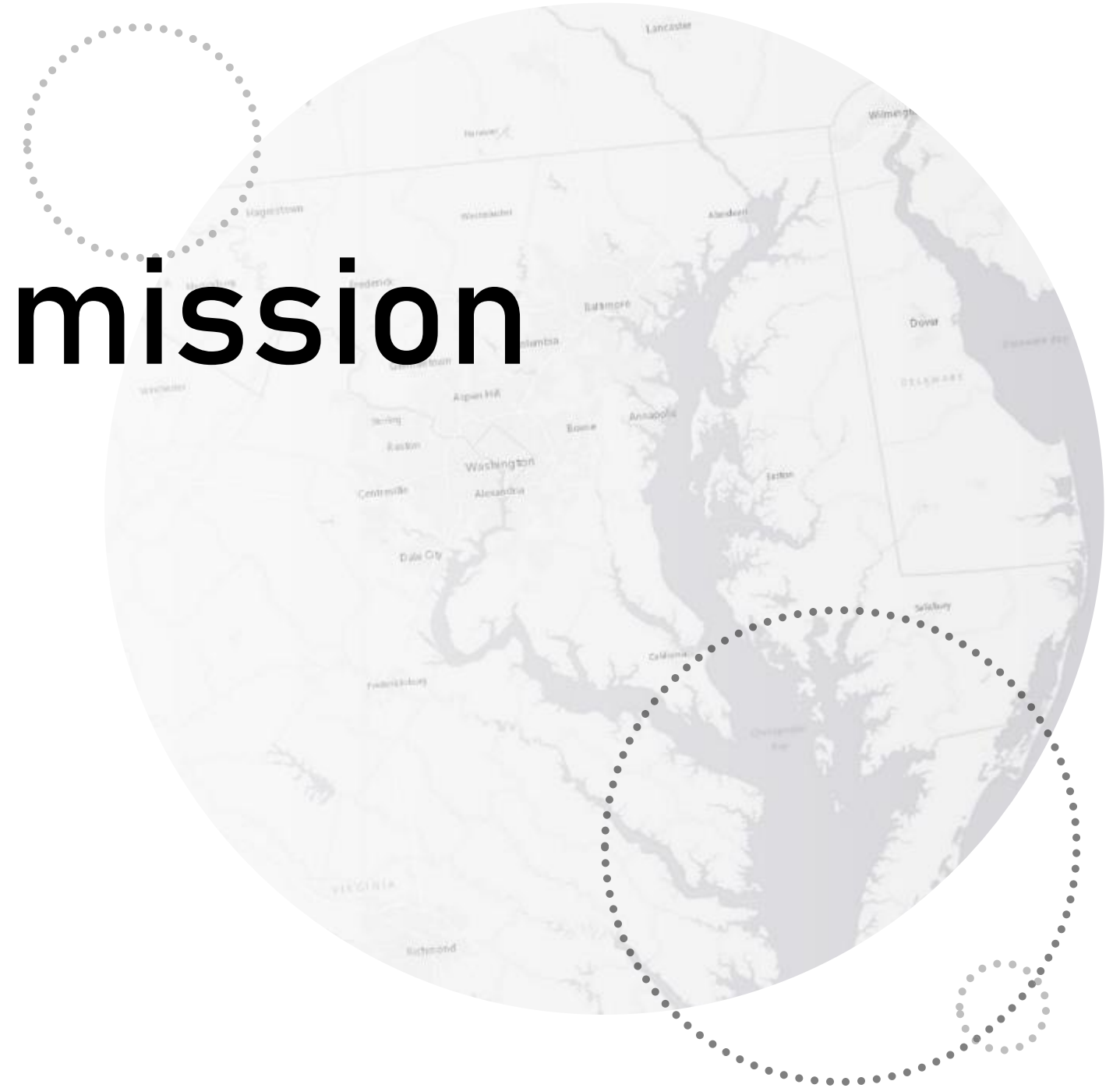


Maryland Aviation Commission

October 23, 2024



Meeting Agenda:

I. Approval of August 21st Meeting Minutes

II. Executive Director's Report

III. Business Development & Management

- Approval of MDOT MAA Six Year Capital Program

IV. Planning & Engineering

- Overview of BWI Runway Capacity

V. Marketing & Air Service Development

- Marketing/Communications Update
- Air Service Update

VI. MTN Operations & Maintenance

- Operational Statistics

VII. Proposed COMAR Amendments

- Badge Replacement Fees

VIII. Commissioners Presentation

- Conceptual Policy Framework

IX. Vote to Enter Closed Session

Executive Director's Report



Business Development & Management

Approval of MDOT MAA
Six Year Capital Program



Planning & Engineering

Overview of BWI Marshall Runway Capacity

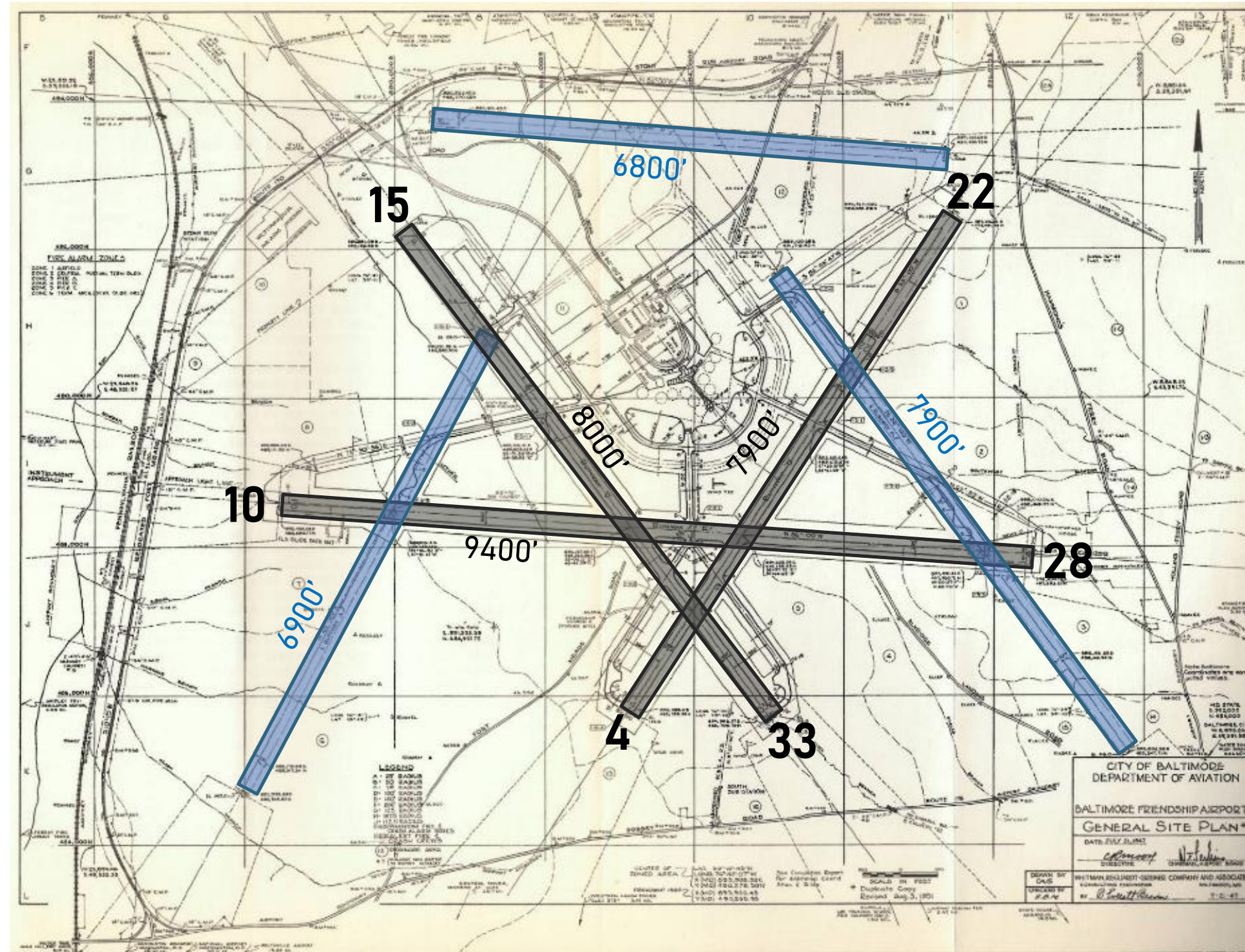
Pre-decisional Draft – for Discussion Purposes Only

Topics for Today:

- » Current airfield
- » Projected demand and capacity
- » FAA guidance and development timeline
- » Single runway delay



