



State of Maryland

**Maryland  
Institute for  
Emergency Medical  
Services Systems**

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**Maryland Institute for Emergency Medical Services Systems  
Patricia Gainer, JD, MPA, Acting Co-Executive Director**

**Senate Public Safety, Transportation, and Environment Subcommittee  
February 24, 2017**

**House Health & Human Resources Subcommittee  
March 1, 2017**

Good afternoon. The Maryland Institute for Emergency Medical Services Systems (MIEMSS) is an independent state agency that coordinates all components of the statewide EMS system in accordance with policies set by the State EMS Board and Maryland statute and regulation. MIEMSS' areas of responsibility include medical oversight, coordinating and supporting EMS educational programs, operating and maintaining a statewide communications system, designating trauma and specialty centers, licensing and certifying EMS providers, licensing and regulating commercial ambulance services, and participating in EMS-related public education and prevention programs.

We appreciate the opportunity to present MIEMSS' FY 2018 budget request and to brief the committee on several programmatic areas of interest. MIEMSS and the Emergency Medical Services Board are very appreciative of the General Assembly's interest and support of MIEMSS and our Statewide EMS system. The analysis by Rebecca Ruff is comprehensive and focuses on several important matters. We thank her for her hard work, as well as that of the Department of Budget and Management and Taylor Murray, MIEMSS' DBM budget analyst.

The 2018 MIEMSS budget does not include funding for new initiatives. Like other state agencies, MIEMSS is carefully budgeting and focusing its state resources to meet the broad mandates of the EMS law and improve the EMS system.

In response to the issues raised in the DLS Analysis, MIEMSS provides the following information.

**MIEMSS Communication System Upgrade**

**Analyst's Comment:** MIEMSS should discuss the status of its current radio communication systems operations, in addition to providing a status update on the upgrade project. The agency should comment on when a re-release of the SI RFP is anticipated and whether the current timeline and fiscal estimates are realistic.

**MIEMSS Response:** As we continue work on the upgrade project, the current EMS Communications System remains fully operational. The upgrade and renovation of the EMRC/SYSCOM Communications system went well and was completed in 2015. There were no communications interruptions during the upgrade and renovation. Part of the upgrade and renovation included installation of Maryland FiRST console equipment. As a result of being able to install the Maryland FiRST equipment early in the project, MIEMSS was able to eliminate the Motorola Centracom Console risk. Additionally, the new equipment enables critical EMS communications on the Maryland FiRST System.

MIEMSS continues to support the legacy equipment making repairs as necessary. Agency Communications Engineering staff are also continuing to make system improvements out of the agency

operating budget to mitigate identified risks. The improvements include installing licensed microwave links, upgrading microwave links, replacing equipment that is no longer eligible for vendor support, adding network aggregation points to improve bandwidth utilization and addressing network Quality of Service.

The move to IP based operations and elimination of the remaining identified vulnerabilities will be completed under the System Integrator (SI) RFP. MIEMSS released the SI RFP on August 29, 2016; after several extensions requested by potential bidders, the final bid due date was January 24, 2017. After receipt of bid materials, upon the advice from DoIT and counsel at the Board of Public Works, MIEMSS cancelled the RFP on February 6<sup>th</sup> in the best interests of the State. MIEMSS anticipates re-releasing the SI RFP on February 27<sup>th</sup>. We believe the majority of the work to complete the Communications Project will be accomplished before the end of FY 2019. The funds included in the ITPR for FY 2020 (Appendix 2) are for the first full year of ongoing maintenance after project completion. MIEMSS will have a better idea of the true project costs after it has an opportunity to review the price proposals from Offerors and to select the vendor that provides the best overall value to the State.

