



Newsletter for the Biomedical Maintenance Community



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FOCUS is a quarterly business communication of the USAMMA, Medical Maintenance Management Directorate (M3D)

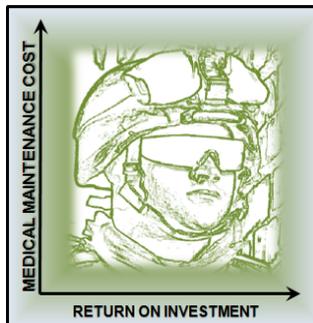


Mr. Jack Rosarius, Director, M3D



Welcome to the first issue of FOCUS, a new quarterly newsletter intended to highlight happenings within the biomedical maintenance community. This inaugural issue covers a vast array of timely issues, from projects and initiatives such as working with SAMS-E in our TOE units, to procuring TMDE-SP for our TDA activities. Our intent for this newsletter is to provide information in a casual, easy-to-read and entertaining format. We welcome your feedback on this newsletter as well as your suggestions for future articles.

As members of the biomedical maintenance community you all have learned to think on your feet and adapt to changing situations. Those skills are going to be called upon now more than ever. As budgets are cut and everyone is forced to prioritize where to spend our precious resources, some will inevitably suggest deferring or 'short-cutting' scheduled maintenance activities. Often, it is only after a sentinel event that we realize the fallacy of that approach. The bottom line is we need to find efficiencies but it can never be at the expense of quality. Properly maintained and calibrated medical equipment 100% of the time is and must remain our hallmark; it is how we as maintainers 'instill trust in Army Medicine.'



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Finally, I want to extend a congratulatory note to our very own Mark Mills for his well deserved selection as recipient of the 2012 Professional Medical Logisticians Civilian Award. Mark, from all of us at the USAMMA, thanks for the great work you do mentoring our Soldiers and civilians and for setting the standard, ensuring that all of our medical equipment is properly maintained. **END**

Standardized Data-Management for SAMS-1E

Article by Mr. Steven L. Johnson, Deputy, USAMMA National Maintenance Program (NMP)



SAMS-1E provides the capability to plan and initiate scheduled services; open, close, and change the status of scheduled and unscheduled Work Orders (WOs); capture all costs associated with maintenance services, provide data for the Unit Status Report (USR), assign work by work center, evacuate and monitor work sent to support maintenance activities, and view WO and USRs in the Logistics Information Warehouse (LIW). Because Table of Organization and Equipment (TOE) units use SAMS-1E to conduct and manage medical-maintenance operations and because SAMS-1E information in LIW is used by logistics and maintenance managers at all levels, entering accurate information at the unit level is absolutely vital. The following are a few ideas that should help in standardizing some medical maintenance shop practices in the field. First, BES personnel should be aware that the SAMS-1E does not interface with Class VIII parts ordering applications or Defense Medical Logistics Standard Support (DMLSS).



Why is this important? Because you will have to track parts utilization for WO in SAMS-1E but request parts through your unit supply. Your unit supply will then order these parts through a different application/process.

Second, unit BES' should formalize their support relationships with customers and maintenance support activities for proper setup between supported and supporting units. Steps that may aid in the set-up of your medical maintenance SAMS-1E box include:

1. Ensuring property book medical-equipment items deemed as 'maintenance significant' are entered into the SAMS-1E for overall data entry.
2. Identifying and arranging face-to-face contact with customers and support activities so they know who you are.
3. Furnishing customers a copy of your internal and external SOP so they understand how to obtain medical maintenance support and how maintenance operations are conducted.
4. Use of work request status codes and code descriptions listed on page 3 of this newsletter to update maintenance status (Medical maintenance shops at all levels).
5. Minimally providing the following when coordinating maintenance support with customers:
 - a. The supported unit's training schedule specifying when medical maintenance will be performed; including which section's equipment will be serviced.
 - b. A copy of all completed scheduled and unscheduled services.
 - c. A status update of open WO including equipment mission capability status.

'Entering accurate information at the unit level is absolutely vital.'

