
Maryland Emergency Medical System Operations Fund Fiscal 2014 Budget Overview

**Department of Legislative Services
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Analysis of the FY 2014 Maryland Executive Budget, 2013

MEMSOF – Fiscal 2014 Budget Overview

Maryland Emergency Medical System Operations Fund

Fiscal 2014 Budget Overview

Funding for Maryland's emergency medical services (EMS) system is provided from a variety of State, local, and volunteer sources. Annual State budget support for EMS is provided from the Maryland Emergency Medical System Operations Fund (MEMSOF). MEMSOF was created by legislation adopted by the 1992 General Assembly. The source of revenue for MEMSOF is a biennial surcharge of \$22 on motor vehicle registrations for certain classes of vehicles, as specified in Section 13-954 of the Transportation Article. Interest earned annually on the fund balance is credited to the fund.

Uses of MEMSOF

As stated in Section 13-955 of the Transportation Article, the money in MEMSOF shall be used solely for the following components of Maryland's EMS program:

- **Maryland State Police Aviation Command:** The mission of the Maryland State Police (MSP) Aviation Command is to protect and improve the quality of life through the airborne delivery of emergency medical, law enforcement, homeland security, and search and rescue services. Special funds from MEMSOF support the medically oriented mission of the Aviation Command, and general funds support law enforcement and homeland security functions. The funding split for the Aviation Command has remained at 80% special funds and 20% general funds since fiscal 2003. The funding split is based on the ratio of Medevac flights to non-medically related flights.

- **The Maryland Institute for Emergency Medical Services Systems:** The Maryland Institute for Emergency Medical Services Systems (MIEMSS) was established as a State agency under legislation that became effective July 1, 1993. MIEMSS had been in existence for 20 years prior to that – first under the Department of Health and Mental Hygiene and then under the University of Maryland, Baltimore. MIEMSS oversees and coordinates all components of the statewide EMS system.

- **R Adams Cowley Shock Trauma Center:** The R Adams Cowley Shock Trauma Center (Shock Trauma Center), operated by the University of Maryland Medical System (UMMS), is the core element of the State's EMS and serves as the State's Primary Adult Resource Center for the treatment of trauma.

- **The Maryland Fire and Rescue Institute:** The Maryland Fire and Rescue Institute (MFRI) is the State's fire and emergency service training agency responsible for the majority of basic level pre-hospital training and education for emergency system service providers.

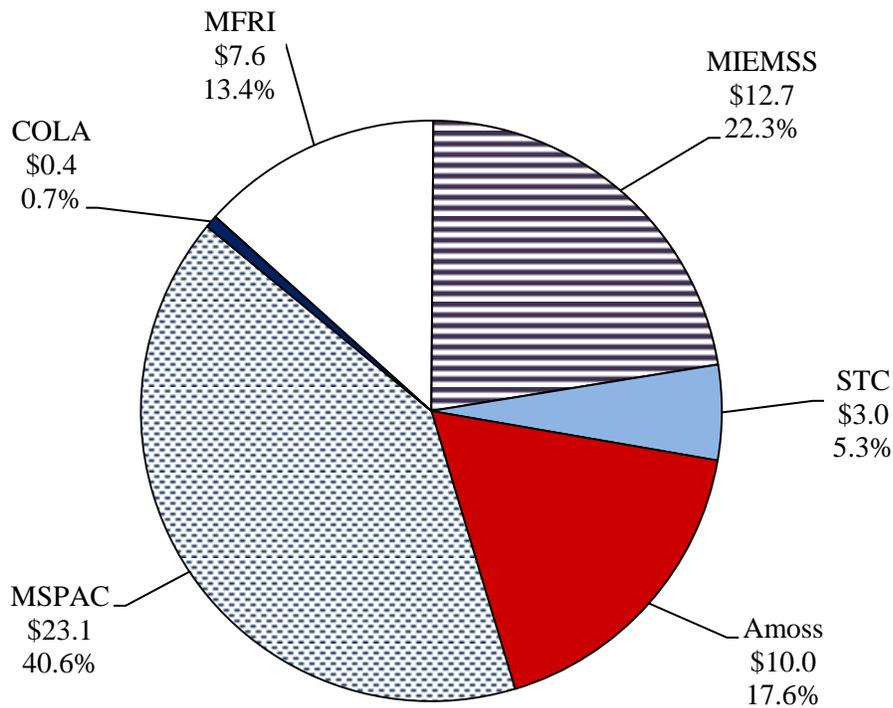
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- **Local Grants under the Senator William H. Amoss Fire, Rescue, and Ambulance Fund:** Title 8, Subtitle 1 of the Public Safety Article established the Senator William H. Amoss Fire, Rescue, and Ambulance Fund (Amoss Fund) for grants to local jurisdictions for the purchase of fire and rescue equipment and capital building improvements. These grants are administered by the Maryland Emergency Management Agency (MEMA). Distributions are made according to each county's percentage of total property tax assessments. Each county receives a minimum of 2% of the total and must expend funds for fire protection from its own sources that are at least equal to the amount of State funds to be received.
- **Volunteer Company Assistance Fund:** The Volunteer Company Assistance Fund (VCAF) is administered by the Maryland State Firemen's Association (MSFA) and MEMA, and its purpose is to provide grants and loans to volunteer fire, rescue, and ambulance companies for the purchase, replacement, or improvement of fire fighting and rescue equipment or facilities. The VCAF has not received funding from MEMSOF since fiscal 2011.

MEMSOF Fiscal 2014 Allowance

The fiscal 2014 allowance provides for \$56.8 million in total expenditures funded from MEMSOF. **Exhibit 1** provides the percentage breakdown of each MEMSOF entity relative to total spending. The MSP Aviation Command (40.6%), MIEMSS (22.3%), Amoss Fund (17.6%), and MFRI (13.4%) make up the largest portions of MEMSOF expenditures.

Exhibit 1
MEMSOF 2014 Expenditures
(\$ in Millions)



Total = \$56.8 Million

Amoss: Local Grants under the Senator William H. Amoss Fire, Rescue, and Ambulance Fund
COLA: cost-of-living adjustment
MEMSOF: Maryland Emergency Medical System Operations Fund
MFRI: Maryland Fire and Rescue Institute
MIEMSS: Maryland Institute for Emergency Medical Services Systems
MSPAC: Maryland State Police Aviation Command
STC: Shock Trauma Center

Note: Percentages may not sum to total due to rounding.