### **Emergency Operations Planner**

**Analyst's Comment: MIEMSS should comment on the role and responsibilities of one new Emergency Operations Planner, in addition to discussing why the new position is not reflected in the allowance.**

**MIEMSS Response:** This grant funded position will enhance state and local capabilities to respond to the medical consequences of large-scale emergencies and disasters. Over the last several years, many plans and projects have sought to prepare for response to “all hazards” as well as a variety of specific threats. Although significant progress has been made, gaps remain in areas addressed by these plans and projects. This position will build on prior efforts and enhance capabilities in several areas, including:

- Active assailant preparedness and response
- Complex coordinated attack preparedness and response
- CHEMPACK planning, preparedness, requesting processes, and operations for both EMS and hospitals
- EMS system mutual aid processes for large-scale events requiring state and local coordination, including operations and exercises (to include statewide EMS resource tracking)
- Events requiring the urgent evacuation of skilled nursing facilities, hospitals, and other healthcare facilities. Specific areas to be addressed will be large-scale evacuations requiring regional or statewide EMS resources and response.

MIEMSS receives approximately \$125k annually from the Federal HHS Hospital Preparedness Program (HPP). This project provides funds through state health departments to address healthcare preparedness goals (including EMS system preparedness). HPP grant projects are submitted and approved each year. DHMH submits an application based on all Maryland activities. For the current project year (Budget period 5), DHMH asked MIEMSS to submit our sub-grant application by July 29, 2016. We submitted it on that date, but did not receive approval from DHMH until November 14, 2016. As that approval date was well after the FY 18 budget submission due date, the budget submission included proposed spending based on the prior year's grant spending plan, but did not include the contractual position.

### **Emergency Department Overcrowding**

**Analyst's Comment: MIEMSS should discuss its role in combating the issue of emergency room overcrowding. The agency should comment on the potential for gathering the data necessary to**

**evaluate the impact of ED diversions on Maryland EMS workers and patient population. Additionally, MIEMSS should comment on its role in expanding and implementing MIH programs, including which jurisdictions have MIH programs, the estimated annual cost for operating an MIH program, whether a formal evaluation of the program's effectiveness has ever been completed, and whether the agency has evaluated potential options for identifying a secure funding source for these programs.**

MIEMSS Response: Many factors influence emergency department overcrowding. It is difficult to identify one root cause for ED overcrowding and hospital ED diversions (Yellow Alert), but the following are factors in the healthcare community we believe have had the most impact on ED diversions in Maryland.

- Availability of Behavioral Health Resources - Patients presenting to emergency department with behavioral or mental health complaints present major challenges. They typically require isolated space and constant supervision. Potentially violent patients can easily disrupt the flow of business and disturb or even cause harm to other patients. The limited availability of inpatient behavioral health beds and behavioral health resources in the community has been a long standing concern. These resources have been further stressed recently with the increased use of heroin and other illicit substances. ED personnel report they are holding these patients in the ED for extended time waiting for a bed to become available.
- Seasonal Influenza Flu - Historically, alert utilization peaks during the Influenza and winter illness season and then comes down for the remainder of the year. The 2012-2013 flu season started early and was severe compared to the previous years. Vaccines in 2014-2015 were not as effective in previous years in controlling the spread of the viruses due to a mismatch in the strains experienced with those predicted and resulted in a "somewhat severe" season. The 2015-2016 was a moderate season, but the alert activity did spike higher than previous years during and immediately following the holidays. This year's flu season has come late and is currently in full swing, with several days of increased ED diversions.
- The Affordable Care Act significantly impacted the means by which health care is delivered and funded. Health care delivery is shifting to community based points of care instead of EDs, hospitals or large institutions and is focusing more on prevention. Hospital reimbursement for care is shifting from a payment for individual procedures to global population-based budgets. As a result, hospitals have begun to shift their resources from inpatient care to community resources, resulting in less hospital inpatient capacity. Until resources in the community are recognized as a more convenient and affordable and sufficient community resources become available, the ED will remain the safety valve.
- Hospital operations are also an important key. The ED is but one unit within each hospital that depends upon resources being available throughout the rest of the hospital. Total number of available hospital beds, especially critical care pediatric and specialty beds, the level of surgical activity, the average patient length of stay, nursing staffing levels, housekeeping room turn-around, and the capabilities and capacity of diagnostic services (e.g., labs and radiology) all can impact patient flow through an ED. Improved hospital through-put, i.e., the movement of patients through admission, treatment and discharge, has been cited as a significant factor in reducing ED crowding and alerts. Some hospitals have implemented best practices to improve the flow of patients; others have implemented "Fast Track" or minor care areas in the EDs; and active inpatient bed monitoring and allocation and programmed "Pre-Alert" measures have been used during busier periods to avoid diversion.

