
Maryland Emergency Medical System Operations Fund Fiscal 2015 Budget Overview

**Department of Legislative Services
Office of Policy Analysis
Annapolis, Maryland**

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Maryland Emergency Medical System Operations Fund Fiscal 2015 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 \$29 on motor vehicle registrations for certain classes of vehicles, as specified in Section 13-954 of the Transportation Article. Funding from a \$7.50 moving violation surcharge is also credited to MEMSOF starting in fiscal 2014. 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 Aviation Command (MSPAC) 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 MSPAC, as required by statute. General funds support law enforcement and homeland security functions. The funding split for MSPAC has remained at 80% in special funds and 20% in general funds since fiscal 2003. The funding split is based on the ratio of medically oriented flights to non-medical flights; search and rescue missions have been considered medically oriented functions since fiscal 2007. Based on this revision, medically oriented functions reached 81% in fiscal 2013.
- **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. MEMSOF funds are provided as an operating subsidy to the Shock Trauma Center, which was level funded for much of fiscal 1993 through 1998. In some years, the Shock Trauma Center received an annual inflationary increase. Chapter 429 of 2013 increased the Shock Trauma Center operating subsidy from \$3.0 million to \$3.2 million.

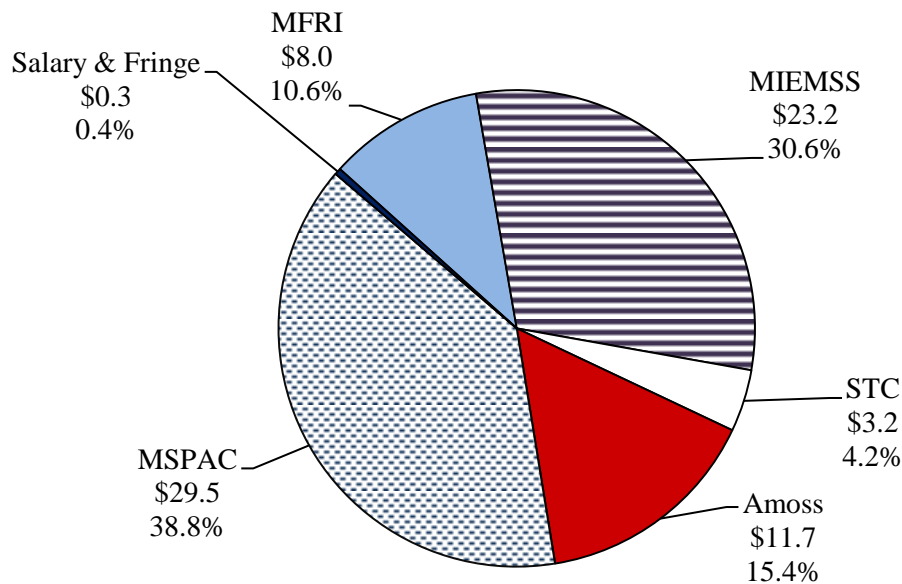
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- **The Maryland Fire and Rescue Institute:** The Maryland Fire and Rescue Institute (MFRI) is the State's fire and emergency service training agency responsible for the majority of basic level pre-hospital training and education for emergency system service providers.
- **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 building rehabilitation. 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. The fiscal 2015 allowance authorizes \$11.7 million for the Amoss Fund, reflecting intent from Chapter 429 of 2013 to increase the Amoss Fund from \$10.0 million to \$15.0 million over three years, beginning in fiscal 2015.
- **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. The VCAF \$20.0 million revolving loan fund will be fully funded in fiscal 2014 due to the combination of MEMSOF and moving violation surcharge revenue received.

MEMSOF Fiscal 2015 Allowance

The fiscal 2015 allowance provides for \$76.0 million in total expenditures funded from MEMSOF. **Exhibit 1** provides the percentage breakdown of each MEMSOF entity relative to total spending. MSPAC (38.8%), MIEMSS (30.6%), and the Amoss Fund (15.4%) make up the largest portions of MEMSOF expenditures.

Exhibit 1
MEMSOF 2015 Expenditures
(\$ in Millions)



Total = \$76.0 Million

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 2015

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 consists of 11 members appointed by the Governor to serve four-year terms, 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 MSPAC.

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 \$11.7 million from MEMSOF in fiscal 2015 for the Amoss Fund to purchase fire and rescue equipment, and for capital building improvements. The entire amount is distributed to 23 counties and Baltimore City according to Title 8 of the Public Safety Article.

- The Director of Assessments and Taxation certifies a county's real property accounts relative to the statewide total of all land use property tax accounts (*e.g.*, the fiscal 2015 allocation was based on July 2013 numbers). Each county's percentage of the total is calculated, and all counties must receive at least 2% of the Amoss Fund, or \$234,000 in fiscal 2015.
- Chapter 332 of 2013 further required that each county distribute a minimum percentage of funds that the county receives from the Amoss Fund to volunteer fire, rescue, and ambulance

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companies. Each county must distribute a percentage equal to the same total percentage of funds distributed to volunteer fire, rescue, and ambulance companies from the fund in fiscal 2011, or at least 51% of the allocation received, whichever is greater.

