Hartsfield-Jackson
Atlanta International Airport®

DRAFT

Noise Exposure Map Update
Years 2024 and 2029

Prepared by:
City of Atlanta,
Department of Aviation

With Assistance from:
Crawford, Murphy & Tilly, Inc. and
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December, 2024

Sponsor's Certification Form

This document and the Noise Exposure Maps (NEMs) for Hartsfield-Jackson Atlanta International Airport (ATL) that are provided at the back of the document were prepared following procedures outlined in Title 14, Chapter I, Subchapter I, Part 150 of the Code of Federal Regulations (14 CFR Part 150).

The year 2024 NEM accurately represents existing/current conditions, and the year 2029 NEM provides as accurate a forecast as is feasible at the current time. The City of Atlanta Department of Aviation certifies that interested persons were afforded adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of the draft NEMs and descriptions of forecast aircraft operations. The NEMs and this document reflect the best available data at the time they were prepared and can be considered true and complete under penalty of Title 18, Part I, Chapter 47, Section 1001 of the Code of Laws of the United States (18 USC 1001).

Date: _____

Signature: _____

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SECTION 1
Introduction

The City of Atlanta/Department of Aviation (DOA) has evaluated aircraft noise in the vicinity of Hartsfield-Jackson Atlanta International Airport (ATL) for more than 45 years. Initial reviews were performed in 1978 when the City of Atlanta, in cooperation with the other political jurisdictions surrounding the airport, sponsored an Airport Noise Abatement and Land Use Compatibility (ANALUC) Study. This study set the stage for the airport's current airport operational controls and local jurisdiction land use compatibility planning.

In the year 2007, following procedures outlined in Title 14, Chapter I, Subchapter I, Part 150 of the Code of Federal Regulations (14 CFR Part 150) the DOA initially prepared a Federal Aviation Regulation (FAR) Part 150 Study for ATL.[1] Part 150 studies are voluntary studies that are prepared by airport sponsors seeking to balance a facility's operational needs with the unavoidable aircraft noise impacts that occur in surrounding areas. One product of Part 150 studies are Noise Exposure Maps (NEMs). NEMs are scaled depictions of an airport, the airport's noise contours, and the land uses surrounding the airport. The NEMs are used to evaluate the compatibility of land use with the aircraft sound levels specified in Appendix A of 14 CFR Part 150. For the 2007 Part 150 Study, the NEMs were prepared using the Federal Aviation Administration's (FAA's) Integrated Noise Model (INM) and the NEMs reflected the then current year (2007) and a forecast year (2012).

Since the initial Part 150 Study, the DOA has prepared three updates to the 2007 NEMs. The first update provided INM-produced NEMs that reflected year 2012 and 2017 current and forecast conditions, respectively.[2] The second provided INM-produced NEMs for year 2015 and 2020 current and forecast conditions, respectively.[3] And, the third update produced year 2017 and 2022 current and forecast conditions, respectively.[4] The NEMS for the third update were prepared with the FAA's Aviation Environmental Design Tool (AEDT, Version 2c Service Pack 2), which replaced the INM.

For the fourth update, the current conditions represent those that occurred this year (2024) and the forecast conditions reflect those anticipated to occur in 2029. The NEMs (**Maps A and B**) are provided in **Appendix G**. The updated NEMs were prepared using Version 3f of AEDT—the latest version of AEDT that was available at the time the NEMs were being prepared. Maps A and B are updates to the NEMs that were previously determined to comply with FAR Part 150. All the other graphics in this report are supplemental.

[1] FAR Part 150 Study Noise Exposure Maps Report, March 2007.
[2] Current, Year 2012, and Forecast, Year 2017, Aircraft Noise Exposure Maps, December, 2012.
[3] Current (Year 2015) and Forecast (Year 2020) Noise Exposure Maps, December 2015.
[4] Noise Exposure Maps Years 2017 and 2022, November 2017 (revised October 2018),

