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Maryland Aviation Administration
Maryland Department of Transportation

Executive Summary

The Maryland Aviation Administration (MAA) has responsibility for fostering and developing aviation activity throughout the State as well as the operation, maintenance, protection, and development of the two State-owned airports – Baltimore-Washington International Thurgood Marshall Airport (BWI Marshall Airport) and the Martin State Airport.

Operating Budget Data

($ in Thousands)

	FY 18 Actual	FY 19 Working	FY 20 Allowance	FY 19-20 Change	% Change Prior Year
Special Fund	$195,633	$200,704	$204,453	$3,748	1.9%
Adjustments	0	232	834	602	
Adjusted Special Fund	**$195,633**	**$200,936**	**$205,287**	**$4,351**	**2.2%**
Federal Fund	645	646	646	0	
Adjustments	0	0	0	0	
Adjusted Federal Fund	**$645**	**$646**	**$646**	**$0**	**0.0%**
Adjusted Grand Total	**$196,278**	**$201,581**	**$205,932**	**$4,351**	**2.2%**

Note: The fiscal 2019 appropriation includes deficiencies, a one-time $500 bonus, and general salary increases. The fiscal 2020 allowance includes general salary increases.

- The fiscal 2020 allowance increases by approximately $4.4 million compared to the fiscal 2019 working appropriation. This increase is primarily due to rising personnel costs associated with general salary increases and rising costs associated with services contracts.

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

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PAYGO Capital Budget Data

($ in Thousands)

	Fiscal 2018	Fiscal 2019		Fiscal 2020
	Actual	**Legislative**	**Working**	**Allowance**
Special	$110,010	$50,575	$90,860	$74,757
Federal	$7,813	$10,228	$11,050	$14,293
Subtotal	***$117,823***	***$60,803***	***$101,910***	***$89,050***
Other funds	$29,400	$56,300	$63,300	$123,400
Total	**$147,223**	**$117,103**	**$165,210**	**$212,450**

- The fiscal 2019 to 2024 *Consolidated Transportation Program* (CTP) for MAA totals $644.5 million, an increase of $72.4 million from the prior year's six-year program total. The CTP programs $212.4 million for fiscal 2020. The majority of the funds are programmed for major projects, including new facilities and terminal improvements, at BWI Marshall Airport.

- From the 2018 to 2023 CTP analysis of fiscal 2020 project funding to the current CTP analysis for fiscal 2020, funding has increased by $120.1 million due primarily to the increased use of other funds, including a proposal for a new issuance of Passenger Facility Charge-backed bonds and two project specific loans from the Maryland Transportation Authority.

Operating and PAYGO Personnel Data

	FY 18 Actual	FY 19 Working	FY 20 Allowance	FY 19-20 Change
Regular Operating Budget Positions	450.50	448.50	450.50	2.00
Regular PAYGO Budget Positions	44.00	46.00	44.00	-2.00
Total Regular Positions	**494.50**	**494.50**	**494.50**	**0.00**
Operating Budget FTEs	0.50	0.50	0.50	0.00
PAYGO Budget FTEs	0.00	0.00	0.00	0.00
Total FTEs	**0.50**	**0.50**	**0.50**	**0.00**
Total Personnel	**495.00**	**495.00**	**495.00**	**0.00**
Vacancy Data: Regular Positions				
Turnover and Necessary Vacancies, Excluding New Positions		28.63	5.94%	
Positions and Percentage Vacant as of 1/1/19		43.00	8.69%	

- MAA totals for regular positions and contractual full-time equivalents in the fiscal 2020 allowance remain level with the fiscal 2019 working appropriation; however, the total number of capital positions decreases by 2.00, while the operating program gains 2.00 regular positions. This is due to the effect of intra-agency transfers within the Maryland Department of Transportation.

- The actual vacancy rate is 8.69%, or 2.75 percentage points, over budgeted turnover.

Key Observations

- ***BWI Marshall Airport Successful but Growing Pains Possible:*** MAA continues to see year-over-year passenger growth. Further, the airport commands the largest passenger market share in the DC Metroplex. BWI Marshall Airport is also experiencing growth in its cargo operations when compared to the same point in calendar 2017.

For fiscal 2020, MAA reassigns funding to areas of greatest need in an effort to control overall cost increases. While this is generally an effective strategy, especially if no growth is assumed, expansions in terminal size and passenger capacity may stress services at BWI Marshall Airport, causing a review of operating costs in future years.

- ***Continued Review of Aircraft Noise:*** Aircraft noise issues at BWI Marshall Airport and Ronald Reagan Washington National Airport (Reagan National Airport) continue to impact Maryland residents. Following last year's analysis, the Department of Legislative Services obtained figures for the total number of complainants and complaints from Maryland residents affected by activity at Reagan National Airport. Additionally, since the 2018 legislative session, Maryland engaged the Federal Aviation Administration in two lawsuits over the implementation of changes associated with the Next Generation Air Transportation System in the DC Metroplex. This analysis provides a brief update on the status of this ongoing issue.

Operating Budget Recommended Actions

1. Concur with Governor's allowance.

PAYGO Budget Recommended Actions

1. Concur with Governor's allowance.

Updates

- ***State of BWI Marshall Airport Onsite Hotel Replacement Plan:*** BWI Marshall Airport continues to review options for an onsite hotel, including the possibility of integrating this project with a proposed new Air Traffic Control Tower and other projects in the space between terminals C and D.

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Maryland Aviation Administration

Maryland Department of Transportation

Budget Analysis

Program Description

The Maryland Aviation Administration (MAA) has responsibility for fostering and developing aviation activity throughout the State. In addition, MAA is responsible for the operation, maintenance, protection, and development of both the Baltimore-Washington International Thurgood Marshall Airport (BWI Marshall Airport) – a major center of commercial air carrier service in the State – and the Martin State Airport (MTN) – a general aviation reliever facility as well as a support facility for the Maryland Air National Guard and the Maryland State Police. MAA has identified the following key goals:

- keeping BWI Marshall Airport passengers, tenants, and facilities safe;
- operating BWI Marshall Airport efficiently and effectively;
- attracting, maintaining, and expanding air service; and
- providing exceptional service.

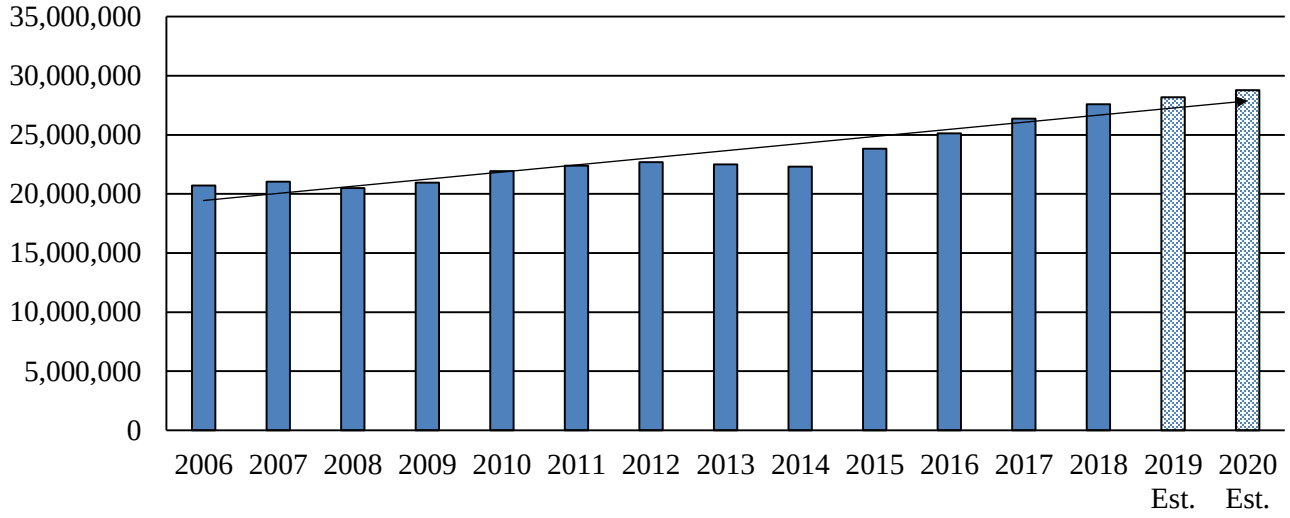
Performance Analysis: Managing for Results