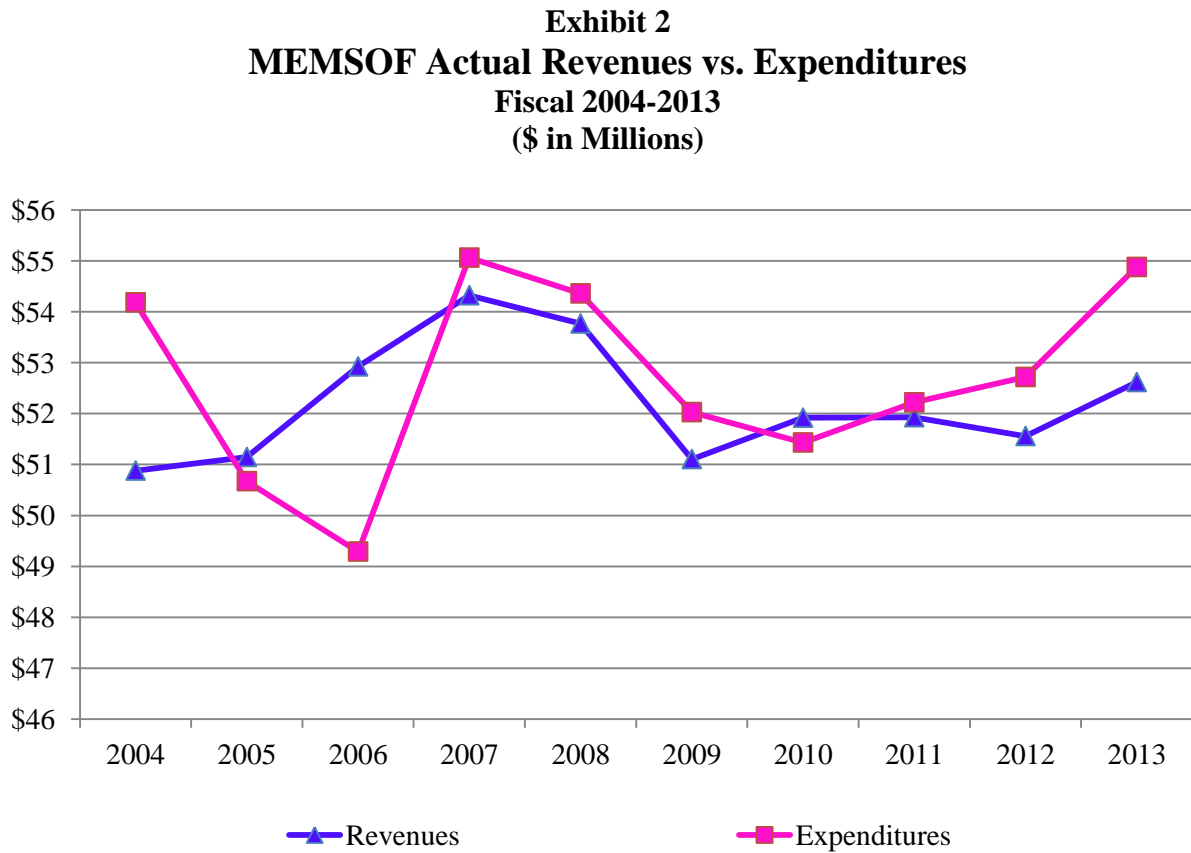
- The allocation to the counties is distributed in four equal payments in August, November, February, and May, unless the county fails to meet its maintenance of effort. The maintenance of effort requires jurisdictions to spend an amount greater than or equal to the amount of State funds received for fire protection from its own sources and spend 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 may be reduced by the same percentage its expenditures are short the required level. Alternatively, the jurisdiction may not receive Amoss money in that fiscal year.
- 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 fire protection from the prior fiscal year (Schedule A) and report the amount of money distributed to each recipient and purpose of expenditure, including unencumbered/unexpended funds and the amount and nature of any in-kind assistance made by the county to volunteer fire, rescue, and ambulance companies.

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 Military Department 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 2004 through 2013.



MEMSOF: Maryland Emergency Medical System Operations Fund

Source: Department of Legislative Services

MEMSOF – Fiscal 2015 Budget Overview

Revenues and expenditures fluctuated from fiscal 2004 through 2013, with revenues only exceeding expenditures in 3 of the 10 years shown in Exhibit 2. 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 2013, MEMSOF expenditures exceeded revenues by approximately \$2.3 million.

Over time, growth in expenditures will continue to outpace growth in revenues. From fiscal 1993 to 2013, registration revenues grew by 1.16%. During the same period, expenditures grew by 3.34%.

Exhibit 3 shows MEMSOF expenditures from fiscal 2013 to 2015. The fiscal 2015 allowance for all MEMSOF expenditures increases by \$11.1 million, or 17.2%, above the fiscal 2014 working appropriation. The increase is primarily driven by the MIEMSS communication system upgrade and maintenance with a \$5.4 million, or 112.6%, increase. The next largest increase is MSPAC with a \$1.9 million, or 6.9%, increase. MSPAC's fiscal 2014 appropriation includes a \$2.7 million deficiency to operate a dual helicopter fleet during transition and ongoing funding for a computer-aided dispatch and records management system (CAD/RMS). The increase in fiscal 2015 is primarily driven by salary adjustments and new positions, including:

- an increase in pilot and technician salaries to a base of \$70,000 and \$60,000, respectively, per Chapter 429 of 2013;
- annualization of 10 new pilots hired in fiscal 2014;
- hiring of 10 additional pilots in fiscal 2015;
- annualization of cost-of-living adjustments (COLA) and increments from fiscal 2014; and
- annualization of a salary and benefit agreement made for the State Law Enforcement Officers Labor Alliance (SLEOLA).

