

**Joint Legislative Committee to
Study and Make Recommendations about the
State's Emergency Medical Response System**

Final Report

Annapolis, Maryland

January 2005

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Joint Legislative Committee to Study and Make Recommendations about the State's Emergency Medical Response System

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Joint Legislative Committee to Study and Make Recommendations about the State's Emergency Medical Response System (EMRS) Final Report

Chapter 385, Acts of 2003 created a joint legislative committee to study and make recommendations about the structure and funding of the State's emergency medical response system. The committee consists of four members of the Senate of Maryland, appointed by the President and four members of the House of Delegates, appointed by the Speaker of the House. The committee submitted an interim report in December 2003.

During the 2003 interim, the committee held three meetings providing members with extensive background on the Maryland Emergency Medical System Operations Fund (MEMSOF), history and structure of Maryland's emergency medical services (EMS) system, homeland security issues, and prior legislative audits of entities receiving MEMSOF funds. The meetings allowed all entities involved with MEMSOF funding to provide information to the committee. These entities included the Maryland Institute for Emergency Medical Services Systems (MIEMSS), the Maryland State Police Aviation Division, the Maryland Fire and Rescue Institute, the Amoss Fund, Volunteer Company Assistance Fund (VCAF), and Shock Trauma Center. Finally, the meetings provided groups the ability to comment on funding needs and make recommendations on the EMS system. These groups included local fire and EMS providers, trauma centers, and commercial air ambulance services. A copy of the interim report is included (**Appendix 1**).

Chapter 385, Acts of 2003 requires the joint legislative committee to discuss 14 items related to the Maryland emergency medical response system:

1. current and projected fund balance of MEMSOF;
2. current planning efforts for the use of funds in MEMSOF;
3. long-term operation and capital needs for Level I, II, and III trauma centers;
4. funding needs of first responders, firefighters, and emergency medical personnel;
5. incentives for illness prevention, injury reduction, and appropriate use of the trauma system;
6. ability of current funding mechanisms to meet the needs of the EMS system;
7. availability of federal funds for homeland security and bioterrorism response and the ability of those funds to meet needs of the EMS system;

8. oversight and accountability for use of funds in MEMSOF;
9. methods used by other states for emergency medical response;
10. current use of Maryland State Police (MSP) helicopters and the potential for the use of private helicopter companies for emergency medical response and interhospital transport;
11. issues related to the licensing of commercial air ambulances;
12. plans to finance the replacement of Maryland State Police helicopters;
13. purposes for which funds, appropriated in the annual State budget from MEMSOF for fiscal 1999, 2000, 2001, 2002, and 2003 were used by each entity; and
14. structure of MIEMSS and how it functions within the emergency medical response system.

Prevention activities (item 5), the only item not studied during the 2003 interim, was discussed during the 2004 interim.

During the 2004 interim, the joint legislative committee held five meetings:

- **August 11, 2004:** site visit to Martin State Airport
- **September 15, 2004:** panels including EMS reassessment, trauma centers, and the Delegate Costa report
- **October 12, 2004:** panels including prevention activities, air-medical scene transports, and briefings on EMS funding in other states and a MEMSOF forecast
- **November 17, 2004:** equipment needs of trauma centers and work session
- **January 5, 2005:** capital needs of trauma center, air medical scene transport, and work session

August 11, 2004 Site Visit to Martin State Airport

The August 11, 2004 meeting was a site visit to the Maryland State Police Aviation Division and the STAT MedEvac commercial air medical base at the Martin State Airport. This visit provided the committee with the opportunity to view the State Police Medevac and commercial helicopters and other fixed wing aircraft and meet with personnel, including pilots and mechanics, who utilize the aircraft.

Colonel Thomas Hutchins, Superintendent of MSP, welcomed the members of the committee and their guests. Donald DeVries, Jr., Chairman of the Emergency Medical Services Board, provided a general overview of the important and multiple roles that the Medevac helicopters play in the Maryland emergency services system. The four areas in which the helicopters provide support are emergency medical services, search and rescue operations, law enforcement activities, and homeland security missions.

Major James Hock, Commander of the MSP Aviation Division, provided details about the Dauphin helicopters and other fixed-wing aircraft, aircraft mission statistics, and the lifecycle and the resale value of used aircraft. In 2003, operating 365 days per year and 7 days per week, Maryland State Police aircraft logged:

- 5,009 patients;
- 6,033 Medevac hours;
- 312 interhospital/neonatal transports;
- 404 search and rescue hours;
- 1,445 law enforcement hours; and
- 1,130 training, demonstration, and maintenance hours.