Regarding the impact of ED diversion on EMS, EMS providers and ambulances are forced to take more time to drive to more distant hospitals and wait longer to transfer the patients to space in the hospital. These longer transport and transfer times can decrease ambulance availability for response and potentially increase response times to calls to 9-1-1. Regarding the impact of ED diversion on patients, several studies have shown that there is a relationship between increased diversion and less desirable patient outcomes. In four California counties, Medicare AMI patients exposed to at least 12 hours of diversion from the nearest ED showed increased 30-day, 90-day, 9-month and 1-year mortality<sup>1</sup>. Another review of nearly 700,000 ED patient records in Quebec suggested that a 10% increase in ED occupancy was associated with a 3% increase in mortality and hospital readmission<sup>2</sup>. Another article published the results of a literature review that concluded that ED crowding was associated with negative effects on mortality, time to treatment, quality of care, and patient satisfaction<sup>3</sup>. Studies that report success in reducing overcrowding report it is only accomplished through the willingness of the entire hospital to improve the situation<sup>4</sup>. According to an article published in December 2015, however, the most crowded EDs in the United States have not adopted any interventions to improve patient flow<sup>5</sup>.

MIEMSS believes that the most effective way to address the increasingly vexing issue of ED diversions in Maryland is to partner with the Maryland health regulatory agencies with the authority to implement innovative hospital-based solutions to reduce diversions. Over the past year, MIEMSS provided hospital diversion data (Yellow Alerts) to the Health Services Cost Review Commission. We also collaborated with the Maryland Hospital Association to gather more detailed information on hospitals' perspectives and to strategize working more closely with hospitals to address the alert issue. Additionally, MIEMSS is convening a formal strategic workgroup on March 15<sup>th</sup>, involving the Department of Health & Mental Hygiene, the Health Services Cost Review Commission, the Maryland Hospital Association, and the Maryland Health Care Commission, to review the issue of alerts with the goal of developing a comprehensive statewide plan.

A particularly important initiative that is underway in several jurisdictions is the creation of Mobile Integrated Healthcare (MIH) programs. These programs are targeted to reducing unnecessary use of 911 and unnecessary transports to hospital EDs for minor medical conditions. A typical MIH program involves EMS partnering with local hospitals, health departments and others to deliver non-emergency services to patients in their home. Although in their infancy, MIH programs have been found to better link patients to primary or preventative health services, reduce 911 call volumes, improve the continuity of care from the hospital to the home, and avoid unnecessary hospital readmissions. MIH programs can take a variety of forms based on the specific needs and resources of the jurisdiction, including targeting high utilizers of EMS, and conducting in home visits to assess, treat and refer residents to appropriate city services outside of the emergency context.

Under the direction of our Statewide EMS Advisory Council, we convened two workgroups to explore the implementation of MIH programs in Maryland. These workgroups have provided a forum for discussion of the types of services that could be provided by EMS personnel participating in MIH programs, whether the scope of practice of EMS providers participating in MIH programs should be broadened, and whether EMS providers should receive additional or augmented education to be able to function optimally in a non-emergent, chronic care environment. The workgroup devised a program development framework that can be used by jurisdictions interesting in setting up MIH programs. Further, MIEMSS developed and approved an MIH Template Protocol for EMS providers that can be used by any jurisdiction interested in developing an MIH program. Our philosophy is to encourage innovation so that jurisdictions can develop the MIH program best suited to address health needs in their local communities.

To date, Maryland EMS providers in five (5) jurisdictions – Queen Anne's, Charles, Prince George's, Montgomery, and Frederick – are developing or already participating in Mobile Integrated Health (MIH) Programs that identify frequent users of ambulance and emergency departments for non-emergent

conditions. Once identified, these patients receive home visits to identify and coordinate resources available to help the patient avoid needing to call 9-1-1 calls for non-emergent conditions. The visits are conducted under the medical direction of a physician and typically can involve not only EMS, but health department or hospital nurses or nurse practitioners, as well. Although MIH have only recently been implemented in Maryland, preliminary indications are that they have the potential to reduce the number of non-emergency hospital visits that would have otherwise been made by participating patients.