Exhibit 3
MEMSOF Expenditures
Fiscal 2013-2015
(\$ in Thousands)

	<u>2013</u> <u>Actual</u>	<u>2014</u> <u>Approp.</u>	<u>2015</u> <u>Allowance</u>	<u>2014-15</u> <u>Change</u>	<u>2014-15</u> <u>% Change</u>
Maryland Fire and Rescue Institute R75T00.01	\$7,598	\$7,679	\$8,044	\$365	4.8%
Maryland Institute for Emergency Medical Services Systems D53T00.01	11,928	12,868	13,060	192	1.5%
Shock Trauma Center M00R01.01	3,000	3,000	3,200	200	6.7%
Amoss Funds D50H01.06	10,000	10,000	11,700	1,700	17.0%
Maryland State Police Aviation Command W00A01.02	22,007	26,640	28,488	1,848	6.9%
MIEMSS Communication System	344	4,775	10,151	5,376	112.6%
MSPAC 700 MHz Radios	0	0	989	989	100.0%
Salary & Fringe Benefit Adjustments	0	-520	-77	443	85.2%
Total	\$54,877	\$64,442	\$75,555	\$11,113	17.2%

MEMSOF: Maryland Emergency Medical System Operations Fund

MIEMSS: Maryland Institute for Emergency Medical Services Systems

MSPAC: Maryland State Police Aviation Command

Source: Governor's Budget Books, Fiscal 2015; Department of Legislative Services

The Amoss Fund increases by \$1.7 million, or 17.0%. Salary and fringe benefit adjustments show an increase of \$443,000, or 85.2%. Fiscal 2014 COLAs are included in agency budgets; the salary adjustments show a negative \$520,000 to reflect reductions in health insurance and retirement. In fiscal 2015, salaries and fringe benefits increase by \$251,000 for COLAs, net of \$327,000 for

health and retirement reductions, bringing the total salary and fringe benefit adjustment to negative \$77,000.

Motor Vehicle Registration Fee Increased During 2013 Session

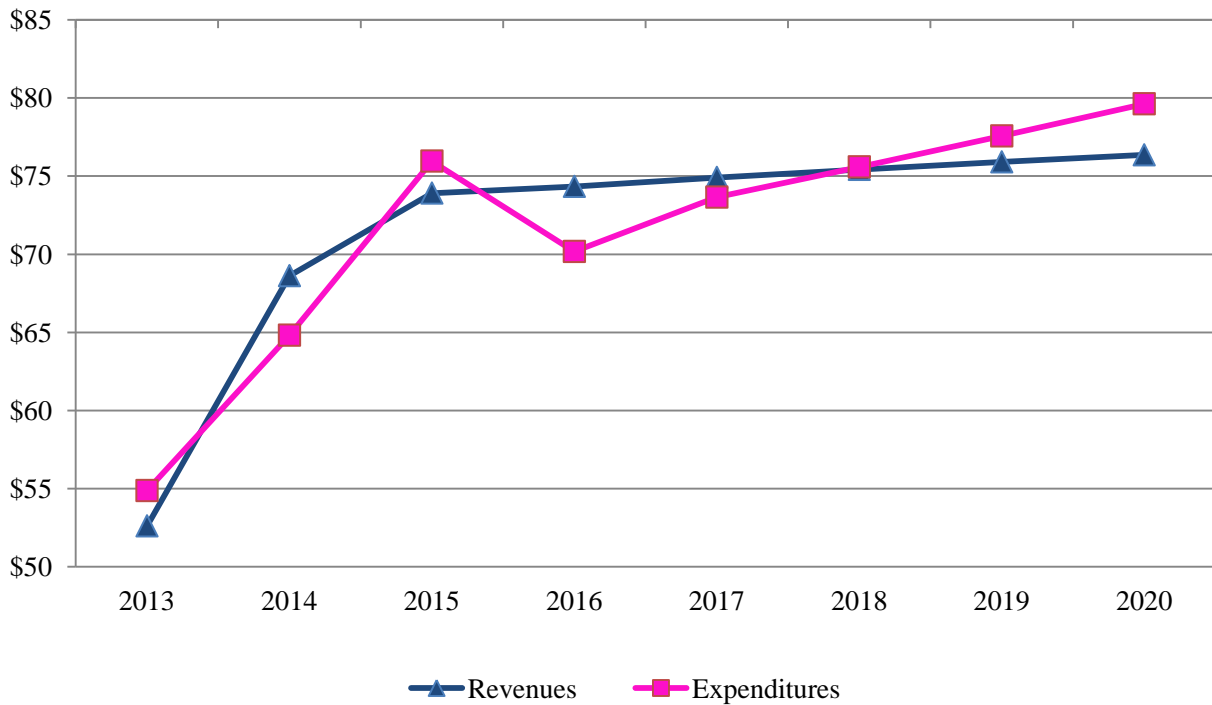
The motor vehicle registration fee supporting MEMSOF was originally established at \$8.00 per year in 1992. The fee increased by \$3.00 in 2001, raising it to \$11.00 per year. Attempts were made to again raise the fee during the 2012 legislative session, but legislation containing such provisions failed to pass. There was concern that, without a fee increase, MEMSOF would be insolvent by fiscal 2014. During the 2013 session, a fee increase of \$3.50 per year was included in the Transportation Infrastructure Act (Chapter 429). The increase raised the fee from \$11.00 to \$14.50 per year, or \$29.00 collected biennially.