Major Hock discussed a report prepared by the Conklin & de Decker company regarding the lifecycle and costs of an aircraft. According to this report, an older aircraft is less available to the owner because the aircraft will spend more time on the ground in maintenance, the parts for the aircraft are more scarce, and the aircraft costs more to operate and maintain. MSP advised the committee that it would like to get the highest possible resale value for its used aircraft by selling its aircraft as close as possible to the recommended time in the aircraft's lifecycle.

MSP also provided the committee with a tour of its facilities. Members and guests spoke with MSP helicopter pilots and maintenance personnel and saw a helicopter undergoing a routine maintenance inspection. The committee was also able to observe a helicopter search and rescue training exercise taking place outside the maintenance hangar.

Immediately following the MSP facilities tour, the committee received a tour of the STAT MedEvac commercial air medical facilities. Members of the committee were able to speak with a representative of STAT MedEvac and view one of the helicopters. STAT MedEvac currently flies a large number of interhospital transports in the State and would like to come to agreement with the State to allow the company to do scene transports, in a backup role to the State Police. Unlike the State Police, STAT MedEvac would bill insurers and patients for the cost of the transport. Payment for uninsured patients would be an issue.

September 15, 2004 Meeting

The September 15, 2004 meeting provided three panels: (1) Mr. Dan Manz, Director, Emergency Medical Services Division, Vermont Department of Health, and National Highway Traffic Safety Administration (NHTSA) Reassessment Team Member; (2) representatives from Prince George's Hospital Center (Level II Trauma), Suburban Hospital (Level II Trauma), Sinai Hospital (Level II Trauma), Washington County Hospital (Level III Trauma), and Peninsula Regional Medical Center (Level III Trauma); and (3) Delegate Robert Costa.

NHTSA Reassessment

Mr. Manz provided detailed testimony to the committee regarding a NHTSA report titled "State of Maryland: A Reassessment of Emergency Medical Services." In 1988, NHTSA established a Technical Assistance Team (TAT) responsible for evaluations of state EMS programs. TAT provided a comprehensive assessment of Maryland's EMS system in 1991. The current report serves as a reassessment of the EMS system and measures progress since 1991.

The NHTSA report gave the Maryland EMS system strong marks stating that it has a "mature and sophisticated statewide EMS system." The report stated that the Maryland EMS system has embraced change with impressive results since 1991. In particular, the reassessment noted that (1) the 1993 EMS legislation has defined the system structure and provided authority for operations; (2) funding from motor vehicle registration fees provides an EMS fund that appropriately supports system needs; (3) Maryland has a well established EMS communications system that is capable of meeting the needs for both routine daily incidents and larger more unusual events; (4) specific patient populations such as children and major trauma cases are well integrated into the overall EMS system; and (5) Maryland is beginning to use EMS information to drive decisions. Mr. Manz stated that the NHTSA reassessment compares a state's EMS system with a number of predetermined "gold" standards. The reassessment did not compare Maryland with other states.

Although Maryland has made excellent progress since the last assessment in 1991, the NHTSA report mentioned several challenges for the EMS system:

- capturing data, translating it into information, and using it to provide a scientific basis for system planning and operations;
- maintaining sufficient financial support to meet the continuing needs of the system;
- assuring a sufficient EMS workforce, including volunteers, to meet the demands for service generated by the population;
- preparing the system for response to future manmade or natural disasters; and

- preservation of the core function of the Maryland State Police in serving the air medical needs of trauma patients while assuring that other patients in need of interhospital transport by air are equally well served.

Equipment Replacement Needs of Trauma Centers

Three hospitals representing Level II Trauma Centers and two hospitals representing Level III Trauma Centers briefed the committee on funding needs. The five hospitals provided arguments on why current funding levels are not sufficient. All hospitals stated that funds raised, borrowed, and obtained through facility profits are not enough to meet capital needs. The hospitals requested that the legislature find a means to address capital equipment replacement needs for Maryland trauma centers.

At the request of one of the committee members, MIEMSS was asked to conduct a survey assessing the needs of Maryland trauma centers. The purpose of the survey was to identify the equipment needs of Maryland trauma centers, including pediatric trauma centers, through fiscal 2008. The results of the survey were presented at the November 17, 2004 meeting by MIEMSS.

Report by Delegate Robert Costa

In December 2003, Delegate Robert Costa presented the committee with a report on the Maryland EMS system. The report was included as **Appendix 2** in the committee's interim report submitted in December 2004. At the September 15, 2004 meeting, Delegate Costa briefly discussed this report and asked the committee to take its recommendations into consideration when developing the final report.

October 12, 2004 Meeting

At its October 12, 2004 meeting, the committee received briefings on prevention activities and the organization and funding of EMS in other states. The committee also received an update on negotiations between the State and the private air medical providers over a memorandum of understanding regarding transports from the scene of an accident or injury. The Department of Legislative Services (DLS) provided an updated MEMSOF forecast.