There are many other things to consider when using SAMS-1E to conduct maintenance operations and to capture all related maintenance data. When in doubt, contact your brigade, division, or corps-level logistics managers to ensure that you are performing maintenance through the same processes as other maintenance activities. If all else fails, you may contact the USAMMA National Maintenance Program at: usammanmp@amedd.army.mil or at these phone numbers: Commercial: 301-619-4464/4373 DSN: 312-343-4464/4373; we will help you directly or put you in touch with people who can offer further assistance.



Standard Army Maintenance System (SAMS) Work Request Code Descriptions

Status Code	CODE DESCRIPTION	REMARKS
0	Begin NMCE time	Code used at unit level (system generated) and not entered by the user.
1	Awaiting deadlining	Awaiting deadlining NMCS parts. No further repairs can be made due to lack of NMCS parts. Code can be used at unit level.
2	Stops NMC time	Item remains in the maintenance activity for non-NMC work, e.g., painting. Must be followed by a valid work request status code.
3	Restart NMC time	Must be preceded by a '2' (which stops NMC time). Must be followed by a valid work request status code.
4	N/A	N/A
5	N/A	N/A
6	Re-inspection	Can only be used after a work request status code of 8-rework.
7	Awaiting float transaction	SAMS-1 automatically prompts for a new serial number
8	Rework, return to shop	If work request is 'S' through 'Z', an 8 must be used before the job is returned to a work status.
9	Begin in-transit time	N/A
A	Awaiting initial inspection	Includes initial inspection, acceptance and parts determination. Code can be used at unit level. At support level, an 'A' is usually entered first unless preceded by a '9.'
B	In shop	Code can be used at unit level.
C	Awaiting shop	The initial and acceptance inspections have been completed and parts are on hand code can be used at unit level.
D	Deferred	Equipment in use, await scheduled maintenance (may/may not be await parts) and not high priority because equipment is operating but requires maintenance or modification. Codes can be used at unit level. Normally used w/non-NMC ORGWON. Can be used w/NMC ORGWON if preceded by '2.'
E	Awaiting final inspection	Can be used at unit level.
F	Final inspection complete	Includes final inspection and work order/log book completion. NMC time is charged to the owning unit until the NMC fault is corrected and a 'U' status is posted at unit level.
G	Test flight or maintenance operational check	NMC time is charged to the owning unit until the NMC fault is corrected and a 'U' status is posted at unit level.
H	Awaiting disposition instructions from a higher source	N/A
I	Awaiting shop while awaiting non-NMC (not NMCS) parts	Cannot be used if due-in parts are NMCS. Code can be used at unit level. Normally used in conjunction with a non-NMC ORGWON. Can be used with an NMC ORGWON if preceded by a '2.'
J	In shop awaiting NMCS parts, work continues	The calculation for NMCS/NMCM will remain in NMCM. This code was designed for aircraft but may be used for other items requiring maintenance. Code can be used at unit level.
K	Awaiting non-NMC parts (not NMCS)	No further repair actions can be made because the non-deadlining parts are not available. Normally used in conjunction with a non-NMC ORGWON. Can be used with an NMC ORGWON if preceded by a '2.'
L	EVAC NMCS	Item that was evacuated to another maintenance activity for repair and return and is now in an NMCS status at the other activity. NMC time will be applied to SUPPORT NMCS.
M	EVAC NMCM	Item evacuated to another maintenance activity for repair and return. Code can be used at unit level. NMC time will be applied to SUPPORT NMCM.
N	EVAC Depot	Equip that is in for depot level repair, e.g., overhaul/MWO. Code can be used at unit level. NMC time will be applied to NMCD for ground/missile and aviation sub-system records and reportable end items. Aviation records will reflect PMCD.
O	Awaiting evacuation	Code can be used at unit level. Allows printing of automated DA Form 2407 at support level.
P	NMC for lack of: facility, tools, test equipment, or completion of intra-shop work requests	N/A
Q	Awaiting estimated cost of damage (ECOD) actions	Items awaiting the release of surveying officer before repairs can be started.
R	Awaiting pickup	Item has been repaired (or appropriate action taken), and owning unit notified. Before code 'R' can be used, work request must be closed. If NMC, NMC time is charged to owning unit until NMC fault corrected and 'U' status posted at unit level.
S	Closed, completed by this maint facility	Repairs have been completed by support activity receiving end item or component. Work request is closed. If item is NMC, NMC time is charged to owning unit until NMC fault is corrected and 'U' is posted at unit level.
T	Closed, completed by other maint activity	Repairs completed and returned by other activity to support activity. Work request is closed. If item is NMC, NMC time charged to owning unit until NMC fault corrected and 'U' status posted at unit level.
U	Picked up, must be clsd first	Code can be used at unit level. At unit level-Closed ORG WON. All related requests on Inoperable Equipment File will be closed. INOP time stops. DS/GS level-Picked up by customer. SPT WON and related DS WOs deleted from SAMS 1E at next Weekly Work Order Transfer process.
V	Closed Requirement satisfied by ORF exchange	If item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a 'U' status is posted at unit level.
W	Work request closed. Pending turn-in as uneconomically repairable or non-repairable (classification)	If item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a 'U' status is posted at unit level.
X	Work request closed	It exceeds time limits or maintenance capability (e.g., classification condition code F). If item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a 'U' status is posted at unit level.
Y	Work request closed. It did not meet acceptance standards	If item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a 'U' status is posted at unit level.
Z	Work request closed or canceled without completion (e.g., initial inspection was not started)	If item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a 'U' status is posted at unit level.