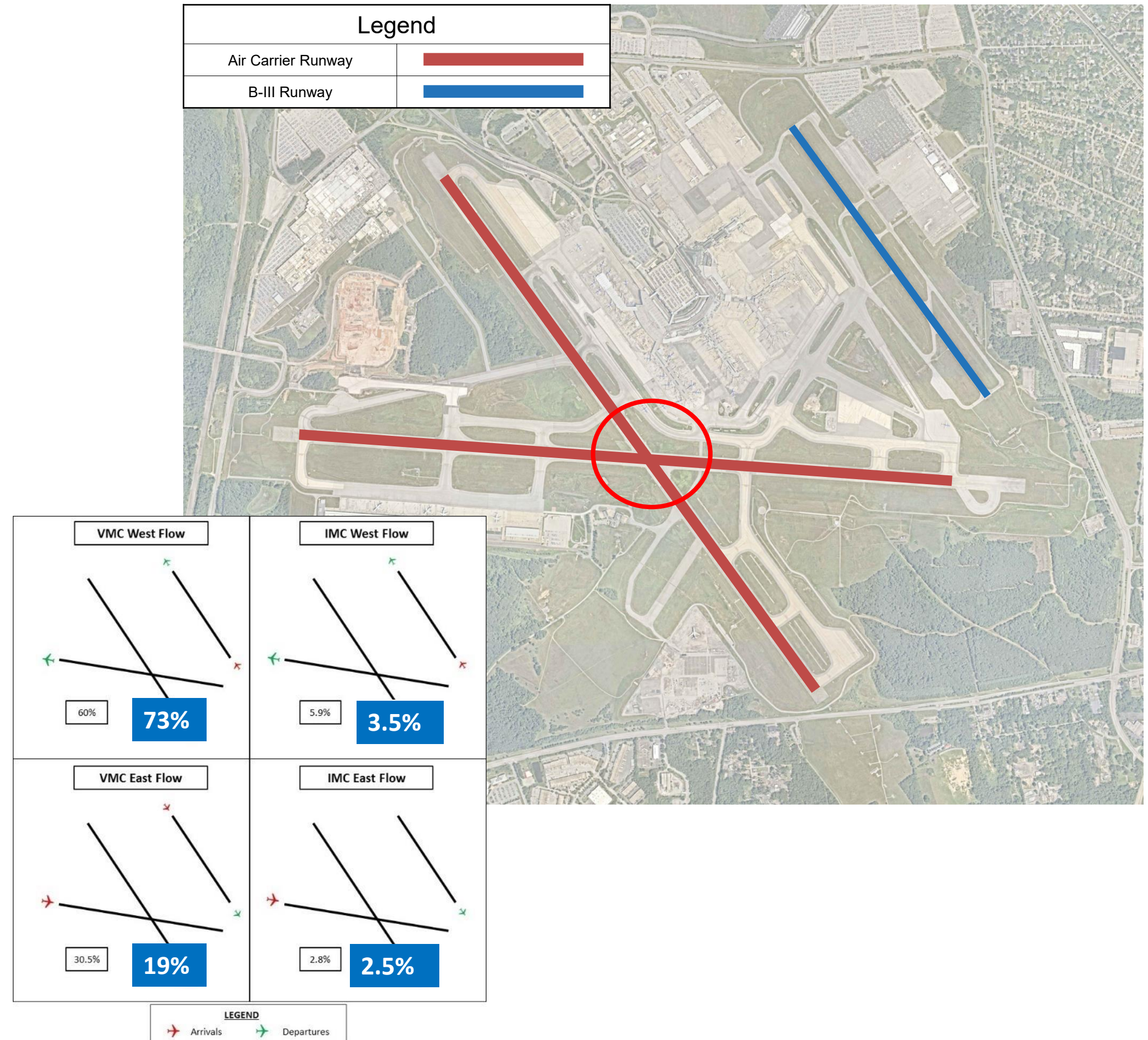
The Original 1947 Site Plan



- Built by the City of Baltimore
- Opened with 3 runways in 1950
- 3 planned parallel runways
- Purchased by the State in 1972
- 15L-33R built in 1982 then extended in 1990
- 4-22 closed in 2014 to provide taxiing efficiency

The Airfield Today

- **Two intersecting air carrier runways**
- **One B-III commercial service/commuter runway**
- **In calendar year 2023:**
 - 239,400 annual aircraft operations
 - 26.2M annual passengers (2024 is 7% greater than 2023 to date)
 - 244,300 metric tons air cargo
 - 1.7 minutes of daily average runway delay per aircraft operation (PMAWD 2023)
 - Runway system provides adequate level of service (based on FAA and industry standard of 6 minutes)

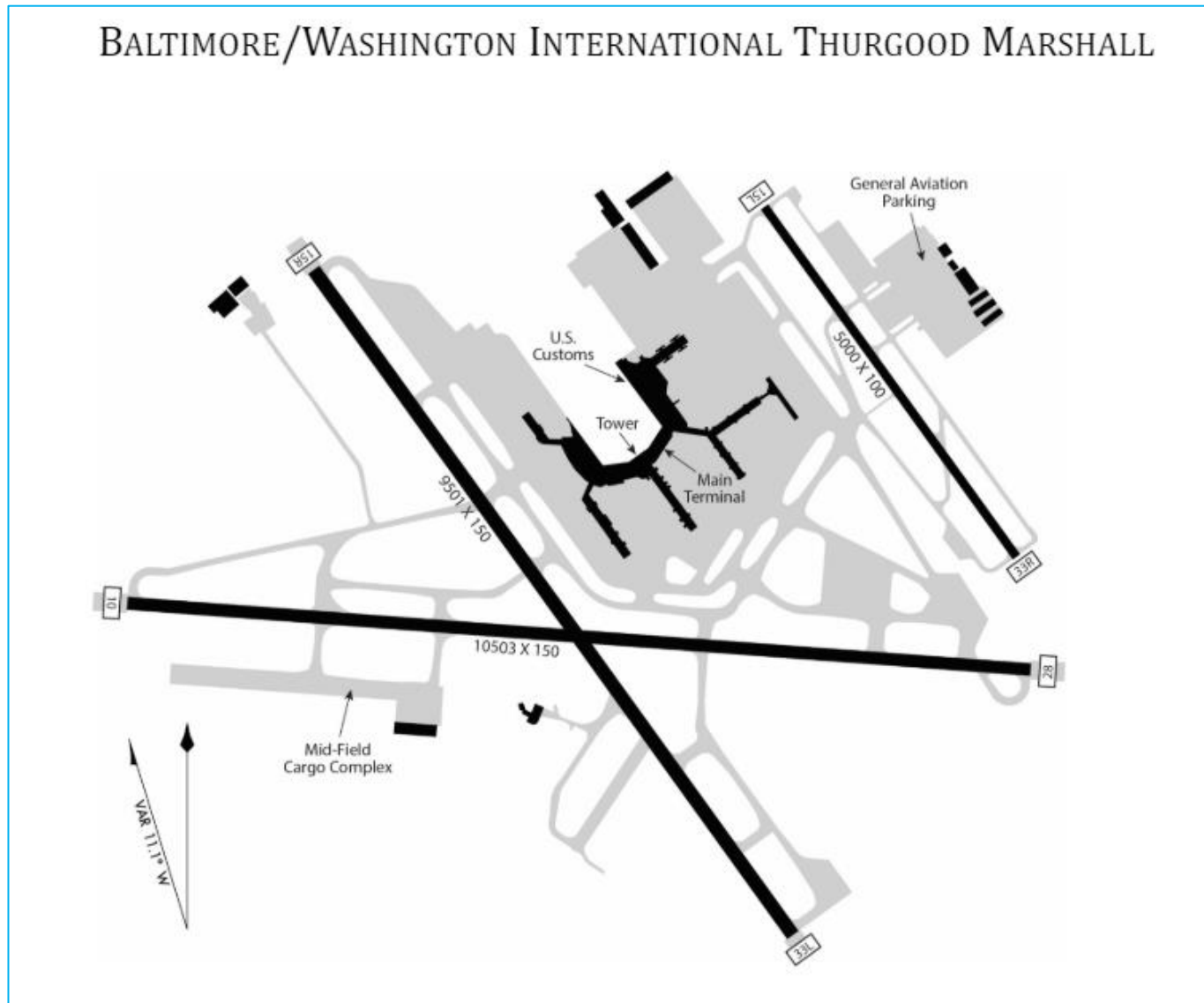


Single Commercial Runway Delay - Maintenance

- When one runway is shut down for operational or maintenance reasons, there is no backup runway, no redundancy, no resiliency
- With passenger flight schedules now extending later into the night and red-eye arrivals at 5am, shorter nighttime closure window increases need for daytime closures
 - Very problematic to the airlines with planned intersection rehabilitation in 2025
 - 130,000 to 300,000 passengers impacted, depending on construction duration
- Single runway *daily average delays* reach 20 minutes by 2026 (with peak period delays of 60+ minutes)
 - Increases to 30 minutes average by 2028
 - After 2026, single runway operations will result in ground holds at origin airports with high delays and flight cancellations at BWI
- 3 major runway rehabilitation projects programmed 2025-2035 as we're reaching capacity
- ***Need to be able to keep two runways open at all times to keep delays at reasonable levels***



Capacity and the Competition



WJLA 7—Dulles Airport prepares for \$700 million expansion, future cargo shipping plans
June 17th, 2024

“By land area, Dulles is the fifth biggest airport in the world. So unlike BWI Marshall, and especially unlike Reagan National, it has a lot of room to grow, and its leaders have big plans.”