1. Total Passengers Increase, but the Outlook Is Uncertain

Passenger traffic at BWI Marshall Airport was approximately 27.6 million passengers in calendar 2018, an increase of 4.6% from calendar 2017. As shown in **Exhibit 1**, BWI Marshall Airport has experienced a general trend of passenger growth – from 20.7 million passengers in calendar 2006 to an anticipated 28.2 million passengers in calendar 2019. In fact, in 45 out of the last 47 months, BWI Marshall Airport experienced record passenger growth when compared to passenger totals for the same month in prior years.

MAA anticipates approximately 2.0% passenger growth each year in calendar 2019 and 2020. This is driven, in part, by expected double-digit international passenger growth, as MAA continues to develop international facilities at BWI Marshall Airport and more airlines look to expand international service. However, these estimates do not account for the effects of the recent federal government shutdown. Similar events have impacted overall passenger traffic volumes in prior years. While final numbers are not available for January 2019, MAA does not anticipate passenger volumes will exceed those recorded in January 2019.

Exhibit 1
Total Passengers at the Baltimore-Washington International Thurgood Marshall Airport
Calendar 2006-2020 Est.



Source: Department of Budget and Management; Maryland Aviation Administration

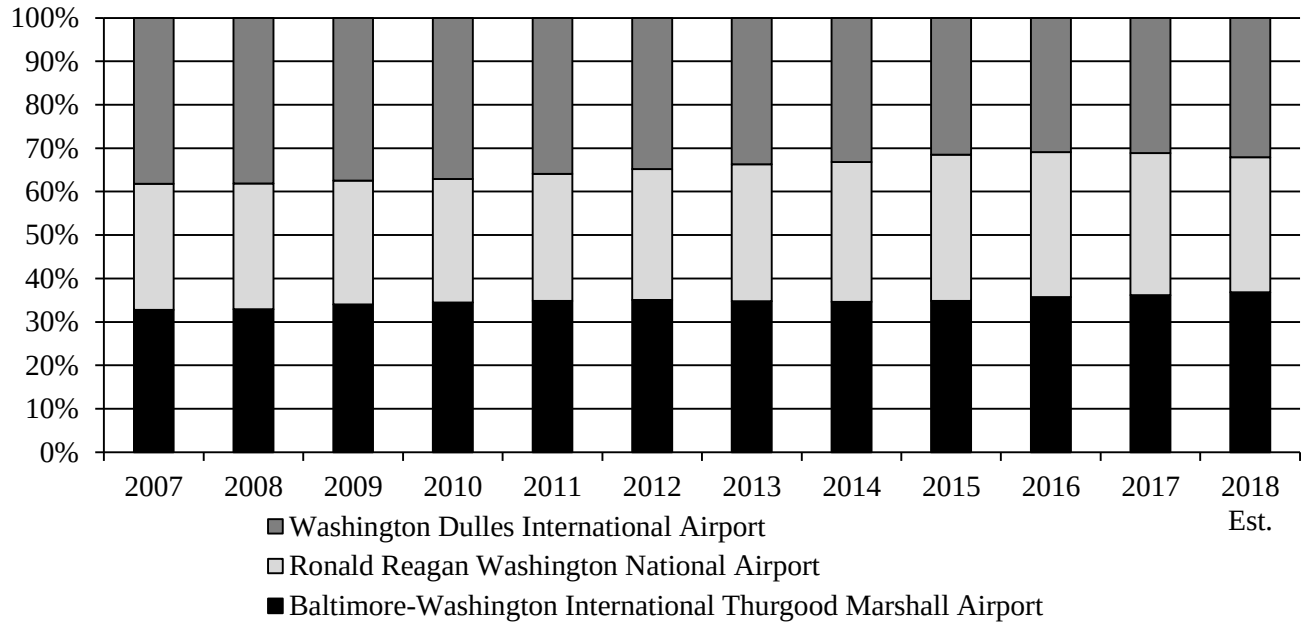
Southwest Airlines remains the dominant airline at BWI Marshall Airport. For the 12-month period ending in November 2018, Southwest Airlines' share of passengers at BWI Marshall Airport was approximately 67%. The next two largest carriers are Spirit and Delta with approximately 9% and 8%, respectively, of the passenger market share for the time period identified.

2. Passenger Market Share Grows

In order for BWI Marshall Airport to experience growth in business and continue to be an economic engine for the State, it must remain competitive with other airports, both nationally and internationally. The Baltimore-Washington region features three proximate airports that compete for the local market share for commercial passengers, commercial air operations, freight, and mail transport – BWI Marshall Airport, Washington Dulles International Airport (Dulles International Airport), and Ronald Reagan Washington National Airport (Reagan National Airport).

As shown in **Exhibit 2**, BWI Marshall Airport increased its passenger market share in calendar 2018 relative to Reagan National Airport and Dulles International Airport. This is due to an estimated 1.7 percentage point decrease in passenger market share at Reagan National Airport, which is absorbed by BWI Marshall Airport and Dulles International Airport. BWI Marshall Airport now captures an estimated 36.9% of the passenger market share in the region.

Exhibit 2
Passenger Market Share
Calendar 2007-2018 Est.



Source: Maryland Aviation Administration

When comparing statistics for November 2018 to November 2017, BWI Marshall Airport's share of the November passenger market fell 1.1 percentage points to 36.5%; this is due to a shift in passenger market share away from both BWI Marshall Airport and Reagan National Airport and to Dulles International Airport. Mail transport market shares in November 2018 also fell at both BWI Marshall Airport and Reagan National Airport, relative to November 2017, whereas Dulles International Airport saw a 6.5 percentage point increase for this market. Finally, BWI Marshall Airport's share of the freight cargo market grew in November 2018, relative to November 2017, to 40.2% of the market, compared to 59.4% at Dulles International Airport. Reagan National Airport experienced no change in the total freight cargo market volume captured in November 2018, compared to November 2017.

3. Cost Per Enplaned Passenger Declines

An important financial calculation considered by airlines when deciding where to fly is the cost per enplaned passenger (CPE) at a given airport. CPE costs are the total of terminal and airfield costs related to flight activities, which are paid by the airport and subsequently reimbursed by the airlines and which are affected by the number of enplaned passengers. CPE is an industry ratio, and while not

calculated using a definitive standard due to variations in the negotiated operating agreements specific to the airports, it typically includes such costs as (1) landing fees; (2) terminal rental fees; (3) apron fees; (4) boarding bridges; and (5) aircraft parking. Airports universally try to reduce CPE to be more competitive in the market. Therefore, both MAA and the airlines have an interest in keeping operating costs as low as possible.