END



TMDE Acquisition Basics for TDA

Article by Mr. Rick Wolfe, Biomedical Engineer III, USAMMA National Maintenance Program (NMP)

The process for Test, Measurement, and Diagnostic Equipment (TMDE) acquisition stems from policies outlined in AR 750-43

Army Test, Measurement, and Diagnostic Equipment Program.



TMDE administrative controls are in place under the U.S Army TMDE Activity (USATA) which provides TMDE calibration and repair support and ensures the traceability of TMDE to NIST standards.

The USAMMA NMP is responsible for administration and verification of special purpose TMDE (TMDE-SP) used for performance verification and calibration of medical equipment. In support of this, we review TMDE requests to ensure the following:

1. Approval letter has been properly drafted.
2. DA Form 4062 had been completed (to the extent possible).
3. Correct TMDE has been identified.
4. Device specifications are on file or match those of other TMDE that could be used to perform the same function.
5. A memorandum of justification (where applicable) is provided.

When a DA Form 4062 is submitted, the USAMMA NMP ensures that it meets the above criteria and if necessary obtains clarifications from the requestor to assure proper request-package completion. In some circumstances, the USAMMA NMP may recommend an alternate item of TMDE for better utilization of unit resources.

The approval block in the PM-TMDE website (<https://tmde-register.us.army.mil/>) has four external status code positions:

1. Position one - Status code 'A' indicates approval by PD-TMDE.
2. Position two - Status code 'C' indicates review has been completed by USAMMA, NMP.
3. Position three - Status code 'S' indicates USATA approval.

4. Position four - Status indicates overall approval.

When all four boxes are completed, the USATA will send a message to the requestor stating that the TMDE request has been approved. It's up to the requesting unit to initiate the TMDE acquisition.

Requestors who are uncertain of their approval status can visit the PD-TMDE website (<https://tmde-register.us.army.mil/>) for a listing of acquisition approvals. **END**



USAMMA NMP ISO Registration

Article by Mr. Carmine Izzo, Sr. Medical Equipment Technician, USAMMA National Maintenance Program (NMP)

In FY 2012 the USAMMA National Maintenance Program (NMP) underwent an ISO 9001-2008 registration audit and received its initial certification credentials. To successfully

achieve certification, the USAMMA NMP had to demonstrate that its Quality Management System (QMS) had the ability to consistently provide products that could meet its customer needs while complying with



applicable statutory and regulatory requirements. The ISO 9001-2008 standard is based on quality management principles that include a strong customer focus, motivation and commitment from top management, a process-driven approach, and continual process improvement.

The USAMMA NMP's QMS design approach took into account a number of factors that could influence its architecture; factors that include the environment; associated environmental changes and risks, varying organizational needs, specific organizational objectives, product provisions, processes, procedures, organizational size, and structure.

To develop, implement, and improve QMS effectiveness, the USAMMA NMP established the objectives, processes, and procedures necessary to deliver focused results in accordance with customer requirements and organizational policies.