- (2) Air Carrier Runways (intersecting)
- Ultimate Capacity: 336,000 Aircraft Operations (2037)
- 2023 (CY) Operations: 239,400 = 71% of Capacity

- (4) Air Carrier Runways (none intersect)
- Ultimate Capacity: 600,000 Aircraft Operations (>2050)
- 2023 (CY) Operations: 252,400 = 42% of Capacity

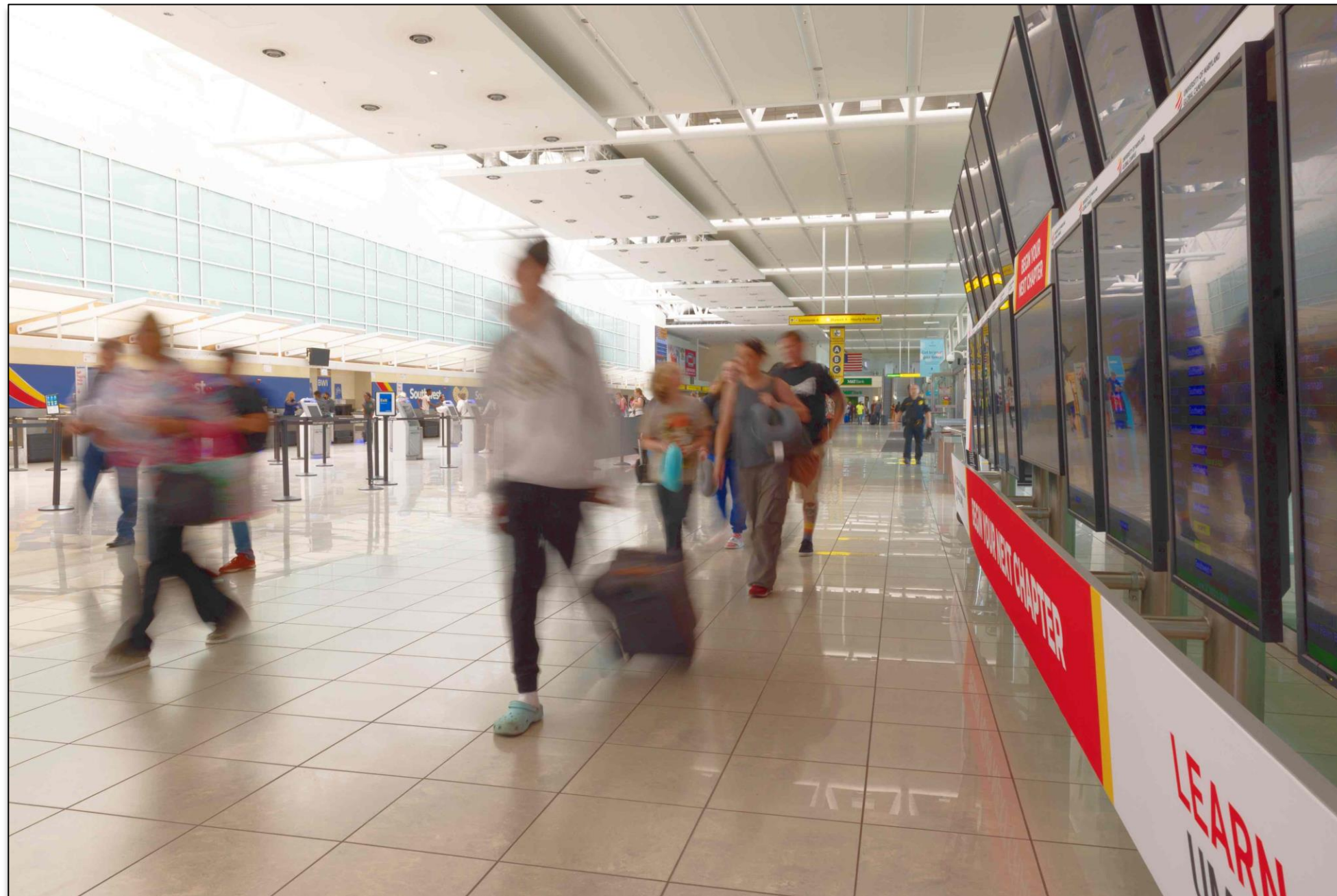
Thank You.



Marketing & Air Service Development



Governor Moore Announces Second-Straight Record Month for BWI Thurgood Marshall Airport



OFFICE OF THE GOVERNOR
Wes Moore

For immediate release:
September 16, 2024

Contact: Brittany Marshall
Brittany.Marshall2@maryland.gov

Governor Moore Announces Second-Straight Record Month For BWI Thurgood Marshall Airport

ANNAPOLIS, MD—Governor Wes Moore today announced that July 2024 marked the second consecutive month of record-breaking passenger traffic at Baltimore/Washington International (BWI) Thurgood Marshall Airport. With a total of 2,667,660 passengers traveling through, July became the new busiest month in the history of the airport, surpassing the previous record set in June of this year.

"BWI Marshall Airport connects Maryland residents and businesses to the world," said Gov. Moore. "This new milestone highlights Maryland's growing position as a major attraction for travel, tourism and commerce."

BWI Thurgood Marshall Airport is a key driver of economic activity and transportation for the state of Maryland. As the busiest airport in the National Capital region for passenger and cargo traffic, BWI Marshall airport provides nearly 300 daily nonstop departures to about 90 domestic and international destinations. The airport produces a total annual economic impact of \$11.3 billion. BWI Marshall and its passengers generate, support and sustain more than 107,000 jobs throughout the region.

BWI Marshall Airport welcomed millions of travelers during the peak summer travel season. The new record in July represented 8.4% growth compared to the same period last year. The success underscores the airport's important role in global travel and connectivity.

"The record-setting performance demonstrates a continued demand for air travel," said BWI Marshall Airport Executive Director and Chief Executive Officer Ricky Smith. "Our team works tirelessly to offer an efficient, positive travel experience. We thank our customers and partners for their continued support."

###



BWI Marshall Airport Sets Another Record



BWI Marshall's Busiest Month Ever



BWI Thurgood Marshall Airport breaks passenger record for second-consecutive month

BWI Thurgood Marshall Airport Celebrates Successful Summer Youth Initiative

50 Baltimore City Students Spent Week Learning About Career Opportunities in Aviation



For Immediate Release
July 29, 2024

Contact: Jonathan Dean
410-859-7719

BWI Thurgood Marshall Airport Celebrates Successful Conclusion of Eighth-Annual Summer Youth Initiative

50 Baltimore City Students Spent Week Learning About Career Opportunities in Aviation

Fifty Baltimore City students participated last week in the Baltimore/Washington International Thurgood Marshall Airport Summer Youth Initiative. The program was established to provide students with the unique opportunity to learn about airports and the wide range of careers related to aviation.

"Each summer, we are proud to work with so many important partners to introduce our young people to the world of the airport and the aviation industry," said Ricky Smith, Executive Director/CEO of BWI Marshall Airport. "This program is intended to inspire and empower the next generation of leaders."

This year, participants in the BWI Thurgood Marshall Airport Summer Youth Initiative came from three Baltimore City recreation centers. Throughout the week, the students were immersed in the day-to-day operations of BWI Marshall Airport, Tipton Airport, and other transportation-related businesses and organizations in the region, including the transportation, distribution, and logistics program at the Community College of Baltimore County Catonsville.

The BWI Marshall Airport Summer Youth Initiative provided instruction and a comprehensive array of activities. Specific sessions included airport management, airline operations, transportation logistics, law enforcement and aviation security, engineering, and business. The students explored new interests and developed valuable skills related to the aviation industry. The program featured guest speakers who offered inspiration, insights, and experiences.

BWI Marshall Airport remains the busiest airport in the region. The airport provides about 300 daily nonstop departures to more than 80 domestic and international destinations. BWI Marshall is a major economic development and transportation resource, producing a total economic impact of \$11.3 billion. The airport and visitors generate and support more than 107,000 jobs throughout the region.



P.O. Box 8766
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Maryland 21240-0766
410-859-7027 • Toll-Free: 1-800-IFLY-BWI
Fax: 410-694-6297

www.bwiairport.com

THE SUN

Fifty Baltimore City students are learning about career opportunities in aviation during the eighth annual BWI Marshall Airport Summer Youth Initiative, a weeklong program exploring airport operations.

PICTURING MARYLAND



AMY DAVIS/STAFF

In the driver's seat

Zailynn Harper, 11, gets the feel of the controls Monday in one of the large vehicles used to clear snow from the runways at BWI Marshall Airport. Fifty Baltimore City students are learning about career opportunities in aviation during the eighth annual BWI-Marshall Airport Summer Youth Initiative, a weeklong program exploring all airport operations.

