

CHAPTER 13

THEATER ARMY MEDICAL MANAGEMENT INFORMATION SYSTEM

13-1. Overview

a. The Theater Army Medical Management Information System supports the information management requirements of field medical units during contingency operations and in war. This system aids the US Army in effectively transporting, treating, and tracking patients at field (TOE) medical facilities worldwide. Some field medical units were provided the system in fiscal year (FY) 1990. This system will be provided to remaining units during FYs 91 and 92. The system assists the user in the field in carrying out his functional responsibilities. The system was designed to—

- Replace a manual system.
- Support what people in the field need to do their jobs.
- Provide the user with a system that is efficient, effective, and user friendly.

b. The TAMMIS is the wartime baseline system for the DOD. Adjustments may be made to meet Army, Navy, Marine, and Air Force wartime requirements while ensuring compatibility between Services throughout the theater of operations.

c. The TAMMIS assists medical personnel on the battlefield by providing timely, accurate, and relevant information through the following subsystems:

- **MEBLD–TAMMIS** Medical Blood Products Management.
- **MEDPAR–TAMMIS** Medical Patient Accounting and Reporting.
- **MEDREG–TAMMIS** Medical Regulating.
- **MEDSUP–TAMMIS** Medical Supply.
- **MEDMNT–TAMMIS** Medical Maintenance.

- **MEDOFT–TAMMIS** Medical Optical Fabrication Management.

d. Each subsystem also has command and control or MEDC2 capabilities which provide the status (summary reports) of medical units, evacuation work load, and critical resources through predetermined reports or from information selected by the user. Table 13-1 displays the medical portion of the US Army CSS automation architecture.

e. Controlled accessibility is a TAMMIS feature included both to simplify the system and to increase security. During system setup, the local manager establishes each user's accessibility to each part of the system through system setup files; the user will review only the portion of the system that pertains to his job responsibilities. The local manager can also adjust his unit's system to accommodate local requirements and the operating environment.

f. The TAMMIS has flexible communication capabilities and can relay information between units in various ways. The preferred medium, however, involves direct communication between computers through a military communications network. When direct electronic communications links are not available, users may pass information by courier via floppy diskette, tape, or hard copy.

13-2. The TAMMIS Blood Products Management System

a. Purpose. The MEDBLD system handles information concerning the collection, processing, inventory, transfusion, and distribution of blood products within the theater. The same information is shared with blood managers outside the theater.

b. Design. The MEDBLD system is designed to—

- Speed blood shipments by automatically generating blood shipment lists.

Table 13-1. Medical Portion of the US Army CSS Automation Architecture

SYSTEM NAME/USE	SYSTEM FUNCTIONAL AREA	PROponent AGENT	USER	MANAGEMENT LEVEL	SYSTEM INTERFACES WITH	SYSTEM OUTPUT	ACTUAL OR TARGETED HARDWARE
TAMMIS MEDICAL PATIENT ACCOUNTING AND REPORTING (MEDPAR)	PATIENT ACCOUNTING AND REPORTING	DA SURGEON GENERAL	HOSPITALS AT CORPS AND EAC	MEDICAL COMMAND AND CONTROL HQ	MEDREG, SIDPERS-3, CSSCS	ADMISSION AND DISCHARGE OF PATIENTS COLLECTION OF STATISTICS VSI/S/SC REPORTING PREPARATION OF SPECIAL REPORTS	ATCCS-CHS
TAMMIS MEDICAL REGULATING (MEDREG)	MEDICAL REGULATING	DA SURGEON GENERAL	MEDICAL COMMAND AND CONTROL HQ AT CORPS AND EAC	MEDICAL GROUPS AND MEDICAL COMMAND AND CONTROL HQ AT CORPS AND EAC	MEDPAR, AECC, TAMCA, JTB, CSSCS, JMRO, DMRIS	MEDICAL FACILITY BED STATUS SURGICAL BACKLOG INFORMATION LOCATION OF SPECIAL MEDICAL EQUIPMENT	ATCCS-CHS, ACCS
TAMMIS MEDICAL SUPPLY, MEDICAL MAINTENANCE, AND OPTICAL FABRICATION MANAGEMENT (MEDSUP, MEDMNT, MEDOPT)	MEDICAL LOGISTICS	DA SURGEON GENERAL	DIVISION DMSO, MEDSOM, HOSPITALS AT CORPS AND EAC	DMOC, MED GP/ BDE, MEDCOM	MEDBLD, DAMMS R, SPBS R, CSSCS, SARSS, SAMS, STAMFINS	PERFORMANCE INDICATORS VARIOUS LOGISTICS REPORTS GENERAL MANAGEMENT REPORTS STATUS OF DUE IN-/OUT REPORTS CRITICAL ITEMS OF SUPPLY LISTINGS SUBSTITUTABILITY REPORTS QUALITY ASSURANCE REPORTS	ATCCS-CHS/ CTASC-II