The costs for these initial MIH Program teams of paramedics and health department or hospital nurses are being covered by the jurisdictions themselves, by funding from local health departments and hospitals or, in one jurisdiction, by a grant from the Maryland Community Health Resources Commission. Future sustainability and expansion of the MIH Programs to other jurisdictions will likely require a secure reimbursement stream from third-party payers to members of the MIH team, including EMS providers. Currently, EMS may only be reimbursed if the patient is transported to a hospital. In order to move forward, innovative strategies to secure Medicare, Medicaid and private payer reimbursement for EMS participation in MIH programs will be key to securing long-term EMS involvement in these promising initiatives.

**Analyst's Comment: The Department of Legislative Services (DLS) recommends the adoption of committee narrative directing MIEMSS to work with the Health Services Cost Review Commission (HSCRC) to evaluate the impact of hospital overcrowding on EMS response times and Maryland's patient population and develop a plan for addressing the issue. Additionally, DLS recommends MIEMSS submit a report to the budget committees exploring the potential for expanding MIH programs, including a cost-benefit analysis of the program, and potential solutions to the lack of secured funding.**

MIEMSS Response:

Emergency Department Overcrowding. We concur with the analyst's recommendation on page 17 of the analysis for MIEMSS to work with the HSCRC on finding solutions to address hospital ED overcrowding. However, we believe the major focus of the effort should be placed squarely and solely on the development of a plan for addressing the issue of overcrowding. This is for several reasons. First, the problem of ED overcrowding has been long-standing, is not abating, and has the potential to worsen even further. Thus, development and implementation of a plan to address the issue is of significant and time-sensitive importance to EMS and hospitals in Maryland. Second, determining the precise impact of ED overcrowding in Maryland within the study timeframe is impractical, as such an effort would require the development and statewide application of more precise measurement tools than those that are currently available, e.g., Yellow Alert data. Finally, we believe that there has been sufficient research conducted elsewhere that we can rely on to provide a reasonable estimate of the impact of ED overcrowding on Maryland EMS and Maryland patients.

Thus, MIEMSS respectfully suggests that the committee narrative be focused solely on the task of developing a plan for addressing the issue of overcrowding. We offer the following narrative for the committees' consideration:

**Emergency Department Overcrowding: Emergency department overcrowding increased significantly in fiscal 2016. This has a direct impact on emergency medical services (EMS) availability and response times, as well as patient care. The budget committees direct the Maryland Institute for Emergency Medical Services Systems (MIEMSS) to work with the Health Services Cost review commission (HSCRC) to develop a plan to address the overcrowding issue. The report is due to the budget committees no later than December 15, 2017.**

Mobile Integrated Health Programs: MIEMSS concurs with the analyst's recommendation on page 17 of the analysis for MIEMSS to submit a report regarding MIH programs, as indicated.

We would be happy to answer any questions.

#### References

- 1 Shen YC, Hsia RY, *Association Between Ambulance Diversion and Survival Among Patients with Acute Myocardial Infarction*, [Journal of the American Medical Association](#). 2011 Jun 15;305(23):2440-7
- 2 Bernstein SL, et. al., *The Effect of Emergency Department Crowding on Clinically Oriented Outcomes*, [Academic Emergency Medicine](#) 2009; 16: 1-10
- 3 McCusker J et.al., *Increases in Emergency Department Occupancy Are Associated With Adverse 30-day Outcomes*, [Academic Emergency Medicine](#), [Volume 21;10](#), 1092–1100, 2014
- 4 McClelland, M., (March 6, 2015) *Ethics: Harm in the Emergency Department - Ethical Drivers for Change OJIN: The Online Journal of Issues in Nursing* Vol. 20 No. 2.
- 5 Hinigman Warner LS et.al., *The Most Crowded US Hospital Emergency Departments Did Not Adopt Effective Interventions To Improve Flow*, 2007–10, [Health Affairs](#) 34:12 2151-2159 2015



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## **Maryland Emergency Medical System Operations Fund Hearing**

**House Public Safety & Administration Subcommittee  
February 27, 2017**

**Senate Budget & Taxation Committee  
February 28, 2017**

**Donald L. DeVries, Jr., Esq.  
Chairman, State Emergency Medical Services Board**

Good afternoon. On behalf of the State Emergency Medical Services (EMS) Board, I would like to thank you for the opportunity to discuss the status of the Maryland Emergency Medical Services Operations Fund (MEMSOF). I also want to thank Ms. Ruff of the Department of Legislative Services for her comprehensive analysis of the MEMSOF and its future.

