Update on BWI Marshall & Martin State Airports

Presentation to the Baltimore Regional Transportation Board
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June 22, 2021
Topics

• Mission & Vision
• Announcements
• Our Airports
• BWI Marshall Activity Levels
• Some Recent Projects
  – Midfield Cargo
  – ANOMS
  – ANZ Updates
  – Concourse A Extension
• Select Current Projects
  – A/B Connector & BHS
  – Airline Maintenance Facility
  – Restroom Renovation
  – Residential Sound Insulation Program

• BWI Marshall ALP & Environmental Assessment
• What’s Next
  – C/D Connector & ATCT
  – Southwest Quadrant
  – Ground Transportation Center & Roadway Improvements
  – Potential MAGLEV
• MTN ALP & Environmental Assessment
• Closing
Mission
The Maryland Department of Transportation (MDOT) is a customer-driven leader that delivers safe, sustainable, intelligent, and exceptional transportation solutions in order to connect our customers to life opportunities.

Mean
The Maryland Aviation Administration (MAA) fosters the vitality of aviation statewide and promotes safe and efficient operations, economic viability and environmental stewardship. Responsible for the operation of Baltimore/Washington International Thurgood Marshall and Martin State airports, the MAA provides friendly, convenient facilities and customer services and develops enhanced domestic and international passenger and cargo opportunities through inter-modalism and state-of-the-art technology.

Vision
Simply stated, our vision is to ‘be better’.

Key Objective
The Maryland aviation system will be the “Easy Come, Easy Go” gateway to the world.
71 years ago, a dedication ceremony took place to commemorate the opening of what was then known as Friendship International Airport.

President Truman delivered a speech and 10,000 spectators were on hand for the June 24, 1950 event.
Airports Council International, a major airport industry organization, named BWI Marshall as the **Best North American Airport** in our size category in the 2020 **Airport Service Quality** program.

- Reflects passenger feedback on customer service
- Significant accomplishment during pandemic
Our Airports

- Commercial Service Airport
  - ±3,800 acres
  - 2M+ sf Terminal

- General Aviation “Reliever” Airport
  - ±800 acres
• Busiest airport in the Washington-Baltimore Metro region (enplanements)
• 27 million passengers in 2019
• 22\textsuperscript{nd} busiest U.S. airport
• 262,600 aircraft operations in 2019
• ±330 daily departures to 90+ domestic and international destinations
• 97 aircraft gates
• Record setting air cargo growth
• $9.3B total economic impact & 106,000 jobs (2017 data)
Martin State Airport (MTN)

• Historic – WWII aircraft production
• Purchased by the State in 1975
• Over 240 based aircraft
• Maryland Air National Guard 175th Wing
• Maryland State and Baltimore County Police aviation units
• Nearly 84,000 aircraft operations annually
• 2nd busiest general aviation airport in Maryland
BWI Activity Levels (2010-2020)

Passengers & Operations

- **Passengers**
  - 2010: 21.2M
  - 2011: 27.1M
  - 2012: 268K
  - 2013: 11.2M (-58%)

- **Aircraft Operations**
  - 2010: 277K
  - 2011: 179K (-32%)

Air Cargo & Freight

- **Annual Cargo (Metric Tons)**
  - 2013: 277K
  - 2014: 268K
  - 2015: 179K (-32%)
  - 2016: 270K
  - 2017: 105K
BWI Activity levels (2020-2021 / Q1)

Passengers
-41% YTD

Operations
-30% YTD

Air Cargo & Freight
+4% YTD

- 2020
- 2021

Passengers
Operations
Air Cargo & Freight
Weekly TSA Passenger Throughput for WAS Airports
Week-Ending 04 Jan 2020 through 5 June 2021

BWI Marshall Has Recovered More Quickly since Mid-May

Source: TSA Throughput Statistics
...As Well as Large Airports in the Northeast United States

Change in TSA Passenger Throughput
Week-Ending 5 June 2021 vs. 2019

<table>
<thead>
<tr>
<th>Airport</th>
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<tbody>
<tr>
<td>BWI</td>
<td>(33.5%)</td>
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<tr>
<td>PHL</td>
<td>(40.1%)</td>
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<tr>
<td>EWR</td>
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</tr>
<tr>
<td>IAD</td>
<td>(54.1%)</td>
</tr>
<tr>
<td>LGA</td>
<td>(55.0%)</td>
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</tbody>
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Source: TSA Throughput Statistics
Compared to All 30 U.S. Large Hubs, BWI Marshall’s Recovery Ranks #16

Change in TSA Passenger Throughput
Week-Ending 5 June 2021 vs. 2019

Source: TSA Throughput Statistics
Regional Passenger Market Share

Percentage of Total Passengers

October 2019

IAD 33%
BWI 35%
DCA 32%

October 2020

IAD 33%
BWI 45%
DCA 22%

Total Seat Capacity

Apr-Jun 2021

IAD 29%
BWI 42%
DCA 29%

Strength of BWI’s personal travel market

American Airlines increasing capacity at DCA with new 14-gate regional terminal opened in April
Some Recent Projects
Midfield Air Cargo Expansion

- Opened October 2019
- New 200,000 square foot Cargo Building
- Rehabilitated taxiways and new runway connector
- Mathison Way improvements
- Expanded local bus service to site
- ±2,000 new jobs to the region

“Amazon’s Baltimore location is one of the top 5 busiest Amazon Air facilities in the world.”