Measurement, analysis, and continual process improvement are the backbone of effective QMS performance. In keeping with this philosophy, the USAMMA NMP monitors and tracks critical customer perceptions and execution indicators directly impacting the QMS and the end-to-end management of each product. Collectively, these practices help to ensure that customer requirements governing communications, design, manufacture, deployment, and serviceability are consistent, quality driven, and satisfactorily achieved across each stage of the product life cycle. **END**

For general questions concerning MMQC messages, contact the DOC at: 301-619-4300, 4320, or 3242. The DOC's DSN is 343 and their fax number is 301-619-4468. **END**



BES Handbook TB MED 750-1/2 Update

Receiving MMQC Messages

Article by Mr. Dave Farlee, Sr. Biomedical Equipment Technician, USAMMA National Maintenance Program (NMP)

Article by Mr. Timothy Brewer, Sr. Biomedical Equipment Technician USAMMA National Maintenance Program (NMP)

Do you receive Medical Material Quality Control (MMQC) messages via email? These messages, similar to the FDA recall messages, are sent out to those who subscribe to receive them at: <http://www.usamma.army.mil/assets/apps/listserv/messages.cfm>.

The USAMMA National Maintenance Program (NMP) has been working to update medical-maintenance specific publications. Your input and suggestions are WELCOME!

Messages will only be sent to email addresses ending in a '.mil' or '.gov' extension so you can't use your yahoo, hotmail, gmail, or other email accounts.



Current plans are to consolidate medical-maintenance specific information that is scattered throughout numerous ARMY publications.

The final consolidation effort will eliminate the need for other ARMY publications culminating in the streamlined release of only two medical-maintenance publications to replace them. One of the two publications would be a high-level TB MED document that will include management and operational guidance focusing on Medical Maintenance Managers.

Tip: You can avoid receiving all MMQC messages by choosing only those MMQC categories you wish to receive. Your category choices include All MMQC Messages, Equipment and Other, Pharmaceuticals, or Vaccines.

The second document will be a 'Handbook' focusing on medical-maintenance activities found in Table of Organization and Equipment (TOE) forward operational elements and the austere and dynamic environment in which they operate. We'd welcome any input you may have and ask that you please send your suggestions to: usammanmp@amedd.army.mil

If you missed some previously-released MMQC messages, you can always find them at:

<http://tinyurl.com/MMQC-List>

Comments provided should be as specific as possible and should also include your contact information. **END**

The Distribution Operation Center (DOC) is directly responsible for identifying MMQC message requirements, composing final message communications, and for ultimate release of MMQC message transmittals.



Remote Diagnostic Access

Article by Mr. Timothy Brewer, Sr. Biomedical Equipment Technician USAMMA National Maintenance Program (NMP)

Remote Diagnostic Access is an AMEDD initiative allowing computer access to remote medical equipment from a USAMMA MOD.

The connection is established through a secondary device, in this instance a Teleconsole (TC).

The TC is a custom designed [router](#) that is connected to a medical device at baseband or Internet level to the Army provided network.



Once connected to the device(s), the TC operates on Internet Protocol (IP), is encrypted for security, and permits the BES 68A or civilian service technician to connect directly to the medical device. When a TC connection is established, the medical device can be interrogated and with operator functions duplicated on the calling computer; its operating modes allow access to machine logs.

With TC connectivity, the BES can confirm normal operation, troubleshoot equipment problems, and apply software updates to the medical item for improvement or repair of the remote equipment.

The TC also offers the ability to interface as a key element or virtual tunnel between the remote equipment and the Subject Matter Expert (SME). In particular, there may be situations or instances where the medical device requires connection to the Original Equipment Manufacturer (OEM) for factory support; in that case, a Business-to-Business (B2B) statement must be agreed upon as part of a written contract or agreement between the OEM and the Government. **END**

X-Ray Acceptance Packet Update

Article by Mr. Timothy Brewer, Sr. Biomedical Equipment Technician, USAMMA National Maintenance Program (NMP)

The USAMMA NMP began a tri-service process to update our decade old *X-Ray Acceptance Packet* in July 2010.