SECTION 2

Methodology

As stated in Section 1 of this report, the year 2024 and year 2029 NEMs were developed using FAA's AEDT. The FAA requires that the AEDT be used to analyze aircraft noise for FAA actions.[5] The AEDT produces aircraft-specific noise contours that delineate areas of annual average day-night sound levels (YDNL). A YDNL is a 24-hour (average day), time (day-night)-weighted sound level that is expressed in A-weighted decibels (dBA). The "A" weighting is a sensitivity scale that is used for noise measurements and modeling. This weighting most closely approximates the response characteristics of the human ear to aircraft noise. The FAA and other federal agencies use YDNL as the primary measure of noise impact because it correlates well with the results of attitudinal surveys regarding noise sponsored by the federal government. YDNL increases with the duration of noise events and accounts for the increased sensitivity to noise at night by increasing each noise event (i.e., an arrival or a departure) that occurs during nighttime hours (i.e., 10 pm to 7 am) by 10 dBA.

In Appendix A of 14 CFR Part 150, the FAA identifies, as a function of yearly (365-day average) YDNL values, land uses which are compatible and land uses which are not compatible with aircraft-generated noise levels of YDNL of 65 dBA or greater. As shown in **Table 1**, the FAA considers all land uses to be compatible with aircraft noise if the YDNL is less than 65 dBA. Further, although certain land uses (e.g., residences, schools) are considered noncompatible with aircraft noise levels of 65 dBA or greater, if measures are implemented to achieve the applicable outdoor-to-indoor Noise Level Reduction (NLR), the interior uses of such lands are considered compatible with aircraft noise. Notably, none of the political jurisdictions in the vicinity of ATL have adopted thresholds restricting noise sensitive land uses outside of the 65 dBA contours and therefore, no local variations to the land uses in Table 1 were used in the development of the NEMs.

A detailed discussion of the existing and future land uses within ATL's 2024 and 2029 YDNL 65 dBA and higher noise contours is provided in Section 6 (Land Use) of this NEM report. Land uses within ATL's 2024 and 2029 YDNL 65 dBA and greater noise contours were identified and mapped using information from Fulton and Clayton County Geographic Information Systems (GISs) and field reviews. Land uses that are considered noncompatible with aircraft noise levels above YDNL 65 dBA (e.g., single and multi-family residences) were identified and are depicted on the NEMs (Maps A and B). Due to the timeframes in which the various political jurisdictions have prepared plans which define their existing and future land uses (see Section 6) and except for compatible residential uses, land uses that are generally considered compatible with aircraft noise (commercial, office, industrial, manufacturing, vacant, etc.) are not depicted on the maps. The compatible single and multi-family residences that are depicted on the NEMs have been sound insulated as part of the DOA's on-going noise mitigation program. These properties are compatible with aircraft noise levels less than YDNL 75 dBA because the residential structures were treated with measures to achieve an outdoor to indoor Noise Level Reduction (NLR) of at least 30 dB. The locations of the noncompatible and compatible residential uses are depicted on both Maps A and B.

[5] Volume 80, Number 94 of the Federal Register, May 15, 2015 (Page 27853).

Table 1

Land Use Compatibility

Land use	YDNL (expressed in dBA)					
	Below 65	65–70	70–75	75–80	80–85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches (i.e., places of worship), auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail—building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade—general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

SLUCM=Standard Land Use Coding Manual. Y (Yes) = Land Use and related structures compatible without restrictions. N (No) = Land Use and related structures are not compatible and should be prohibited. NLR = Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30, or 35=Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.
(1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide an NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year-round. However, the use of NLR criteria will not eliminate outdoor noise problems.
(2) Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(4) Measures to achieve NLR 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal level is low.
(5) Land use compatible provided special sound reinforcement systems are installed.
(6) Residential buildings require an NLR of 25.
(7) Residential buildings require an NLR of 30.
(8) Residential buildings not permitted.
Source: 14 CFR Part 150

In addition to identifying and mapping land uses, 14 CFR Part 150 also requires the identification of noise sensitive public buildings and properties included or eligible for inclusion in the National Register of Historic Places. For this NEM update, the following types of noise sensitive sites within the YDNL 65 dBA and greater contours are also depicted on Maps A and B:

- Places of worship,
- Schools,
- Senior assisted living facilities, and
- a historic property.