(WJZ-13, 6/8/21)
Airport Noise & Operations Monitoring System (ANOMS) Replacement

• Completed in October 2019
• 24 noise monitors installed throughout the communities surrounding BWI Marshall and advanced analysis software that integrates noise and aircraft operations data
• Used to manage, analyze and correlate aircraft noise, aircraft flight tracks and aircraft noise complaint data that support MAA's Noise Abatement Program
• Launched WebTrak in July 2019 – public website providing realtime aircraft activity and noise data within the neighboring communities. Interactive portal provides 24-hour access to information on aircraft overflights and associated noise levels at each permanent noise monitor site. The system also provides a mechanism for community members to file noise complaints with the MAA's Office of Environmental Compliance & Sustainability
Airport Noise Zone (ANZ) Updates

**Purpose**
- Minimize aircraft noise impacts and prevent incompatible land development around airports
- Informs MAA Airport Zone permitting process and county land use planning

**Basis**
- Maryland Environmental Noise Act of 1974, refer to:
  - Transportation Article, §§5-805, 5-806, and 5-819, Annotated Code of Maryland
  - COMAR Section 11.03.02.10 and Section 11.03.01.01-1(B)(5)
- Two components – Noise Exposure Map and Noise Abatement Plan
- Uses 10-year activity forecast
- Updated every five years

**Process**
- Establish Stakeholder Advisory Committee (SAC) – airport users, industry, FAA, community, & local government
- Prepare base year, 5-year, 10-year forecast contours
- Compile composite Airport Noise Zone (ANZ)
- Prepare inventory of existing land use
- Update the Noise Abatement Plan
- Obtain approval from MAC to circulate proposed ANZ Update
- Conduct public workshop/hearing
- Obtain approval from MAC and certification from MAA Executive Director for incorporation into COMAR

2020 approved Updates for BWI and MTN published in Maryland Register April 9, 2021
2020 ANZ
• 5,543 acres
• 2020 ANZ is 23% larger than 2014 ANZ
• 53% on MAA property
• Changes attributable to:
  – Increasing aircraft operations
  – Increasing % of nighttime operations
  – Changes in the aircraft fleet mix
  – Anticipated increases in maintenance runups
  – Updated flight track planning for future Runway 10R/28L
  – Noise model updates

Comparison of 2020 ANZ to 2014 ANZ

65 DNL
2020 ANZ
- 411 acres
- 2020 ANZ is 4% larger than 2014 ANZ
- 96% on MAA property
- No impacts to noise sensitive land uses
- Changes attributable to:
  - Increasing aircraft operations
  - Future configuration of Runway 15/33
  - Noise model updates

Comparison of 2020 ANZ to Previous ANZ
Concourse A – Five-Gate Extension


55,000 square foot addition and 5 new gates for Southwest Airlines.

Includes MAA’s new prototype restroom facilities, new boarding bridges and additional concessions.

Critical enabler to the current Taxiway T and future Concourse A/B Connector and Baggage Handling System (BHS) projects which require the temporary closure of five existing gates during their construction.
Concourse A – Five-Gate Extension

‘be better’
Concourse A – Five-Gate Extension

Governor Hogan Tour – May 17, 2021

Courtesy of Gov. Larry Hogan’s Office
Select Current Projects
Concourse A/B Connector and Baggage Handling

Existing Terminal A/B

Project Goals

• Size 5 Gates for 737-MAX8 Aircraft
• Better Connect Concourses A & B
• Provide New In-line Screening BHS
• Optimize BHS Tug Operations
• Consolidate SWA Facilities
• Increase Concessions Opportunities
• Enhance Passenger Level of Service
• Modernize Passenger Restrooms
• Minimize Impact to Operations During Construction
Concourse A/B Connector and Baggage Handling
Concourse A/B Connector and Baggage Handling
Southwest Airline Maintenance Facility

- Relocates routine maintenance activity currently being performed at gates
- Safe, efficient workspace out of the elements
- Improves ramp efficiency and flexibility
- Creates skilled technical and management jobs
Restroom Renovation Program – Phase 1

Restroom Deferred

Be better
Restroom Renovation – Typical Layout

Goal – one set in each restroom cluster

Multiple terminal “bump-outs” to balance restroom, hold room, and concession needs.
Restroom Renovation