USAMMA NMP staff worked with representatives from Medical Education and Training Campus (METC), the X-Ray industry, Defense Logistics Agency (DLA), and Navy and Air Force biomedical communities to gain a consensus on the technical and procedural elements of the new packet.

In January 2012, DLA approval was received to incorporate the new packet into future applicable X-Ray procurement actions.

This first acceptance packet is for a general radiographic system and we're currently in the final testing stages of a digital system packet.

The USAMMA NMP is additionally in the process of converting the functionality of its first X-Ray acceptance packet into a more user friendly PDF document. In the meantime, however, if you need to perform acceptance testing and require a copy of the new packet, please contact Mr. Mark Mills at 570-895-7734 or submit email to: mark.mills@amedd.army.mil. **END**

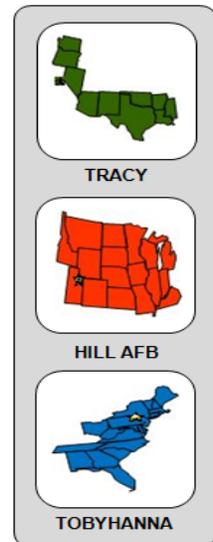


Medical Maintenance Operations Division (MMOD) – Depot Operations Overview

Article by Mr. Jimmy Hayes, Chief, USAMMA Medical Maintenance Operations Division (MMOD)

USAMMA Medical Maintenance Operations Division (MMOD) Depots located at California's Defense Distribution Center Tracy, Utah's Hill Air Force Base (AFB), and the Tobyhanna Army Depot located in Pennsylvania provide depot-level maintenance services needed by our generating and operating forces as well as units of the U.S. Army Reserve (USAR) and National Guard (NG).

Each depot specializes in specific maintenance-service areas. Tracy distribution center, for example, specializes in imaging equipment and special-purpose TMDE-SP while the Hill depot offers expertise in anesthetic devices and equipment repair parts.



Tobyhanna depot offers unique expertise in audiometric equipment, dental hand pieces, laboratory equipment, Picture Archiving and Communication System (PACS), optical equipment, and overhaul services. **END**



USAMMA Website Modernization

Article by Mr. Thad Eckert, Sr. Systems Engineer, USAMMA National Maintenance Program (NMP)

The USAMMA website committee held a number of meetings over the past year to discuss design details and an implementation approach that will lead to effective website modernization. Committee objectives included upgrading the website layout, rolling out a user friendly design, improving the user's ability to find information easier, and providing content that is current, complete, and relevant.



The new website design has now been completed and will be rolled out to the user community following Commander approval. No suspense has been set for final website release. **END**



LIW Products Used for Analysis and USAMMA NMP

Article by Mr. Lenearo Ashford, Sr. Biomedical Equipment Technician, USAMMA National Maintenance Program (NMP)

The Logistics Information Warehouse (LIW) captures all Army and DoD logistical actions that use Army and joint Automated Information Systems (AIS).

Data that is captured in the repository is used by logisticians, program management offices, strategists, and other key command and tactical advisors.

There are many modules in the latest LIW that provide analytical and strategic tools for the Army logistics community. The most popular LIW selection is WebLIDB. This application provides users many reports that only need key words to query data. National Stock Numbers (NSN), Line Item Numbers (LIN), and nomenclatures are some of the fields that can be used to populate your report. Report data is generated from the transactions performed in PBUSE, SAMS, AWRDS, SARSS, and FMS Web and is pushed through various systems interfaces. Another application that is widely used in LIW is the Integrated Logistics Analysis Program (ILAP).

ILAP employs a CITRIX remote access tool allowing use of an application that is local to the LOGSA data servers. The application provides near real-time data from all SAMS2 sites throughout the Army inventory. An active ILAP account must be available in order for data to be pulled from a SAMS2 site. If the SAMS2 is turned off or disconnected from the network, old data will remain resident until a network connection is re-established. There are many capabilities in ILAP; it is a sequel structured database that provides insight to maintenance, supply, and property transactions that occur at the Battalion/Brigade level of logistics operations. One of the most important tools available in ILAP is the reconciliation tool between SAMS, PBUSE, and the TAMMS Equipment Database (TEDB). This ILAP module provides users a snapshot of database activity while uniquely identifying equipment discrepancies within the organization. Another available feature is the 026(A) report. This report allows personnel to view at all open Work Orders (WOs) along with their current status. WebLIDB and ILAP are only two of the applications that are available in LIW. There are many more applications that will be discussed in upcoming editions of the FOCUS newsletter.