As shown in **Exhibit 3**, BWI Marshall Airport's CPE decreased to $9.33 per enplaned passenger in fiscal 2018. CPE at BWI Marshall Airport remains well below the average for the regional airports with which BWI Marshall Airport competes.

Exhibit 3
Cost Per Enplaned Passenger
Fiscal 2013-2020 Est.

	2013	2014	2015	2016	2017	2018 [1]	2019 Est.	2020 Est.
Cost Per Enplaned Passenger								
BWI Marshall Airport	$9.50	$9.82	$9.86	$9.51	$9.34	$9.33	$9.27	$9.09
Regional Airports Average[2]	17.38	17.01	16.99	16.10	15.21	14.73	15.30	15.37

BWI Marshall Airport: Baltimore-Washington International Thurgood Marshall Airport

[1] The cost per enplaned passenger (CPE) for both Ronald Reagan Washington National Airport and Washington Dulles International Airport are estimates. Both airports use a fiscal year ending in December, so final numbers are not available until early Quarter 2 the following fiscal year.
[2] Regional airports average comprised of CPE at the following airports – Ronald Reagan Washington National Airport, Washington Dulles International Airport, and Philadelphia International Airport.

Source: Maryland Aviation Administration

Fiscal 2019 Actions

0.5% Cost-of-living Adjustment and $500 Bonus for State Employees

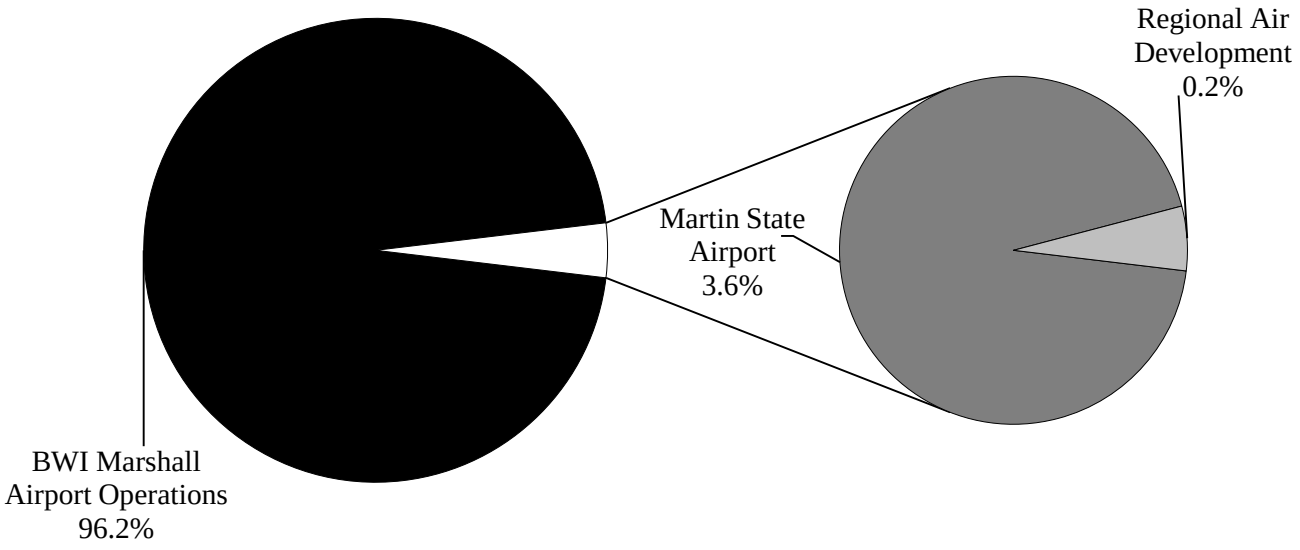
The Governor Lawrence J. Hogan, Jr. Administration negotiated a cost-of-living adjustment with the major State employee unions for fiscal 2019. The terms of this agreement included (1) a 2% general salary increase, effective January 1, 2019; and (2) an additional 0.5% increase and a $500 one-time bonus contingent on fiscal 2018 general fund revenues exceeding the December 2017 estimate by $75 million. This contingency was met, and MAA's share of the general salary increase is $56,048 in special funds. MAA's share of the funds available for the one-time bonus is $175,453 in special funds.

Fiscal 2020 Allowance

Overview of Agency Spending

The MAA fiscal 2020 operating budget totals approximately $205.1 million. Funding is comprised primarily of special funds from the Transportation Trust Fund (TTF); however, there is a small allowance of federal funds for security services at BWI Marshall Airport. As shown in **Exhibit 4**, MAA splits operations funding between BWI Marshall Airport, MTN, and expenses related to Regional Air Development.

Exhibit 4
Spending Plan
Fiscal 2020 Allowance



Subprogram Title	SF Allowance	FF Allowance	2020 Allowance
BWI Marshall Airport Operations	$197,482,240	$645,500	$198,127,740
Martin State Airport	7,336,886	n/a	7,336,886
Regional Air Development	467,396	n/a	467,396
Total	**$205,286,522**	**$645,500**	**$205,932,022**
Percent of Total Allowance	99.7%	0.3%	

BWI Marshall Airport: Baltimore-Washington International Thurgood Marshall Airport
FF: federal fund
SF: special fund

Source: Governor's Fiscal 2020 Budget Books; Department of Legislative Services

Proposed Budget Change

As shown in **Exhibit 5,** the fiscal 2020 allowance increases by approximately $4.4 million, primarily due to increased personnel expenses due to salary actions and rising contract costs associated with services contracts.

Exhibit 5
Proposed Budget
MDOT – Maryland Aviation Administration
($ in Thousands)

How Much It Grows:	Special Fund	Federal Fund	Total
Fiscal 2018 Actual	$195,633	$645	$196,278
Fiscal 2019 Working Appropriation	200,936	646	201,581
Fiscal 2020 Allowance	205,287	646	205,932
Fiscal 2019-2020 Amount Change	$4,351	$0	$4,351
Fiscal 2019-2020 Percent Change	2.2%		2.2%

Where It Goes:

Personnel Expenses	
3% COLA for State employees	$719
Annualization of fiscal 2019 2.5% COLA	575
Employee retirement system expenses	274
BWI Marshall Airport Fire and Rescue Division pension system expenses	248
Removal of costs associated with fiscal 2019 one-time $500 bonus for State employees	-175
Workers' compensation premium assessment	-176
Other fringe benefit adjustments	38
Internal Funding Reallocations Specific to BWI Marshall Airport, to Align with Fiscal 2018 Actual Expenditures	
Telephone expenses	300
System software maintenance	200
Transportation-related gas and oil expenses	120
Fuel – Oil #2	100
Water and sewage utility expenses	-100
Water- and plumbing-related infrastructure expenses	-120
Noncontractual applications software maintenance	-200
Maintenance and repair of common use terminal equipment	-300

Where It Goes:	
MAA Contracts	
MDTA police service cost reimbursement – rate increase due to the fiscal 2019 COLA	822
2.2% annual CPI increase for janitorial services at BWI Marshall Airport	744
Shuttle bus operations	500
1% annual CPI increase for security guard services at BWI Marshall Airport	327
New ramp cleaning services contract procured through Maryland Works	182
Other Changes	
Electrical utility costs	165
Other	107
Total	**$4,351**

BWI Marshall Airport: Baltimore-Washington International Thurgood Marshall Airport
COLA: cost-of-living adjustment
CPI: Consumer Price Index
MAA: Maryland Aviation Administration
MDOT: Maryland Department of Transportation
MDTA: Maryland Transportation Authority

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

General Salary Increase

The fiscal 2020 allowance includes funds for a 3% general salary increase for State employees, effective July 1, 2019. These funds are budgeted in the Department of Budget and Management's statewide program and will be distributed to agencies during the fiscal year. MAA's share of the general salary increase is $719,363 in special funds. In addition, employees will receive another 1% increase, effective January 1, 2020, if actual fiscal 2019 general fund revenues exceed the December 2018 estimate by $75 million. These funds have not been budgeted. The Administration will need to process a deficiency appropriation if revenues are $75 million more than projected.