Source: Governor’s Budget Books, Fiscal 2014

MEMSOF Oversight

EMS Board

The EMS Board was created under Chapter 592 of 1993. The legislation, referred to as the EMS Law, became effective on July 1, 1993. The EMS Board is appointed by and directly responsible to the Governor. The EMS Board consists of 11 members appointed by the Governor, and terms last for four years, ending on June 30. The EMS Board is tasked with developing, adopting, and monitoring a statewide plan to ensure effective coordination and evaluation of emergency medical services. The EMS Board appoints the executive director of MIEMSS, who serves as the administrative head of the State's emergency medical services and the operations of MIEMSS. MIEMSS implements the emergency medical services plan developed by the EMS Board. The EMS Board is required to prepare an annual budget proposal that includes the estimated income of MIEMSS and proposed expenses for EMS Board administration and operation. The EMS Board is also required to review and approve budgets for MIEMSS, Shock Trauma Center operating funding, MFRI, and the MSP Aviation Command.

EMS Advisory Council

The State EMS Advisory Council (SEMSAC) consists of 31 members appointed by the EMS Board with approval by the Governor. SEMSAC advises and assists the EMS Board and serves as the principal advisory body. SEMSAC also provides a means for regional EMS interests to be addressed, assists with the EMS Plan (criteria and guidelines for delivery of EMS), and assists with interregional and interstate EMS issues.

MEMSOF Entities without EMS Board Oversight

The Amoss Fund and the VCAF are not bound by a review and approval process by the EMS Board.

Amoss Fund

MEMA, within the Maryland Military Department, receives \$10 million from MEMSOF for the Amoss Fund for the purchase of fire and rescue equipment and capital building improvements. The entire amount is distributed to 23 counties, Baltimore City, and qualified municipal corporations according to Title 8 of the Public Safety Article.

- The Director of Assessments and Taxation certifies a county's real property numbers relative to the statewide total of all land use property tax accounts (*e.g.*, the fiscal 2014 allocation was based on July 2012 numbers). Each county's percentage of the total is calculated, and all counties must receive at least 2% of the Amoss Fund or \$200,000.

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- The allocation to the counties is distributed in four equal payments in August, November, February, and May unless the county fails to meet its maintenance of effort (spending more for fire protection from its own sources than the amount of State funds received and spending an amount at least equal to the average amount expended in the prior three years). If a county does not meet maintenance of effort, its allocation will be reduced by the same percentage its expenditures are short the required level.
- MEMA annually sends out instructions to all counties updating any changes to the law and reiterating all rules and requirements.
- Counties are required to report on expenditures for the prior fiscal year (Schedule A) and for the Amoss Fund for the current fiscal year (Schedule B). Both reports delineate the distribution of the county grants and category of expenditure (equipment, apparatus, facilities, unexpended, undistributed, *etc.*).

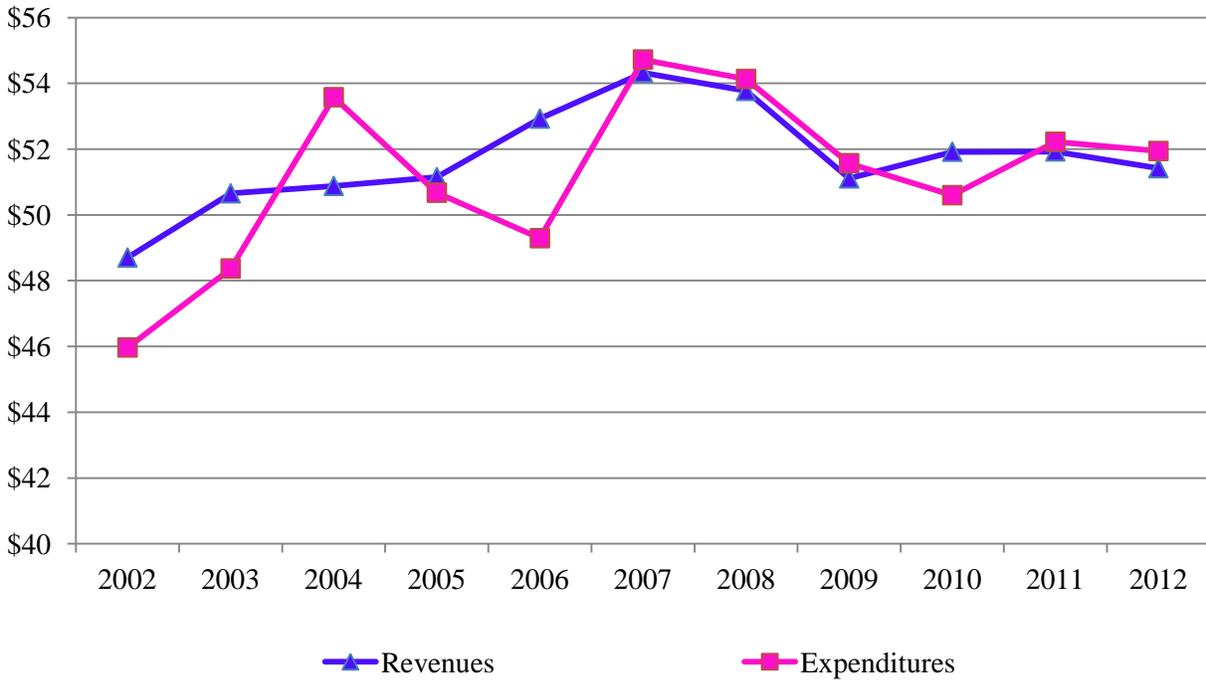
Volunteer Company Assistance Fund

The VCAF was established by Chapter 240 of 2000. MSFA reviews loan and grant applications from volunteer fire companies and makes recommendations to the Board of Public Works (BPW) for a final decision and approval. MSFA management of the program includes developing loan and grant criteria, loan terms, application review, and submission to BPW for approval. MSFA is required to submit an annual report to the Department of Budget and Management (DBM) detailing loans and grants made during the previous fiscal year. MSFA is also required to submit financial statements and proof of expenditures for each loan or grant made from this account. MEMA is responsible for managing the appropriated funds and processing the requests for payment.

History of Revenues and Expenditures

Exhibit 2 provides a history of MEMSOF revenues and expenditures from fiscal 2002 through 2012.