Prevention Activities

MIEMSS reported on its injury prevention activities, including the "Stop Red Light Running" and "Heart Safe Communities" campaigns. Red light running is the leading cause of urban motor vehicle crashes. Targeted enforcement and education, involving many participants and supporters, is paying off, as seen by reductions in crashes, injuries, and fatalities. The Heart

Safe Communities Campaign has provided funding for automatic external defibrillators. The campaign has also focused on heart healthy living and heart attack warning signs.

MIEMSS has received national recognition for its Emergency Medical Services for Children program. The program has focused on prevention and preparedness for children with special health care needs and child passenger safety.

Prevention activities were not discussed during the 2003 interim, and this panel fulfilled the committee's requirement to discuss the topic.

Organization and Funding of Emergency Medical Services in the States

The Department of Legislative Services (DLS) reported on responsibilities and funding for state EMS offices and on the organization of EMS services and state funding for those services in the five states closest to Maryland. Each state has a lead EMS agency, which is usually a part of the state health department, but in some states may be part of the public safety department or, as in Maryland, an independent state agency. There is a wide range of funding for state EMS offices, including state general funds, federal health resources and services administration and other funds, special funds generated from traffic tickets or fees, and other special funds. State general funds are the most prevalent source of funds supporting the state EMS office in 38 states.

Within the region, the variation in funding is also apparent, with some states, like West Virginia, relying primarily on general funds to support EMS. Virginia is much like Maryland, using motor vehicle registration fees to support a variety of EMS-related services. Organization of air-medical services also varies within the region. New Jersey, like Maryland, uses the State Police for on-scene emergencies, but private companies may provide interhospital transport. Pennsylvania and West Virginia exclusively use private air-medical services, which Delaware and Virginia operate through a public/private mix.

Organization and funding of EMS in other states was only briefly discussed during the 2003 interim, and the panel expanded on the topic.

MEMSOF Forecast

The Department of Legislative Services provided an updated MEMSOF forecast. The source of revenue for MEMSOF is an \$11 annual surcharge on motor vehicle registrations. MEMSOF provides funding for the Maryland Fire and Rescue Institute, MIEMSS, the University of Maryland Medical System Shock Trauma Center, the Amoss Fund for local fire and rescue companies, the Maryland State Police Aviation Division, and the Volunteer Company Assistance Fund. The DLS forecast projects that MEMSOF is viable until 2016, when expenditures will overtake revenues. The forecast assumes the termination in fiscal 2005 of the five-year commitment to funding for Shock Trauma equipment. The forecast also assumes that

no funds for replacement of Maryland State Police Medevac helicopters will come from MEMSOF.

November 17, 2004 Meeting

The November 17, 2004 meeting had one panel: Dr. Robert Bass, MIEMSS Executive Director, and Mary Beachley, MIEMSS Director of Hospital Programs. The purpose of the panel was to present the results of a capital equipment need survey of Maryland trauma centers conducted by MIEMSS. The report identified equipment needs, including pediatric trauma centers, through fiscal 2008. Responding adult trauma centers indicated a need for approximately \$59 million in capital equipment for the period fiscal 2005 through 2008. However, of the \$59 million, only \$12.6 million (21 percent) is attributable for use in the treatment of trauma patients. This is due to the fact that much of the equipment used by trauma centers is considered as standard medical equipment needed for other illnesses and injuries. Information provided by the pediatric centers could not be analyzed in the same manner as the adult trauma centers. MIEMSS stated that it will continue to work with pediatric trauma centers to obtain the necessary information.

The remainder of the November 17, 2004 meeting served as a work session to discuss the committee's final report. Committee staff provided members with a list of topics for consideration including oversight and accountability of MEMSOF funds, structure of MIEMSS, air ambulance services, methods used by other states to meet EMS needs, trauma center long-term operating and capital needs, funding needs for first responders, homeland security, and ability of current funding mechanisms to meet the needs of the emergency medical response system. The discussion helped frame a draft final report submitted to members at the January 5, 2005 meeting.

January 5, 2005 Meeting

At the committee's January 5, 2005 meeting, there was discussion of three items:

- the extent to which the capital needs of trauma centers are taken into account in setting hospital rates;
- the status of the Memorandum of Understanding (MOU) on air medical scene transports; and
- discussion of the committee's final report.

The Health Services Cost Review Commission (HSCRC) provided a written handout indicating that the capital needs of trauma centers are taken into account in three ways:

- rates are set based on reasonable costs;

- rates and methodologies recognize the additional costs of trauma services; and
- in response to increases in the average age of hospital plants, the HSCRC has:
 - added 1 percent to rates over the past two years for capital needs;
 - implemented a more flexible partial rate application process; and
 - recognized certain previously unrecognized trauma costs in rates and in rate methodologies.