If you have any questions about these applications or use of the LIW within the medical discipline, please contact the USAMMA National Maintenance Program at: commercial 301-619-4464/4373, DSN 312-343-4464/4373. **END**



Integrated Infusion Pump Safety

Article by Mr. Scott Harder, Sr. Biomedical Equipment Technician, USAMMA National Maintenance Program (NMP)

Infusion pumps that deliver fluids and crucial medications to a patient play an important role in the administration of medicine.

Healthcare facilities are now taking the next step in infusion pump safety by connecting infusion pump servers to medication ordering and documentation systems. More often than not, questions arise during the integration process.



Types of infusion pump Integration:

1. Auto-programming - Orders are sent to the pump to be confirmed by a nurse before starting infusions.
2. Auto-verification - Nurses manually program the infusion pump; programming is then checked against a medication order.
3. Auto-documentation - Pump programming, status, and alerts are automatically fed into the patient's electronic medication record for confirmation.
4. Electronic Health Record (EHR) alert systems - Bring together diverse patient information and pump data to generate combination alert messaging in near real time.

Infusion pump integration rests on five specific infrastructure requirements, which must be in place before a facility can move forward with any integration plans:

1. Reliable, pervasive, and secure wireless connectivity.
2. Electronic medication orders containing all infusion parameters.
3. High compliance with bedside barcode scanning for medication administration.

4. Electronic repositories for administration data.
5. A highly reliable method of associating a pump channel with a patient and a medication.

Some of the integration challenges noted from case studies include:

1. Required intensive interaction with Information Technology (IT) sections.
2. Prior to implementation, nurses and pharmacies need additional time for infusion pump programming.
3. Proper wireless security and specifications were critical for success

Medical device integration is growing rapidly and will impact current and future technologies. With proper planning, many infusion pump integration challenges can be resolved before becoming major issues.

To learn more about integrated infusion pumps and associated safety practices refer to the the AAMI Foundation white paper, entitled: 'Best Practice Recommendations for Infusion Pump-Information Network Integration' located at: http://www.aami.org/htsi/SI_Series/Infusion_Pump_White_Paper.pdf. Additional information on IT can be found in Federal Information Processing Standards Publications available at: <http://www.itl.nist.gov/fipspubs/>. **END**



PS Magazine

Article by CW3, MS Bernadette Forrester, Medical Maintenance Officer, USAMMA National Maintenance Program (NMP)

The USAMMA National Maintenance Program (NMP) is in the process of drafting current, relevant, and timely medical-maintenance articles for inclusion in upcoming editions of PS magazine.

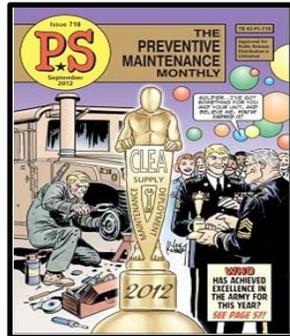
PS Magazine is a monthly Preventive Maintenance (PM) periodical; and, is an official Department of the Army (DA) communication specifically for soldiers assigned to combat and combat support units as well as all soldiers with unit maintenance and supply duties.

You know the one; it's cartoon filled, sometimes funny, and can usually be found in the motor pool. The magazine is full of important tips and information that can prevent accidents and equipment damage.