In addition to sustaining the long-term viability of MEMSOF, the General Assembly expressed intent to enhance the funding provided to the user agencies of MEMSOF with the fee increase. These enhancements included:

- funding the upgrade and maintenance of the MIEMSS communications system;
- increasing the base salary for MSPAC pilots and maintenance technicians to \$70,000 and \$60,000, respectively;
- hiring 20 additional MSPAC pilots to improve safety of flight operations;
- increasing the annual operating subsidy to the Shock Trauma Center to \$3,200,000;
- purchasing high temperature tiles for MFRI;
- increasing the salary of MFRI field instructors by \$2.00 per hour; and
- increasing the Amoss Fund to \$15.0 million by fiscal 2017, with a gradual phase-in starting in fiscal 2015.

The fee increase was effective June 1, 2013; motor vehicle registration revenue in June 2013 was \$3.0 million higher than the 2013 monthly average of \$4.4 million primarily due to the fee increase. In fiscal 2014, the \$3.50 fee increase is estimated to add \$16.6 million in revenue over the original \$11.00 fee. Despite this increase, revenues are only anticipated to exceed expenditures in fiscal 2014, 2016, and 2017 in the upcoming years. **Exhibit 4** shows the fluctuation between annual revenues and expenditures with the \$3.50 fee increase taking effect in fiscal 2014.

Exhibit 4
MEMSOF Forecast – Revenues versus Expenditures
Fiscal 2013-2020
(\$ in Millions)



MEMSOF: Maryland Emergency Medical System Operations Fund

Note: Chapter 429 of 2013 increased the motor vehicle registration fee by \$3.50, adding to revenues in fiscal 2014.

Source: Department of Legislative Services

Recommended Actions

1. Adopt committee narrative requesting the Office of Legislative Audits to review aviation mission data and collection methodology for accuracy.

Issues

1. MEMSOF Forecasts

Appendix 1 provides the Department of Budget and Management's (DBM) MEMSOF forecast from fiscal 2013-2020. The forecast includes all the changes enacted by Chapter 429 of 2013, except for high temperature tiles for MFRI. MFRI no longer needs the high temperature tiles because a new, cheaper product is on the market that will provide the level of protection needed; MFRI is confident the existing budget can handle this cost.

In addition to the Chapter 429 requirements, the DBM forecast makes the following assumptions:

- revenue from the moving violation surcharge is applied to MEMSOF starting in fiscal 2014. The forecast assumes the MSFA Widows & Orphans Fund will be funded by the moving violation surcharge starting in fiscal 2015, which would reduce the revenue accruing to MEMSOF by \$275,000 annually;
- annualization of fiscal 2014 COLAs and increments for MFRI, MIEMSS, and MSPAC, net of across-the-board reductions;
- a grade increase for MSPAC pilots and technicians beginning in fiscal 2014, based on an Annual Salary Review;
- inclusion of salary increases for MSPAC in fiscal 2015 due to a SLEOLA agreement;
- an annual rate of inflation of 3.5% for MFRI, MIEMSS, and MSPAC;
- MSPAC's operating costs for the new Computer-Aided Dispatch and Records Management System (CAD/RMS);
- one-time costs in fiscal 2015 to purchase 700 MegaHertz (MHz) radios for MSPAC;
- a fiscal 2014 deficiency to cover unexpected costs to maintain a dual aircraft fleet during transition to the new AgustaWestland (AW) 139 helicopters; and
- a 2% COLA for a half year in fiscal 2015 and continued reductions in health insurance and retirement.

The DBM forecast predicts a balance of \$4.9 million in fiscal 2020.

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Appendix 2 provides the Department of Legislative Services' (DLS) MEMSOF forecast from fiscal 2013 through 2020. The DLS forecast also includes the changes enacted by Chapter 429 of 2013 and generally shares the assumptions of the DBM forecast for fiscal 2014 and 2015. The assumptions that differ for the DLS forecast include:

- **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 DLS forecast assumes a 2.92% annual increase through fiscal 2020, reflecting a 10-year average growth rate.
- **MIEMSS:** The attached forecast assumes a 1.81% annual rate of inflation through fiscal 2020, reflecting a 10-year average growth rate. In addition, MIEMSS' fiscal 2014 working appropriation reflects budget data provided in the Governor's budget books for the agency.
- **MSPAC:** MSPAC 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 2015 allowance. The attached forecast assumes a continuation of this split and a 4.42% annual rate of inflation through fiscal 2020, reflecting a 10-year average growth rate.
- **VCAF:** In fiscal 2013, the VCAF received \$4.1 million based on the Maryland Judiciary's annual report (see **Exhibit 5**). Based on these estimates, the VCAF is projected to reach \$20.0 million in fiscal 2014, and revenues will begin to be applied to MEMSOF, as reflected in both forecasts. The DLS forecast assumes \$100,223 will be applied to MEMSOF in fiscal 2014, while the DBM forecast assumes \$7,350.