Exhibit 2
MEMSOF Actual Revenues vs. Expenditures
Fiscal 2002-2012
(\$ in Millions)



MEMSOF: Maryland Emergency Medical System Operations Fund

Source: Department of Legislative Services

Revenues jumped from \$35.2 million in fiscal 2001 to \$48.0 million in fiscal 2002 due to a \$3.00 increase from \$8.00 to \$11.00 in motor vehicle registration fees. Revenues and expenditures fluctuated from fiscal 2003 through 2012; revenues exceeded expenditures in 4 of the 10 years. In fiscal 2004, expenditures exceeded revenues, due largely to a one-time transfer of \$5.0 million to the VCAF. This amount was paid back at \$1.0 million per year from fiscal 2005 to 2009. In fiscal 2012, MEMSOF expenditures exceeded revenues by approximately \$520,000.

Over time, growth in expenditures will continue to outpace growth in revenues. From fiscal 1993 to 2012, registration revenues grew by 1.1%. During the same period, expenditures grew by 3.3%.

MEMSOF – Fiscal 2014 Budget Overview

Exhibit 3 shows MEMSOF expenditures from fiscal 2012 to 2014. The fiscal 2014 allowance for all MEMSOF expenditures increases by \$3.2 million, or 6.0%, above the fiscal 2013 working appropriation. The increase is primarily driven by the Maryland State Police Aviation Command (MSPAC) with a \$3.1 million, or 15.78%, increase. The significant percentage change for MSPAC expenses is due to the general fund offset deficiency in fiscal 2013, which reduces MSPAC fiscal 2013 MEMSOF expenditures by \$2.7 million in an attempt to keep the fund solvent. Without this deficiency, MSPAC expenditures are \$22.6 million in fiscal 2013 and increase by 2.0% into fiscal 2014.

Exhibit 3
MEMSOF Expenditures
Fiscal 2012-2014
(\$ in Thousands)

	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Approp.</u>	<u>2014</u> <u>Allowance</u>	<u>2013-14</u> <u>Change</u>	<u>2013-14</u> <u>% Change</u>
Maryland Fire and Rescue Institute R75T00.01	\$7,324	\$7,598	\$7,633	\$35	0.46%
Maryland Institute for Emergency Medical Services Systems D53T00.01	11,829	11,949	12,675	726	6.08%
Shock Trauma Center M00R01.01	3,000	3,000	3,000	0	0.00%
Amoss Funds D50H01.06	10,000	10,000	10,000	0	0.00%
Maryland State Police Aviation Command W00A01.02	19,787	19,915	23,058	3,143	15.78%
MIEMSS Communications System	0	1,074	0	-1,074	-100.00%
Cost-of-living Adjustment	0	0	397	397	n/a
Total	\$51,940	\$53,536	\$56,762	\$3,227	6.03%

MEMSOF: Maryland Emergency Medical System Operations Fund

Source: Governor's Budget Books, Fiscal 2014; Department of Legislative Services

Recommended Actions

1. Adopt committee narrative requiring Maryland Institute for Emergency Medical Services Systems and Maryland State Police Aviation Command to reconcile helicopter mission data.

Issues

1. MEMSOF Forecasts

Appendix 1 provides DBM’s MEMSOF forecast. DBM assumed no registration fee increase, opting instead to include a \$2.7 million general fund deficiency to supplant MEMSOF funding in the State Police budget in fiscal 2013 and deferring the MIEMSS communication system replacement until fiscal 2015. In the DBM forecast, MEMSOF is only viable through fiscal 2014.

Appendix 2 provides the Department of Legislative Services’ (DLS) MEMSOF forecast from fiscal 2014 through 2023. The forecast rests on the following assumptions:

- **MFRI:** For all but one year of MEMSOF’s history, MFRI has received an annual inflationary increase of anywhere from -4.0 to 13.8%. The attached forecast assumes a 2.9% annual increase through fiscal 2018, based on an 11-year trend.
- **MIEMSS:** The attached forecast assumes a 2.1% annual rate of inflation through fiscal 2018 reflecting an 11-year average growth rate.

MIEMSS Communication System Upgrade and Center Renovation

A recent evaluation found the MIEMSS communication system obsolete and in jeopardy of failure, which could result in the agency losing its ability to coordinate the delivery of pre-hospital emergency care. The study proposed a conceptual design for a replacement system, which would cost roughly \$12.2 million and take five years to install. The bulk of these costs would be experienced in years 2 and 3. The legislature expressed intent to fund the replacement during the 2012 session, but no funding was authorized. The process to replace the communication system was initiated in fiscal 2013 by budget amendment, which authorized \$1.1 million from MEMSOF for the first year of the project to replace the system and to renovate the Systems Communication Center (SYSCOM) in order to accept console equipment required to support the State’s 700 MegaHertz radio project. In the DBM forecast, the fiscal 2014 allowance does not include any funding for the project; the second year of the renovation and replacement has been moved to fiscal 2015. The DLS forecast assumes the second year of the project continues in fiscal 2014. **The agency should discuss any operational impacts associated with the delay of the upgrade and renovation presented in the DBM forecast, as well as update the budget committees on the current status and projected cost of the project.**

- **Aid to UMMS:** Funds are provided as an operating subsidy to the Shock Trauma Center. The Shock Trauma Center operating subsidy was level funded for much of fiscal 1993 through 1998. In some years, the Shock Trauma Center received an annual inflationary increase. In fiscal 2010, funding was reduced to \$3.0 million and is held at that level in DBM’s forecast. The DLS forecast also maintains that funding level.

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- **Amoss Fund:** From fiscal 1993 through 1999, the Amoss Fund received \$5.0 million per year. The amount was increased to \$7.5 million in fiscal 1999 and then \$10.0 million in fiscal 2000. These increases were nonstatutory budget enhancements. The amount has remained at \$10.0 million per year since fiscal 2000. The attached forecast assumes level funding of \$10.0 million per year through fiscal 2018.
- **Maryland State Police Aviation Command:** MSP switched from a 70/30 to an 80/20 special fund/general fund split in fiscal 2003. The split has remained at 80/20 through the fiscal 2014 allowance. The attached forecast assumes a continuation of this split and a 3.49% annual rate of inflation through fiscal 2018 based on a 10-year average.

Statute requires that MEMSOF support the medically oriented functions of MSPAC. The fund is not required to support the other missions of the division which include law enforcement; search and rescue; and homeland security. In fiscal 2007, the division changed its interpretation of medically oriented functions to include search and rescue missions. Based on this revision, medically oriented functions reached 85.0% in fiscal 2012.