The FAA's requirements for developing NEMs are described in Subpart B of 14 CFR Part 150 (Development of Noise Exposure Maps and Noise Compatibility Programs) and Appendix A (Noise Exposure Maps). Subpart B stipulates the following:

- NEMs are to identify noncompatible land uses as of the date of submission.
- Forecast conditions are to be representative of conditions at least five years in the future and assumptions concerning future conditions are to be reasonable regarding, among other factors, the type and frequency of aircraft operations, and the number of nighttime operations.
- NEMs are to be prepared in accordance with Appendix A and in consultation with states and public/planning agencies whose area, or any portion of whose area, of jurisdiction is within the 65 YDNL depicted on the NEM.
- Airport operators must certify that they have afforded interested persons an adequate opportunity to submit their views, data, and comments concerning the correctness, and adequacy of the draft NEMs and descriptions of forecast aircraft operations.

Appendix A of 14 CFR Part 150 also stipulates the following regarding the preparation, illustration, and documentation of, and for, NEMs:

- To prepare NEMs, the following information must be obtained:
    - A map of the airport and its environs at an adequately detailed scale (not less than 1 inch to 2,000 feet) indicating runway length, alignments, landing thresholds, takeoff start-of-roll points, the airport boundary, and flight tracks to at least 30,000 feet from the end of each runway, an outline of an airport's boundaries, noncompatible land uses within the YDNL 65 dBA contour, and the location of noise sensitive buildings (e.g., schools, hospitals).
- NEMs must contain and identify the following:
    - Runway locations,
    - Flight tracks,
    - Continuous contours depicting YDNLs of 65, 70, and 75 dBA,
    - An outline of the airport boundary,
    - Noncompatible land uses within the YDNL 65, 70, and 75 dBA contours,
    - Locations of noise sensitive public buildings (e.g., schools, hospitals),
    - Locations of any aircraft noise monitoring sites,

- Estimates are to be made of the number of people residing within the YDNL 65, 70, and 75 dBA contours, and
- A land use base map of sufficient scale and quality to discern streets and other identifiable geographic features.

The NEMs in Appendix G were prepared to comply with the requirements of 14 CFR Part 150 and except for the locations of noise monitoring sites, contain/identify all the items listed above. Noise monitoring sites are not identified because the DOA did not operate monitoring sites in 2024. The following sections of this document provide the data that was used, and the assumptions that were made, to prepare ATL's year 2024 and 2029 NEMs.

SECTION 3
Current (2024) Conditions

The ATL-specific data that was obtained, or derived for the purpose of using, as input to the AEDT for the year 2024 NEM was comprised of the following which are discussed in detail in the following sections of this report:

- Runway layout
- Number of aircraft operations
- Aircraft fleet mix
- Runway use
- Flight track use
- Departure profiles
- Operational time of day
- Meteorological data

3.1 Runway Layout

As shown in **Figure 1**, ATL has five runways that are oriented in an east-west direction. The runways are described below:

- Runway 8L-26R is 9,000 feet long, 150 feet wide, and is primarily used for arrivals.
- Runway 8R-26L is primarily used for departures. This runway is 9,999 feet long and 150 feet wide.
- Runway 9L-27R is also primarily used for departures. It is 12,390 feet long and 150 feet wide.
- Runway 9R-27L is 9,000 feet long, 150 feet wide, and is primarily used for arrivals.
- Runway 10-28 is 9,000 feet long, 150 feet wide, and accommodates both arrivals and departures.

Except for Runway 8R and Runway 9L, all other runway ends are equipped with an instrument landing system (ILS) and approach lights (Runway 8R and 9L do not have approach lights). The elevation of the airport is 1026.2 feet above sea level. Except for the Runway 27R approach end, which is again primarily used for departures, the runways at ATL do not have displaced thresholds for landings or departures. Runway 27R has a displaced arrival threshold of 500 feet.

3.2 Aircraft Operations

The DOA routinely prepares and reviews operating statistics for ATL.[6] The DOA is currently updating ATL's airport master plan. The master plan annual aircraft operations forecast for calendar year 2024 is 805,016 operations. Calendar year 2024 is a leap year, resulting in an average daily operations count of 2,200. This level of activity is shown in **Table 2**. As also shown, the aircraft operations were segregated into the following four aircraft categories:

[6] ATL's operating statistics are available on Hartsfield-Jackson Atlanta International Airport's website (http://www.ATL.com).