The Maryland EMS System is a coordinated statewide network that includes volunteer and career EMS providers, medical and nursing personnel, communications, transportation systems, trauma and specialty care centers and emergency departments. Maryland's EMS system has long been recognized as a national model. The State Emergency Medical Services Board, whose members are appointed by the Governor, oversees the statewide EMS System and reviews and approves the budgets of four of the entities supported by the MEMSOF.

The MEMSOF provides critical support to Maryland's EMS System. MEMSOF supports public safety, EMS, and fire and rescue services throughout every part of our state. For more than 20 years, the MEMSOF has provided vital resources for our statewide EMS system and ensured its financial stability. The viability of the MEMSOF is key to sustaining the statewide system that responds so well to the emergency needs of Maryland's citizens. The MEMSOF is supported by a surcharge on vehicle registration fees that was originally created in 1992. Because the surcharge is not sensitive to inflation, it has required periodic increases to ensure MEMSOF viability. Funding from a surcharge on moving violations provides additional MEMSOF revenue.

The EMS Board appreciates the work performed by the Office of Legislative Audits to address the concerns raised during the 2016 session regarding accounting errors identified during the formulation of the MEMSOF forecast. The results of the audit have provided assurance that the entities funded by the MEMSOF appropriately expended the funds allocated to them. The EMS Board concurs with the recommendation to designate an administering agency for the MEMSOF to ensure that accountability over all fund transactions and year-end reconciliations.

We are grateful for the support from the General Assembly for the MEMSOF. Because of your support, the MEMSOF will continue to provide Maryland's citizens with a system of emergency care that is coordinated, cost-efficient and effective. Thank you.



**Maryland Emergency Medical System Operations Fund Hearing**

**House Public Safety & Administration Subcommittee  
February 27, 2017**

**Senate Budget & Taxation Committee  
February 28, 2017**

**Patricia Gainer, JD, MPA**

**Maryland Institute for Emergency Medical Services Systems (MIEMSS)**

State of Maryland

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Good afternoon. I am Patricia Gainer, Acting Co-Executive Director of the Maryland Institute for Emergency Medical Services Systems (MIEMSS). I want to thank Ms. Ruff for her very thorough analysis.

MIEMSS coordinates all components of the statewide EMS system in accordance with policies set by the State EMS Board and Maryland statute and regulation. MIEMSS' areas of responsibility include providing medical oversight, coordinating and supporting EMS educational programs, operating and maintaining a statewide communications system, designating trauma and specialty centers, licensing and certifying EMS providers, licensing and regulating commercial ambulance services, and participating in EMS-related public education and prevention programs.

The MEMSOF provides support for MIEMSS and for initiatives that benefit our entire statewide EMS system. We are grateful for the efforts of the Maryland General Assembly to ensure the ongoing viability of the Fund. I would like to provide a few brief comments on MIEMSS' work over the past year that has been possible through the support provided by MEMSOF.

MIEMSS Communication Project - One of MIEMSS' most critical functions is the operation of our Statewide EMS Communications System. MIEMSS' emergency medical communications system is a complex network that provides communications among ambulances, medevac helicopters, dispatch centers, hospital emergency departments, specialty referral centers and trauma centers. Because much of the equipment of our system is outdated, in 2013, we began a multi-year project to upgrade the statewide system. As we continue work on the upgrade project, the current EMS Communications System remains fully operational. The upgrade and renovation of the EMRC/SYSCOM Communications system went well and was completed in 2015. There were no communications interruptions during the upgrade and renovation. Part of the upgrade and renovation included installation of Maryland FiRST console equipment. As a result of being able to install the Maryland FiRST equipment, MIEMSS was able to eliminate the Motorola Centracom Console risk. Additionally, the new equipment enables critical EMS communications on the Maryland FiRST System.

