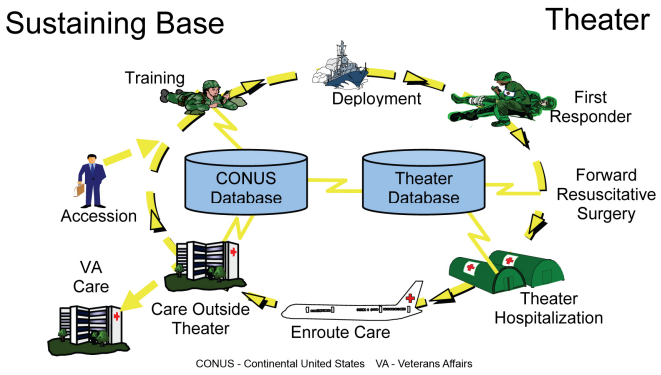
Theater Medical Information Program (TMIP)

Executive Summary

- The Army Test and Evaluation Command (ATEC) led a Multi-Service Operational Test and Evaluation (MOT&E) of Theater Medical Information Program (TMIP) Block 2 Release FY07 (B2RFY07) from January 16 through February 1, 2008. All of the Services' operational test agencies participated, as did the Army Medical Department Board, the Army's 1st Information Operations Command (1st IOC), the Air Force Medical Evaluation Support Activity, the Joint Interoperability Test Command, and the Joint Staff.
- The MOT&E results showed that the release is operationally effective, suitable, and survivable; but with limitations in the areas of information assurance, interoperability, continuity of operations (COOP), concepts of operations (CONOPS), logistics support planning, training, and documentation that require remedial actions. Despite these limitations, the software demonstrated significant improvements over the previous release.
- Two issues require immediate attention. The joint and Service TMIP program managers should continue efforts to encrypt data for mobile computing devices; and ATEC should verify the interface between the Theater Medical Data Store (TMDS) and the Clinical Data Repository (CDR), or an acceptable interim substitute, prior to fielding.

System

- TMIP is a multi-Service Major Automated Information System that integrates software from the sustaining base medical applications into a multi-Service system for use by deployed forces.
- Examples of integrated applications include the Armed Forces Health Longitudinal Technology Application, Composite Health Care System, and Defense Medical Logistics Standard Support.
- TMIP provides the following medical capabilities required in the theater:
  - Health care delivery documentation
  - Medical command and control



  - Medical logistics
  - Patient movement
- The Services provide their own infrastructure (networks and communications) and fund the computer hardware to host the TMIP software.
- TMIP consists of two blocks. Block 1 received a limited fielding approval in 2003 and is currently deployed. Block 2 is being developed in multiple incremental releases starting from FY07.

Mission

- Combatant Commanders, Joint Task Force commanders, and their medical support staff equipped with TMIP can make informed and timely decisions regarding the planning and delivery of health care services in the theater.
- Military health care providers equipped with TMIP can electronically document medical care provided to deployed forces to support the continuum of medical care from the theater to the sustaining base.

Prime Contractors

- SAIC
- Northrop Grumman

Activity

- ATEC led an MOT&E of TMIP B2RFY07 from January 16 through February 1, 2008, in accordance with the DOT&E-approved Test and Evaluation Master Plan and Event Design Plan. All of the Services' operational test agencies participated, as did the Army Medical Department Board, the Army's 1st Information Operations Command (1st IOC), the Air Force Medical Evaluation Support Activity, the Joint Interoperability Test Command, and the Joint Staff.
- The MOT&E evaluated production-representative software at sites throughout the United States that included Camp Bullis, Texas (Army site); Camp Pendleton, California (Marine Corps site); Fort Detrick, Maryland (Air Force site); USS *Ronald Reagan* (Navy site); and Falls Church, Virginia (joint task force site).

Assessment

- The MOT&E results showed that TMIP B2RFY07 is operationally effective, operationally suitable, and survivable; but with limitations in the areas of information assurance, interoperability, COOP, CONOPS, logistics support planning, training, and documentation. Despite these limitations, the software demonstrated significant improvements over the previous release.
- The overall success rate for approximately 19,000 critical mission functions attempts was 99.5 percent, exceeding the 95 percent requirement. Only the Army tested the medical logistics capability provided by TMIP B2RFY07; the other Services do not plan to use this capability.
- Information security compliance is adequate, with one notable exception, medical data stored on TMIP servers and mobile computing devices are not encrypted – a vulnerability that could allow unauthorized parties to view or change stored medical information.
- All tested interfaces demonstrated sufficient maturity to support the system's critical mission functions. However, one key interface was unavailable for test. The interface between the TMDS and the CDR ensures that patient encounters from the theater are stored in a permanent digital file where health care providers worldwide can access the information. While this interface is operational with the fielded TMIP Block 1, it is still under development for TMIP Block 2.
- There is no COOP plan for periodic failover testing of the TMDS and Joint Medical Work Station servers to an alternate operational site. The program manager has awarded a contract for development and testing of the COOP plan.
- Only the Army has a fully developed Service-level CONOPS. This is a significant limitation for other Service users.
- The Army and Navy integrated logistics support plans are adequate, but the Air Force did not complete its plan until after the MOT&E. The Marine Corps plan is still under development.

Recommendations

- Status of Previous Recommendation. There were no previous recommendations.
- FY08 Recommendations.
  1. The joint and Service TMIP program managers should continue efforts to encrypt data for mobile computing devices.
  2. ATEC should verify the interface between the TMDS and the CDR, or an acceptable interim substitute, prior to fielding.
  3. The joint and Service TMIP program managers and the TRICARE Management Activity should develop a Plan of Actions and Milestones to correct the other noted deficiencies.