Table 13-1. Medical Portion of the US Army CSS Automation Architecture (Continued)

SYSTEM NAME/USE	SYSTEM FUNCTIONAL AREA	PROPOSANT AGENT	USER	MANAGEMENT LEVEL	SYSTEM INTERFACES WITH	SYSTEM OUTPUT	ACTUAL OR TARGETED HARDWARE
TAMMIS BLOOD PRODUCTS MANAGEMENT MEDBLD	BLOOD PRODUCTS MANAGEMENT	DA SURGEON GENERAL	DIVISION SURGEON, HOSPITALS AT CORPS AND EAC, BLOOD SUPPLY UNIT	MEDSOM	DBMIS, CSSCS, ASWBPL	ACCOUNTING AND CONTROL OF BLOOD PRODUCTS WITHIN THEATER MANAGEMENT REPORTS CROSS-LEVELING REPORTS BLOOD STATUS REPORTS	ATCCS-CHS

Legend:

- ACCS Army Command and Control System
- AECC Aeromedical Evacuation Control Center
- ATCCS-CHS Army Tactical Command and Control -- Common Hardware/Software System
- ASWBPL Armed Services Whole Blood Processing Laboratory
- CSSCS Combat Service Support Control System
- CTASC II Corps Theater ADP Service Center II
- DAMMS-R Department of the Army Movement Management System-Redesign
- DMRIS Defense Blood Management Information System
- DMOC Defense Medical Regulating Information System
- JMRO Division Medical Operations Center
- JTB Joint Medical Regulating Office
- Joint Transportation Board
- Med Gp/Bde Medical Group/Brigade
- MEDCOM Medical Command
- SARSS Standard Army Retail Supply System
- SAMS Standard Army Materiel System
- SC special category
- SI seriously ill
- SIDPERS-3 Standard Installation/Division Personnel System
- SPBS-R Standard Property Book System-Revised
- STANFINS Standard Financial System
- TACCS Tactical Army CSS Computer System
- TAMCA Theater Army Movements Control Agency
- VSI very seriously ill

- Track blood inventories by transmitting inventory information on each blood product from one location to another. (Projections of blood usage are provided to blood managers and to command and control locations. This alerts decision makers to potential shortages of blood products within their area of responsibility.)

c. Automated Capabilities. The MEDBLD system provides the user with automated capabilities in the following areas:

(1) *Collection and processing.* These functions record blood donor information and results of blood processing tests. The user can print work sheets to perform the testing and to record the components prepared from each unit of blood. The system assists with blood labeling to ensure that correct labels are affixed to each blood unit.

(2) *Inventory functions.*

(a) These functions provide the ability to monitor blood product inventories at all levels in the blood distribution system. Managers can determine blood shipment amounts using actual inventory data rather than summary information. Each echelon within the blood distribution chain maintains current inventories for its own location and all locations to whom it supplies blood products. Blood usage information is transmitted up the distribution and management chain so that every echelon is provided information on blood product usage, overages, and shortages. The system allows efficient shipment of bulk amounts of blood products or shipments of specific blood units.

