



# **BWI Marshall Airport Noise Zone (ANZ) Post-NextGen**

Presented by Mary Reese of the DC Metroplex BWI  
Community Roundtable  
January 19, 2021



## Purpose of this Presentation

- Briefly review the purpose and process of the ANZ update required by COMAR\*
- Highlight noise threshold used to determine the ANZ\*
- Demonstrate with post-NextGen Aircraft Noise Complaints & Reports that these metrics are problematic

\*For complete explanation and analysis see MDOT MAA's Draft 2020 BWI ANZ Update (full document & appendices) now posted on the MAA's Community Relations page.



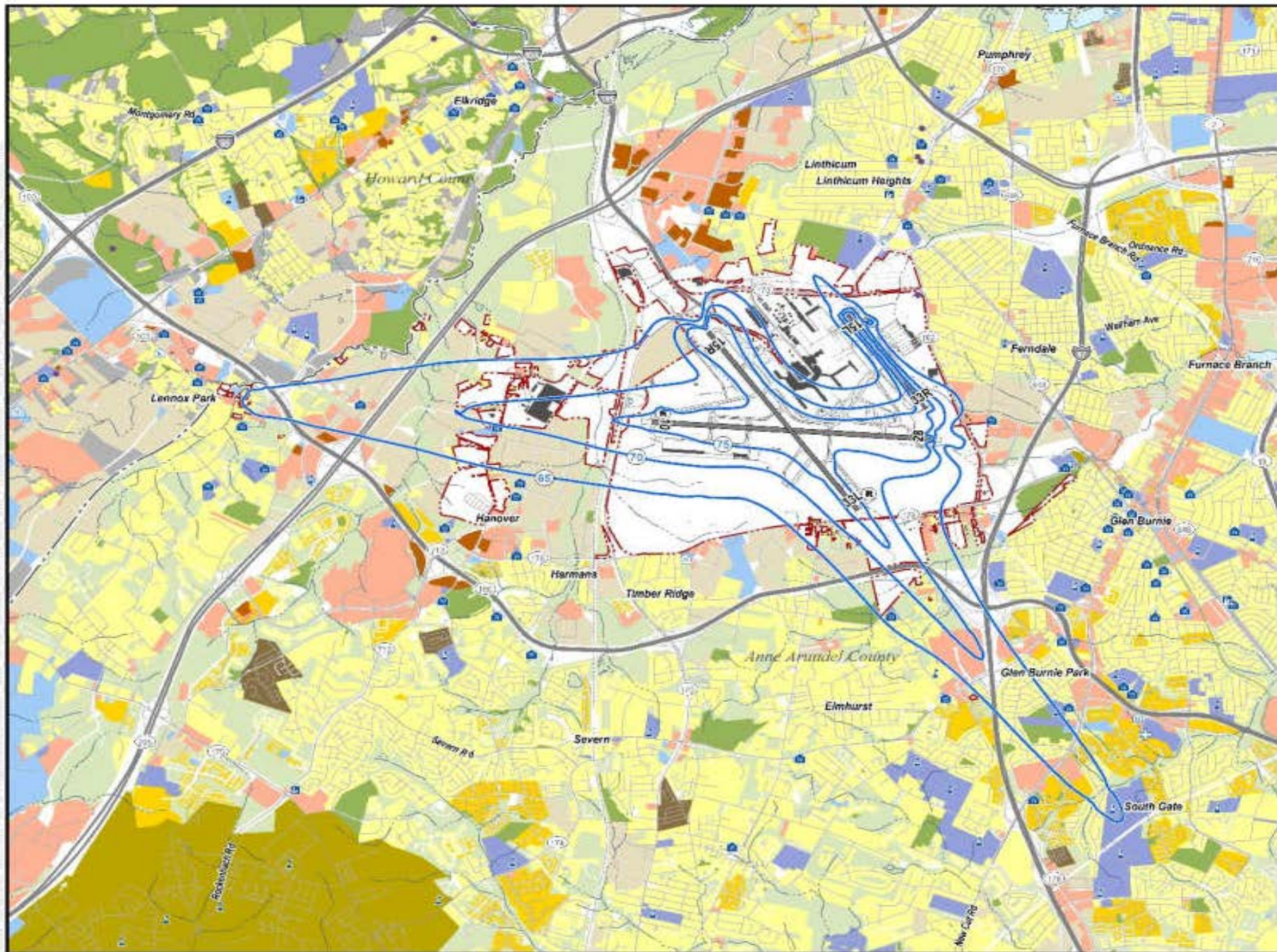
## BWI Marshall's ANZ

- The current certified ANZ for BWI Marshall, certified in 2014, is referenced in COMAR Section 11.03.02.10 and incorporated by reference in COMAR Section 11.03.01.01-1(B)(5).
- Required to be updated every five years.
- The MDOT MAA develops and certifies the BWI ANZ pursuant to the Maryland Environmental Noise Act of 1974 (See Transportation Article, §§5-805, 5-806, and 5-819, Annotated Code of Maryland).