Concourse A Restroom
Residential Sound Insulation Program

- Based on voluntary FAR Part 150 Airport Noise Compatibility Program
- 65 dB DNL is metric for compatible residential land uses
- Since the mid-1980s MAA has mitigated over 750 homes and 4 schools
- Goal - reduce interior noise to at least 45 dB with a minimum 5 dB reduction
- Install new acoustically-rated windows, doors, ventilation, insulation, seal gaps, and other customized treatments approved by the FAA
- Current phase of the program includes up to 136 single-family residences and 344 multi-family units

Many of the surrounding homes have already participated
BWI Marshall
ALP & EA
BWI Marshall Environmental Assessment (EA) – Process

- Theme is to compare alternatives and avoid, minimize, or mitigate impacts
- Final environmental document is available on the MAA website and consists of 360 pages plus 14 technical appendices of another 4,890 pages.
BWI EA – What Gets Evaluated

- Air Quality
- Biological Resources – fish, wildlife, plants
- Climate
- Coastal Resources
- 4(f) Resources – public parks
- Farmlands
- Hazardous Materials, Solid Waste, Pollution
- Historical, Architectural, Archaeological, Cultural Resources
- Land Use
- Natural Resources & Energy Supply
- Noise & Compatible Land Use
- Socioeconomics, Environmental Justice, Children’s Health & Safety
- Visual Effects
- Water Resources – wetlands, floodplains, surface waters, groundwater
- Cumulative Impacts
New & Improved Facilities
Vegetative Obstruction Removal
BWI EA – The Proposed Action

Pavement Management
Finding of No Significant Impact / Record of Decision

- Received September 2020
- Now we can start implementing the projects, and
- FAA can fund AIP/PFC eligible items
What’s Next
C-D Connector & Airport Traffic Control Tower Program

- Airport’s Final Secure Passenger Connector
- Passenger Security Screening Checkpoint (6 Lanes)
- New Airport Traffic Control Tower (ATCT)
- Hotel (200 Rooms)
- Consolidated Airport Operations Center
- Ticketing and ATO Reconfiguration
- Curbside Check-in
- In-line Checked Baggage Inspection System (CBIS)
- Baggage Make-up Improvements
- Baggage Claim Expansion and BSO
- Operational Spaces (FAA and Leasable)
- Airline Lounge
Southwest Quadrant Development

- 400-500 acre site
- Preserve capability for future parallel runway
- Utility spine for flexible pad site development
- Mixed commercial, aviation and support uses
- Environmental protection components
- Currently in planning phase
Ground Transportation Center & Roadway Improvements

- Separation of private and commercial vehicles
- Reduced curbside congestion
- Improved multi-modal connectivity & efficiency
- Additional covered parking
- Incorporate passenger and airline amenities
- Additional terminal connections/access
- Plan for adaptive reuse
Focus Area

Concept Approach Road & Interchange Improvements

‘be better’
Potential MAGLEV

- Federal NEPA process began in 2016, Draft EIS currently out for agency for review
- First phase – DC to Baltimore in 15 mins.
- One stop at BWI
- Station 100’ below the BWI hourly garage
- Incorporate into new Ground Transportation Center
- Construction begins in 2024/2025
- Revenue operations start 2030-2032
- Estimated non-airport passenger parking garage demand 5,000-6,000 spaces
MTN

ALP & EA
Martin State – Airport Layout Plan (ALP)

- Taxiway T & Apron Regrading
- MD Air National Guard
- Threshold Relocation
- Obstruction Removal
- Taxiway F Extension
- Apron Expansion
- Lockheed Martin Facility
- Wilson Point Road Drainage and Flood Prevention Improvements
- MDANG Facility Expansion
- Existing Lockheed Ground Water Treatment Plant
- Terminal / FBO
- Corporate Hangar & Apron Development
- Replacement ATCT
- Critical Vehicle Storage
- T-hangar Relocation
- Adjacent Marina Development
- Hangar/Apron Development on Brownfield Site

**PHASING LEGEND**

- Phase 1 (1-5 years)
- Phase 2 (5-10 years)
- Phase 3 (Ultimate, 10+ years)
MTN EA - Process

- Theme is to compare alternatives and avoid, minimize, or mitigate impacts
- Draft environmental document is available on the MAA website and consists of 290 pages plus 12 technical appendices of another 4,620 pages.

- ALP or Master Plan
  - October 2013
    - Agency & Public Scoping
    - Proposed Action
    - Purpose & Need
  - Impacts & Mitigation
  - Affected Environment
  - Alternatives

- Prepare Draft EA
  - Public Workshop & Comment
    - March 2021
  - Draft Final EA
  - FAA Finding & Public Notice
    - Summer 2021
  - We are Here
  - Implement Projects

- We are Here Summer 2021
**Purpose & Need**

- Meet FAA Design Standards
- Enhance Airfield Safety
- Improve Airfield Efficiency
- Accommodate Existing and Anticipated User Demand
- Environmental Review for Property Acquisition
Newly Updated Website

www.marylandaviation.com
THANK YOU

QUESTIONS / DISCUSSION

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