(b) These functions allow users to print blood product inventories by total amounts, blood group and type, or by location. Users can also print lists of expired units of blood, blood shipment pull lists, and listings of blood products received. Users can query the system for the status of a specific blood product. They can change the status of any blood product from available in the blood inventory to quarantined, lost, or unusable. They can also print the audit file which contains all shipment, transfusion, and receipts of blood products for that day. They can transmit blood inventory and blood transfusion information from one location to another via floppy diskette or telephone modem.

(3) *Blood shipping and receiving.*

(a) These functions allow the efficient shipping of blood products from one location to another. The Distribute Blood Products function is provided to display current inventories at the shipping and receiving locations and to build shipment manifest files. This function also displays the previous shipment amounts and average daily usage of each blood product and computes a recommended shipment amount for the user.

(b) These functions are provided to print a pull list for shipping blood products and to print a received list that indicates which products should have been received. If a discrepancy exists in shipment, an exception file is created that can be printed by the receiving location. An audit file that records all shipping, receiving, and transfusion of products is also created and can be printed on demand.

(c) These functions are provided to send and receive shipping manifest files (lists of blood products to be shipped with appropriate information) via tape, floppy diskette, or telephone modem. When using the Distribute Blood Products function to ship blood products, the system determines which products are to be shipped; however, other functions are available to allow the user to select a particular unit or box of products to be shipped. A function is also available to record blood products received from sources outside TAMMIS.

(d) The division surgeon can order blood products for medical facilities within the division area by forwarding blood orders to a blood manager or blood product depot by modem, tape, or floppy diskette. He can review records of blood shipment orders by printing all orders for subordinate facilities within the past 30 days.

(4) *Transfusion.* These functions provide the ability to record blood products transfused to each patient. Crossmatch and transfusion listings can be printed by patient name.

(5) *Utilities.* These functions provide programs to create and view messages sent from one location to another, to write manifest files to

tape or diskette, to prepare new diskettes for use, and to send manifest files by telephone modem.

(6) *Roll-up reporting.* These functions provide consolidated information to medical command and control personnel.

13-3. The TAMMIS Medical Patient Accounting and Reporting System

a. Purpose. The TAMMIS MEDPAR system supports facility commanders in the management of patients and resources. The system tracks patients for casualty reporting and personnel strength accounting.

b. Design. The TAMMIS MEDPAR system is designed to operate at TOE hospitals within the corps and COMMZ. Individual patient data and medical information are accumulated to determine the availability of medical resources and to support the personnel and casualty reporting systems. The MEDPAR system will operate on the ATCCS-CHS computer.

c. Automated Capabilities. The MEDPAR system provides automated capabilities in the following areas:

(1) *Patient admission.* Enables hospital admission and disposition personnel using MEDPAR to quickly collect and maintain demographic information for all patients admitted to a facility. This information is used for patient tracking as well as the management of facility resources. The system prompts the user for information specific to the type of admission being performed. The system will allow patient admission information for patients being transferred from another MTF to be loaded into the data base.

(2) *Patient discharge.* The MEDPAR system quickly collects and maintains discharge data. The system prompts the user for information specific to the type of discharge being performed (RTD, transfer, AWOL, death, discharge from hospital, retired/separated from Service, or discharge to EPW camps). The system will also allow MEDPAR personnel to send transfer data for transfer patients sent to another MTF.

(3) *Patient record management.* Enables the user to produce a hard copy inpatient treatment record, sets of patient labels, and a hard copy of the patient record, including any transactions that have occurred during the patient's stay in the MTF. Personnel using MEDPAR will have the ability to archive and maintain the patient's record after the patient has been discharged from the facility.

(4) *Patient status management.* Allows the user to update information concerning the patient's condition, acuity (sharpness) level, stability, location within the facility, casualty status, and evacuation status. This information will be used to generate patient evacuation requests and patient manifests.