## BWI Marshall's ANZ (cont.)

- Maryland law (Maryland Environmental Noise Act of 1974) requires the protection of citizens from the impact of transportation related noise.
- The requirements found in the Code of Maryland Regulations (COMAR) actually preceded federal requirements for noise abatement found in the Code of Federal Regulations (CFR) Part 150.
- The COMAR requires MDOT MAA to control incompatible land development in areas where noise levels are Day-Night Average Sound Level (DNL) of 65 dBA or more.



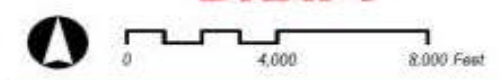
*Airport Noise Zone Update*

Figure 1  
 2020 Base Year DNL Contours

- 2020 Base Year DNL Contours
- MDOT MAA Property Boundary
- Runup Locations
- Helicopter Operation Area
- Runway
- Airport Buildings
- Airport Pavement Edge
- County Boundary
- Roads
- Railroad
- Stream / Creek
- Residential Use
- Multi-Family Residential Use
- Mobile Home
- Transient Lodging
- Mixed Use
- Public Use (Non-Compatible)
- Public Use (Compatible)
- Water
- Military Use
- Commercial Use
- Manufacturing / Production
- Vacant / Undeveloped
- Recreational / Open Space
- Golf
- Transportation / Utility
- School
- Place of Worship
- Nursing / Assisted Living
- Library
- Hospital / Health Care
- Historic Place (NRHP)

Data Sources: MDOT MAA; Anne Arundel County; Howard County; Baltimore County Government Open Data Portal; National Register of Historic Places (NRHP); Environmental Systems Research Institute (ESRI); AirNav.com; HMMH Inc.

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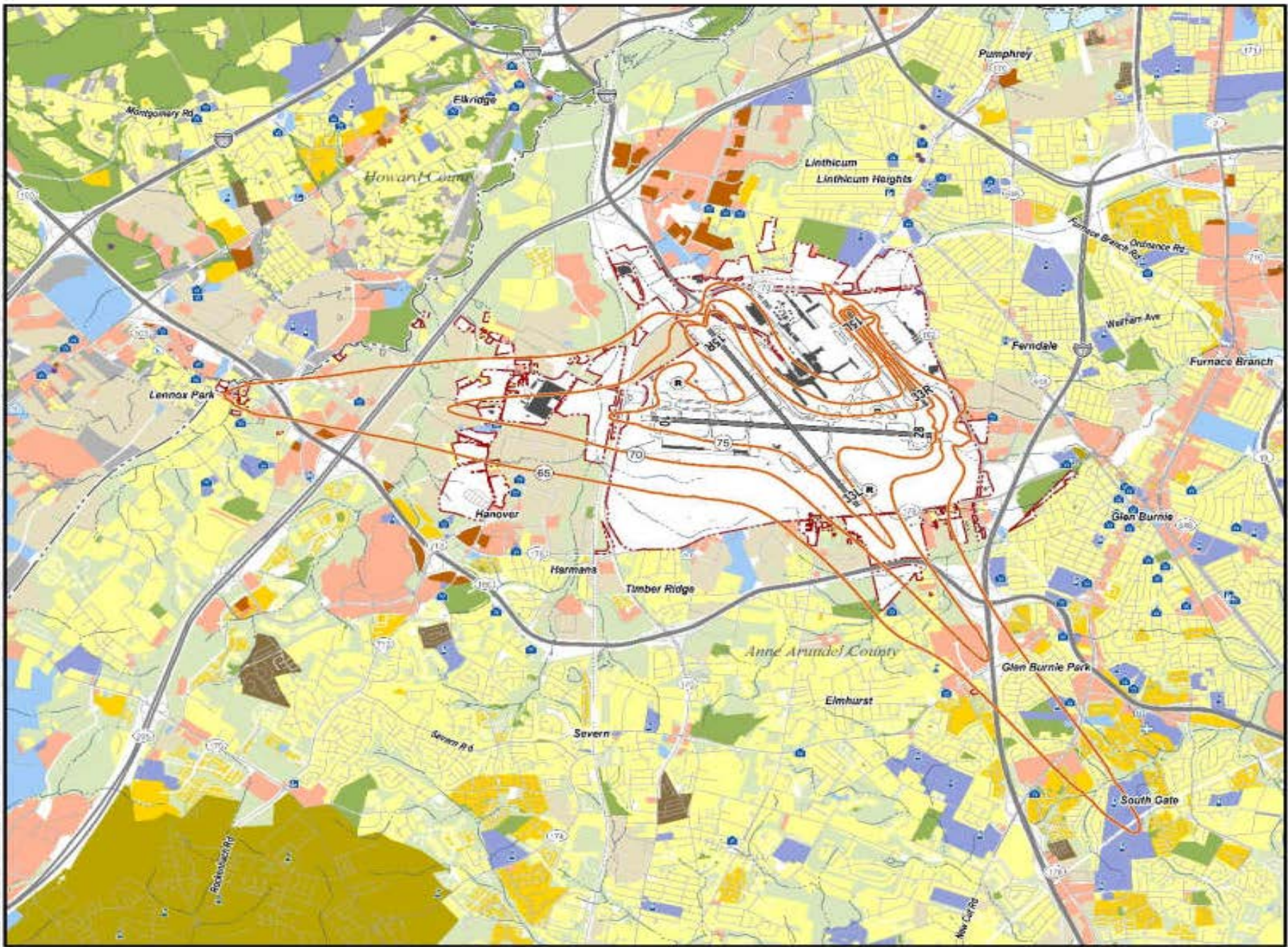
## Planned Airport Growth