Exhibit 5
Moving Violation Surcharge Revenue and Distribution Forecast
Fiscal 2012-2016

	<u>Actual</u> <u>2012</u>	<u>Actual</u> <u>2013</u>	<u>Est.</u> <u>2014</u>	<u>Est.</u> <u>2015</u>	<u>Est.</u> <u>2016</u>
Moving Violation Surcharge Revenue					
Total Citations	644,760	634,307	634,307	634,307	634,307
Total Surcharge Revenue	\$4,835,700	\$4,757,303	\$4,757,303	\$4,757,303	\$4,757,303
Moving Violation Surcharge Distribution					
Riley Scholarship	\$340,979	\$355,984	\$355,984	\$355,984	\$355,984
VCAF	4,415,094	4,148,834	4,101,096	0	0
MEMSOF	0	0	100,223	3,926,319	3,926,319
Maryland State Police	79,628	52,485	0	0	0
General Fund	0	0	0	0	0
MSFA	0	200,000	200,000	200,000	200,000
Maryland District Court	0	0	0	0	0
Widows & Orphans Fund (MSFA)			0	275,000	275,000
Total Distribution	\$4,835,700	\$4,757,303	\$4,757,303	\$4,757,303	\$4,757,303
Total VCAF Balance	\$11,750,071	\$15,898,905	\$20,000,000	\$20,000,000	\$20,000,000

MEMSOF: Maryland Emergency Medical System Operations Fund

MSFA: Maryland State Firemen's Association

Riley Scholarship: Charles W. Riley Fire and Emergency Medical Services Tuition Reimbursement Program

VCAF: Volunteer Company Assistance Fund

Source: Maryland Judiciary; Department of Legislative Services

- COLAs and Across-the-Board Reductions:** State personnel who are employed by agencies funded through MEMSOF received a 3% COLA, as well as increments, in fiscal 2014 – effective January 1, 2014. Across-the-board reductions in health insurance and retirement were also applied in fiscal 2014. In fiscal 2015, employees will receive a 2% COLA – effective January 1, 2015. An across-the-board reduction in health insurance and a contingent reduction in retirement are applied to fiscal 2015. The DLS forecast assumes a 2% COLA for fiscal 2016 and each following year, and a continuation of the retirement savings. The DBM forecast also includes a grade increase for MSPAC pilots and technicians starting in fiscal 2015 within the Salary and Fringe Benefit Adjustments calculation. The DLS forecast does not include the grade increase as a separate budget item because the increase is already within MSPAC's budget starting in fiscal 2014.

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- **MSPAC Flight Training Device Operating Cost:** General obligation (GO) bonds were programmed to purchase 10 helicopters and a flight training device (FTD) in the 2009 session. The Maryland Department of Transportation (MDOT), in conjunction with MSPAC, submitted a report to the budget committees which recommended the purchase of an FTD that would allow 75% of recurrent pilot and paramedic training to be conducted in the FTD, while the remaining 25% of training would need to be in the aircraft. It is anticipated that BPW approval for the FTD will be sought in March or April 2014. Once approved, it will take approximately 18 months until the FTD becomes operational, which would be in September or October 2015. The DLS forecast assumes operating costs, as provided by the cost-benefit analysis, starting in fiscal 2016; operating costs include 2 maintenance technicians and 2 training instructors needed at least 3 months prior to full operation. The 80/20 fund split and a cost inflation of 1.37% is applied to these costs.

Based on these assumptions, the DLS forecast projects that MEMSOF will have a balance of \$1.5 million in fiscal 2020. Even with an additional \$20.5 million from the motor vehicle registration fee increase and the moving violation surcharge in fiscal 2015, spending enhancements outstrip revenue gains for the following reasons:

- \$9.6 million in ongoing expenditures were added by Chapter 429 of 2013, including:
 - \$5.0 million increase to the Amoss Fund;
 - \$2.0 million to hire 20 helicopter pilots;
 - \$1.7 million in ongoing maintenance for the MIEMSS communication system; and
 - \$910,000 to bring pilots and aviation technicians to a base salary of \$70,000 and \$60,000, respectively.
- \$3.1 million in COLAs;
- \$9.6 million in inflation from fiscal 2015 to 2020 (with MSPAC being \$6.9 million of the inflation increase); and
- \$2.3 million initial deficit between revenues and expenditures in fiscal 2013.

Despite \$20.5 million in additional revenues, MEMSOF takes on \$24.6 million in additional ongoing expenditures from fiscal 2015 to 2020. Since MEMSOF revenue sources are not inflation sensitive, it is normal for expenses to grow faster than revenues. This necessitates periodic revenue increases similar to that adopted at the 2013 session.