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Figure 1
Runway Layout

- Passenger-air carrier
- Cargo-air carrier
- Air taxi,
- General aviation and military

Table 2
Average Daily Operations – 2024

Category	Sub-Category	Average Daily Operations	Percent of Operations
Passenger	Air Carrier	2,097	95
	Cargo	43	2
Air Taxi		32	2
General Aviation/Military		28	1
Total		2,200	100

Note: Values subject to rounding.
Source: City of Atlanta/Department of Aviation and Crawford, Murphy & Tilly, Inc.

3.3 Aircraft Fleet Mix

To develop the year 2024 aircraft fleet mix, a data sample was extracted from the DOA's Flight Tracking System (FTS). The DOA's FTS is a computer system that accesses FAA-generated information about each aircraft operation that occurs at ATL. This information includes the type of operation (i.e., an arrival or a departure), an aircraft identification number (identifying the airline and the airline's flight number), the day and time at which the operation occurred, and a three-dimensional description of the aircraft's arrival or departure path (i.e., track) to, or from, a runway end.

When considering a year of operations at ATL, fluctuations in daily activity are minimal with the number of operations on Saturday typically being less than other days of the week. Major changes to the primary types of aircraft in use are also infrequent. To capture potential changes to either, an initial 365-day sample was extracted from the FTS for the period January 1, 2024 through June 30, 2024. This sample was used to identify the aircraft which used ATL on a long-term but daily basis during this period. Prior to finalizing the 2024 NEM, the average day fleet was adjusted using a second sample of data for the period January 1, 2024 through August 31, 2024. Notably, only minor changes in the aircraft fleet were made based on the larger dataset (the number of average daily operations of two aircraft in the fleet increased by one operation each).

The year 2024 average day aircraft fleet is presented in **Table 3**. As shown, in order of usage, the aircraft in primary use at ATL are Boeing 737-900s, Boeing 757-200s, Airbus A321-200s, Boeing 717-200s, and Bombardier CRJ-900s. The airlines and aircraft owners accessing ATL by these aircraft perform approximately 60 percent of the annual operations at ATL. Table 3 also provides the airframe and engine assignments that were used in the AEDT. These assignments were made considering each airline/airframe combination in the sample and the model of aircraft engine(s) installed on each aircraft. The airline/airframe/engine combination data were obtained from *JP Airline-Fleets World Airline Fleet Directory* and Eastman Chemical Company's year 2016 listing of turbine-engine aircraft.[7]

[7] *JP Airline-Fleets World Airline Fleet Directory*, JP Airline-Fleets International, 47th Edition, 2013/14 and *2016 Turbine-Engined Fleets of the World's Airlines*, Eastman Chemical Company, 2016.

Table 3
Aircraft Fleet Mix– 2024

Category		Airframe	Engine	Number of Annual Average Day Operations
Air Carrier	Passenger	Airbus A220-300	PW1521G	7
		Airbus A319-100 Series	CFM56-5A5	63
		Airbus A320-200 Series	CFM56-5A3	120
		Airbus A320-NEO	LEAP-1A26/26E1	72
		Airbus A321-200 Series	CFM56-5B3/3	275
		Airbus A321-NEO	PW1133GA-JM	29
		Airbus A330-200 Series	PW4168A	5
		Airbus A330-300 Series	PW4168A	19
		Airbus A330-900N Series (Neo)	TRENT 7000-72	2
		Airbus A350-900 series	TRENT XWB-84	27
		Boeing 717-200 Series	BR700-715C1-30	260
		Boeing 737-700 Series	CFM56-7B24	116
		Boeing 737-8	LEAP-1B27	52
		Boeing 737-800 Series	CFM56-7B26/3	136
		Boeing 737-9	LEAP-1B27	3
		Boeing 737-900 Series	CFM56-7B24E	342
		Boeing 757-200 Series	PW2037	275
		Boeing 757-300 Series	PW2040	16
		Boeing 767-300 Series	PW4060	22
		Boeing 767-400	CF6-80C2B7E	13
		Boeing 777-200 Series	TRENT 892B	4
		Boeing 777-300 ER	GE90-115BL2	2
		Bombardier CRJ-700	CF34-8C1	43
		Bombardier CRJ-900	CF34-8C5	167
		Embraer ERJ170	CF34-8E5A1	4
		Embraer ERJ175	CF34-8E	5
		Embraer ERJ175-LR	CF34-8E	8
		Embraer ERJ190	CF34-10E6	10
	Cargo	Airbus A300F4-600 Series	PW4158-3	4
		Boeing 747-400 Series Freighter	CF6-80C2B1F	3
		Boeing 747-8F	GENX-2B67	5
		Boeing 757-200 Series	PW2037	2
		Boeing 767-300 Series	PW4060	21
		Boeing 777-200-LR	GE90-110B1L	8
Air Taxi		Cessna 208 Caravan	PT6A-114	15
		Embraer ERJ170	CF34-8E5A1	0
		Raytheon Beech 1900-C	PT6A-65B	17
		Cessna 560 Citation V	JT15D-5, -5A, -5B	5