Ensure your medical maintenance shops are getting the latest edition of PS Magazine so your troops can be in the know. Visit

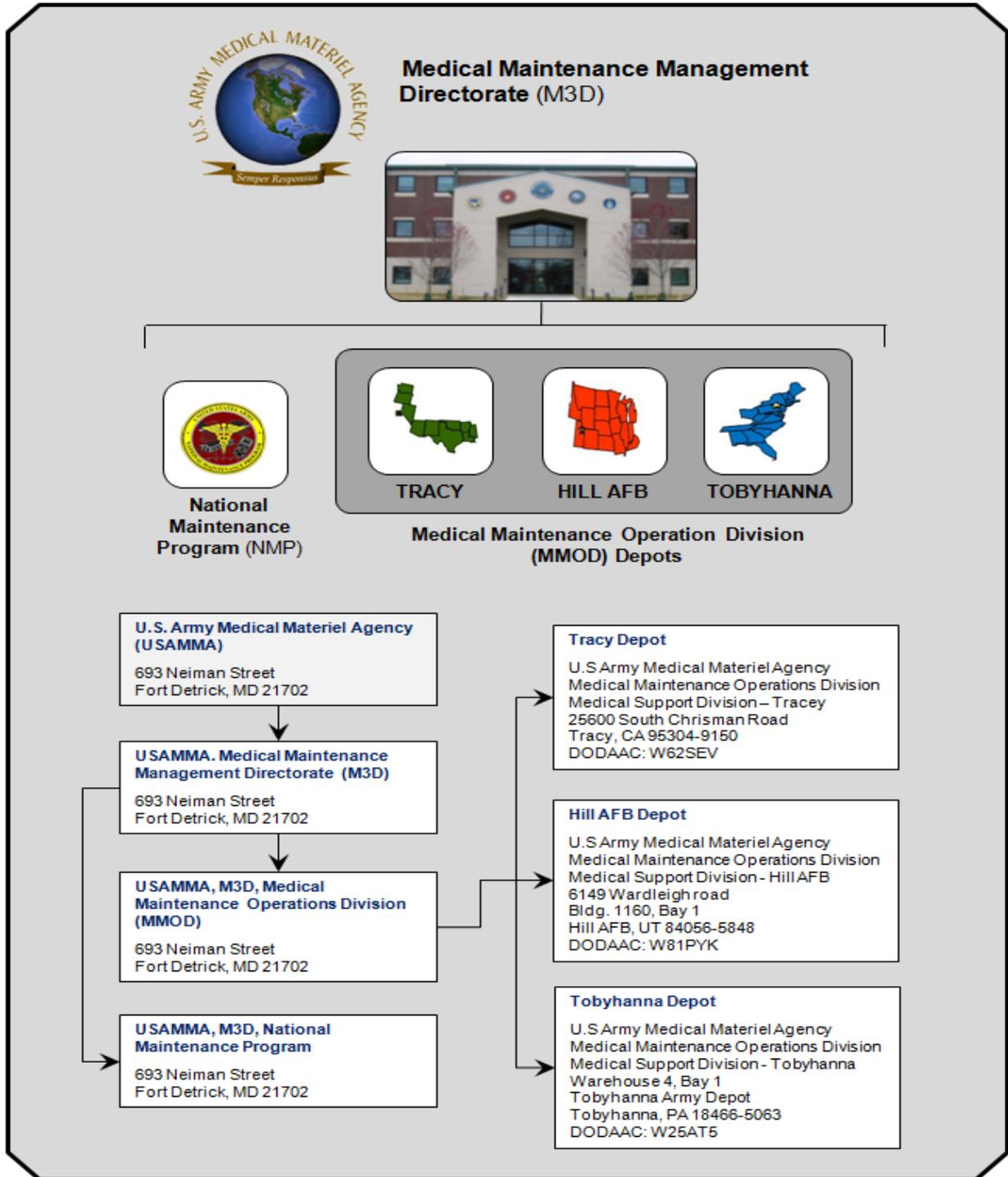
<https://www.logsa.army.mil/psmag/dist.cfm> today.

Your input and/or suggestions for timely PS magazine topics are welcome. For immediate consideration, please forward your ideas and contact information to: USAMMANMP@amedd.army.mil **END**



FOCUS is a quarterly biomedical maintenance newsletter published by the U.S. Army Medical Materiel Agency (USAMMA) National Maintenance Program (NMP). For more information regarding biomedical maintenance supportability, contact Steven L Johnson, Deputy, National Maintenance Program: 301-619-4464.

Do you have suggestions for a biomedical maintenance topic you need answers for? Provide your suggestions to any USAMMA NMP team member for future consideration in an upcoming edition of FOCUS; thank you.



END