(5) *Patient accounting reports.* Enables the user to produce a Ward Report, Admissions and Dispositions Report, Recapitulation Report, Allied Admissions and Dispositions Report, VSI/SI/SC Roster, Patient Alpha Roster, Patient Roster by Unit, and a Reportable Conditions Roster. The system will allow the user to make Admission and Disposition Corrections to previous Admissions and Dispositions Reports, with the changes reflected on the next Admissions and Dispositions Report produced.

(6) *Facility management reports.* Enables personnel using MEDPAR to produce a Command Interest Roster, Patient Evacuation Roster, Expected Dispositions Report, Bed Status Report, Register Number Listing, Pre-Admission Report, Medical Summary Report Worksheet, and Medical Summary Report. The system also allows the user to print reports received from the MEDREG system and send the Bed Status Report to the MEDREG system via floppy diskette, tape, or modem.

(7) *Command interest roll-up (synopsis) reports.* Allows Recapitulation Reports, Bed Status Reports, Reportable Condition Reports, and Comment Reports to be sent to the next higher headquarters by floppy diskette, tape, or modem.

(8) *MEDPAR system maintenance.* The system enables the MEDPAR system administrator to maintain the MEDPAR system files, the archive log, and the select tables. The

system will allow the MEDPAR system administrator to modify specific report parameters for the Command Interest Report and the environmental information that describes the facility, location of the facility, and the number of operating room suites in the facility. This will give the system administrator the flexibility to meet changing requirements on the battlefield. The system will allow the system administrator to modify a patient register number, ensuring the integrity of the MEDPAR data base. The system will also allow the system administrator to reconcile the bed status of the facility. This useful function should be run when the system fails while a patient activity is being recorded. The system allows the user to make corrections to previous Medical Summary Report Worksheets. These changes are reflected in the monthly Medical Summary Report.

13-4. The TAMMIS Medical Regulating System

a. Purpose. The MEDREG system assists the medical regulator in managing the evacuation of patients so that patient medical and transportation requirements are most efficiently matched against available resources. The MEDREG provides reliable information on medical capabilities and operational constraints that the MEDCOM can use for medical planning and resource placement.

b. Design and Automated Capabilities. The TAMMIS MEDREG system operates at US Army corps levels and at echelons above corps. Medical regulators at medical groups and brigades, hospital centers, MEDCOM, and the JMRO will use MEDREG to designate beds for patients and to coordinate patient movement within the theater. The JMRO (or the senior medical regulating activity in the theater) will also coordinate with the Armed Services Medical Regulating Office (ASMRO) to regulate patients to facilities outside the theater. The MEDREG system provides the user with automated capabilities in the following areas:

(1) *MTF status and information.* The home base regulator uses the MEDREG system to enter, review, update, and print MTF patient evacuation requests from the US Army, other DOD services, allied armed services, and allied civilian MTFs. These processes manage evacuation requests for regulating patients.

(2) *Regulating patients within the command.* The home base regulator uses the MEDREG system to regulate patients within his command. The home base regulator may designate beds, assign transport, deny evacuation, remove bed designations, remove transport assignments, and print reports necessary for regulating patients locally.

(3) *Regulating patients to higher echelon.* The home base regulator uses the MEDREG system to regulate patients to a higher echelon of care. The home base regulator is directed by a regulator at a higher level to coordinate forwarded patient evacuations. These processes allow the home base regulator to enter bed designations, movement instructions and evacuation denials, to remove bed designations and movement instructions, and to print reports for regulating patients to a higher echelon of care.

(4) *Medical regulating reports.* The MEDREG system enables the user to produce and print medical regulating reports. These reports contain consolidated bed status, bed status and information at each MTF, available beds by specialty, airfields supporting each MTF, and evacuation request status. The reports are used to plan patient evacuations, manage medical resources, and optimize transportation.

(5) *Messages, reports, and requests.* The MEDREG system enables the user to produce, send, receive, or process Bed Designation Messages, Movement Instructions, Gaining Facility Messages, Evacuation Denial Messages, MEDPAR Evacuation Requests, Evacuation Delay Messages, MTF Bed Status, Command Summary Reports, and Consolidated Evacuation Requests.