- **Volunteer Company Assistance Fund:** Funding to volunteer fire companies is now generated from a \$7.50 moving violation surcharge established under Chapter 416 of 2006. Chapter 416, as amended by Chapter 735 of 2010, requires that 100% of the revenues collected from the surcharge be credited to the VCAF. Chapter 397 of 2011 further specified that the VCAF is to receive surcharge revenue, after the Charles W. Riley Fire and Emergency Medical Services Tuition Reimbursement Program receives a specified annual amount, until it accrues a total of \$20.0 million from this source. Once the VCAF reaches \$20.0 million, the revenue will accrue to MEMSOF. Chapter 1 of the First Special Session of 2012 added that MSFA must also receive \$200,000 annually before revenues are distributed to the VCAF starting in fiscal 2013 from this source.

Based on earlier assumptions, the VCAF was expected to have accumulated \$9.7 million by the end of fiscal 2011. Chapter 397 of 2011 specified that the VCAF should receive \$8.2 million in fiscal 2012 and \$2.1 million in fiscal 2013 in order to ensure that the VCAF received \$20.0 million in surcharge revenue by the end of fiscal 2013. According to the Maryland Judiciary, which collects and deposits the surcharge revenue, the VCAF had received only \$7.3 million in surcharge revenue by the end of fiscal 2011. The surcharge revenue estimates were revised to \$4.2 million generated annually and approximately \$3.9 million to accrue to MEMSOF annually once the VCAF balance reached \$20.0 million. In Chapter 1 of the First Special Session of 2012, the Maryland General Assembly removed the specific dollar amounts to be credited to the VCAF annually. According to the Maryland Judiciary, the VCAF received \$4.4 million in fiscal 2012 (see **Exhibit 4**). Based on revised estimates, the VCAF is projected to reach \$20.0 million in fiscal 2014, as reflected in the forecast.

Exhibit 4
Volunteer Company Assistance Fund
Fiscal 2010-2015

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Moving Violation						
 Surcharge Revenues						
Total Citations	298,841	648,036	644,760	649,983	655,247	660,555
Total Surcharge Revenue	\$2,241,308	\$4,860,270	\$4,835,700	\$4,874,869	\$4,914,356	\$4,954,162
Moving Violation						
 Surcharge Distribution						
Riley Scholarship	\$0	\$0	\$340,979	\$340,979	\$340,979	\$340,979
VCAF	560,327	4,049,655	4,415,094	4,333,890	3,916,040	0
MEMSOF	0	0	0	0	457,337	4,413,183
Maryland State Police	0	810,615	79,628	0	0	0
General Fund	1,680,981	0	0	0	0	0
MSFA	0	0	0	200,000	200,000	200,000
Maryland District Court	0	0	0	0	0	0
Total Distribution	\$2,241,308	\$4,860,270	\$4,835,700	\$4,874,869	\$4,914,356	\$4,954,162
Total VCAF Balance	\$3,285,322	\$7,334,977	\$11,750,071	\$16,083,961	\$20,000,000	\$20,000,000

MEMSOF: Maryland Emergency Medical System Operations Fund

MSFA: Maryland State Firemen's Association

VCAF: Volunteer Company Assistance Fund

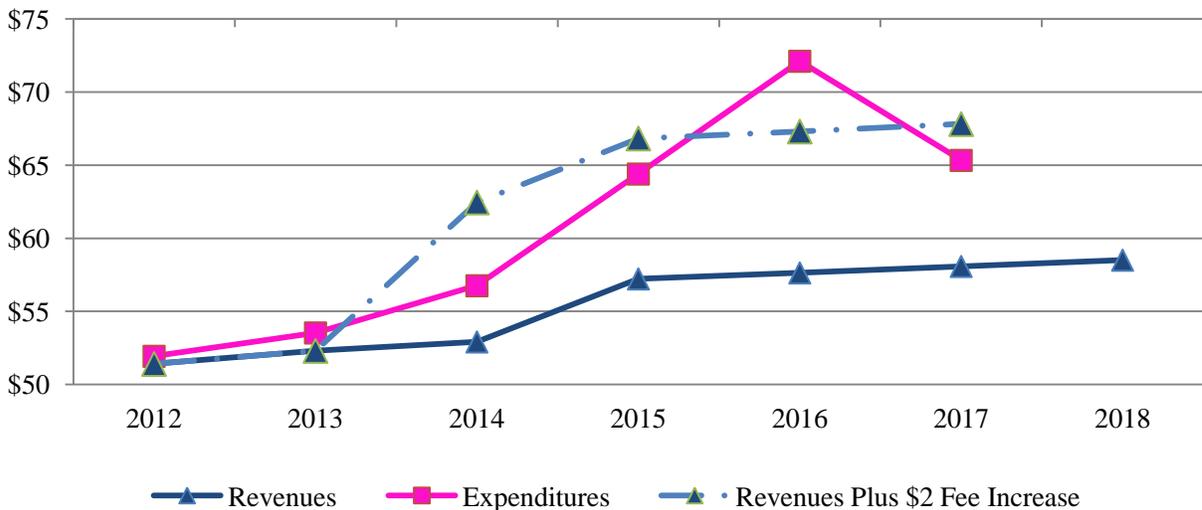
Source: Maryland Judiciary; Department of Legislative Services

- Cost-of-living Adjustments:** The forecast assumes that State personnel who are employed by agencies funded through MEMSOF receive a 2% cost-of-living adjustment (COLA) in fiscal 2013 – effective January 1, 2013, and receive a 3% COLA in fiscal 2014 – effective January 1, 2014. A 2% COLA is assumed for fiscal 2015 and beyond.
- Motor Vehicle Registration \$2.00 Fee Increase:** The motor vehicle registration fee surcharge supporting MEMSOF was originally established at \$8.00 per year in 1992. It has been increased only once, by \$3.00 per year in 2001, to \$11.00. The 2012 legislative session saw efforts to increase the motor vehicle registration fee. SB 971/HB 1302 of 2012 contained a provision that would have increased the motor vehicle registration fee by \$2.00 a year. SB 152 of 2012, the original Budget Reconciliation and Financing Act (BRFA), contained this same provision. The registration fee is collected on a biennial basis. Thus, the bills would have effectively increased the registration fee assessed by the Motor Vehicle Administration from \$22.00 to \$26.00 per transaction. This change would have raised revenue to the fund by \$9.5 million in fiscal 2013, increasing to nearly \$10.0 million in fiscal 2017. However, all legislation containing the provision to raise the fee failed; the BRFA was enacted as Chapter 1 of the First Special Session of 2012, but the fee increase provision was omitted.