Category	Airframe	Engine	Number of Annual Average Day Operations
General Aviation/Military	Cessna 680-A Citation Latitude	PW306C	8
	Embraer Phenom 300 (EMB-505)	PW530	15
Total			2,200
Note: Values subject to rounding.			

3.4 Airport Flow/Runway Use

ATL can be described as having two sets of runways (a northern set and a southern set) and Runway 10-28. Generally, aircraft departing to destinations north and west of Atlanta use Runway 8R-26L (in the northern set) and those departing to destinations south and east use Runway 9L-27R (in the southern set). Aircraft arriving from the northwest and northeast typically land on Runway 8L-26R (northern set), while those arriving from the southwest and southeast land on Runway 9R-27L (southern set). Notably, depending upon air traffic control workload and/or weather, these general runway use parameters may be altered. Also of note, Runway 10-28 is only used when sufficient demand exists. Use of this runway (for arrivals and departures) during peak times ensures that aircraft delays at ATL are minimized.

Cargo facilities are located on both the north and south sides of the Airport. Air traffic controllers prefer to assign arriving cargo aircraft to the runway closest to the aircraft's cargo ramp when feasible. Departing cargo aircraft are usually assigned to the runway based on direction of destination, unless Runway 9L-27R is required due to aircraft weight (aircraft flying longer distances typically require a longer runway for departure). Runway 9L-27R is the Airport's longest runway and is often used by aircraft with long trip lengths, such as those departing to Europe or Asia.

Wind direction and speed dictate the runway directional use (or flow) of airports. From a safety and operational standpoint, it is preferable for aircraft to arrive and depart into the wind. Wind direction changes may also necessitate the need to switch an airport's flow. Under certain weather conditions, this change can occur several times a day. At ATL, the airport flow is either to the east (i.e., aircraft arrive on Runways 8L, 9R, or 10 and depart on Runways 8R, 9L, or 10) or to the west (i.e., aircraft arrive on Runways 26R, 27L, or 28 and depart on Runways 26L, 27R, or 28). The average airport flow used in the AEDT and obtained from the DOA's FTS was 39 percent east flow and 61 percent west flow.

Data that provided the percentage of operations by runway, time of day, and aircraft type were also extracted from the DOA's FTS. As shown in **Table 4,** the data sample indicated that most of the daytime and nighttime arrivals and departures are on Runways 8L-26R and 8R-26L, respectively (i.e., the northern set of runways). **Appendix A** to this document provides the runway utilization data that was used in the AEDT by individual aircraft type.

Table 4
Percent Runway Utilization – 2024

Runway	Arrivals		Departures	
	Daytime	Nighttime	Daytime	Nighttime
East Flow				
8L	18	23	-	-
8R	-	-	20	22
9L	-	-	19	16
9R	15	13	-	-
10	6	3	-	-
Subtotal	39	39	39	39
West Flow				
26R	29	36	-	-
26L	-	-	31	36
27R	-	-	30	25
27L	23	20	-	-
28	9	5	<1	<1
Subtotal	61	61	61	61
Total	100	100	100	100