(6) *Automated communications.* The MEDREG system enables the user to produce, send, receive, and process communications using floppy diskettes, tape, or modem. Electronically transmitted communications may be in the form of either electronic mail or transaction processor data. Transaction processor data files are processed automatically to update the receiving system data base. When transmission by electronic means is not possible, the system prints hard copies of the communications.

(7) *Maintaining historical data.* The MEDREG system allows the home base regulator to maintain bed status and evacuation requests for historical purposes. The historical information is produced and put in transaction processor data files which are transferred to floppy diskettes or magnetic tape for future reference.

(8) *Command and control.* The MEDREG system allows the home base regulator to produce and print the Command Summary Report and the Work Load Report by Facility. The reports are logged in an archive so that they may later be sent to the higher medical regulator or the CSSCS. The home base regulator may use these reports to plan evacuations, manage medical resources, and to schedule his work load.

(9) *System maintenance.* The MEDREG system allows the home base regulator to maintain the select table validation code files, clear the multiuser system lock files, and delete obsolete movement instructions. The select tables include patient categories, MOSs, and military grades. The multiuser system lock files enable several users to use MEDREG processes simultaneously. Obsolete movement instructions must be deleted to minimize system response time.

13-5. The TAMMIS Medical Supply System

a. Purpose. The TAMMIS MEDSUP system automates the comprehensive management and requisitioning of medical materiel (Class VIII supplies) required to support all medical units.

b. Design. The TAMMIS MEDSUP system is designed to operate at the DMSO within US Army divisions, at the MEDSOM unit (or medical battalion [logistics]), and TOE hospitals within the corps, and at the MEDSOM unit and TOE hospitals within the COMMZ. At the MEDSOM units, TAMMIS will operate on the CTASC-II which is a mini-mainframe computer. At all other locations (such as DMSO and TOE hospitals), TAMMIS will run on the ATCCS-CHS computer).

c. Automated Capabilities. The MEDSUP system provides the user with automated capabilities in the following areas:

(1) *Customer processing.* Enables the user to—

- Enter routine and emergency customer requests for medical materiel.
- Enter, approve, reject, or receive customer turn-ins.
- Maintain a customer request file where requests can be reviewed, modified, or canceled and supply status can be provided to the customer.
- Build and maintain an automated customer reorder list.
- Produce various customer supply and financial reports.
- Prepare files for customers.
- Load and process files from customers.

(2) *Requisitioning, receiving, and due-in items.* Allows the user to—

- Generate, review, and enter replenishment requisitions.
- Review, modify, or cancel due-in records.
- Generate follow-up requests and print due-in items report.
- Enter, process, review, and reverse receipts.
- Prepare files for supplier.
- Load and process files from supplier.

(3) *Maintaining local stocks, quality control, and reporting.*

(a) Enables the user to—

- Maintain local stock records and levels by adding or changing stock record files and processing stock number changes.

- Review item request history for stockage of item.
- Recompute requisitioning objective or reorder point (ROP) for stocked items.
- Review contingency versus active stocks.

(b) Allows the user to—

- Maintain a stock location file.
- Produce location reports.
- Conduct more efficient physical inventories.
- Perform inventory adjustments.
- Produce inventory reports.

(c) Allows the user to perform quality controls and destruction actions by—

- Processing quality control alert messages.
- Scheduling quality control surveillance inspections.
- Entering quality control data for materiel received.
- Entering or updating destruction records.
- Adjusting the stock record file for destruction.
- Printing quality control and destruction reports.

(d) Enables the user to—

- Obtain information for current stock status and process catalog changes.

- Perform monthly summary purge and create the STANFINS file.

- Perform periodic and special purpose reporting such as command and control and numerous supply management reports.

- Perform excess stock management and reporting.