The move to IP based operations and elimination of the remaining identified vulnerabilities will be completed under the System Integrator (SI) RFP portion of the project. MIEMSS released the SI RFP on August 29, 2016; several extensions were requested by potential bidders, and the final bid due date was January 24, 2017. After receipt of bid materials, upon the advice from DoIT and counsel at the Board of Public Works, MIEMSS cancelled the RFP

on February 6<sup>th</sup> in the best interests of the State. MIEMSS anticipates re-releasing the SI RFP this week. We believe the majority of the work to complete the Communications Project will be accomplished before the end of FY 2019.

Mobile Integrated Health – A particularly important initiative that is underway in Maryland is the creation of Mobile Integrated Healthcare (MIH) programs. These programs are targeted to reducing unnecessary use of 911 and unnecessary transports to hospital EDs for minor medical conditions. A typical MIH program involves EMS partnering with local hospitals, health departments and others to deliver non-emergency services to patients in their home. Although in their infancy, MIH programs have been found to better link patients to primary or preventative health services, reduce 911 call volumes, improve the continuity of care from the hospital to the home, and avoid unnecessary hospital readmissions. MIH programs can take a variety of forms based on the specific needs and resources of the jurisdiction, including targeting high utilizers of EMS, and conducting in home visits to assess, treat and refer residents to appropriate city services outside of the emergency context.

Under the direction of our Statewide EMS Advisory Council, we convened two workgroups to explore the implementation of MIH programs in Maryland. These workgroups have provided a forum for discussion of the types of services that could be provided by EMS personnel participating in MIH programs, whether the scope of practice of EMS providers participating in MIH programs should be broadened, and whether EMS providers should receive additional or augmented education to be able to function optimally in a non-emergent, chronic care environment. The workgroup devised a program development framework that can be used by jurisdictions interesting in setting up MIH programs. Further, MIEMSS developed and approved an MIH Template Protocol for EMS providers that can be used by any jurisdiction interested in developing an MIH program. Our philosophy is to encourage innovation so that jurisdictions can develop the MIH program best suited to address health needs in their local communities.

To date, Maryland EMS providers in five (5) jurisdictions – Queen Anne’s, Charles, Prince George’s, Montgomery, and Frederick – are developing or already participating in Mobile Integrated Health (MIH) Programs that identify frequent users of ambulance and emergency departments for non-emergent conditions. Once identified, these patients receive home visits to identify and coordinate resources available to help the patient avoid needing to place 9-1-1 calls for non-emergent conditions. The visits are conducted under the medical direction of a physician and typically can involve not only EMS, but health department or hospital nurses or nurse practitioners, as well. Although MIH programs have only recently been implemented in Maryland, preliminary indications are that they have the potential to reduce the number of non-emergency hospital visits that would have otherwise been made by participating patients.

The costs for these initial MIH Program teams of paramedics and health department or hospital nurses are being covered by the jurisdictions themselves, by funding from local health departments and hospitals or, in one jurisdiction, by a grant from the Maryland Community Health Resources Commission. Future sustainability and expansion of the MIH Programs to other jurisdictions will likely require a secure reimbursement stream from third-party payers to members of the MIH team, including EMS providers. Currently, EMS may only be reimbursed if the patient is transported to a hospital. In order to move forward, innovative strategies to secure Medicare, Medicaid and private payer reimbursement for EMS participation in MIH programs will be key to securing long-term EMS involvement in these promising initiatives.

National Registry Testing – We have also devoted significant efforts to ensure that individuals seeking Basic Life Support level EMS certification in Maryland are well-prepared and able to

pass the national testing that leads to Maryland certification. In 2015, the EMS Board convened a subcommittee of Board members, the Maryland State Firemen's Association, educators and stakeholders and charged the group with examining ways to improve testing and pass rates for Maryland students. Over an 18-month period, the subcommittee engaged in a concerted effort to identify areas and methods for improvement; implement needed changes; and monitor results. Their work has had impressive results: Maryland's test pass rate average is well above the national pass rate average, a direct result of this hard work and initiative.

These are but a few of the initiatives that MIEMSS has been engaged in over the past year that have been supported by the MEMOSF. We look forward to continuing to work with the General Assembly to ensure the long-term viability of the Maryland EMS Operations Fund.