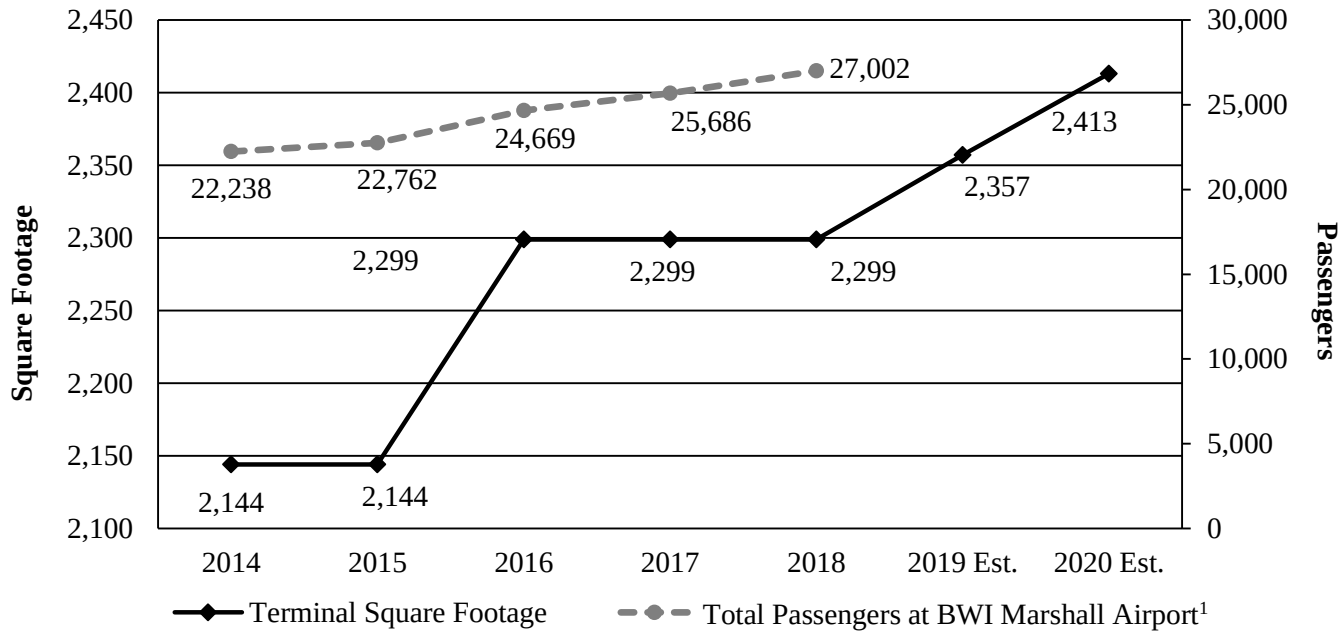
Annualization of the fiscal 2019 general salary increase as well as the 0.5% contingent increase account for approximately $0.6 million in increased spending for MAA in fiscal 2020.

Balancing Funds versus Need versus Expansion at BWI Marshall Airport

As demonstrated in Exhibit 5, while there are substantial increases in certain subobjects for services at BWI Marshall Airport, these increases are matched dollar for dollar with decreases in other subobjects. Per MAA, this is due to an internal realignment of funds to match actual expenditures in fiscal 2018. It is understood that this is being done as a means to align budgeted funds with anticipated need in these areas and to control overall costs.

If services remain at current levels, such management of the MAA budget inherently makes sense, allowing MAA to respond to its most pressing needs in a fiscally responsible manner and with limited changes relative to the prior year. However, as shown in **Exhibit 6**, terminal square footage continues to increase, with an expected terminal size of approximately 2.4 million square feet planned for fiscal 2020, an increase of approximately 12.5% since fiscal 2014. Drivers of this will be addressed in the Pay-as-you-go Capital Program section of this analysis. Even without factoring in terminal growth, greater numbers of passengers are choosing BWI Marshall Airport, and airlines are switching to larger planes to serve the flying public.

Exhibit 6
Growth by Fiscal Year at BWI Marshall Airport
Fiscal 2014-2020 Est.
(Square Feet and Passengers in Millions)



BWI Marshall Airport: Baltimore-Washington International Thurgood Marshall Airport

[1] Variance in passenger counts with Exhibit 1 is due to the point in time being measured. Exhibit 1 measures annual passengers by calendar year, whereas this chart tracks fiscal year growth.

Note: An increase in passengers may be expected in the absence of an increased terminal size, as airlines switch to larger planes. For example, Southwest Airlines, which commands the largest market share for passenger service at BWI Marshall Airport, is moving to a larger Boeing 737-800 and MAX 8 aircraft, with a passenger capacity approximately 22.4% greater than its legacy Boeing 737-700 aircraft.

Source: Maryland Aviation Administration

As mentioned in prior years, growth factors at BWI Marshall Airport will continue to drive service costs up. MAA indicates that the contracts identified in Exhibit 5 are sufficiently funded in fiscal 2020 to provide the level of service required, having received the required increase in funds, and that decreased funding for certain subobjects will not result in a loss of service. However, as the size and regional presence of BWI Marshall Airport grows, additional increases beyond the scope of previous budgets may be required to support operations at the airport.

Operating Revenues

Unlike most other State agencies that rely solely on the State for financial support, MAA receives operating revenues that help offset its expenditures. Its profitability determines how much the TTF must provide as a subsidy. Although MAA revenues have typically covered its operating expenses, MAA relies on the TTF or other non-MAA financing mechanisms to fund its capital program.

Exhibit 7 shows MAA special fund revenues and expenditures. Projections suggest that fiscal 2020 revenues will increase by 5.8% over fiscal 2019 levels. This is primarily due to renegotiated Use and Lease agreements which, assuming the approval of the Board of Public Works (BPW), will take effect in July 2019. It is anticipated that these renegotiated agreements will result in approximately $85.7 million in rent and user fee revenue in fiscal 2020, an increase of 13.6% over the fiscal 2019 working appropriation estimate. Net operating income in fiscal 2020 is projected to total approximately $63.6 million, approximately $10.5 million, or 19.8%, more than the operating income projections for fiscal 2019.