(4) *Calling Up by the NSN, due in or due out, or transaction history.* Allows the user to—

- View current stock status, due-in or -out transaction history, and demand history on the screen.
- Modify or cancel customer requests.
- Review, modify, or cancel due-in records.

(5) *Setting up and maintaining system procedures.* Enables the user at initial system setup or during normal system operation to—

- Build or update the supported customer file.
- Build or update the supporting activity file.
- Build or update the environmental data file by entering and updating local destruction date, financial description data requisitioning objective or reorder point calculation data, processing default data, and control data.
- Update month and cutoff dates.
- Update reporting, printing, and display options.
- Perform archive file processing.
- Build an update cost file.
- Update the elements of expense file.

(6) *Reviewing exceptions referred to manager.* Allows the user to review and process exception records from the due-in exception file, customer demand exception file, receipt exception file, and replenishment exception file.

(7) *Ad hoc reports.* Allows the user to create, modify, delete, and print user designed temporary reports.

(8) *Interfaces.* Medical system interfaces with Standard Army Management Information System, specifically DAMMS-R, CSSCS, SARSS, and SPBS-R.

13-6. The TAMMIS Medical Main

a. Purpose. The TAMMIS MEDMNT system supports the scheduled maintenance and repair of medical equipment essential for treating patients.

b. Design. The TAMMIS MEDMNT system is designed to operate at the DMSO within the US Army divisions, at the MEDSOM unit and TOE hospitals within the corps, and at the MEDSOM unit and TOE hospitals within the COMMZ. The system is used at each of these locations to manage equipment maintenance and repair for equipment owned by the supporting and supported units. In the MEDSOM units, MEDMNT will operate on the CTASC-II computer. In all other locations (DMSO and hospitals), MEDMNT will operate on ATCCS-CHS.

c. Automated Capabilities. The MEDMNT system provides the user with automated capabilities in the following areas:

(1) *Work order processing.* Allows the scheduling, assigning, tracking, and reporting of medical equipment maintenance work orders. It also allows the user to identify and track the status of equipment directly supported by local medical maintenance personnel.

(2) *Supply management.* Allows the unit to maintain information on stockage of items required to support the medical maintenance mission. It also allows the maintenance unit to interface with the supply system through the unit-level logistics system to requisition for nonmedical repair parts.

(3) *Periodic processing and reporting.* Provides a monthly performance report or scheduled and unscheduled maintenance service report to be used by local management or higher commands. It also produces a Materiel Condition Status Report, DA Form 2406, which could be passed to SAMS.

(4) *Command and control.* Provides command interest information concerning scheduled and unscheduled maintenance service performance. It provides the commander with up-to-the-minute status of all readiness significant items of medical equipment. This information may then be sent to the appropriate command level via automatic file transfer.

(5) *Maintenance system setup procedures.* Defines the local environment used to control system processing by identifying supporting activities, supported customers, and processing default data.

13-7. The TAMMIS Optical Fabrication Management System

a. Purpose. The TAMMIS MEDOPT system automates the management and requisitioning of materiel to support optical fabrication production and laboratory report preparation.

b. Design. The TAMMIS MEDOPT system is designed to operate within the corps at the MEDSOM unit, and within the COMMZ at the MEDSOM unit. The system is used at each of these locations to manage materiel required for optical fabrication and to prepare consolidated optical statistical reports.

c. Automated Capabilities. The MEDOPT system provides the user with automated information capabilities in the following areas:

(1) *Maintaining locally stocked items.* Enables the user to identify expendable items required for optical fabrication and to establish and compute the optimal stockage reorder levels and ROPs for each item.

(2) *Ordering optical fabrication production materiel.*

- (3) Entering receipt of materials.
- (4) Updating or displaying status of due-in material.
- (5) Generating follow-up status request.
- (6) Preparing and processing status files.

(7) Preparing/entering Daily Optical Laboratory Report, DA Form 2717. Allows the user to quickly prepare the report daily.

(8) Setting up procedures. Allows the user to define the local unit and build the stock record file.