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The DLS forecast in Appendix 2 shows that a \$2.00 registration fee increase starting in fiscal 2014 would ensure the fund’s viability through fiscal 2024. Based on current revenue and expenditure assumptions, a \$2.00 fee increase starting in fiscal 2014 would allow for the MIEMSS communication system upgrade and scheduled maintenance costs to continue in fiscal 2014 without delay. The fee increase would also make the \$2.7 million general fund deficiency appropriation from MSPAC unnecessary and create a longer-term solution; the deficiency keeps the fund solvent through fiscal 2014 while the fee increase would carry the fund through fiscal 2024, absent any additional spending enhancements. **Exhibit 5** shows the fluctuation between annual revenues and expenditures under the current law and due to the proposed registration fee increase. Exhibit 5 demonstrates that the \$2.00 fee increase would stabilize the fund, but over time expenditures will again exceed revenues, as has been the historical trend. MEMSOF’s revenue sources are not inflation sensitive and lack diversity; consequently, periodic revenue enhancements and/or alternative revenue sources will be required to keep MEMSOF viable.

Exhibit 5
MEMSOF Forecast – Current Law vs. Increased Registration Fee
Fiscal 2012-2018
(\$ in Millions)



Note: A \$2.00 fee increase would allow the second year of the Maryland Institute for Emergency Medical Services Systems communication system upgrade to continue in fiscal 2014 and eliminate the need for a \$2.7 million deficiency in fiscal 2013. Therefore, expenditures would be greater under this scenario than the graph reflects.

MEMSOF: Maryland Emergency Medical System Operations Fund

Source: Department of Legislative Services

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The forecast presented in Appendix 2 assumes no additional expenditures than those currently covered by the fund. DLS is aware of other potential pressures that are not currently being funded but may fall under MEMSOF if they were to materialize. Chapter 148 of 2012 included a provision to raise the Amoss Fund grant by \$2.0 million, contingent on the increase of the motor vehicle registration fee. Legislation raising the fee failed to pass, but requests to increase the Amoss Fund by \$5.0 million have appeared repeatedly in EMS wish list presentations to the House EMS Workgroup; it is reasonable to assume the need to increase the Amoss Fund will continue.

MSPAC has expressed interest in raising pilot salaries due to pilot recruitment and retention challenges. Since July 2007, the Aviation Command has received 194 pilot applications; of those applications, 72 declined to interview and 11 declined job offers due to low salary. Filling pilot vacancies is critical to keep bases operational. MSPAC currently has 50 pilot positions and 11 pilot vacancies, or 22.0% vacant. The Aviation Command believes increasing the pilot salary will improve recruitment, increase retention, and lower training costs by making MSP salaries more competitive with the private market. MSPAC feels it would be beneficial to raise pilot salaries to coincide with delivery of the new AW-139 fleet in January 2013; a pilot salary increase would require 80% funding from MEMSOF. MFRI has also expressed interest in raising salaries for its field instructors, which were last raised in 2006. An increase to instructor salaries would be 100% funded through MEMSOF. If these additional expenditures were to materialize, the motor vehicle registration fee would need a greater increase than \$2.00, or an alternative fund source would need to contribute to the fund.

According to the DBM forecast in Appendix 1, MEMSOF would be viable through fiscal 2014 absent any revenue enhancements. The DLS forecast in Appendix 2 presents an alternative to raise the motor vehicle registration fee by \$2.00; under DLS assumptions, MEMSOF would be viable through fiscal 2024 absent any additional expenditure.

If the legislature were to pass legislation at the 2013 session to increase the motor vehicle registration fee by \$2.00, it would stabilize the fund in the immediate future. This fee increase would eliminate the need for the MSPAC general fund offset and would allow continuation of the MIEMSS communication system upgrade in fiscal 2014. Inflation sensitive and diverse source of revenues should continue to be pursued for ongoing fund stability.

2. Helicopter Procurement and Delivery

The General Assembly's intent to replace the existing fleet dates back to the 2007 legislative session. Chapter 6 of the 2007 special session provided that a portion (\$110 million) of the revenues from the increased sales and use tax in fiscal 2008 be directed to the State Police Helicopter Replacement Fund (SPHRF) with the intent to purchase three helicopters from fiscal 2009 to 2012. However, the Spending Mandate and Revenue Dedication Relief Act of 2008 (Chapter 414 of 2008) modified Chapter 6 to dedicate \$50 million, rather than \$110 million, to the SPHRF. To replace this funding, Chapter 414 also required the Governor to include a total of \$70 million for the purchase of

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Medevac helicopters in the fiscal 2010, 2011, and 2012 State budgets. Chapter 414 specified that these funds may be from any budgetary fund that receives sales and use tax, and appropriations may be reduced by the amount of capital debt that may be authorized for helicopters or by any contribution, transfer, or financing acquired from the Maryland Automobile Insurance Fund as authorized by an act of the General Assembly.

During the 2008 legislative session, the General Assembly approved \$33.6 million pay-as-you-go special funds to procure the first installment of three Medevac helicopters. However, due to budget constraints, the appropriation was cancelled because Chapter 487 of 2009 (BRFA of 2009) authorized the transfer of the remaining \$52.7 million balance from the SPHRF to the general fund. In lieu of these funds, the Maryland Consolidated Capital Bond Loan (MCCBL) of 2009 included \$52.5 million in general obligation bonds to begin the initial purchase of Medevac helicopters. In January 2011, an updated helicopter base assessment study was submitted to the legislature. In essence, the report recommends 10 helicopters located at seven bases, with the relocation of Trooper 1 to Aberdeen. It should be noted that MIEMSS and the Aviation Command have accepted the report's findings with the proviso that a recommendation on whether an eleventh helicopter is warranted is made following the integration of the new helicopters into the Aviation Command.