**DLS Recommendation:**

DLS recommends the addition of a statutory provision, through the Budget Reconciliation and Financing Act of 2017, to designate an administering agency for the MEMSOF that is responsible for accounting for all transactions and performing year-end reconciliation.

**MIEMSS Response:**

MIEMSS concurs with the DLS Analyst's recommendation.



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SUPERINTENDENT

February 27, 2017

**TO:** Maryland House Public Safety and Administration Subcommittee

**FROM:** Major Anthony S. Lowman, Assistant Chief, Support Services Bureau, Aviation Command

**SUBJECT:** **Written Testimony, MEMSOF Budget, February 27, 2017**

- The Maryland State Police Aviation Command (MSPAC) completed another successful year in providing the airborne delivery of medevac and law enforcement services. Last year represented the second full year of operation in the new aircraft at all Sections. We have learned a great deal during these past several years, to include how the aircraft performs in our mission profile, and this information continues to greatly assist us in our planning of maintenance and associated expenditures required to maintain the fleet.
- The new airframe continues to prove its worth in its performance on several recent high-profile missions, each demonstrating the significant value of a multi-mission capable aircraft and a highly-trained flight crew. The ability to move between multiple mission scenarios within a single model of aircraft and within a single crew is unique to the Maryland system; and this ability has yet to be replicated successfully in the commercial air medical transport industry. The MSPAC continues to meet and exceed all FAA requirements regarding air medical and law enforcement operations.
- Last year, the testimony by the MSPAC introduced the procurement of a Flight Training Device (FTD), which has since been constructed at Leonardo in Italy. The FTD is intended to further increase pilot proficiency while simultaneously reducing the flight time on the aircraft fleet. The FTD allows the Aviation Command pilots to conduct up to 75% of FAA mandated training without the expense of operating an actual aircraft. The device is projected to save millions of dollars over its life span when compared to operating an aircraft for training or outsourcing training to a commercial simulator. I am pleased to report that a pre-delivery inspection was conducted by an MSPAC technical team in July of 2016. The delivery is being coordinated with Leonardo as finite completion dates are provided for the Aircrew Training Facility by the Department of General Services (DGS). FAA certification of the FTD is being coordinated in advance of delivery. MSPAC expects the device to be in full operation by the Fall/Winter of 2017.
- Coincidental to the delivery of the Flight Training Device is the construction of the Aircrew Training Facility which is located at Aviation Command Headquarters, Martin Airport in Baltimore County. The construction project is being handled by the Department of General Services, and we gratefully acknowledge their support and assistance. The timeline for completion of the FTD has changed since reported last year due to unforeseen delays in the permit and architectural process. These issues have since been resolved and I am pleased to report that the project broke ground in September of 2016.

*"Maryland's Finest"*

**SUBJECT: Written Testimony, MEMSOF Budget, Fiscal Year 2018**

- DGS anticipates the building to be substantially completed to coincide with the FTD delivery and installation in July 2017.
- Regarding the budget before you today, MSPAC applauds the hard work of the MEMSOF Coalition members, the EMS Board, the Department of Budget and Management, and the Department of Legislative Services in its preparation and analysis. Accordingly, the Aviation Command intends to maximize the resources provided in the FY 2018 budget in order to continue to provide the best possible airborne multi-mission services available in the world to the Citizens of Maryland.



**Maryland Fire and Rescue Institute  
University of Maryland, College Park**

The Maryland Fire and Rescue Institute (MFRI) a part of the University of Maryland since 1930, is the state's comprehensive training and education system for the emergency services. The Institute delivers quality fire and EMS training programs to every jurisdiction of the State and last fiscal MFRI conducted 1,702 training programs for 33,893 students.

The Maryland Fire and Rescue Institute operates a main training facility located in College Park, and has six regional training centers strategically located throughout the state. The regional training centers are located in Aberdeen, Cresaptown, Mt. Airy, Centreville, Princess Anne, and LaPlata.

MFRI training programs are essential with regard to an effective response to fire, rescue, and EMS emergencies. There is no effective response to emergencies in this state without a training program to prepare the responders to deal with the emergency situation and to protect themselves from the danger of being a firefighter or emergency medical provider.