THE BALTIMORE TIMES

Inspiring and Empowering the Next Generation

BWI Marshall Airport holds summer program for kids to learn about careers in aviation.



Inspiring and Empowering the Next Generation

BWI Thurgood Marshall Airport Celebrates Successful Conclusion of Eighth-Annual Summer Youth Initiative

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Baltimore, Maryland— Fifty Baltimore City students participated last week in the Baltimore/Washington International Thurgood Marshall Airport Summer Youth Initiative. The program was established to provide students with the unique opportunity to learn about airports and the wide range of careers related to aviation.

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Photo credit: David Trozzo



Photo credit: BWI Thurgood Marshall Airport



Jayne Miller Radio Show

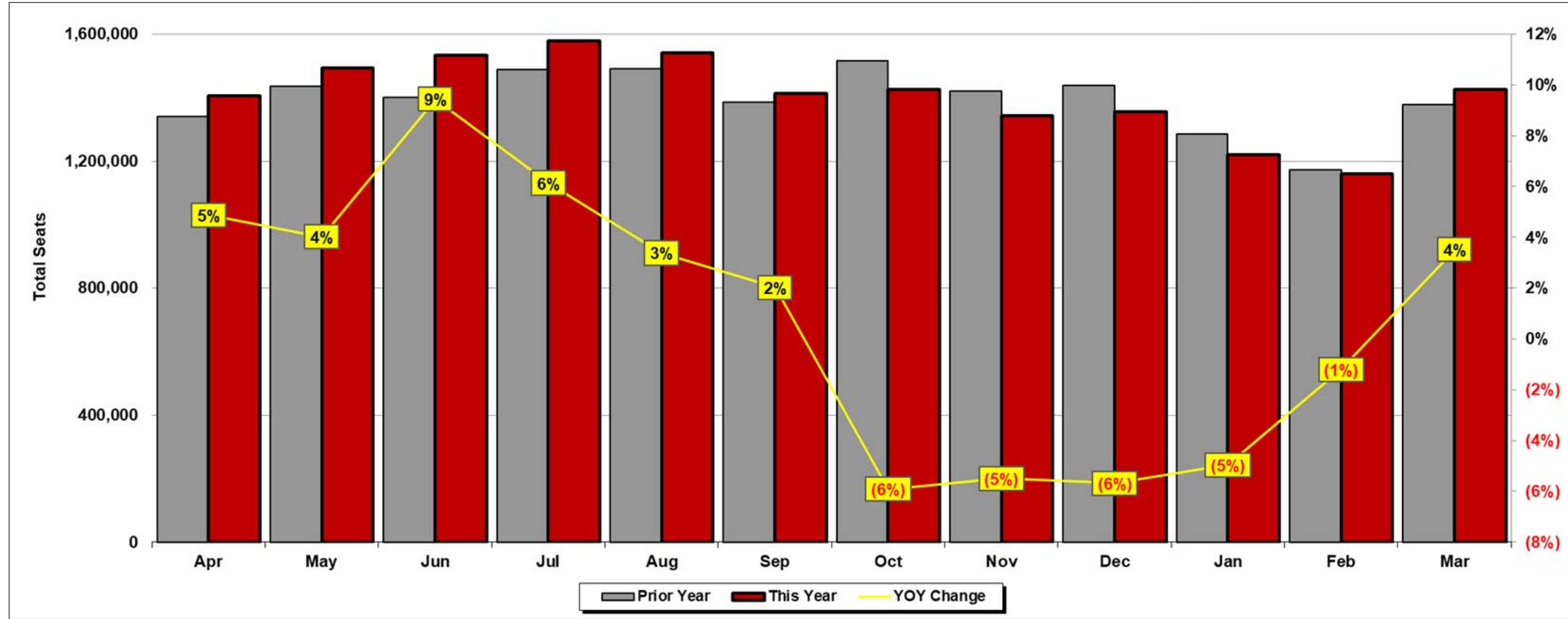
*CEO of Maryland Aviation Administration
Speaks on BWI Changes and Growth*



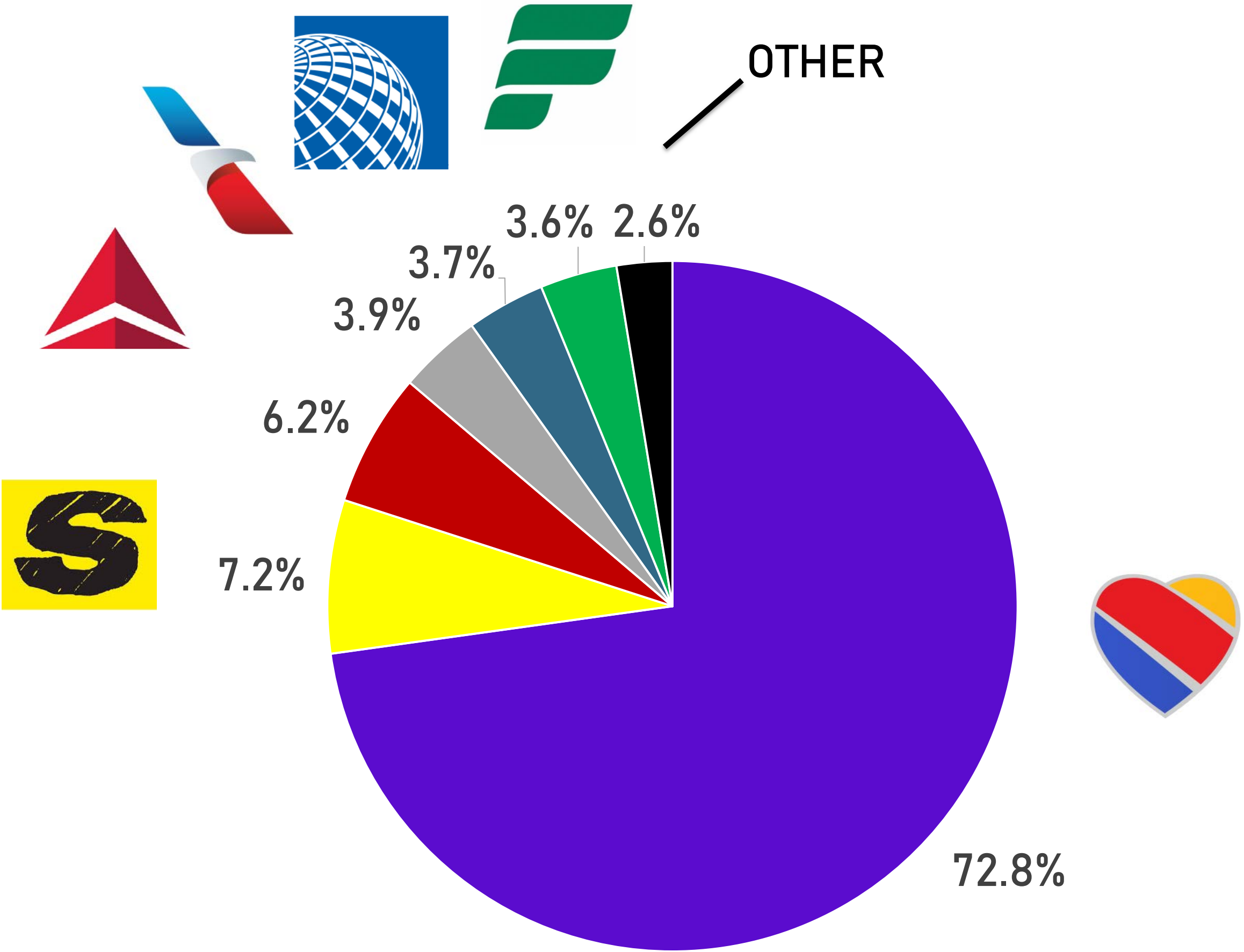
Air Service Development

Looking at Future Capacity, Q4 2024 Seats are Down 6% Year-over-Year

- In accordance with basic supply and demand, passenger growth is driven by the seats in the market
- Q1 is flat. Schedules as published 18 Oct 2024.