Exhibit 7
Special Fund Revenues and Expenditures
Fiscal 2018-2020
($ in Thousands)

	2018	Working Appropriation 2019	Allowance 2020	$ Change 2019-2020	% Change 2019-2020
Operating Revenues					
Flight Activities	$71,710	$70,794	$71,339	$545	0.8%
Rent and User Fees	72,527	75,442	85,667	10,225	13.6%
Concessions	92,729	95,613	99,093	3,480	3.6%
Other Revenues	10,338	3,079	3,975	896	29.1%
Martin State Airport	9,913	9,086	8,780	-306	-3.4%
Revenues Subtotal	***$257,217***	***$254,014***	***$268,854***	***$14,840***	***5.8%***
Operating Expenditures	$195,633	$200,936	$205,287	$4,351	2.2%
Net Operating Income	**$61,584**	**$53,078**	**$63,567**	**$10,489**	**19.8%**
Capital Expenditures	$110,010	$90,860	$74,757	-$16,103	-17.7%
Net Income/Loss	**-$48,426**	**-$37,782**	**-$11,190**	**$26,592**	**-70.4%**

Source: Maryland Aviation Administration

MAA special fund capital expenditures from the TTF decrease by approximately $16.1 million, relative to the fiscal 2019 working appropriation. The fiscal 2020 net operating income contribution to the TTF is projected to offset a significant portion of the TTF subsidy for capital expenditures in fiscal 2020 – approximately 85%. It is important to note that, in looking at MAA capital expenditures in a business manner, consideration should be given to the fact that capital expenditures are often paid for in a single year or over multiple years, which decreases TTF expenditures for other purposes. Reimbursement from the airlines (through the Use and Lease Agreement) actually takes place over 5 to 20 years, meaning that revenues and capital expenditures may not match in a year-to-year comparison.

Pay-as-you-go Capital Program

Program Description

The MAA capital program provides for the development and maintenance of facilities at BWI Marshall Airport and MTN. MAA undertakes projects that meet the demands of commercial and general aviation for both passenger and cargo activities at BWI Marshall Airport. At MTN, capital investments consist of facilities improvements and rehabilitation activities, such as runway and taxiway improvements, building and system renovations, and various maintenance projects.

Fiscal 2019 to 2024 *Consolidated Transportation Program*

The fiscal 2019 to 2024 *Consolidated Transportation Program* (CTP) for MAA totals $644.5 million, an increase of $72.4 million from the prior year's six-year program total. Funding for projects in the fiscal 2019 to 2024 CTP is largely devoted to terminal and runway improvements and system preservation and minor projects. **Exhibit 8** shows the programmed funding in fiscal 2020 by project and capital program, along with the total estimated costs and six-year funding included for each program.

Exhibit 8
Maryland Aviation Administration PAYGO Capital Program Projects
Fiscal 2020
($ in Thousands)

Jurisdiction	Project Description	Fiscal 2020	Total Estimated Cost	Six-year Total
Projects				
Anne Arundel	Regional Aviation Assistance Program[1]	$2,350	$68,379	$12,000
Anne Arundel	Residential Sound Insulation Program[5]	4,400	45,000	45,000
Anne Arundel	International Concourse Extension at BWI Marshall Airport[4]	0	114,589	12,022
Anne Arundel	Consolidated Rental Car Facility Shuttle Bus Fleet Replacement[3]	0	14,973	0
Anne Arundel	Shuttle Bus Service Fleet Replacement at BWI Marshall Airport	11,685	37,745	37,745
Anne Arundel	Midfield Cargo Area Improvements at BWI Marshall Airport	21,670	46,543	31,079
Anne Arundel	Concourse B Apron Pavement Reconstruction at BWI Marshall Airport[4]	0	10,434	8,264
Anne Arundel	Concourse A Improvements Phase 2 at BWI Marshall Airport[1]	48,625	83,513	80,244
Anne Arundel	Concourse D HVAC Replacement at BWI Marshall Airport	6,335	19,540	19,472
Anne Arundel	FIS Hall Reconfiguration at BWI Marshall Airport	2,710	10,000	10,000
Anne Arundel	Restroom Improvement Program at BWI Marshall Airport	12,578	54,200	53,875
Anne Arundel	Taxiway B Pavement Reconstruction at BWI Marshall Airport[1]	9,854	13,221	12,854
Anne Arundel	Aircraft Maintenance Facility Infrastructure at BWI Marshall Airport[1]	33,517	55,000	54,442
Baltimore County	Environmental Assessment at Martin State Airport[4]	0	2,857	760
Anne Arundel	Environmental Assessment at BWI Marshall Airport[4]	0	3,649	1,221
Anne Arundel	Concourse A/B Connector and Baggage Handling System replacement at BWI Marshall Airport[2]	24,437	35,988	35,012
Subtotal – Projects		***$178,161***	***$615,631***	***$413,990***

Jurisdiction	Project Description	Fiscal 2020	Total Estimated Cost	Six-year Total
Programs				
Statewide	System Preservation and Minor Projects	$27,300	n/a	$187,400
Statewide	Capital Salaries	7,000	n/a	40,500
Subtotal – Programs		***$34,300***		***$227,900***
Total – Projects and Programs[6]		**$212,461**	**$615,631**	**$641,890**

BWI Marshall Airport: Baltimore-Washington International Thurgood Marshall Airport
FIS: Federal Inspection Service
HVAC: heating, ventilation, and air conditioning
PAYGO: pay-as-you-go

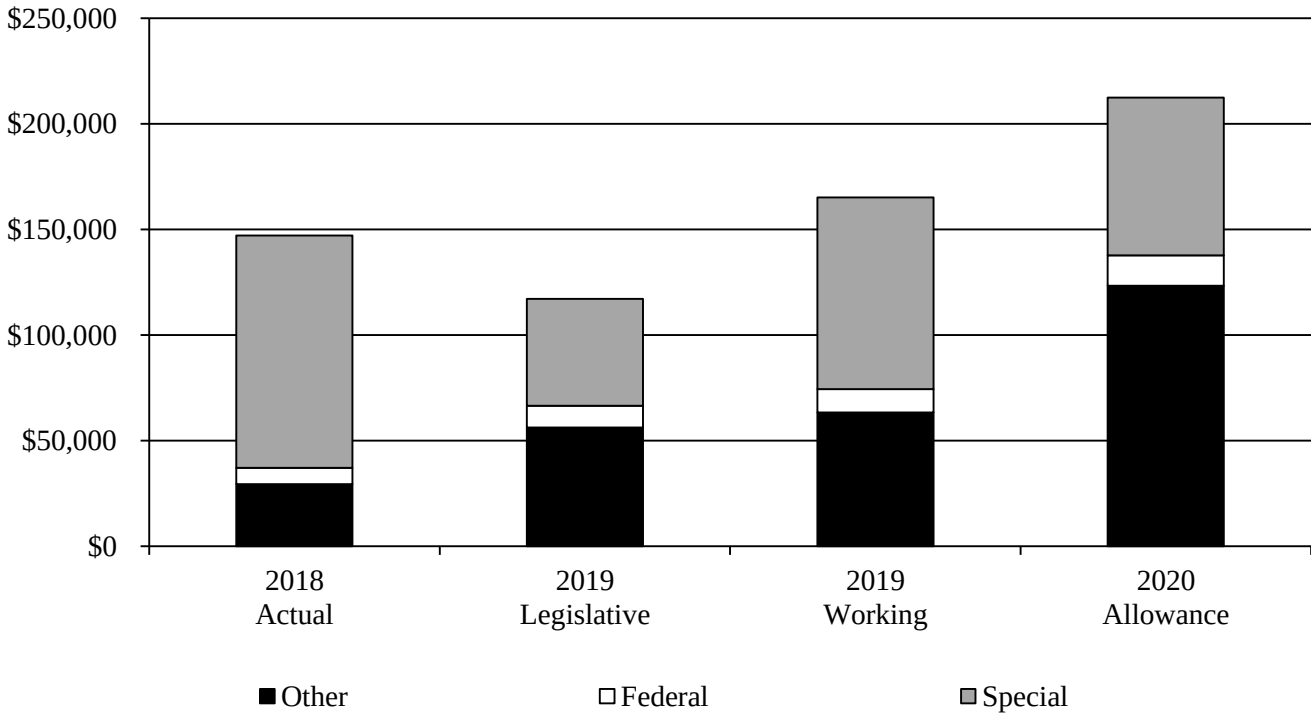
[1] Projects added to the Construction Program.
[2] Projects added to the Development and Evaluation Program.
[3] Projects identified as completed in fiscal 2018.
[4] No projected out-year costs; six-year total reflects costs in fiscal 2019.
[5] This project was previously called the Homeowner Assistance Program.
[6] The six-year total for projects reported in the *Consolidated Transportation Program* for the Maryland Aviation Administration is $644.5 million. Six-year total for this exhibit may not sum to total due to rounding.