Given that many of the emergency response personnel in Maryland serve as volunteers, the expenditures for training programs may be one of the best investments in the state. It should be noted, that before a volunteer can even begin to contribute to their communities they must receive proper training. If this training is not available, that cost effective service is lost.

In many areas of the state, MFRI represents the sole training source for fire, rescue, and EMS personnel and as such it is important to continue current classes and broaden the curriculum where feasible. For many of the reasons stated above, MFRI training courses are in high demand throughout the state. Unfortunately, there are more training classes requested than the Institute can provide.

MFRI is attempting to meet these demands, but our ability to do so is directly related to the financial resources available within the EMSOF. The funding that has been granted to the Institute in the past several years has been directly applied to increasing the number of students and the quality of MFRI training programs.

MFRI stands ready to continue its important work of preparing the fire and EMS personnel of the state for the ultimate challenge and asks for your consideration in having the resources in the EMSOF fund to do so.

**TESTIMONY**

**THE MARYLAND EMERGENCY MEDICAL SERVICES OPERATING FUND  
(MEMSOF)**

**House Appropriations – Public Safety and Administration Subcommittee**

**Chair – Delegate Keith Haynes**

**Vice Chair Delegate Ana Sol Gutierrez**

**February 27, 2017**

**Submitted by:**

**Karen E. Doyle**

**Senior Vice President, Nursing and Operations**

**R Adams Cowley Shock Trauma Center**

**University of Maryland Medical Center**

Good afternoon Mr. Chairman and members of the committee. I am Karen Doyle, Senior Vice President for the R Adams Cowley Shock Trauma Center, University of Maryland Medical Center. I am seated here today with my esteemed colleagues and as part of the coalition supporting the Maryland Emergency Service Operating Fund (MEMSOF). We are also partners along with our elected officials in ensuring safety and care of Maryland citizens.

MEMSOF has been a cornerstone of this State's capability to provide every citizen a broad and uncompromised safety net. As a special protected fund, it allows the system to respond instantaneously to the variability of Maryland's political and economic fortunes.

As established by State law, the R Adams Cowley Shock Trauma Center is the core element of the State's Emergency Medical Services System and serves as the State's Primary Adult Resource Center (PARC) for the treatment of trauma. Specifically, the law mandates Shock Trauma to serve as (a) the State's primary adult trauma center, (b) the statewide referral center for the treatment of head, spinal and multiple trauma injuries, (c) the regional trauma center for Region III and the southwest quadrant of Baltimore City, and (d) the statewide referral center for patients in need of hyperbaric medical treatment.

The R Adams Cowley Shock Trauma Center is the State's only trauma hospital. It serves as a vital statewide clinical resource and uniquely maintains an around-the-clock state of readiness in its dedicated trauma resuscitation unit (TRU), operating rooms and recovery rooms. Over the past eight years, Shock Trauma has diverted zero patients seeking access directly from the scene. The facility and its staff are organized for on-demand access and treatment of the State's most critically ill and injured patients to a degree unparalleled anywhere in the system. The MIEMSS PARC designation represents the State's highest level of capability and readiness. As a result, the Shock Trauma Center has unique operating and financial requirements that distinguish it from any other Maryland trauma center and are the basis for State operating support.

#### Stand-By Costs

As a trauma hospital, Shock Trauma is designed expressly for the emergency care of significantly injured patients from resuscitation to discharge. Shock Trauma has 24-hour, 7-day a week attending coverage for trauma surgery (in-house), critical care (in-house), anesthesia (in-house), orthopedic surgery and neurosurgery. There are teams of physicians and nurses dedicated to insuring that the most severely injured patients are treated by attending physicians during all hours of the day and night. Projected costs for 2016 are \$7,227,932.

The Shock Trauma Center has always received financial support from the State for operating and capital expenses. State operating support for Shock Trauma has averaged \$3.2 million annually.

In addition to the OR Stand-by Costs, the R Adams Cowley Shock Trauma Center faces unfunded mandates for being the Primary Adult Resource Center for the State of Maryland. Annually, expenditures include costs for an alternate helipad landing zone, unfunded emergency medical services research, outreach and prevention programs as well as training and education requirements.