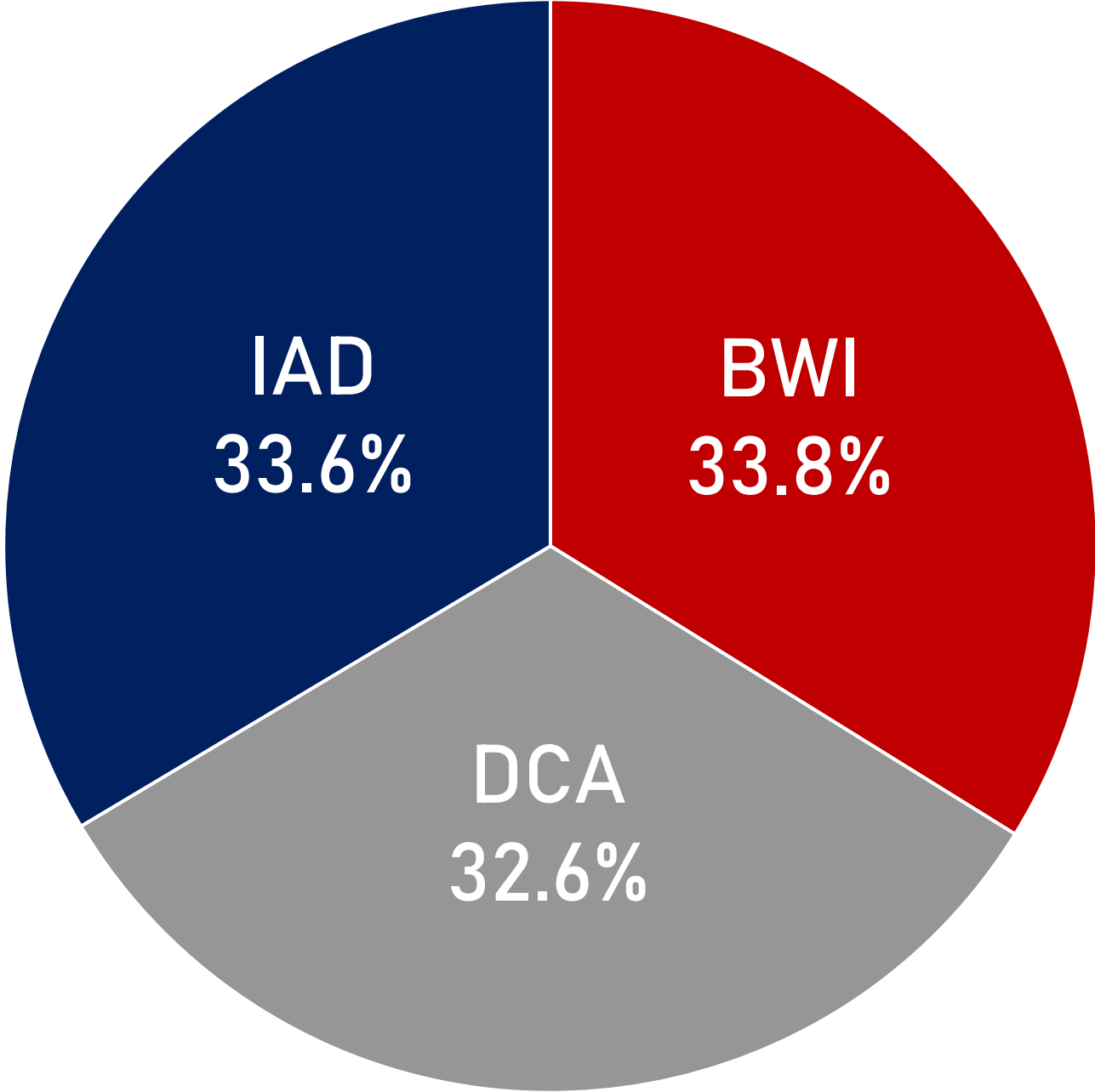


In Q4 2024, Southwest Offers More Than 70% of Seat Capacity



In Q4 2024, BWI Marshall Leads the Region in Seat Capacity

- DCA's slot rules increased capacity artificially from 2021 to 2023
- Now these slot rules cap DCA capacity, and BWI Marshall and IAD continue to grow to meet demand



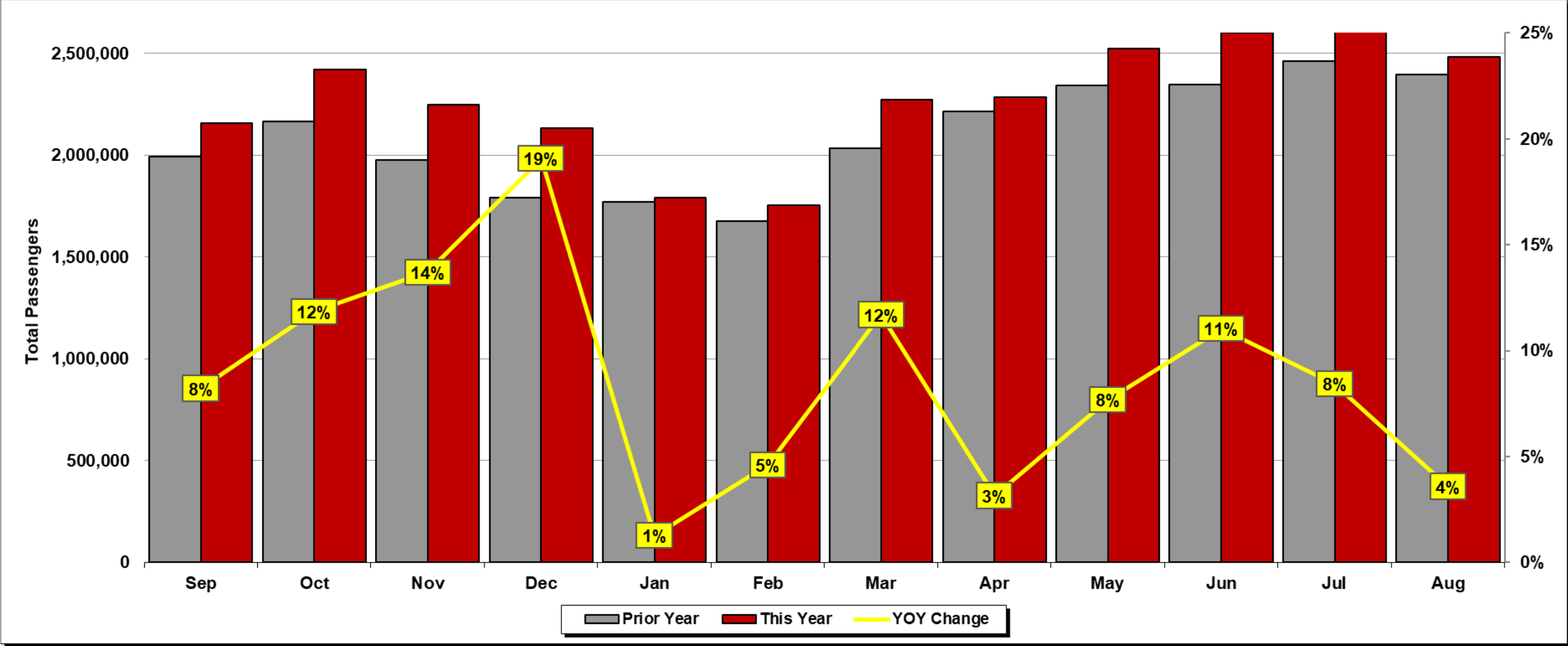
So Far in FY25, Airlines Have Announced Two New Routes

- Southwest, Air Canada



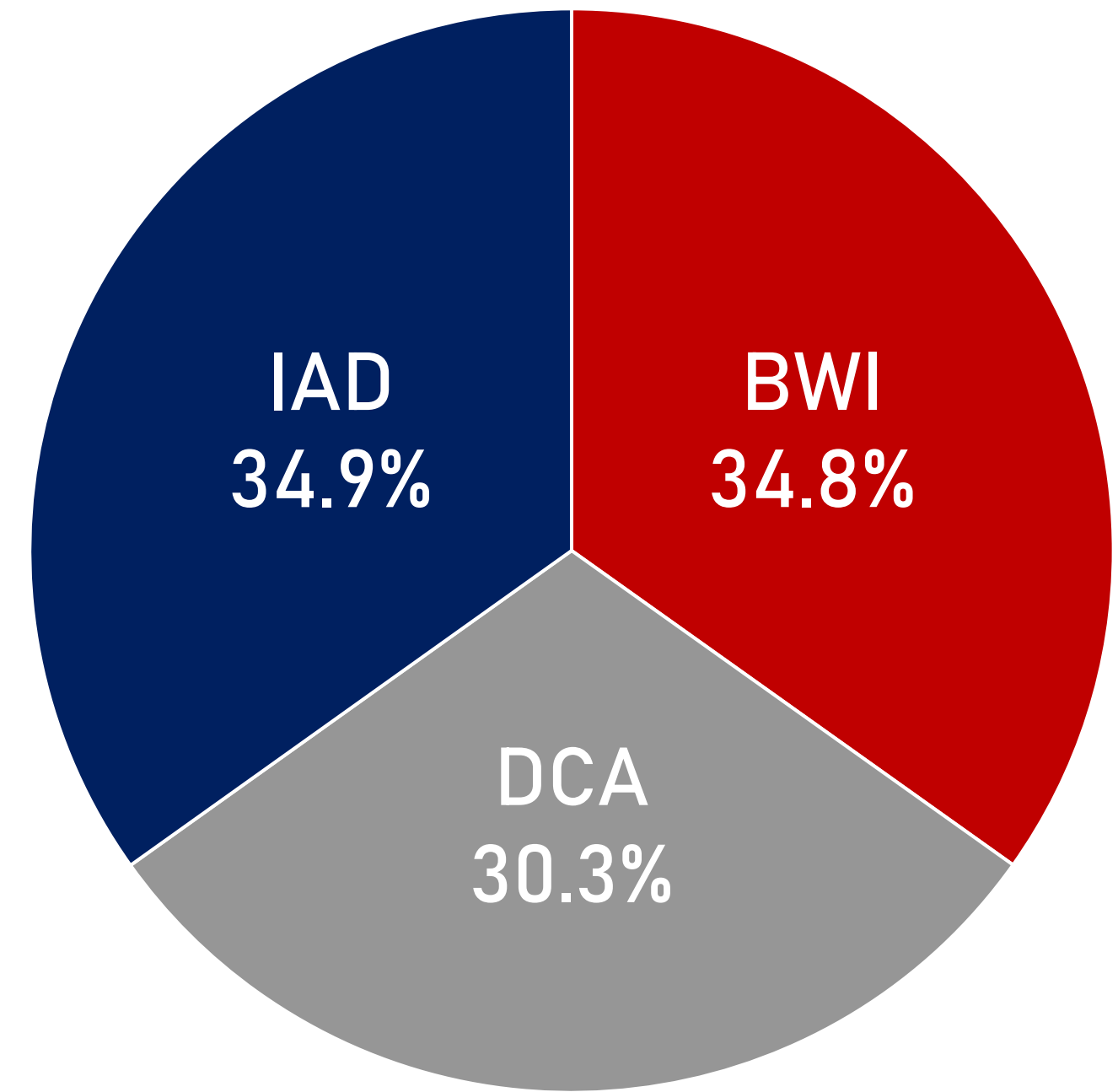
Total Passenger Traffic is Setting New Records