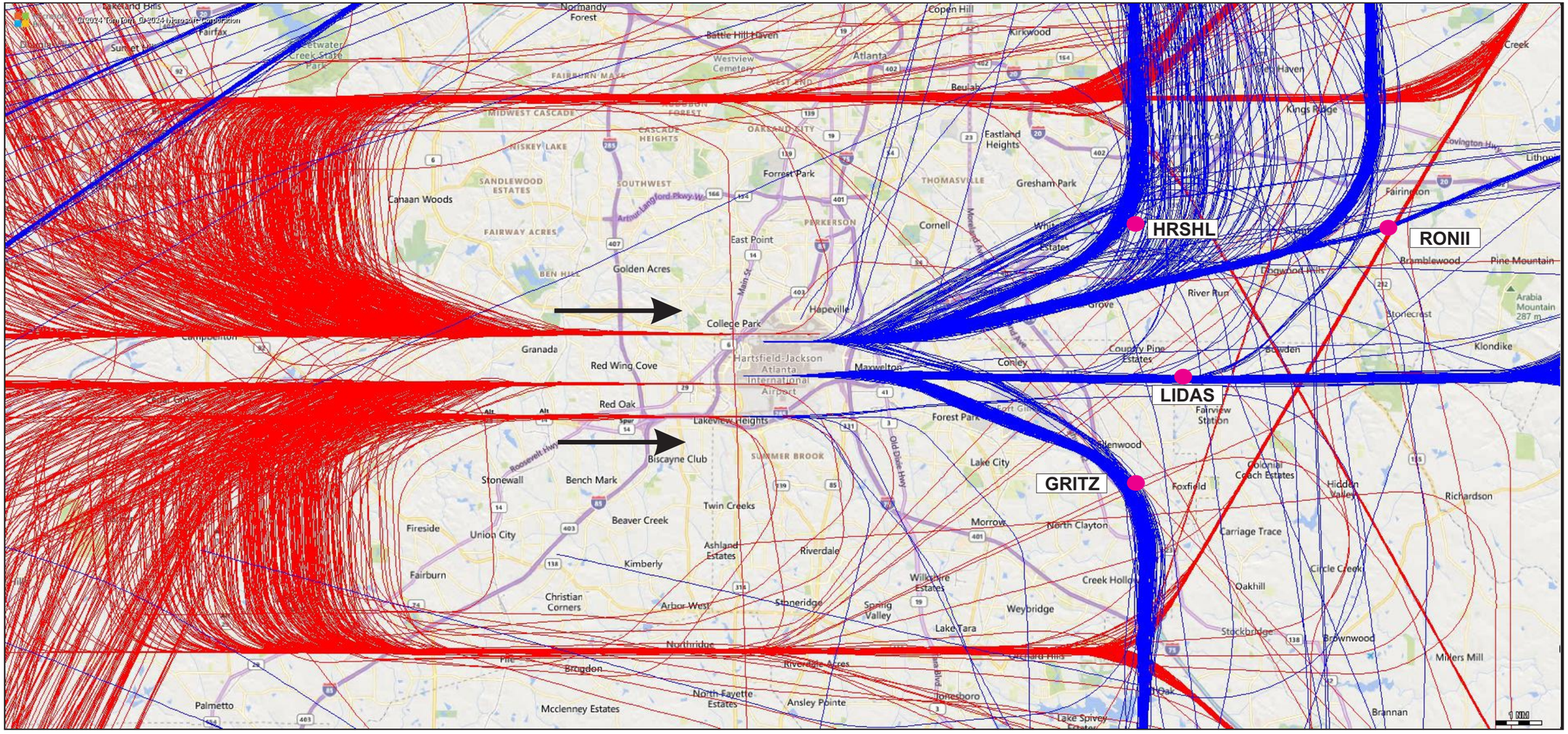
- Denotes that a runway is not typically used for this type of operation.
Note: Numbers reflect rounding. and may not add up to 100 percent.
Source: Crawford, Murphy, and Tilly, Inc.

3.5 Flight Tracks

The AEDT uses airport-specific ground tracks and vertical flight profiles to compute three-dimensional flight paths for each modeled aircraft arrival and departure. For jet departures from ATL, the FAA uses Area Navigation (RNAV)[8] corridors (**Table 5**). RNAV is a method of navigation that permits aircraft to follow a desired flight path more accurately. This greater level of accuracy is enabled by avionics located on the aircraft. Table 5 also lists three vector tracks that are generally only used during nighttime hours. Vector tracks represent departures that are assigned a heading by air traffic controllers and pilots' hand-fly the aircraft following the heading. The headings for the vector tracks listed in the table represent the approximate true heading. In addition to the jet departure corridors, prop and turboprop aircraft also use northern departure corridors from Runway 8R-26L and southern departure corridors from both Runway 8R-26L and Runway 10-28.

