior to departure of the site IAW paragraph 1.2.2.

1.10. Personnel authorized to procure tools.

1.10.1. Each flight commander/superintendent maintaining tools/equipment will appoint a primary and alternate tool control person. These persons are responsible for the inventory, accountability, and procurement of any items owned by the work center.

1.10.2. Flight commanders/superintendent shall review/approve all tool purchases; substantiate replacement and disposition requirements of original tools when tools require replacement.

1.11. Procedures for locally manufactured and developed tools not used during nuclear weapons maintenance operations are as follows: QA is designated as the approval authority for the design of locally manufactured tools prior to manufacture. Maintain these tools IAW this instruction and AFI 21-200 once they are manufactured.

1.12. Procedures for depot teams, factory representatives, and contract field teams are as follows: Depot teams, factory representatives, and contract field teams will operate IAW Part 2 of this instruction and AFI 21-200 while performing maintenance with or for 90 MXG activities.

1.13. Procedures and responsibilities for distribution of tools/equipment to decentralized locations are as follows: Owning tool room will issue all items (CTKs and kits) using TCMax or other AF approved system per provisions in AFI 21-101, paragraph 10.4.1.3. Tool room access will be controlled at all times. Unoccupied tool rooms will be kept locked.

1.13.1. Procedures for crash recovery/hydrazine response equipment are as follows: Maintain emergency response equipment IAW applicable technical data and emergency response plans. 90 MOS VES will be the OPR for emergency response vehicle and equipment.

1.13.2. Procedures for aircrew/life support section tools dispatched to flight line operations are as follows: Control tools dispatched for flight line operations IAW this instruction. Life support tools are not applicable to 90 MXG.

1.13.3. CTKs used in work centers during a shift may be controlled by a single team that is responsible for the control and security of said CTK. The work center shall ensure the next inventory is performed by a different person when a CTK is inventoried by the same person at the beginning and end of a job/shift.

1.14. Ensure tools are signed in/out by different technicians per AFI 21-200.

1.15. Procedures for tool room operations and security: When a vehicle containing a CTK is left unattended the vehicle must be locked/secured.

1.16. This section applies to all 90th Missile Wing agencies while dispatching to perform maintenance on munitions/missiles, training and support equipment located at Launch Facilities and Missile Alert Facilities.

1.16.1. Prior to dispatch: The Team Members and Team Chief will be actively involved in the tool control process. Each dispatching team will sign out tools utilizing the CTK sign out sheets and the TCMax program. Team Members or Team Chiefs will inventory and sign open the tool inventory sheets in each CTK prior to loading equipment into vehicles. Team Chiefs will have final equipment load verification by signing the TCMax accountability forms *prior* to departing MSB.

1.16.2. On site: After completion of site maintenance and prior to site departure, CTK inventories need to be re-accomplished. A different signature needs to be annotated on the CTK sign in sheet to close the kit. Example: the Team Chief inventories the CTK and signs it open prior to base departure. Prior to site departure a Team Member needs to accomplish the inventory and sign the CTK closed.

1.16.3. Multiple sites: CTKs used on another site must be inventoried and signed open again prior to use on site. Upon completion of site maintenance, again someone other than the person who signed open the CTK must inventory and sign the kit closed prior to site departure.

1.16.4. Tools transferred to another team in the field: Teams receiving CTKs in the field from another team must inventory and sign the kits open. Teams will not accept the CTKs or sign them open unless they have been signed closed by the transferring team.

1.16.5. Return to base: Tool room technicians will receive and inventory the CTKs upon return to base in the TCMax program. Tools Room Technicians will immediately notify the Team Chief if there are any inventory discrepancies.

PART 2. This section applies to all 90th Missile Wing agencies dispatching and/or performing maintenance on munitions/missiles, training and support equipment located at Launch Facilities and Missile Alert Facilities.

2. Program Guidance:

2.1. Follow AFI 21-200, Munitions and Missile Maintenance Management, paragraph 10.2, as applicable.

2.2. Procedures for lost or missing tools.

2.2.1. The individual/team shall notify MMOC/MUNS, 773-3611, for hardness degrade determination and shall await further instructions from MMOC/90 MUNS Control, if a tool/item cannot be found during inventory prior to departing/returning site.

2.2.2. The responsible individual/team shall initiate a Lost Tool Report (see Attachment 2) and route as shown therein. An initial search shall be completed within 4 hours on base or as soon as reasonable off base of discovering the item is missing, and subsequent initial notifications completed within 8 hours on base and as soon as practical for off base

losses. The secondary search and secondary notifications shall be completed within 24 hours of loss when possible. Update applicable tool accountability system.

2.2.3. QA will maintain completed reports for trend analysis.

TRACEY L. HAYES, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

Prescribed Forms: There are no prescribed forms.

Adopted Forms:

AF Form 847, *Recommendation for Change of Publication*

AF Form 1297, *Temporary Issue Receipt*

Attachment 2

90 MW LOST TOOL REPORT

Figure A2.1. – Loss Data

Section I – Loss Data			
CTK Designator, as applicable:		Owning Organization/Work Center:	
Item Lost:		Responsible Team Chief:	
Date/Time Issued:		Date/Time Loss Discovered:	
Trip #:		Location of Crew When Loss Discovered:	
Site Loss Occurred:		Type of Work Being Performed:	
Section II – Initial Search Findings			
Team Chief Responsible for Initial Search:			
Initial Search Findings: _____ Found _____ Not Found			
Section III – Initial Notifications			
Team Chief Responsible for Initial Notifications:			
<u>MMOC/90MUNS Control</u>	<u>Owning WC</u>	<u>Flight Chief</u>	<u>QA I&E</u>
Rank/Last Name:	Rank/Last Name:	Rank/Last Name:	Rank/Last Name:
Date/Time:	Date/Time:	Date/Time:	Date/Time:
Section IV – 2nd Search Findings			
Team Chief Responsible for 2nd Search:			
2nd Search Findings: _____ Found _____ Not Found			
Section V – 2nd Notifications			
<u>MMOC/90 MUNS Control</u>	<u>Owning WC</u>	<u>Flight Chief</u>	<u>QA I&E</u>
Rank/Last Name:	Rank/Last Name:	Rank/Last Name:	Rank/Last Name:
Date/Time:	Date/Time:	Date/Time:	Date/Time:
Section VI – MMOC Notification to 90 MXG/CC			
MMOC/90MUNS Control Notifier:		Date/Time Notified:	
Section VII – Owning Squadrons MXW/MA/CMS Investigation Findings and Recommendations			
Findings:			
Recommendations:			
Owning Squadrons MXW/MA/CMS Rank, Name, Signature and Date:			

<i>Section VIII – 90 MXG/MXQ Review</i>
<i>90MXG/MXQ Chief/Superintendent Rank, Name, Signature and Date:</i>

Attachment 3

90 MXG MAINTENANCE ACTIVITY WWIDS

Figure A3.1. 90 MXG Maintenance Activity WWIDs

Maintenance Activity	WWID
AGE	FWAG
Corrosion	FWCT
EMT	FWEM
Electronics Lab (ELAB)	FWEL
FMT/PMT	FWFM
HICS	FWHI
Mech/Pneudraulics Shop	FWMC
MMT	FWCR
Missile Handling (MHT)	FWMH
90th Munitions Squadron (90 MUNS)	FWMU
Power, Refrigeration and Electrical (PREL)	FWPR
MCM	FWSM
Team Training	FWTR
Vehicles/Equipment/Recovery	FWVC