- Aug numbers are preliminary



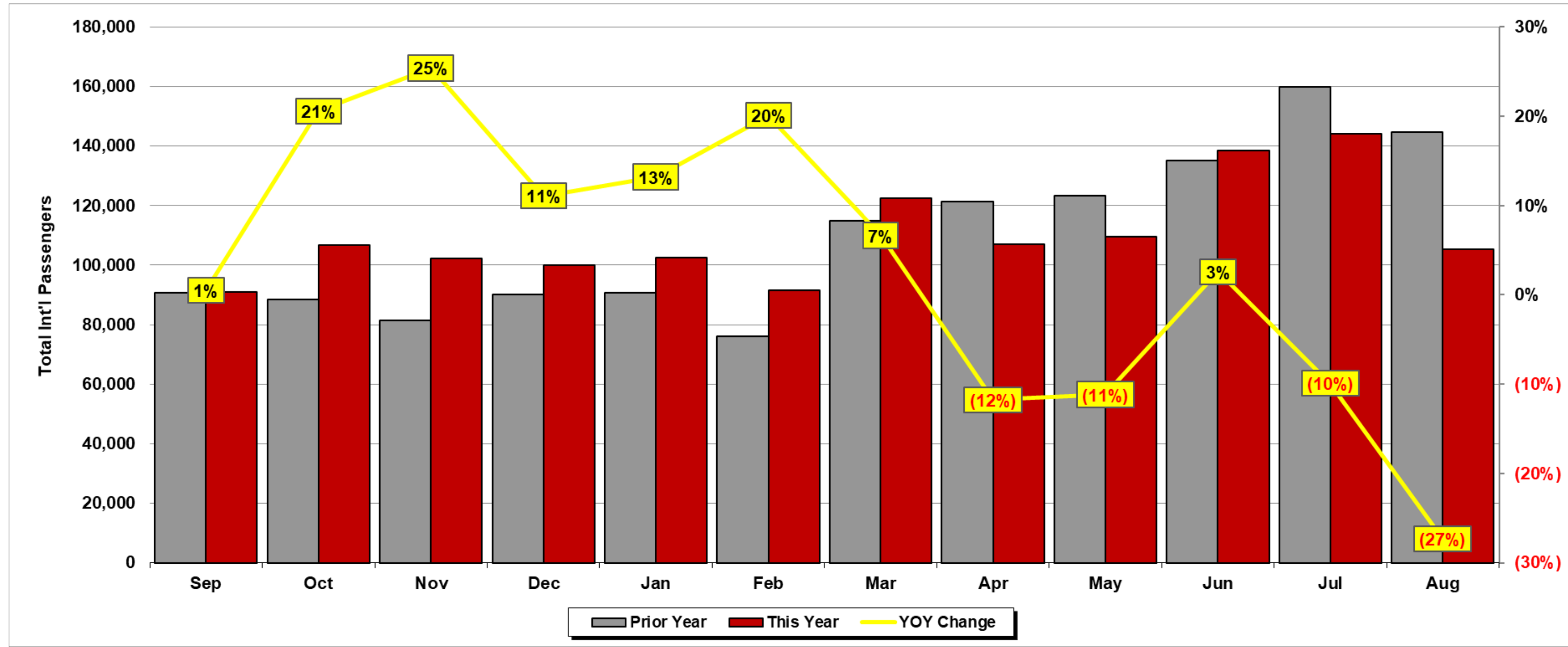
This Jul, Dulles and BWI Marshall Led Regional Airports in Passengers

- For comparison, Jul 2023 splits were BWI 34.8%, IAD 34.0%, and DCA 31.2%



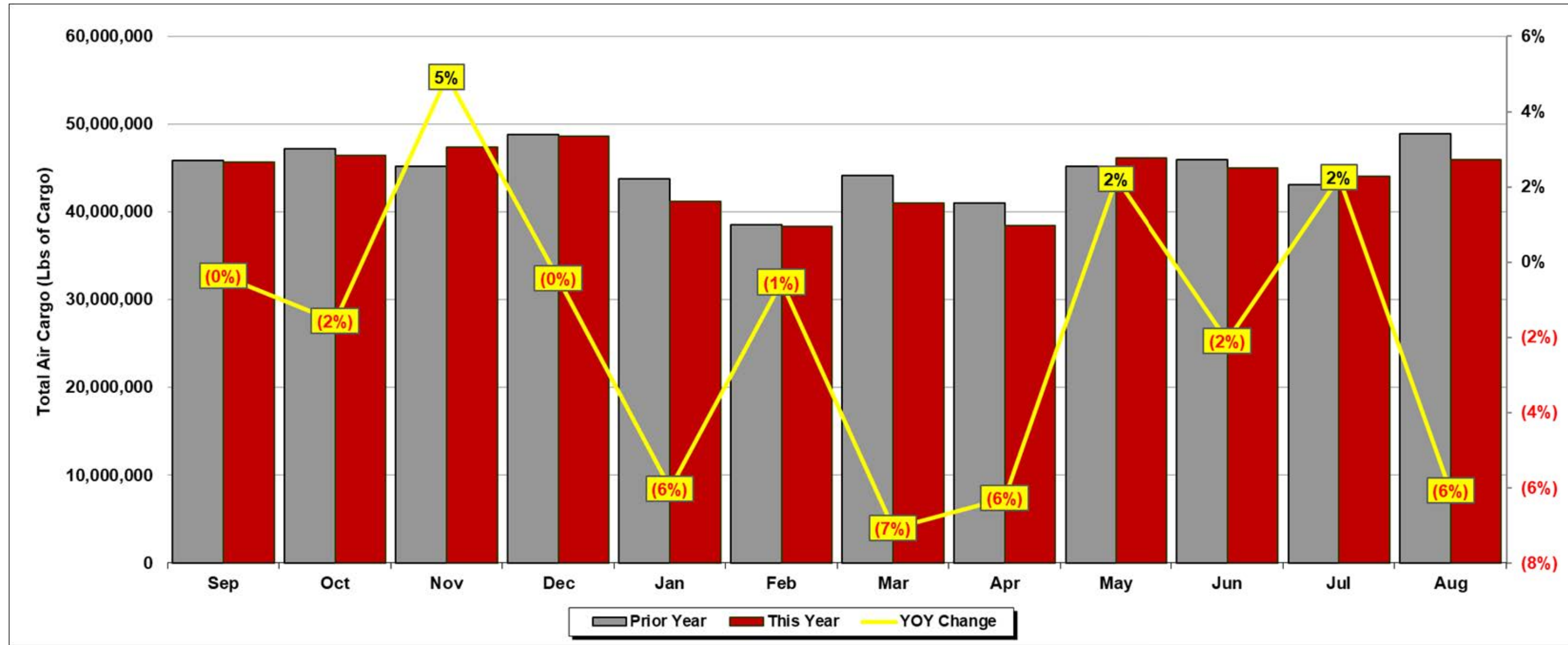
International Traffic is Also Setting New Records

- More Recently, Frontier and Spirit both reduced Cancún, and Air Canada suspended service
- Aug numbers are preliminary