Bryson Popham, representing CJ Aviation Systems, informed the committee that there were two elements to the agreement between the State and the private air medical providers: (1) the MOU; and (2) the SYSCOM Protocol that determines when a private provider would be called. The EMS Board voted at its December 2004 meeting to require that a private provider would only be called if a State Police helicopter could not arrive within 25 minutes. The private sector had advocated for a lower time threshold. Dr. Bass and Major Hock stated that the EMS Board was satisfied that the 25-minute threshold was in the best interests of the citizens of the State and provided for appropriate backup to the State Police helicopters. One private provider has already signed the MOU, and the State will be negotiating with the others. MIEMSS, the State Police, and the EMS Board will be monitoring system performance over the next year and determining whether changes are appropriate.

The remainder of the meeting was devoted to a discussion of the final committee report. The committee approved several changes to the draft report prepared by staff. The final recommendations are presented below.

Recommendations

- **Shock Trauma Center Capital Funding:** Since MEMSOF was created by the 1992 General Assembly, the Shock Trauma Center has received annual funds to support its operating budget. However, beginning with the fiscal 2001 budget, Shock Trauma also began receiving \$3.5 million per year in capital funding for equipment and facility renewal. This non-statutory initiative is expected to continue through fiscal 2005. **The committee recognizes the necessity for the State to continue funding Shock Trauma's capital needs. Upgrading technology and expanding Shock Trauma's capacity to meet projected growth require continued capital support of Shock Trauma.**
- **Plans to Finance the Replacement of Maryland State Police Helicopters:** During the 2003 interim, the committee discussed plans to finance the replacement of 12 Maryland State Police (MSP) helicopters. The question was raised as to whether bonds could be used to finance replacement helicopters. Bonds have not been used in the past to finance

the purchase of helicopters but could be considered for this purpose. Given that the current fleet is expected to last well over 15 years, debt is now a viable option. **The committee supports the use of general obligation bonds to finance the replacement of the helicopters.**

- **Relationship between MSP Aviation Division and Commercial Carriers:** During the 2003 and 2004 interims, the committee discussed Maryland's air medical system including the relationship between the MSP Aviation Division and commercial carriers. The Aviation Division considers interhospital transfers to be a secondary mission and supports commercial services performing this role. Commercial services have routinely performed over 90 percent of interhospital transfers in Maryland per year. There is less agreement between the two groups on scene transports. Payment of services for uninsured patients is an unresolved issue. The groups are trying to work out an agreement where commercial carriers would perform scene transports in a backup capacity to the MSP Aviation Division. **The committee urges the State to limit discussion relating to the involvement of commercial carriers to the existing Memorandum of Understanding as it relates to interhospital transfers and other transports.**
- **Capital Needs of Trauma Centers in Maryland:** During the 2004 interim, five Maryland trauma centers testified to the committee that they are in need of additional funding for capital equipment replacement. As a result of this testimony, MIEMSS administered a survey assessing the financial needs of trauma centers for capital equipment. The report indicates that there are approximately \$12.6 million in capital equipment needs for adult trauma centers. **The committee supports the availability of equipment necessary for trauma centers to carry out their mission. The committee urges hospitals and the Health Services Cost Review Commission to make the capital needs of the trauma centers a high priority for funding and to seek appropriate rate reviews if needed to make additional funding available.**
- **Improved Oversight of MEMSOF:** The committee has expressed concern regarding oversight and accountability for the use of funds in MEMSOF. The EMS Board has authority to review and approve certain uses of MEMSOF funds, but the board has no explicit authority for oversight and accountability for the use of the funds. In addition, the EMS Board has no authority over the Amoss Fund, VCAF, and Shock Trauma capital funding. During the 2003 interim, the committee reviewed audit reports and heard testimony from State and local officials regarding documentation for the use of Amoss Fund money. A 2001 audit from the Office of Legislative Audits revealed that MSP did not adequately monitor distributed grants. **The committee urges the Department of Budget and Management and MSP to study the need for greater Amoss Fund accountability and to report any recommendations to the policy committees.**
- **Triage Guidelines:** The committee notes that the NHTSA study suggested Maryland look at whether over-triaging is occurring in the transport of patients to the different

levels of trauma centers. Although MIEMSS has reviewed triaging patterns and believes they are appropriate, the committee understands that the federal Centers for Disease Control and Prevention (CDC) are studying triage guidelines nationally. **The committee requests that MIEMSS report back to the policy committees on the results of the CDC study once they are available.**

- **Incentives for Illness Prevention and Injury Reduction:** The committee believes that the health needs of the State's first responders are important and attaches the report of Delegate Robert Costa for consideration by groups that study this issue at a later time. (See **Appendix 2.**)