Source: Maryland Department of Transportation, Fiscal 2019 to 2024 *Consolidated Transportation Program*

Fiscal 2019 and 2020 Cash Flow Analysis

Exhibit 9 shows the change in MAA capital spending for the fiscal 2018 through 2020 allowance. Fiscal 2019 capital spending programmed in the fiscal 2019 to 2024 CTP (*i.e.*, the fiscal 2019 working appropriation) is approximately $47.4 million greater than the funding programmed in the fiscal 2018 to 2023 CTP, primarily due to rising costs associated with the System Preservation and Minor Projects program and inclusion of Phase 2 of the Concourse A Improvements project at BWI Marshall Airport. This project will add five gates and hold rooms sized for Boeing 737-800 aircraft as well as additional supporting infrastructure to the end of Concourse A. It is proceeding ahead of the Concourse A/B Connector and Baggage Handling System Replacement at BWI Marshall Airport as a means to maintain overall capacity at the airport during construction on the A/B Connector. Subsequently, these gates may be used to expand air services at BWI Marshall Airport. Additionally, funds were reprogrammed to allow for design of the Aircraft Maintenance Facility Infrastructure project at BWI Marshall Airport.

Exhibit 9
Cash Flow Changes
Fiscal 2018-2020
($ in Thousands)



	2019 Leg. Approp.	2019 Work. Approp.	Change Work v. Leg.
Major Projects			
Regional Aviation Assistance Program[1]	$2,350	$2,350	0
Residential Sound Insulation Program	2,800	2,800	0
International Concourse Extensions at BWI Marshall Airport	20,442	12,022	-8,420
Shuttle Bus Service Fleet Replacement at BWI Marshall Airport	16,000	13,560	-2,440
Midfield Cargo Area Improvements at BWI Marshall Airport	10,000	9,409	-591
Concourse B Apron Pavement Reconstruction at BWI Marshall Airport	3,838	8,264	4,426
Airfield Lighting Vault Relocation at BWI Marshall Airport[2]	5,348	0	-5,348
Concourse A Improvements Phase 2 at BWI Marshall Airport[1]	585	31,619	31,034
Concourse D HVAC Replacement at BWI Marshall Airport	4,251	472	-3,779
FIS Hall Reconfiguration at BWI Marshall Airport	2,673	0	-2,673
Restroom Improvement Program at BWI Marshall Airport	4,438	4,082	-356
Taxiway B Pavement Reconstruction at BWI Marshall Airport[1]	3,838	3,000	-838
Aircraft Maintenance Facility Infrastructure at BWI Marshall Airport[1]	0	1,629	1,629
Environmental Assessment at Martin State Airport[3]	0	760	760
Environmental Assessment at BWI Marshall Airport[3]	0	1,221	1,221
Concourse A/B Connector and Baggage Handling System Replacement at BWI Marshall Airport[4]	3,500	10,575	7,075
Runway Safety Area, Standards, and Pavement Improvements[5]	0	1,264	1,264
D/E Connector at BWI Marshall Airport[5]	0	1,289	1,289
Parking Revenue Control System[5]	0	-4	-4
System Preservation Minor Projects and Other Costs			
System Preservation Minor Projects	31,212	53,900	22,688
Capital Salaries, Wages, and Other Costs	6,500	7,000	500
Total	**$117,775**	**$165,212**	**$47,437**

	2019 Work. Approp.	2020 Allowance	Change Allowance v. Work. Approp.
Major Projects			
Regional Aviation Assistance Program[1]	$2,350	$2,350	$0
Residential Sound Insulation Program	2,800	4,400	$1,600
International Concourse Extensions at BWI Marshall Airport	12,022	0	-$12,022
Shuttle Bus Service Fleet Replacement at BWI Marshall Airport	13,560	11,685	-$1,875

	2019 Work. Approp.	2020 Allowance	Change Allowance v. Work. Approp.
Major Projects			
Midfield Cargo Area Improvements at BWI Marshall Airport	9,409	21,670	$12,261
Concourse B Apron Pavement Reconstruction at BWI Marshall Airport	8,264	0	-$8,264
Airfield Lighting Vault Relocation at BWI Marshall Airport[2]	0	0	$0
Concourse A Improvements Phase 2 at BWI Marshall Airport[1]	31,619	48,625	$17,006
Concourse D HVAC Replacement at BWI Marshall Airport	472	6,335	$5,863
FIS Hall Reconfiguration at BWI Marshall Airport	0	2,710	$2,710
Restroom Improvement Program at BWI Marshall Airport	4,082	12,578	$8,496
Taxiway B Pavement Reconstruction at BWI Marshall Airport[1]	3,000	9,854	$6,854
Aircraft Maintenance Facility Infrastructure at BWI Marshall Airport[1]	1,629	33,517	$31,888
Environmental Assessment at Martin State Airport[3]	760	0	-$760
Environmental Assessment at BWI Marshall Airport[3]	1,221	0	-$1,221
Concourse A/B Connector and Baggage Handling System Replacement at BWI Marshall Airport[4]	10,575	24,437	$13,862
Runway Safety Area, Standards, and Pavement Improvements[5]	1,264	0	-$1,264
D/E Connector at BWI Marshall Airport[5]	1,289	0	-$1,289
Parking Revenue Control System[5]	-4	0	$4
System Preservation Minor Projects and Other Costs			
System Preservation Minor Projects	53,900	27,300	-26,600
Capital Salaries, Wages, and Other Costs	7,000	7,000	0
Total	**$165,212**	**$212,461**	**$47,249**

BWI Marshall Airport: Baltimore-Washington International Thurgood Marshall Airport
FIS: Federal Inspection Service
HVAC: heating, ventilation, and air conditioning

[1] Added to the Construction Program in the fiscal 2019 to 2024 *Consolidated Transportation Program* (CTP).
[2] Moved to the System Preservation and Minor Projects Program in the fiscal 2019 to 2024 CTP.
[3] Expenses programmed for fiscal 2018 moved into fiscal 2019; total spending unchanged.
[4] Added to the Development and Evaluation Program in the fiscal 2019 to 2024 CTP.
[5] Projects highlighted to show additional expenses following construction completion.