Examples of one day each of east flow and west flow FTS-generated jet, turboprop, and prop flight tracks in the year 2024 are presented on **Figures 2 and 3**, respectively. These figures also illustrate ATL's typical arrival and departure corridors (i.e., flight paths in which aircraft routinely arrive and depart ATL).

[8] RNAV is a method of navigation that enables an aircraft to be accurately flown along a specific course line.



SOURCE: Department of Aviation, Flight Tracking System (FTS)

Actual flight tracks on April 8, 2024

Arrival Track

Departure Track

RONII Waypoint

Scale (thousand feet)

0 10

N

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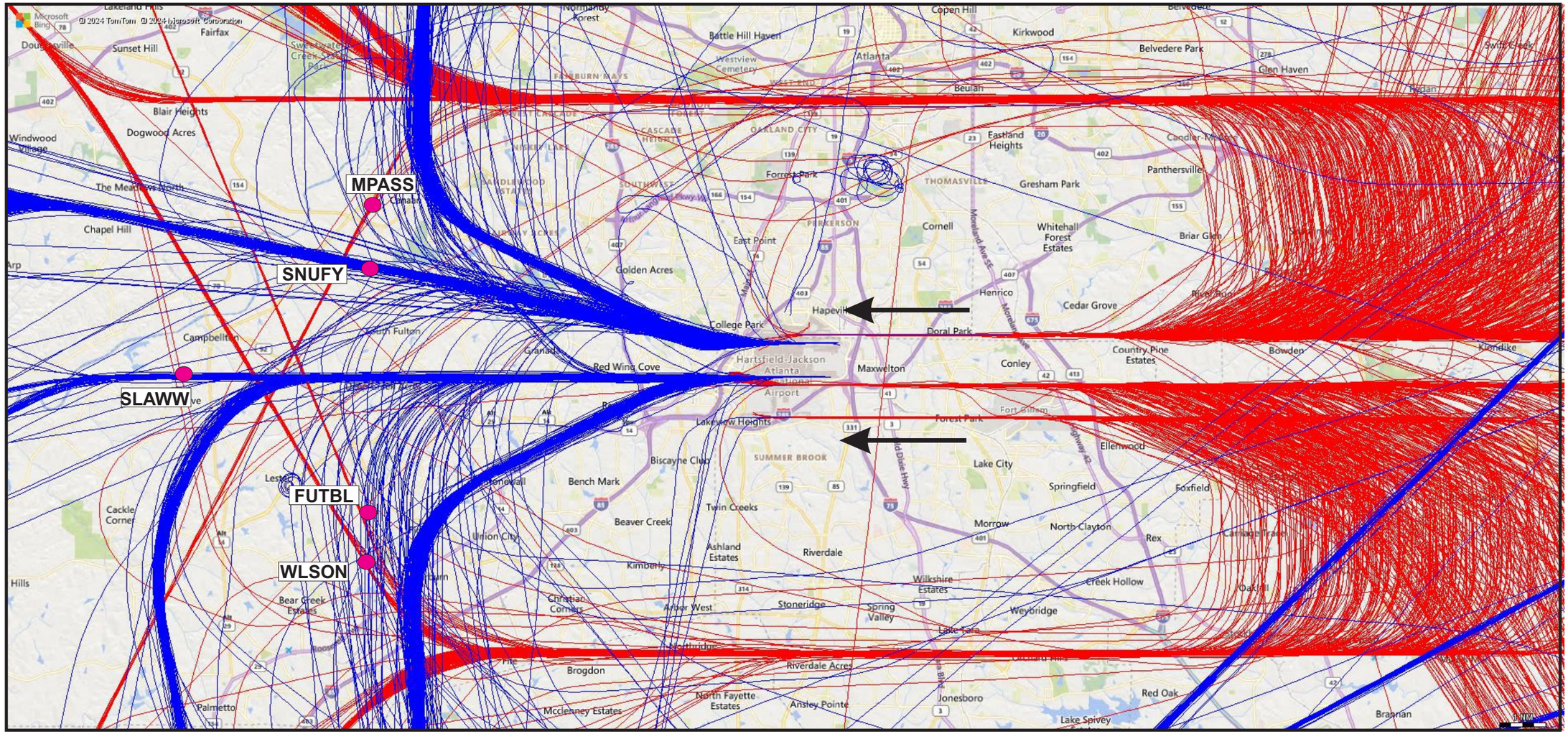
Figure 2