In fiscal 2012, the MCCBL of 2011 authorized \$22.7 million for the purchase of 10 helicopters and a flight training device. The MCCBL of 2012 authorized an additional \$38.7 million in fiscal 2013. The MCCBL of 2013 would authorize \$7.1 million in fiscal 2014 and pre-authorize \$12.9 million in fiscal 2015 to continue the purchase. (See **Exhibit 6.**)

Exhibit 6
Medevac Funding Schedule
Fiscal 2010-2015
(\$ in Millions)

<u>Fiscal Year</u>	<u>MCCBL of 2009</u>	<u>MCCBL of 2011</u>	<u>MCCBL of 2012</u>	<u>MCCBL of 2013</u>	<u>MCCBL of 2014</u>	<u>Total</u>
2010	\$52.5	\$0.0	\$0.0	\$0.0	\$0.0	\$52.5
2012	0.0	22.7	0.0	0.0	0.0	22.7
2013	0.0	0.0	38.7	0.0	0.0	38.7
2014	0.0	0.0	0.0	7.1	0.0	7.1
2015	0.0	0.0	0.0	0.0	12.9	12.9
Total	\$52.5	\$22.7	\$38.7	\$7.1	\$12.9	\$133.9

MCCBL: Maryland Consolidated Capital Bond Loan

Source: Department of Budget and Management

Pre-acceptance inspections for helicopters #1 through #6 were complete in December 2012, and delivery is expected by January 31, 2013, pending the Federal Aviation Administration (FAA) certification of requested modifications to the search-light and medical interior. Certification is required by the FAA, as well as the European Aviation Safety Agency, which has added to the delay. Once the fleet arrives, training will take at least 2 to 3 months before helicopters can be in service. Complete helicopter transition may take 18 to 24 months; under the current anticipated delivery date, this puts complete transition around April 2015. **MSPAC should update the budget committees on the most recent delivery and transition schedule.**

Both Appendix 1 and Appendix 2 reflect some of the costs associated with the procurement of the new fleet (*e.g.*, insurance costs). The forecasts do not, however, take into account pilot training beyond fiscal 2014 and the full amount of the maintenance costs associated with the new fleet. While it is expected that maintenance costs will decline as new and more reliable helicopters replace the aging fleet, these costs could not be reliably estimated at this time.

3. CAMTS and Part 135 Certification

- **Expert Panel**

Following the fatal helicopter accident, amidst allegations of possible Medevac over usage, new protocols were implemented to determine whether an injured patient is airlifted to a trauma center. MIEMSS convened a helicopter panel in November 2008 to evaluate the recent changes to the State's Medevac protocols. Recommendations issued by the panel, indicate that MSPAC should take the necessary steps to achieve accreditation by the Commission for the Accreditation of Medical Transport Systems (CAMTS). The panel also recommended that all Medevac operations be conducted under Part 135 of FAA regulations¹.

- **New Paramedic Positions**

Recommendations issued by the expert panel indicated that MSPAC should take the necessary steps to achieve accreditation by CAMTS, which is dedicated to improving the quality of patient care and the safety of the transport services for rotor wing, fixed wing, and ground transportation systems. CAMTS accreditation is a program of voluntary compliance with standards that demonstrate the ability of providers to deliver service of a specific quality. In order to achieve CAMTS accreditation, MSPAC must be Part 135 certified and operate with two medical crew members per flight. Contrary to its current practice of picking up a ground medical provider from the scene of an accident when needed, Part 135 regulations prohibit MSPAC from picking up a second medical provider that has not completed Part 135 certification training. Currently, MSPAC operates with only one medical care provider per flight. In striving for CAMTS accreditation, funding was authorized to hire 40 trooper

¹ Part 135 is the standard under which commercial airlines operate.

paramedics; 8 paramedics were hired in fiscal 2012 and 32 in fiscal 2013. Phase in of the paramedics will begin in fiscal 2013. Sections receiving the AW-139 helicopters initially will be provided additional paramedics first. The first section is expected to stand up, or operate, with two providers around May 2013. The fiscal 2014 allowance does reflect annualization of costs for the new paramedics.

- **Part 135 Certification**

Because Maryland does not charge its patients for Medevac services, the Aviation Command currently operates as a public aircraft carrier under the FAA General Aviation requirements. In general, Part 135 regulations are more restrictive than that of a public air carrier in several areas such as weather minimums, helicopter maintenance, and documentation requirements. In 2009, MSPAC received approval from the EMS Board to make the changes necessary to be in compliance with Part 135. Since that time, MSPAC has been actively pursuing Part 135 certification and continues to mirror Part 135 regulations. In October 2011, MSPAC hired a consultant to aid in the Part 135 certification process. Unfortunately, work has been halted due to a contract dispute over travel reimbursement. The Maryland Department of Information Technology and the Quarter Master Division of MSP are actively working to resolve the issue. Until the issue is resolved, the timeline for when MSPAC will achieve certification is uncertain. **The Aviation Command should update the committees on the status of obtaining CAMTS and Part 135 certification.**

4. Copilots

As a safety measure, MSPAC initially requested funding to hire additional Medevac copilots in fiscal 2012. In light of the numerous safety precautions (*e.g.*, the procurement of night vision imaging systems, terrain awareness warning systems, and the implementation a computerized flight risk evaluation program) that had been implemented since the 2008 helicopter accident, the Maryland General Assembly decided to delete funding for 8 new copilot positions and to reserve judgment on whether an additional pilot is warranted until MSPAC had the opportunity to gain experience operating the new fleet of aircraft.

Since January 2012, 40 pilots from the Aviation Command have completed the initial training on an Agusta Westland Flight Simulator Device; 4 pilots have received a helicopter type rating for the AW-139 issued under Part 61 without limitation, while the rest received a type rating with a Second in Command (SIC) limitation, meaning 2 pilots would be needed for flight. Since MSPAC currently operates with only 1 pilot, this limitation would place an additional staff burden. In response to the new limitation, MSPAC requested an interpretation of the SIC requirement under 14 Code of Federal Regulations parts 61 and 142 from the FAA to determine what would be needed to permit the operation of the AW-139 to the “limits of its Aircraft Type Certificate.” The FAA responded that for MSP to operate as a civil operator or under Part 135, it would require pilots to be fully qualified under Part 61; however, Part 61 does provide a mechanism to remove the SIC limitation. Because of the minimum crew requirements listed in the AW-139 Type Certificate Data

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Sheet, pilots seeking an AW-139 type rating must take a practical test that incorporates a segment under Instrument Flight Rule (IFR) conditions with 2 pilots to satisfy part 61.63(d) (4), plus a segment under Visual Flight Rule (VFR) conditions with 1 pilot in order to demonstrate proficiency in the aircraft. Under IFR conditions, a second pilot would be required to launch the aircraft.

Currently, the Aviation Command is a VFR operation with IFR Recovery Capability, which means aircraft will not launch if weather minimums are not met. Since protocols do not currently allow for Medevacs to launch during IFR conditions, a second pilot should never be required for this purpose. The AW-139 is certified dual pilot for IFR operations; to legally fly the AW-139 in IFR conditions, two pilots are required due to aircraft certification. If a MSPAC crew encounters IFR conditions while flying the AW-139 with only a single pilot, then they will have to declare an emergency and request assistance. Based on these restrictions and MSPAC protocols, MSPAC will be able to achieve Part 135 certification with a single pilot.