The 5-year modeled average daily aircraft operations are expected to increase from 2020 base year by approximately 6%.

The 10-year modeled average daily aircraft operations are expected to increase by approximately 15%.

*Construction of a parallel Runway 10R/28L will be complete and RWY 15R/33L will be extended by 1,000 feet.*

Source: MDOT MAA 2020 Airport Noise Zone Update and Noise Abatement Plan



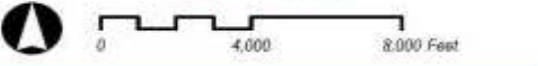
*Airport Noise Zone Update*

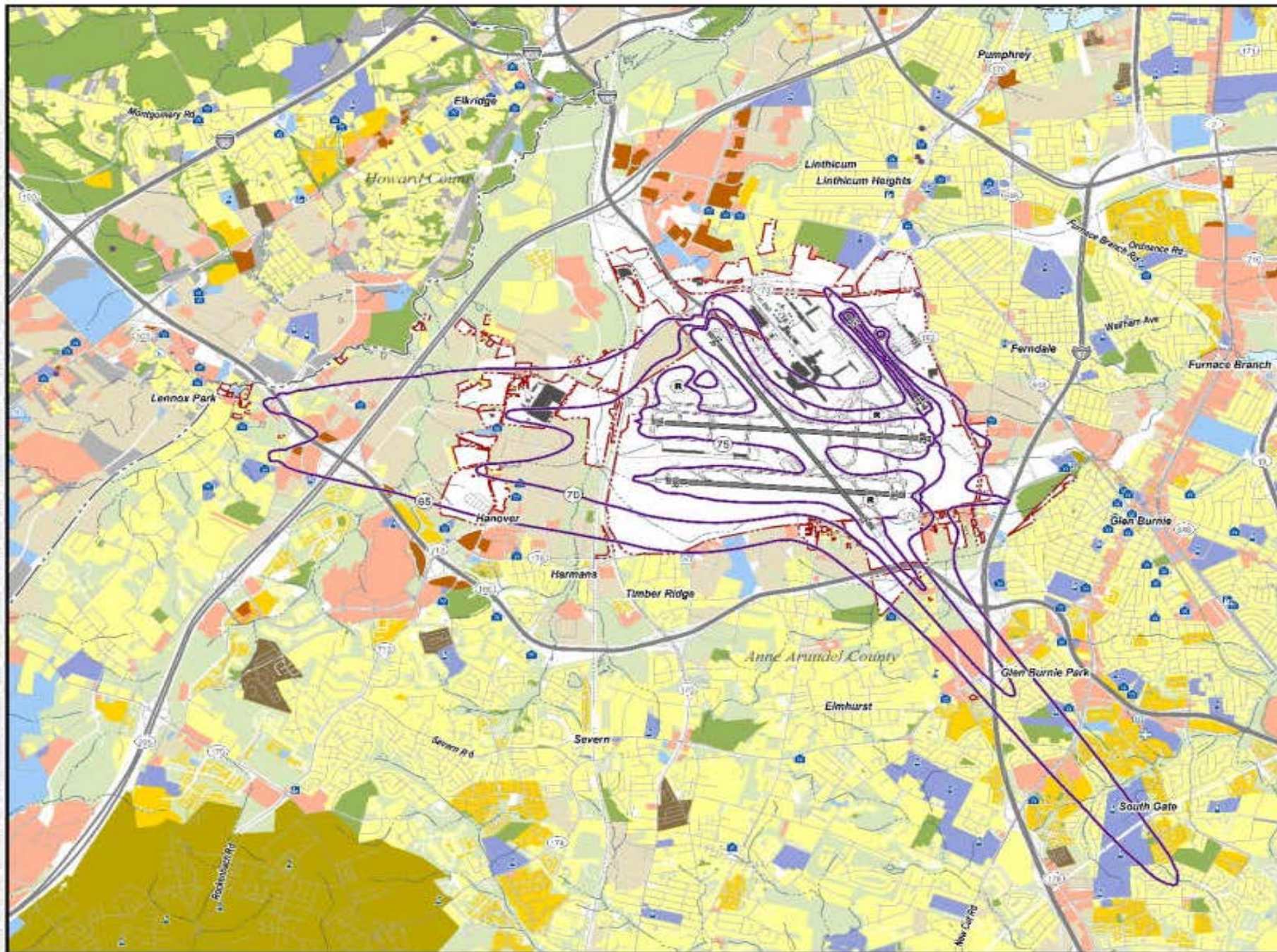
Figure 1  
 2025 5-Year Forecast DNL Contours

- 2025 5-Year Forecast DNL Contours
- MDOT MAA Property Boundary
- Runup Locations (Future)
- Helicopter Operation Area (Future)
- Runway (Future)
- Airport Buildings
- Airport Pavement Edge
- County Boundary
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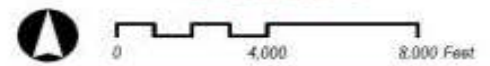
*Airport Noise Zone Update*

Figure 2  
 2030 10-Year Forecast DNL Contours

- 2030 10-Year Forecast DNL Contours
- MDOT MAA Property Boundary
- Runup Locations (Future)
- Helicopter Operation Area (Future)
- Runway (Future)
- Airport Buildings
- Airport Pavement Edge
- County Boundary
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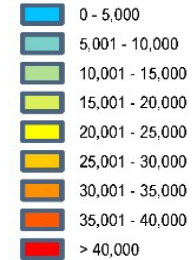
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2019 Q1 Complaints per  
DC Metroplex BWI Community Roundtable  
Legislative District

Complaints within Legislative District Boundaries for DC Metroplex BWI  
Community Roundtable, as amended April 18, 2017



• Complaint Location

■ BWI Airport Property

— Existing Airport Runway Layout (2014)