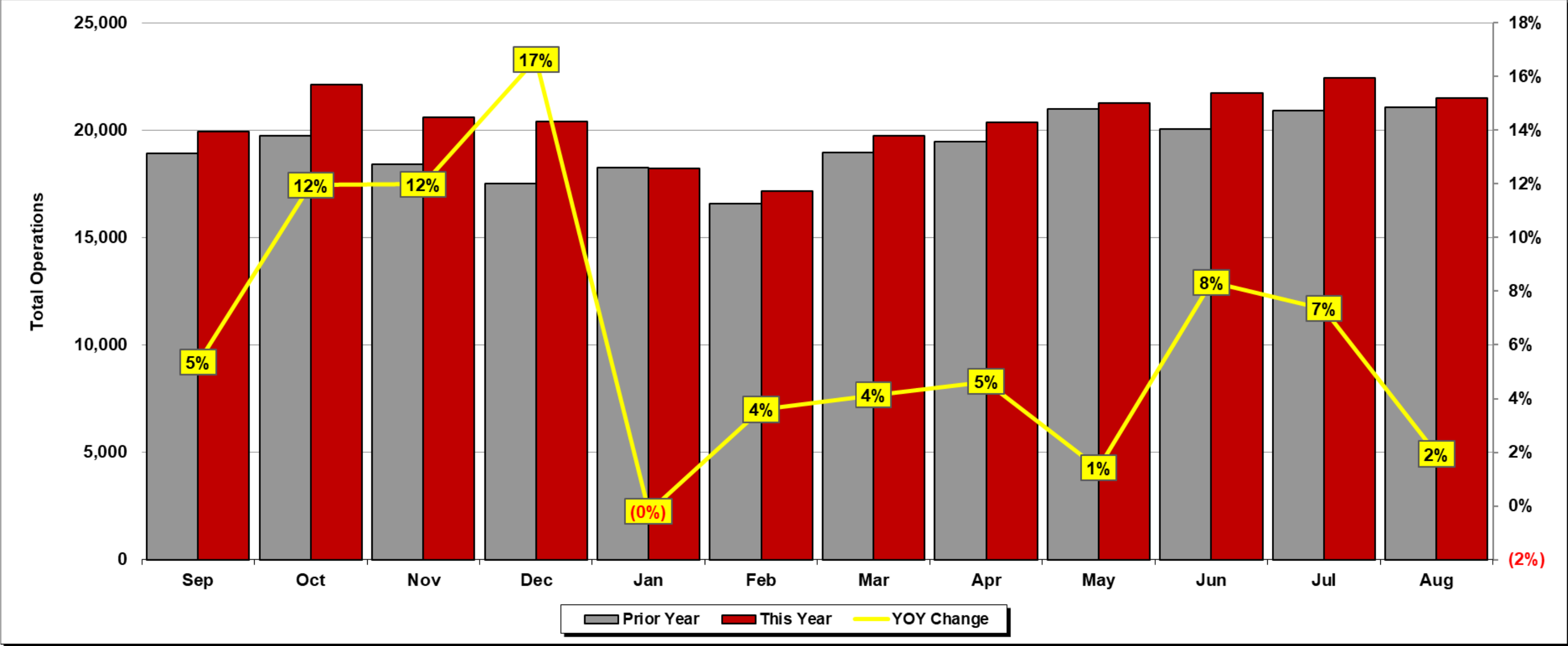
Cargo is Following Industry Trends, but Stabilizing Recently

- Shoppers returned to brick and mortar stores, so cargo airlines carried fewer packages
- Aug numbers are preliminary



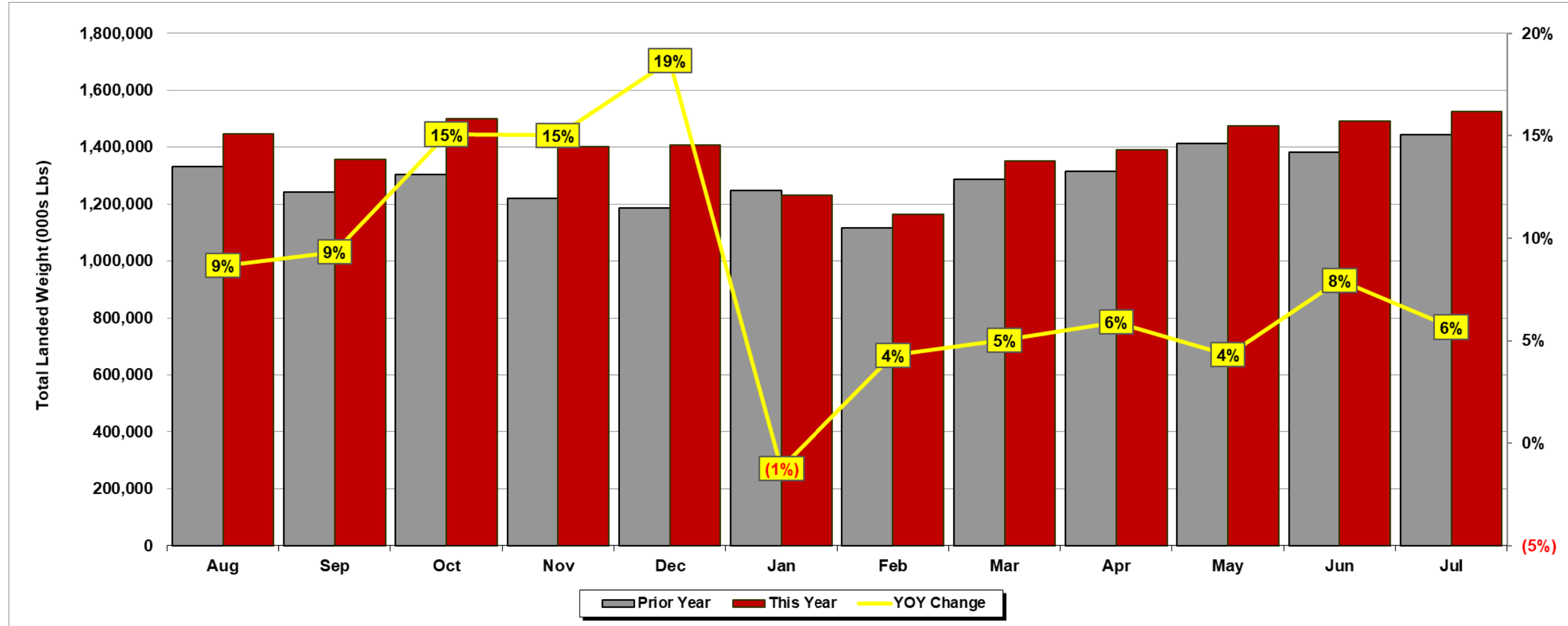
Total Operations Continue to Grow since Last Year

- Aug numbers are preliminary



Landed Weight is Generally Moving with Operations

- Aug numbers are not yet available



Questions?

BWI Marshall Airport

Martin State Airport



Operational Statistics Q1 FY25 vs FY24

*46% decrease in Total Flight Operations compared to Q1 of FY24.
45% decrease in Business Jet Operations*

Variables affecting operation totals:

- *Airfield Construction*
- *Fleet Repositioning*
- *ATCT Staffing*
- *Economic climate*

Total Flight Operations	Gallons Sold (Volume)	Gallons Sold (Revenue)
29,926 (FY24)	288,211 (FY24)	\$1,709,679 (FY24)
46% ↓	34% ↓	36% ↓
16,170 (FY25)	190,392 (FY25)	\$1,087,427 (FY25)