Though the AW-139 is certified for single pilot VFR conditions for day and night operations, after initial check flights MSPAC has determined the AW-139 would be safer to fly with two pilots during nighttime operations due to increased complexity of nighttime flying. MSPAC intends to utilize the current staff of pilots to accommodate this decision, including filling current pilot vacancies. With the current 11 pilot vacancies, the Aviation Command can stand up two sections. By filling the pilot vacancies, MSPAC is confident it can stand up four sections with two pilots at night starting in fiscal 2013. Once additional operational knowledge is acquired from flying the aircraft, MSPAC can re-evaluate the decision for nighttime operations of the AW-139. A total of 56 pilots would be needed to stand up all seven sections; the Aviation Command is confident those positions can be filled with existing MSP positions.

The Aviation Command should discuss the policy decision to fly the new AW-139 fleet with two pilots at night. The discussion should include (1) an overview of the discussion with the FAA on pilot requirements and limitations, including the final decision; (2) a detailed outline of the current plan to stand up sections with two pilots at night; (3) the plan if pilot vacancies prove difficult to fill in time to coincide with helicopter delivery; and (4) the next steps and associated costs should MSPAC determine two pilots are necessary at all seven bases.

5. MEMSOF Allocation of Aviation Command Costs

The Maryland Transportation Article 13-955 (e) codifies that MEMSOF shall be used solely for the medically oriented functions of MSPAC. Throughout the years, medically oriented missions have been accepted as Medevac missions, search and rescue, and medical support missions. In 2008, the Maryland General Assembly requested an Attorney General opinion on whether MSPAC's method of allocating costs to MEMSOF is consistent with the purpose of the fund. The Attorney General concluded that cost based on past proportionate use was a reasonable implementation. The Attorney General further recommended MSPAC periodically review the allocation ratio based on actual experience.

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Aviation Command mission data is captured at the central dispatch facility known as SYSCOM. Every mission received is assigned a mission type and recorded. Generally, the mission codes are as follows:

- Scene Medevac;
- Interfacility Medevac;
- Law Enforcement;
- Search/Rescue/Firefighting;
- Support;
- Homeland Security; and
- Disaster Assessment.

Through long-standing practice, medically oriented missions have generally been accepted as Medevac missions, search/rescue/firefighting missions, and support missions related to transports of specialty medical teams, training, outreach to medical providers, and aircraft maintenance. From 2008 onward, critical infrastructure patrol checks (which occur during flights returning from missions) are also included if the preceding mission was medically oriented.

From 2007 through 2011, MSPAC averaged 85.8% medically oriented missions under this determination. However, as shown by **Exhibit 7**, medically oriented support missions accounted for 36.5%, on average, of total medically oriented missions from 2007 to 2011. If medically oriented support missions were removed, medically oriented missions average 54.5% of total MSPAC missions.

Exhibit 7
Medically Oriented Missions by Maryland State Police Aviation Command
Calendar 2007-2011

<u>Year</u>	<u>Total Scene Medevac Missions</u>	<u>Medical Relay Missions</u>	<u>Inter-facility Transport Missions</u>	<u>Search and Rescue Missions</u>	<u>Medically Oriented Support Missions</u>	<u>Total Medically Oriented Missions</u>	<u>Total for the Year</u>	<u>% Missions Medically Oriented</u>
2011	2,987	14	40	590	2,552	6,183	7,291	84.80%
2010	2,502	37	43	432	2,647	5,661	6,626	85.44%
2009	2,601	29	52	337	2,260	5,279	6,019	87.71%
2008	4,290	24	76	246	2,748	7,384	8,632	85.54%
2007	5,267	29	100	418	1,339	7,153	8,342	85.75%
5-year Average	3,529	27	62	405	2,309	6,332	7,382	85.78%

Source: Maryland State Police Aviation Command

DLS recommends that the BRFA of 2013 amend the Transportation Article to define medically oriented functions of MSPAC as scene Medevac, interfacility Medevac, and search/rescue/ firefighting missions. Additionally, critical infrastructure patrol checks that occur during return flights from medical missions should not be counted toward medically oriented missions or toward total missions; however, data should still be provided on critical infrastructure patrol checks in MSP Managing for Results.

DLS further recommends that the BRFA of 2013 amend the Transportation Article to specify that the expenditures of the Aviation Division eligible to be funded from MEMSOF be based on the average level of activity dedicated to medically oriented functions in the three most recently completed fiscal years; this determination should be made once every three years. DLS recommends that this change take effect in fiscal 2015, using fiscal 2011, 2012, and 2013 actual medically oriented missions to determine the share of costs eligible to be funded from MEMSOF.

Recommended Actions

1. Adopt the following narrative:

Annual Reconciliation of Helicopter Mission Data: Maryland State Police Aviation Command (MSPAC) helicopter mission data is captured at the central dispatch facility known as SYSCOM, located at the Maryland Institute for Emergency Medical Services Systems (MIEMSS) headquarters in Baltimore, Maryland. Every mission received is assigned a mission type and recorded. Generally, the mission codes include (1) scene medevac; (2) interfacility medevac; (3) search/rescue/firefighting; (4) support; (5) homeland security; and (6) disaster assessment. The Maryland Transportation Article 13-955 (e) codifies that the Maryland Emergency Medical System Operations Fund (MEMSOF) shall be used solely for the medically oriented missions of MSPAC. In order to ensure MSPAC costs are being allocated to MEMSOF in a manner consistent with the purpose of the fund, MIEMSS and MSPAC shall be required to reconcile helicopter mission data annually at closeout for each fiscal year. The budget committees request the reconciliation to begin at the closeout of fiscal 2013 and continue annually thereafter. Further, the budget committees request an additional one-time reconciliation of fiscal 2011 and 2012 helicopter missions.