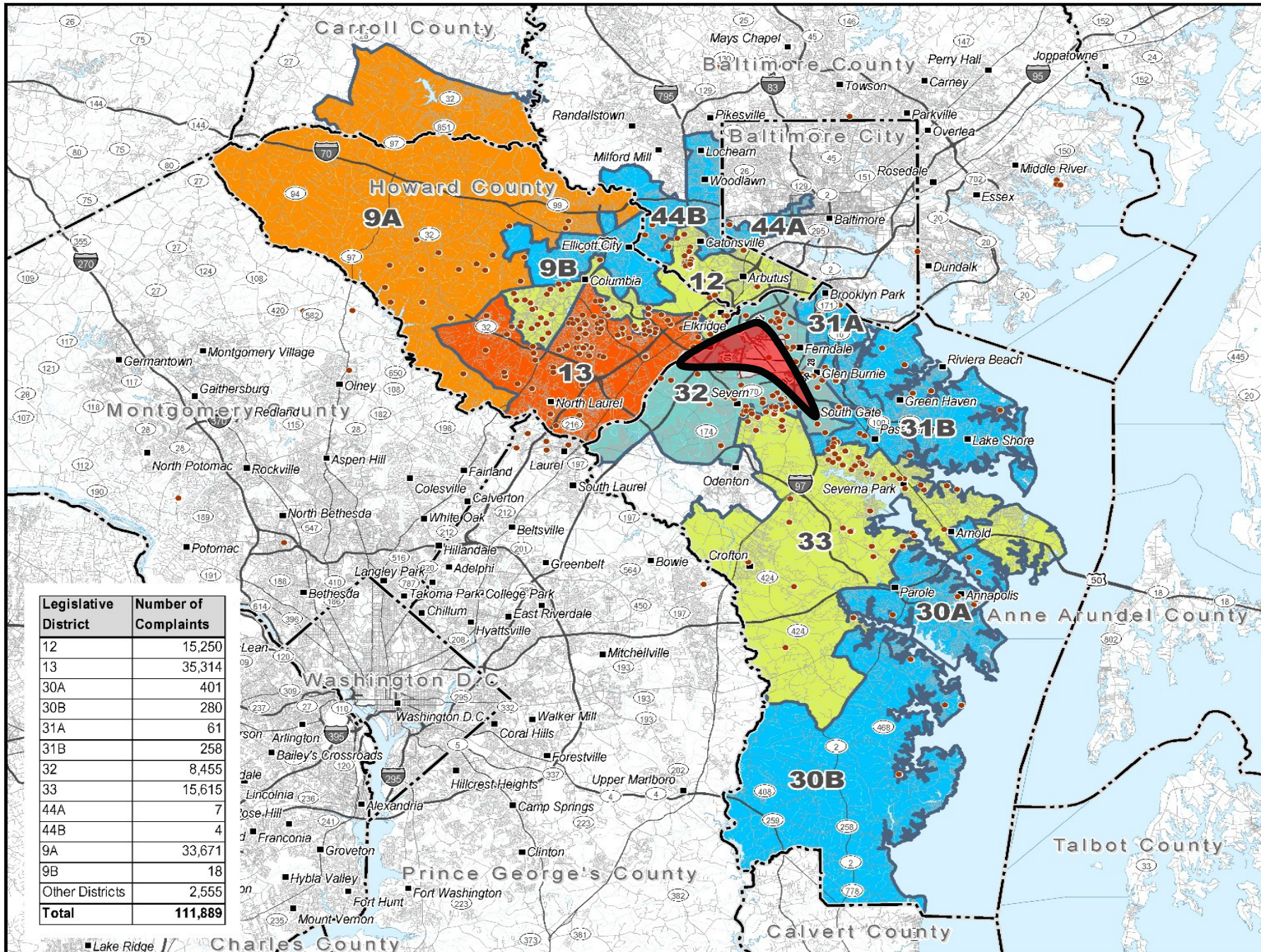
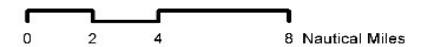
— Roads

— River or Stream

— County Boundary

— Water

Data Sources: Maryland Aviation Administration;  
Maryland State Highway Administration; Anne Arundel & Howard County;  
Maryland Department of Planning, Environmental System Research Group, Inc.



Legislative District	Number of Complaints
12	15,250
13	35,314
30A	401
30B	280
31A	61
31B	258
32	8,455
33	15,615
44A	7
44B	4
9A	33,671
9B	18
Other Districts	2,555
<b>Total</b>	<b>111,889</b>



## Residential Portable Noise Monitoring program

- The MDOT MAA provides homeowners the opportunity to request a temporary noise monitor, set up by the MDOT MAA on the homeowner's property, and then provides a detailed technical report upon conclusion.
- These reports provide both the noise of individual aviation events and the overall aircraft noise DNL for each property assessed.
- Unlike the MDOT MAA's 24 permanent noise monitors placed close-in to the airport, these portable noise monitors are being requested to survey residential areas considerable distances from the airport where aviation noise is disruptive to residents.

# Noise Monitor Report Results

	2015	2016	2017	2018	2019	2020
Number of Reports	9	11	17	19	15	1
Average DNL	53 dB	56 dB	52 dB	55 dB	49 dB	56 dB
Highest DNL	61 dB	61 dB	64 dB	62 dB	63 dB	
Lowest DNL	43 dB	47 dB	40 dB	39 dB	40 dB	

Source: MDOT MAA Community Relations webpage, 1/28/20



# DISCUSSION