2. MSPAC Mission Data Discrepancy

MSPAC mission data is captured at the central dispatch facility known as the System Communications Center (SYSCOM). Every mission is assigned a mission code and recorded. Generally, the mission codes are as follows:

- Scene Medical Evacuations (Medevac);
- Interfacility Transport;
- Law Enforcement;
- Search/Rescue/Firefighting;
- Support;
- Homeland Security; and
- Disaster Assessment.

From 2008 onward, Incidental Critical Infrastructure Checks (which occur during flights returning from medical missions) are also included in mission data but not counted toward mission totals.

MSPAC provides summary mission data for the Managing for Results (MFR) sections of the Governor's Budget Books every year. In addition, MSPAC provides a more detailed breakdown of mission data upon request. DLS requested a breakdown of mission data for the 2013 and 2014 sessions and compared the data provided in the MFR. **Exhibit 6** provides the mission summaries submitted by MSPAC for MFRs and a breakdown of mission data provided for calendar 2010 through 2013.

Exhibit 6
MSPAC Mission Data Discrepancies
Calendar 2010-2013

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
MFR Mission Data				
Air Medical	4,223	5,059	5,538	4,652
Law Enforcement	445	617	896	695
Homeland Security	27	35	66	381
Disaster Assessment	11	11	19	9
Total (Given in MFR Data)	4,706	5,712	6,519	5,737
Breakdown of Mission Data				
Scene Medevac	2,644	3,146	3,497	2,860
Interhospital Transports	87	60	53	74
Search and Rescue	524	718	528	443
Support	1,610	1,110	1,096	1,355
Total Air Medical	4,865	5,034	5,174	4,732
Law Enforcement	566	778	848	872
Homeland Security	9	190	94	8
Disaster Assessment	12	18	9	3
Total Mission Data	5,452	6,020	6,125	5,615

Medevac: Medical Evacuation

MFR: Managing for Results

MSPAC: Maryland State Police Aviation Command

Source: Maryland State Police Aviation Command; Governor's Budget Books, Fiscal 2012-2015

The mission data provided by MSPAC is not consistent. Mission totals are off by 122 to 746 missions when comparing MFR total missions to total missions provided by MSPAC directly.

The funding split for MSPAC has remained at 80% in special funds from MEMSOF and 20% in general funds since fiscal 2003, based on the ratio of medically oriented missions to non-medically related flights. According to the MFR data reported by MSPAC in the Governor's

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Budget Books for fiscal 2015, medically oriented functions were 81% in fiscal 2013. However, scene Medevac missions, which make up the largest portion of medically oriented missions, have decreased significantly since 2006. Scene Medevac missions dropped in 2006, corresponding to changes in triage protocols that required patients within 30 minutes of a trauma center to be taken by ground transport instead of helicopter and required EMS providers in the field to consult with a trauma center before requesting helicopter transport for less severely injured patients; the protocols were changed to prevent helicopter overuse. Scene Medevac missions also dropped in 2008 after the crash of Trooper 2. Without accurate, consistent mission data, policymakers cannot make determinations on appropriate allocation of resources, number of helicopters, or base deployment, and cannot adequately anticipate the effects of any future policy decisions.

DLS recommends adopting committee narrative requesting that the Office of Legislative Audits review aviation mission data and the collection methodology utilized by MSPAC for accuracy.

Recommended Actions

1. Adopt the following narrative:

Review Maryland State Police Aviation Command Mission Data and Collection

Methodology: Maryland State Police Aviation Command (MSPAC) helicopter mission data is captured at the central dispatch facility known as the System Communications Center (SYSCOM). Every mission received is assigned a mission code and recorded. MSPAC provides summary mission data for the Managing for Results (MFR) sections of the Governor’s budget books every year, as well as a breakdown of mission data upon request. In recent years, mission data provided in the MFR and mission data provided directly by MSPAC has not been consistent. MSPAC currently receives 80% funding from the Maryland Emergency Medical System Operations Fund and 20% from the general fund based on the ratio of medically oriented missions to non-medical missions conducted. However, without accurate, consistent mission data, policymakers cannot make determinations on appropriate allocation of resources, number of helicopters needed, or base deployment, and cannot adequately anticipate the effects of any future policy decisions. Therefore, the budget committees request the Office of Legislative Audits (OLA) to review and report, by January 1, 2015, actual MSPAC mission data for fiscal 2006 through 2013 to determine its accuracy, including: (1) scene Medevac; (2) interfacility Medevac; (3) law enforcement; (4) search and rescue; (5) support; (6) homeland security; (7) disaster assessment; and (8) Natural Resource Police missions. In addition, the budget committees request OLA to review the collection methodology used by MSPAC to record and report mission data to determine its effectiveness in collecting and providing accurate data.

Information Request	Author	Due Date
Report of MSPAC mission data for fiscal 2006 through 2013	OLA	January 1, 2015

Updates

1. MIEMSS Communication System Upgrade and Center Renovation

After an evaluation found the MIEMSS communication system obsolete and in jeopardy of failure, a conceptual design to replace the system was proposed, 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 process to replace the communication system was initiated in fiscal 2013 by budget amendment, which authorized \$1.07 million from MEMSOF for the first year of the project and to renovate SYSCOM in order to accept console equipment required to support the State's 700MHz radio project; a total of \$344,000 was actually spent. In fiscal 2014, another budget amendment authorized \$4.8 million from MEMSOF for the second year of the project; a total of \$3.2 million in expenditures is anticipated. The fiscal 2015 allowance includes \$8.6 million for the communication system upgrade and \$1.6 million for system maintenance. The costs and timeline of the project have not changed, and the upgrade is expected to be complete by fiscal 2017.