Source: Maryland Department of Transportation, Fiscal 2019 to 2024 *Consolidated Transportation Program*, Fiscal 2018 to 2023 *Consolidated Transportation Program*

Programmed funding for fiscal 2020 is approximately $47.2 million more than the adjusted funding programmed in fiscal 2019, according to the fiscal 2019 to 2024 CTP. This change is attributable to increased funding in several major projects at BWI Marshall Airport – Concourse A Improvements Phase 2 ($17.0 million), Aircraft Maintenance Facility Infrastructure ($31.9 million), and the Concourse A/B Connector and Baggage Handling System Replacement ($13.9 million). These rising project costs are balanced by a $26.6 million decrease in program funds for System Preservation and Minor Projects in fiscal 2020.

From the fiscal 2018 to 2023 CTP analysis of fiscal 2020 project funding to the current CTP analysis of fiscal 2020, funding has increased by $120.1 million, due primarily to increased use of other funds (*i.e.*, funds not identified as special or federal). Two proposed sources of other funds merit additional review.

First, an application to issue $120 million in Passenger Facility Charge (PFC)-backed bonds in fiscal 2019 is pending with the federal government. PFC-backed bonds are a common device used by airports for qualifying capital improvements. However, because the issuance would increase the total aggregate outstanding and unpaid principal balance of nontraditional debt beyond limits established in the fiscal 2019 Budget Bill (Chapter 570 of 2018), a *Joint Chairmen's Report* response notifying the budget committees of the specific reason(s) for the additional issuance and providing additional information is required. The Maryland Department of Transportation (MDOT) response was received as required on January 16, 2019. As such, the Department of Legislative Services notes that the budget committees have until March 1, 2019, to review and comment on the proposed additional issuance before the publication of a preliminary official statement. In its letter, MDOT identifies several projects that it proposes to support with the funds – (1) the Concourse A Improvements Phase 2; (2) the Restroom Improvements Program; (3) the Federal Inspection Hall reconfiguration; (4) Concourse A/B modifications for the B737-800 series aircraft; and (5) the Concourse D heating, ventilation, and air conditioning replacement. **MAA should comment on the projects proposed to be funded by the PFC-backed bonds should the application to use PFCs for these projects be approved.**

Finally, MAA notes that two projects at BWI Marshall Airport – (1) the Concourse A Phase 2 improvements and (2) the Aircraft Maintenance Facility Infrastructure – are to be funded using loans obtained from the Maryland Transportation Authority (MDTA). A larger issue concerning whether MDTA should use the available funds in this manner will be included in the MDTA analysis. Each project will be covered by a 15-year loan with a 3% rate of interest compounded annually. The principal on the loans will be up to $50 million each, with MDTA paying project invoices directly on behalf of MAA. No funds will enter the TTF. The loans are to be repaid by an annual appropriation from MAA to MDTA. The loan agreements will first be approved by the MDTA board and then will go to BPW for final approval.

Issues

1. Current Status of Maryland's Experience with Next Generation Air Transportation System

According to the Federal Aviation Administration (FAA), changes associated with the Next Generation Air Transportation System (NextGen) are meant to improve the safety, efficiency, capacity, predictability, and resiliency of American aviation across U.S. national air space. FAA implemented NextGen in the DC Metroplex on November 13, 2014. As a result, FAA altered flight paths into and out of the airports in the DC Metroplex. Following this change, local residents complained about increased noise and low-flying aircrafts.

Status of Pending Litigation

Since the end of the 2018 session, and due to the success of the city of Phoenix, Arizona in challenging the NextGen implementation at Phoenix Sky Harbor Airport, the State filed two petitions for review with FAA over the implementation of NextGen in the DC Metroplex. One pertains to actions taken with regard to Reagan National Airport and the effects this had on Maryland residents, and the other concerns the NextGen implementation at BWI Marshall Airport. FAA denied review in both, and the State subsequently petitioned the Circuit Court for the District of Columbia for its review in both matters. As of January 9, 2019, a decision had not been issued in either case.

Maryland Residents Impacted by Aircraft Noise

Exhibit 10 shows the number of annual complaints attributed to noise at BWI Marshall Airport and Reagan National Airport for calendar 2010 to 2018 as well as the three locations with the most complainants and total complaints for calendar 2017. The data from Reagan National Airport is specific to Maryland residents. Both the number of complainants and complaints continue to increase, following the implementation of NextGen. Greater emphasis on reporting aircraft noise complaints amongst the public as well as advances in technology that make the complaint process easier may be contributing to the increase in complaints.

Exhibit 10
Air Noise Complaints by Maryland Residents[1]
Calendar 2010-2018

	BWI Marshall Airport			Reagan National Airport	
	Complainants	**Complaints**		**Complainants**	**Complaints**
2010	95	176	2010	9	10
2011	268	389	2011	14	41
2012	398	664	2012	10	17
2013	156	283	2013	7	27
2014[2]	225	852	2014[2]	12	24
2015	559	1,850	2015	57	159
2016	618	2,694	2016	197	988
2017	1,103	16,120	2017	1,043	31,315
2018	880	152,511[3]	2018	n/a	n/a

Top Three Locations – 2017
(Complainants and Complaints)

BWI Marshall Airport

Complainants		**Complaints**	
(1) Columbia	142	(1) Columbia	5,684
(2) Severna Park	136	(2) Hanover	2,619
(3) Severn	108	(3) Severn	2,060

Reagan National Airport

Complainants		**Complaints**	
(1) Bethesda	633	(1) Rockville	11,285
(2) Rockville	167	(2) Bethesda	10,999
(3) Cabin John	132	(3) Cabin John	1,397

BWI Marshall Airport: Baltimore-Washington Thurgood Marshall International Airport
Reagan National Airport: Ronald Reagan Washington National Airport

[1] Washington Dulles International Airport also receives complaints from Maryland residents, albeit in smaller numbers than BWI Marshall Airport and Reagan National Airport. A decision was made to highlight the latter sites, as Maryland is currently in litigation over the implementation of the Next Generation Air Transportation System (NextGen) at these airports.
[2] DC Metroplex NextGen changes implemented November 13, 2014.
[3] Use of Airnoise.io dramatically increased the total number of complaints associated with BWI Marshall Airport in calendar 2018. Airnoise.io offers individuals the means to submit an air noise complaint via SMS text message, the Airnoise website, and the proprietary Airnoise.io button device.

Source: Maryland Aviation Administration; Metropolitan Washington Airports Authority

Residential Sound Insulation Program Is of Limited Use

Residents who live within the 65-decibel (dB) day/night average noise level contour of the BWI Marshall Noise Exposure Map (NEM) are eligible to participate in the Residential Sound Insulation Program (RSIP) at BWI Marshall Airport. RSIP is designed using current FAA guidelines, with the goal of reducing interior noise levels within eligible residences to at least 45-dB (with a minimum 5-dB reduction) by installing sound rated home improvements. Currently, BWI Marshall is in the process of securing a noise program management consultant or firm to formalize the program and perform much of the work effort. Nationally, other airports have similar programs. However, while this program can provide relief to some, many of the complaints being made following the implementation of NextGen come from individuals outside of the relevant NEM contour; as such, this program provides no relief for these individuals.

Operating Budget Recommended Actions

1. Concur with Governor's allowance.

PAYGO Budget Recommended Actions

1. Concur with Governor's allowance.

Updates

1. State of BWI Marshall Airport Onsite Hotel Replacement Plan

MAA continues to explore an in-terminal option for an onsite hotel to replace the Four Points by Sheraton BWI Marshall Airport, which closed in November 2013. In response to an issue raised in its 2018 budget analysis, MAA states that an in-terminal hotel offers greater passenger accessibility and, therefore, is alleged to offer a competitive advantage over offsite locations. MAA continues to evaluate options for a hotel site. One possibility involves the integration of this project with several others on the site of the proposed Concourse C/D connector, including a new Air Traffic Controller Tower and a consolidated Airport Emergency Operations Center (a Transportation Security Administration-recommended addition to BWI Marshall Airport).