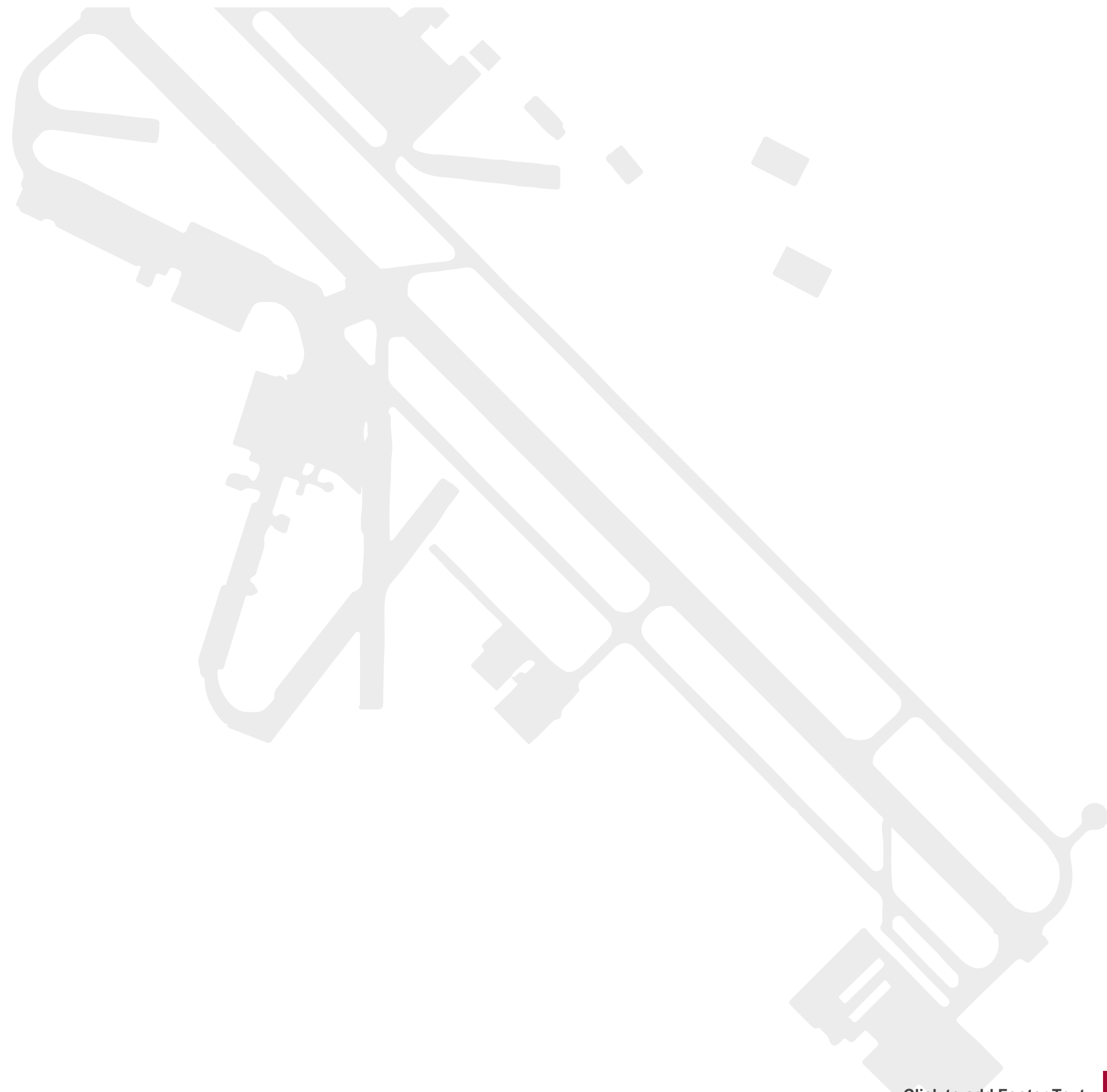
Business Jet Operations 1,482 (FY24)

45% ↓
810 (FY25)

	TOTAL	AVG/MO	AVG/DAY
# Flights	810	271	9
Flight Hours	1,124	377	12
Total Est Fuel (GAL)	291,075	97,558	3,199

Flight Profile	
Month/Year	# Flights
7/2024	96
8/2024	377
9/2024	337

Thank You.



Proposed COMAR Amendments

COMAR 11.03.01.09

Badge Replacement Fees

Maryland Aviation Commission Conceptual Policy Framework Example

Presented by Commissioners Zafari and Chancellor

October 23, 2024

Maryland Aviation Commission Conceptual Policy Framework Example

BWI Roundtable Jan 2024 estimate using 2016 American Community Survey estimates

Community Aviation Noise Saturation (CANS)					
For Discussion Purposes, January 2024 BWI Community Roundtable (version 1)					
DNL Contour	NES Predicted HA Range (1)	MAA EST Population (2)	EST HA Range Population (3)	Current FAA 65 DNL Percentage (4)	Current Policy Total Maximum Population
50-55	0.0% - 0.0%	0	0 - 0		
55-60	32.1% - 48.8%	111,668	35,845 - 54,494		
60-65	48.8% - 65.7%	16,531	8,067 - 10,861		
65 and above	65.7% - 79.4%	4,120	2,707 - 3,271		
Totals	35.2% - 51.9%	132,319	46,619 - 68,626	13.6% - 23.3%	17,982 - 30,857

(1) Based on FAA's National Environmental Survey
 (2) Based on HMMH November 2019 Analysis
 (3) Result of multiplying (1) and (2)
 (4) Current HA level for Significant Noise Impacts at 65-70 DNL

MAA Feb 2024 estimate of CANS using the 2020 Census

Community Aviation Noise Saturation (CANS)					
% Highly Annoyed - National Curve - Neighborhood Environmental Survey (NES)					
For Discussion Purposes, Maryland Aviation Commission Meeting, February 21, 2024					
DNL Value	NES Predicted HA - National Curve	MAA EST Population	EST HA Range Population - National Curve		
			low	high	
50-55	19.1% 32.1%	188,501	36,004	60,509	
55-60	32.1% 48.8%	75,728	24,309	36,955	
60-65	48.8% 65.7%	16,339	7,973	10,735	
65-70	65.7% 79.4%	1,111	730	882	
70+	79.4%	29	23	23	
Total		281,708	69,039	109,104	25%



Based on the FAA's Neighborhood Environmental Survey, and using current federal and state assumptions regarding harmful aviation noise, our region is possibly beyond the level of likely harm where public policy interventions are required to protect public health

“It is impossible to make good policy in the absence
of good data”

Maryland Aviation Commission

Conceptual Policy Framework Example

In carrying out its duties and responsibilities, the Maryland Aviation Commission (“MAC”) is to consider (among other things) the:

- Aviation
- Economic
- Business
- Environmental
- Health
- Community-related impacts or any other impacts the Commission finds relevant to the decisions of the Commission or the Administration.

Maryland Aviation Commission

Conceptual Policy Framework Example

In order to address the letter and spirit of The Maryland Code, Transportation Article Title 5, Subtitle 2, effective October 1, 2023, the Maryland Aviation Administration (“MAA”) staff have been conceptualizing a Policy Framework (the “Framework”) for use by the MAC in its policy-making role.

The Framework is expected to be a forecasting tool designed to weigh all relevant MAA policy, regulatory or major capital project actions within the Commission’s legislative authority and created to assist in MAA and MAC decision-making in order to provide guidance in balancing the MAC’s potentially competing policy-making considerations.

To assist the MAA staff in this important, but difficult endeavor, the following Framework Example is provided to better outline the data requirements, identify complex interdependencies and suggest forecasting tools, both currently available and those that are not yet available.

Example of MAC Policy Framework

Component	Some Possible Metrics	Weighting
Aviation	<ul style="list-style-type: none"> Safety Operations Enplanements Landside/Airside Capacity Customer Experience 	TBD%
Economic	<ul style="list-style-type: none"> Jobs Earnings Disposable Income State Taxes Local Taxes Business Revenue Local Purchases Federal Taxes 	TBD%
Business	<ul style="list-style-type: none"> MDOT Transportation Trust Fund Bond Ratios Bond Covenants 	TBD%
Environmental	<ul style="list-style-type: none"> Carbon (Direct/Indirect/Induced) Per passenger Per Operation 	TBD%
Health	<ul style="list-style-type: none"> Noise Pollution Population (N-Above/DNL) Quality Adjusted Life Years Other Pollutants UFParticulate Gases Heavy Metals 	TBD%
Community/Other	<ul style="list-style-type: none"> To Be Developed (possible examples are: real estate values , impacts on social welfare, losses of leisure activities, disruptions in communication, and conflicts in the community) 	TBD%

Sample Forecast Elements Illustrated

Component	Metrics		Potential Forecast Tools	Maturity of Forecast Tools	Transparency	Confidence Level
Economic	Jobs Earnings	Local Taxes	Economic Impact Study RIMS II model Tax Forecasts Local Budget Forecasts	Advanced	High	TBD
	Disposable Income	Bus Revenue		Advanced	High	TBD
	State Taxes	Purchases Federal Taxes		Advanced	High	TBD
Environmental	Carbon (Direct/Indirect/Induced) Per passenger Per operation Others TBD based on best current science		Carbon Calculators	Advanced	High	TBD
			Carbon Emissions Prediction models	Initial/Intermediate	High	TBD
			Vianair Inc. model	Intermediate	Unknown	TBD
Health	Noise Pollution Population <ul style="list-style-type: none"> Number of Events Above DNL Quality Adjusted Life Years Others TBD based on best current science		Vianair Inc. model	Advanced	Unknown	TBD
			FAA AEDT model	Advanced	Unknown	TBD
			Zafari/Park U of M model	Initial	High	TBD

Maryland Aviation Commission

Conceptual Policy Framework Example

After all the inputs have been made and the forecast model is run, the result is a **Weighted Score of Action Risk**

Once a MAC policy action (or delegated policy action to the MAA) has been scored within the Framework, that score is put into a **GREEN**, **YELLOW**, or **RED** decision matrix. It will not be an easy task to define these levels of risk, but the effort should proceed in an open, transparent and defensible manner.

- **GREEN** means the action is least risky and should proceed, all other decision factors being equal.
- **YELLOW** means that the action is possibly unacceptably risky and may require further discussion or analysis in order to proceed.
- **RED** means that the action is too risky to proceed.

Maryland Aviation Commission
Conceptual Policy Framework Example

DISCUSSION
AND
NEXT STEPS

Vote to Enter Closed Session