2. Helicopter Procurement and Delivery

The General Assembly's intent to replace the Dauphin fleet dates back to 2007, but it was not until \$52.5 million in GO bonds was authorized by the Maryland Consolidated Capital Bond Loan (MCCBL) of 2009 that the initial purchase of AW-139 helicopters began. **Exhibit 7** shows GO funding authorized to purchase the AW-139 helicopters and FTD. Funding has been changed to include the cost to construct the Aircrew Training Facility at Martin State Airport, which will house the FTD; in prior years, this cost has been authorized separately.

Exhibit 7
Medevac Helicopters 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	12.5	12.5
Total	\$52.5	\$22.7	\$38.7	\$7.1	\$12.5	\$133.5

MCCBL: Maryland Consolidated Capital Bond Loan
Medevac: Medical Evacuation

Source: Department of Budget and Management

Delivery of the first two AW-139 helicopters was expected in May 2012. During the procurement process, MSPAC requested modifications to the aircraft's searchlight and medical interior, which delayed delivery. MSPAC took delivery of the first six AW-139s late February 2013. As of December 2013, MSPAC has taken delivery of nine helicopters, and three sections are fully operational with AW-139s. MSPAC expects to take delivery of the final helicopter in July 2014 and completely transition to the AW-139 by November 2014.

Both **Appendix 1** and **Appendix 2** reflect some costs associated with the procurement of the new fleet (*e.g.*, insurance costs). The forecasts do not, however, take into account 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 Recommendations

Following the fatal helicopter accident, amidst allegations of possible Medevac overusage, 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 Federal Aviation Administration (FAA) regulations¹.

CAMTS Accreditation

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; previously, MSPAC operated with only one medical care provider per flight. In addition, Part 135 regulations prohibit MSPAC from picking up a second medical provider from the field that has not completed Part 135 certification training.

In striving for CAMTS accreditation, funding was authorized to hire 40 trooper paramedics to be second medical providers; 8 paramedic positions were authorized in fiscal 2012 and 32 in fiscal 2013. Phase-in of the paramedics began in fiscal 2013, but MSPAC had 15 vacancies as of December 2013. According to MSPAC, paramedic trooper positions take longer to fill because all paramedics must go through the academy and participate in field training, which takes approximately nine months. It is also challenging to recruit fully certified paramedics due to the salary offered by MSPAC. SLEOLA is attempting to address this issue through collective bargaining. Paramedics are also attracted to schedules usually provided by fire departments, which offer 24-hour shifts and 72 hours off; MSPAC cannot offer a similar schedule.

Part 135 Certification

Because Maryland does not charge its patients for Medevac services, MSPAC 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. Work was temporarily halted due to a contract dispute over travel reimbursement, but MSPAC, the Maryland Department of Information Technology, and the consultant are diligently working to resolve any open issues. Additional steps toward obtaining Part 135 certification have been taken, and, barring any unforeseen issues, MSPAC believes that certification could be obtained in July 2014.

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

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 of a computerized flight risk evaluation program) that had been implemented since the 2008 helicopter accident, the decision was made 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. Though the AW-139 is certified for single pilot Visual Flight Rule conditions for day and night operations, after gaining experience, it was determined to be safer to fly with two pilots 24/7 due to the complexity of the AW-139. Chapter 429 of 2013 expressed intent that 20 additional pilots be hired in order to fly second-in-command, increasing MSPAC to a total of 70 pilots. In fiscal 2014, BPW approved the hiring of 10 new pilots, and the final 10 pilots are included in the fiscal 2015 allowance.

EMS Operations Fund Statements
Department of Budget and Management
Fiscal 2013-2020

	<u>2013 Actual</u>	<u>2014 Working</u>	<u>2015 Allowance</u>	<u>2016 Estimated</u>	<u>2017 Estimated</u>	<u>2018 Estimated</u>	<u>2019 Estimated</u>	<u>2020 Estimated</u>
Beginning Balance (7/1)	5,059,679	2,800,905	6,610,098	4,563,154	8,728,526	9,991,764	9,829,144	8,168,202
MVA Registration Fees	52,594,195	68,556,000	69,927,000	70,402,504	70,881,241	71,363,233	71,848,503	72,337,073
Interest Income	23,783	64,421	152,032	104,953	200,756	229,811	226,070	187,869
Moving Violations Surcharge		7,350	3,833,446	3,833,446	3,833,446	3,833,446	3,833,446	3,833,446
Current Year Revenues	52,617,978	68,627,771	73,912,478	74,340,903	74,915,443	75,426,490	75,908,019	76,358,388
MD Fire and Rescue Institute (UMCP)	7,598,322	7,679,195	8,044,322	8,325,873	8,617,279	8,918,884	9,231,045	9,554,132
MD Inst. Of Emer. Med. Serv. Sys.	11,927,948	13,244,212	13,060,112	13,517,216	13,990,319	14,479,980	14,986,779	15,511,316
Shock Trauma Center	3,000,000	3,000,000	3,200,000	3,200,000	3,200,000	3,200,000	3,200,000	3,200,000
Grants to Local Fire, Rescue & Ambulance	10,000,000	10,000,000	11,700,000	13,300,000	15,000,000	15,000,000	15,000,000	15,000,000
MD State Police -- Aviation Div.	21,844,449	26,536,942	28,466,534	29,462,863	30,494,063	31,561,355	32,666,002	33,809,312
MSPAC CAD/RMS	161,741	102,685	21,000	100,865	47,600	77,500	71,030	71,030
MSPAC 700 MHz Radios			988,516					
MIEMSS Comm. System Upgrade	344,292	3,226,950	8,555,803	37,500	12,500			
MIEMSS Comm. System Maintenance		1,548,421	1,594,874	1,642,720	1,692,001	1,742,761	1,795,044	1,848,895
Salary & Fringe Benefit Adjustments		-519,827	328,261	588,494	598,443	608,630	619,061	629,743
Current Year Expenditures	54,876,752	64,818,578	75,959,422	70,175,531	73,652,205	75,589,110	77,568,961	79,624,428
Ending Balance (6/30)	2,800,905	6,610,098	4,563,154	8,728,526	9,991,764	9,829,144	8,168,202	4,902,162