Appendix 1
Current and Prior Year Budgets
MDOT – Maryland Aviation Administration
($ in Thousands)

	General Fund	Special Fund	Federal Fund	Reimb. Fund	Total
Fiscal 2018					
Legislative Appropriation	$0	$193,693	$646	$0	$194,339
Deficiency/Withdrawn Appropriation	0	-596	0	0	-596
Cost Containment	0	0	0	0	0
Budget Amendments	0	2,617	0	0	2,617
Reversions and Cancellations	0	-82	-1	0	-82
Actual Expenditures	**$0**	**$195,633**	**$645**	**$0**	**$196,278**
Fiscal 2019					
Legislative Appropriation	$0	$200,378	$646	$0	$201,024
Budget Amendments	0	326	0	0	326
Working Appropriation	**$0**	**$200,704**	**$646**	**$0**	**$201,350**

MDOT: Maryland Department of Transportation

Note: The fiscal 2019 appropriation does not include deficiencies, a one-time $500 bonus, or general salary increases. Numbers may not sum to total due to rounding.

Fiscal 2018

The Maryland Aviation Administration (MAA) spent approximately $196.3 million in total funds during fiscal 2018 – approximately $1.9 million more than the legislative appropriation for the year.

While MAA canceled federal funds totaling $500, the majority of the difference between the legislative appropriation and the fiscal 2018 actual expenses is due to changes in the MAA special fund appropriation. In total, special funds increased by approximately $1.9 million. Section 19 of the fiscal 2019 Budget Bill (Chapter 570 of 2018) included an across-the-board reduction for employee and retiree health insurance expenses in fiscal 2018 to reflect a surplus balance in the fund – the MAA share of this reduction was approximately $0.6 million in special funds. A budget amendment increased the special fund appropriation by approximately $2.6 million, which included approximately $1.8 million for additional snow removal costs and approximately $0.8 million for overtime expenses for the Baltimore-Washington International Thurgood Marshall Airport Fire and Rescue Division. Finally, MAA canceled approximately $82,000 in special funds.

Fiscal 2019

The fiscal 2019 working appropriation increases by $0.3 million to fund the 2% cost-of-living adjustment as authorized in the fiscal 2019 Budget Bill.

Appendix 2
Object/Fund Difference Report
Maryland Department of Transportation – Maryland Aviation Administration

Object/Fund	FY 18 Actual	FY 19 Working Appropriation	FY 20 Allowance	FY 19 - FY 20 Amount Change	Percent Change
Positions					
01 Regular	450.50	448.50	450.50	2.00	0.4%
02 Contractual	0.50	0.50	0.50	0.00	0%
Total Positions	**451.00**	**449.00**	**451.00**	**2.00**	**0.4%**
Objects					
01 Salaries and Wages	$ 44,463,067	$ 43,776,418	$ 44,677,900	$ 901,482	2.1%
02 Technical and Special Fees	2,257,725	2,225,573	2,225,573	0	0%
03 Communication	1,592,400	1,236,851	1,486,851	250,000	20.2%
04 Travel	236,075	242,969	242,969	0	0%
06 Fuel and Utilities	13,430,980	13,521,037	13,787,675	266,638	2.0%
07 Motor Vehicles	2,995,996	2,670,452	2,789,307	118,855	4.5%
08 Contractual Services	91,198,621	100,250,446	102,526,934	2,276,488	2.3%
09 Supplies and Materials	9,335,403	7,074,925	7,074,925	0	0%
10 Equipment – Replacement	426,781	0	0	0	0.0%
11 Equipment – Additional	327,446	0	0	0	0.0%
12 Grants, Subsidies, and Contributions	1,133,398	1,027,966	1,100,163	72,197	7.0%
13 Fixed Charges	17,995,404	18,083,919	18,066,756	-17,163	-0.1%
14 Land and Structures	10,884,497	11,239,422	11,119,422	-120,000	-1.1%
Total Objects	**$ 196,277,793**	**$ 201,349,978**	**$ 205,098,475**	**$ 3,748,497**	**1.9%**
Funds					
03 Special Fund	$ 195,632,793	$ 200,704,478	$ 204,452,975	$ 3,748,497	1.9%
05 Federal Fund	645,000	645,500	645,500	0	0%
Total Funds	**$ 196,277,793**	**$ 201,349,978**	**$ 205,098,475**	**$ 3,748,497**	**1.9%**

Note: The fiscal 2019 appropriation does not include deficiencies, a one-time $500 bonus, or general salary increases. The fiscal 2020 allowance does not include general salary increases.

Appendix 3
Fiscal Summary
Maryland Department of Transportation – Maryland Aviation Administration

Program/Unit	FY 18 Actual	FY 19 Wrk Approp	FY 20 Allowance	Change	FY 19 - FY 20 % Change
2021 BWI Marshall Airport	$ 186,767,929	$ 193,574,572	$ 197,346,010	$ 3,771,438	1.9%
2022 Martin State Airport	9,030,450	7,318,231	7,290,163	-28,068	-0.4%
2023 Regional Air Development	479,414	457,175	462,302	5,127	1.1%
2030 Facilities and Capital Equipment	117,822,857	101,910,000	89,050,000	-12,860,000	-12.6%
Total Expenditures	**$ 314,100,650**	**$ 303,259,978**	**$ 294,148,475**	**-$ 9,111,503**	**-3.0%**
Special Fund	$ 305,642,633	$ 291,564,478	$ 279,209,975	-$ 12,354,503	-4.2%
Federal Fund	8,458,017	11,695,500	14,938,500	3,243,000	27.7%
Total Appropriations	**$ 314,100,650**	**$ 303,259,978**	**$ 294,148,475**	**-$ 9,111,503**	**-3.0%**

BWI Marshall Airport: Baltimore-Washington International Thurgood Marshall Airport

Note: The fiscal 2019 appropriation does not include deficiencies, a one-time $500 bonus, or general salary increases. The fiscal 2020 allowance does not include general salary increases.

Appendix 4
Budget Amendments for Fiscal 2019
Maryland Department of Transportation
Maryland Aviation Administration – Operating

Status	Amendment	Fund	Justification
Active	$325,983	Special	Increase for the cost-of-living adjustment (COLA) as authorized in the fiscal 2019 Budget Bill.
Projected	$311,028	Special	To fund the 0.5% COLA increase and a $500 bonus effective April 1, 2019.
Total	**$637,011**		

Source: Maryland Department of Transportation

Appendix 5
Budget Amendments for Fiscal 2019
Maryland Department of Transportation
Maryland Aviation Administration – Capital

Status	Amendment	Fund	Justification
Active	$42,214	Special	Increase for the cost-of-living adjustment (COLA) as authorized in the fiscal 2019 Budget Bill.
Pending	$40,243,102	Special	Adjusts the amended appropriation to agree with the anticipated expenditures for the current year as reflected in the Maryland Department of Transportation fiscal 2019 to 2024 Final *Consolidated Transportation Program*.
	822,000	Federal	
Subtotal	***$41,065,102***		
Projected	$31,677	Special	To fund the 0.5% COLA increase and a $500 bonus effective April 1, 2019.
Total	**$41,138,993**		

Source: Maryland Department of Transportation