EMS Operations Fund Statements
Department of Budget and Management
Fiscal 2012-2019

<u>Agency Name</u>	<u>2012 Actual</u>	<u>2013 Approp.</u>	<u>2014 Allowance</u>	<u>2015 Estimated</u>	<u>2016 Estimated</u>	<u>2017 Estimated</u>	<u>2018 Estimated</u>	<u>2019 Estimated</u>
Beginning Balance (7/1)	\$6,217,811	\$5,696,412	\$4,470,431	\$248,856	-\$7,160,383	-\$21,900,369	-\$29,501,333	-\$38,499,280
MVA Registration Fees – EMS Ops Fund	51,394,423	52,178,866	52,437,818	52,794,396	53,153,398	53,514,841	53,878,742	54,245,117
Violation Surcharge	0	0	0	4,188,002	4,215,094	4,215,094	4,215,094	4,215,094
Interest Income	23,372	131,017	102,820	5,724	0	0	0	0
Current Year Revenues	\$51,417,795	\$52,309,883	\$52,540,638	\$56,988,122	\$57,368,492	\$57,729,935	\$58,093,836	\$58,460,211
Total Available Revenues	\$57,635,606	\$58,006,295	\$57,011,069	\$57,236,978	\$50,208,109	\$35,829,566	\$28,592,503	\$19,960,931
MD Fire and Rescue Institute (UMCP)	\$7,323,667	\$7,598,380	\$7,632,523	\$7,899,661	\$8,176,149	\$8,462,314	\$8,758,495	\$9,065,042
MD Inst. of Emer. Med. Serv. Sys.	11,828,993	11,948,697	12,674,723	13,118,338	13,577,480	14,052,692	14,544,536	15,053,595
Shock Trauma Center	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Grants to Local Fire, Rescue, & Ambulance	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
MD State Police Aviation Div.	19,786,534	22,615,104	23,057,578	25,300,221	26,185,729	27,102,230	28,050,808	29,032,586
MIEMSS Communication System Upgrade	0	1,073,683	0	2,497,277	8,540,803	37,500	12,500	0
MIEMSS System Maintenance	0	0	0	1,548,421	1,594,874	1,642,720	1,692,001	1,692,001
Cost-of-living Adjustments	0	0	397,389	1,033,443	1,033,443	1,033,443	1,033,443	1,033,443
MSPAC General Fund Offset	0	-2,700,000	0	0	0	0	0	0
Current Year Expenditures	\$51,939,194	\$53,535,864	\$56,762,213	\$64,397,361	\$72,108,478	\$65,330,899	\$67,091,783	\$68,876,667
Ending Balance (6/30)	\$5,696,412	\$4,470,431	\$248,856	-\$7,160,383	-\$21,900,369	-\$29,501,333	-\$38,499,280	-\$48,915,736

EMS: Emergency Medical Services
MIEMSS: Maryland Institute of Emergency Medical Services Systems
MSPAC: Maryland State Police Aviation Command

MVA: Maryland Vehicle Administration
UMCP: University of Maryland, College Park

Analysis of the FY 2014 Maryland Executive Budget, 2013

MEMSOF – Fiscal 2014 Budget Overview

Appendix 1

EMS Operations Fund Statements
Department of Legislative Services
\$2 Registration Fee Increase
Fiscal 2014-2025

<u>Agency Name</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
	<u>Allowance</u>	<u>Estimated</u>										
Beginning Balance (7/1)	\$1,770,431	\$3,417,635	\$1,439,267	\$6,909,554	\$11,641,265	\$15,011,232	\$16,816,681	\$17,287,819	\$16,293,041	\$13,684,051	\$9,218,664	\$2,706,129
MVA Registration Fees – EMS Ops Fund	52,437,818	53,156,216	53,730,303	54,589,988	55,021,249	55,686,754	56,360,308	57,042,010	57,731,957	58,367,008	59,009,045	59,658,145
\$2.00 Registration Fee Increase	9,534,149	9,664,767	9,769,146	9,925,452	10,003,863	10,124,864	10,247,329	10,371,275	10,496,719	10,612,183	10,728,917	10,846,935
Violation Surcharge	457,337	4,413,183	4,453,312	4,493,465	4,529,862	4,215,094	4,249,236	4,283,655	4,318,353	4,353,331	4,388,593	4,424,141
Interest Income	25,811	24,164	41,536	92,293	132,599	158,348	169,674	167,069	149,140	113,944	59,327	0
Current Year Revenues	\$62,455,115	\$67,258,329	\$67,994,298	\$69,101,198	\$69,687,574	\$70,185,060	\$71,026,548	\$71,864,008	\$72,696,169	\$73,446,467	\$74,185,883	\$74,929,221
Total Available Revenues	\$64,225,546	\$70,675,964	\$69,433,565	\$76,010,753	\$81,328,839	\$85,196,292	\$87,843,228	\$89,151,827	\$88,989,210	\$87,130,517	\$83,404,547	\$77,635,350
MD Fire and Rescue Institute (UMCP)	\$7,632,523	\$7,852,111	\$8,078,017	\$8,310,421	\$8,549,512	\$8,795,482	\$9,048,529	\$9,308,855	\$9,576,671	\$9,852,192	\$10,135,640	\$10,427,243
MD Inst. of Emer. Med. Serv. System	12,674,723	12,944,976	13,220,991	13,502,891	13,790,802	14,084,852	14,385,171	14,691,894	15,005,157	15,325,100	15,651,864	15,985,596
Shock Trauma Center	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Grants to Local Fire, Rescue, and Ambulance	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
MD State Police – Aviation Division	23,057,578	23,861,729	24,693,926	25,555,146	26,446,402	27,368,741	28,323,248	29,311,043	30,333,289	31,391,186	32,485,979	33,618,953
MIEMSS Communication System Upgrade	2,497,277	8,540,803	37,500	12,500	0	0	0	0	0	0	0	0
MIEMSS System Maintenance	1,548,421	1,594,874	1,642,720	1,692,001	1,742,761	1,795,044	1,848,895	1,904,361	1,961,492	2,020,337	2,080,947	2,143,375
Cost-of-living Adjustments	397,389	1,442,204	1,850,858	2,296,528	2,788,130	3,335,493	3,949,567	4,642,632	5,428,550	6,323,038	7,343,988	8,511,817
Current Year Expenditures	\$60,807,911	\$69,236,697	\$62,524,011	\$64,369,488	\$66,317,607	\$68,379,612	\$70,555,409	\$72,858,786	\$75,305,159	\$77,911,854	\$80,698,418	\$83,686,984
Ending Balance (6/30)	\$3,417,635	\$1,439,267	\$6,909,554	\$11,641,265	\$15,011,232	\$16,816,681	\$17,287,819	\$16,293,041	\$13,684,051	\$9,218,664	\$2,706,129	-\$6,051,633

EMS: Emergency Medical Services
GF: General Fund
MIEMSS: Maryland Institute of Emergency Medical Services Systems

MVA: Motor Vehicle Administration
UMCP: University of Maryland, College Park