CAD/RMS: Computer Aided Dispatch and Records Management System
EMS: Emergency Medical Services
MHz: MegaHertz
MIEMSS: Maryland Institute for Emergency Medical Services Systems
MSPAC: Maryland State Police Aviation Command
MVA: Motor Vehicle Administration
UMCP: University of Maryland, College Park

Source: Governor's Budget Books for Fiscal 2015

**EMS Operations Fund Statements
Department of Legislative Services
Fiscal 2013-2020**

	<u>2013 Actual</u>	<u>2014 Working</u>	<u>2015 Allowance</u>	<u>2016 Estimated</u>	<u>2017 Estimated</u>	<u>2018 Estimated</u>	<u>2019 Estimated</u>	<u>2020 Estimated</u>
Beginning Balance (7/1)	\$5,059,679	\$2,800,905	\$7,078,981	\$5,471,102	\$8,263,610	\$9,359,120	\$7,823,046	\$5,596,909
MVA Registration Fees	\$52,594,195	\$68,556,000	\$69,927,000	\$69,927,000	\$71,675,175	\$71,460,149	\$73,318,113	\$74,191,282
Interest Income	23,783	64,421	93,425	119,136	174,482	170,120	132,871	70,559
Moving Violations Surcharge		100,223	3,926,319	3,926,319	3,926,319	3,926,319	3,926,319	3,926,319
Current Year Revenues	\$52,617,978	\$68,720,644	\$73,946,743	\$73,972,455	\$75,775,976	\$75,556,588	\$77,377,303	\$78,188,160
MD Fire and Rescue Institute (UMCP)	\$7,598,322	\$7,679,195	\$8,044,322	\$8,279,478	\$8,521,508	\$8,770,613	\$9,027,000	\$9,290,882
MD Inst. Of Emer. Med. Serv. Sys.	11,927,948	12,868,202	13,060,112	13,297,087	13,538,361	13,784,014	14,034,124	14,288,772
Shock Trauma Center	3,000,000	3,000,000	3,200,000	3,200,000	3,200,000	3,200,000	3,200,000	3,200,000
Grants to Local Fire, Rescue & Ambulance	10,000,000	10,000,000	11,700,000	13,300,000	15,000,000	15,000,000	15,000,000	15,000,000
MD State Police – Aviation Div.	21,844,449	26,536,942	28,466,534	29,723,521	31,036,012	32,406,459	33,837,419	35,331,566
MSPAC CAD/RMS	161,741	102,685	21,000	100,865	47,600	77,500	71,030	71,030
MSPAC 700 MHz Radios			988,516					
MSPAC FTD Operating Cost				811,903	330,368	267,915	217,269	176,196
MIEMSS Comm. System Upgrade	344,292	3,226,950	8,555,803	37,500	12,500			
MIEMSS Comm. System Maintenance.		1,548,421	1,594,874	1,642,720	1,692,001	1,742,761	1,795,044	1,848,895
Cost-of-living Adjustments & Across-the-Board Reductions		-519,827	-76,539	786,873	1,302,116	1,843,401	2,421,554	3,048,138
Current Year Expenditures	\$54,876,752	\$64,442,568	\$75,554,622	\$71,179,947	\$74,680,466	\$77,092,663	\$79,603,440	\$82,255,480
Ending Balance (6/30)	\$2,800,905	\$7,078,981	\$5,471,102	\$8,263,610	\$9,359,120	\$7,823,046	\$5,596,909	\$1,529,589
CAD/RMS: Computer Aided Dispatch and Records Management System				MIEMSS: Maryland Institute for Emergency Medical Services Systems				
EMS: Emergency Medical Services				MSPAC: Maryland State Police Aviation Command				
FTD: Flight Training Device				MVA: Motor Vehicle Administration				
MHz: MegaHertz				UMCP: University of Maryland, College Park				

Source: Governor's Budget Books for Fiscal 2015; Maryland Judiciary; Cost Benefit Analysis for Pilot Recurrent Training; Department of Legislative Services