FTS-Generated Flight Tracks - East Flow



SOURCE: Department of Aviation, Flight Tracking System (FTS)

Actual flight tracks on May 10, 2024

Figure 3
FTS-Generated Flight Tracks - West Flow

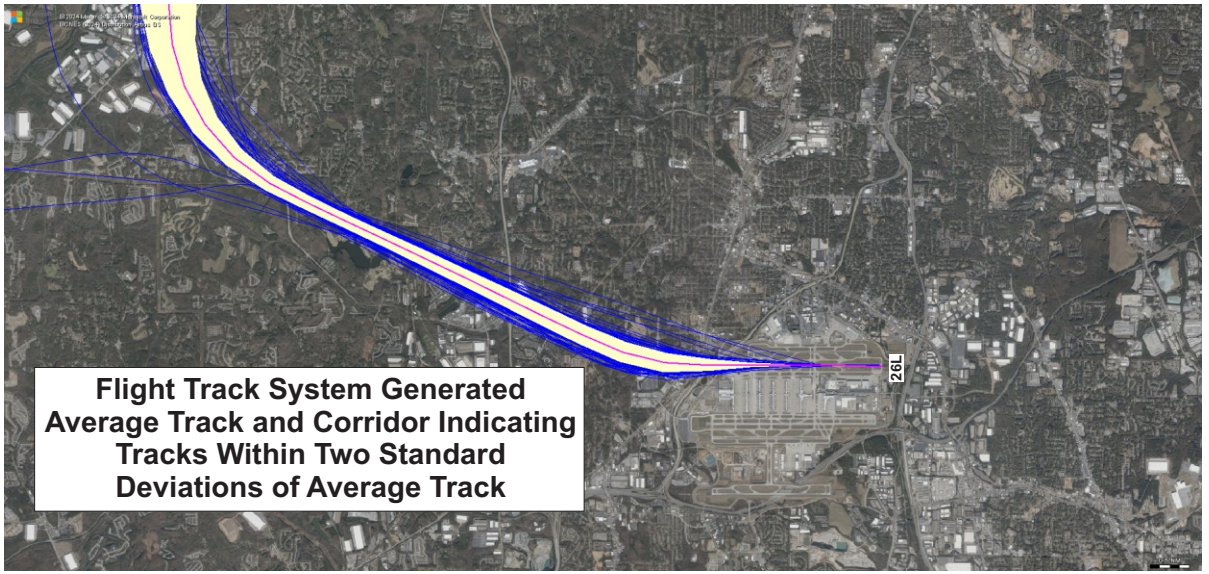
Table 5
Jet Departure Corridors

Runway	Departure Corridors	
	Day	**Night**
East Flow		
8R	HRSHL RONII	HRSHL RONII Vector Track – 70^0
9L	LIDAS GRITZ	LIDAS GRITZ
10	GRITZ	GRITZ
West Flow		
26L	SNUFY MPASS	SNUFY MPASS Vector Track – 275^0
27R	SLAWW FUTBL CPARK	SLAWW FUTBL CPARK
28	Vector - 250^0	Vector-250^0
Source: City of Atlanta/Department of Aviation		

The DOA's FTS was used to calculate an "average" track for each arrival and departure corridor. The FTS-generated average tracks (referred to as "backbone" tracks) were modeled in AEDT. Due to factors such as the type of aircraft, the navigation equipment installed on an aircraft, and the weather, aircraft are unable to exactly follow a defined departure track. Rather, aircraft are almost always dispersed on either side of an average track. To develop the 2024 NEM, the FTS was used to determine the dispersion of aircraft within each arrival/departure corridor (i.e., the amount of dispersion that occurred on either side of each average arrival and departure track). For this purpose, days of typical flight tracks during the period from January 1, 2024 and June 17, 2024 were used (days when the airport was in either east or west flow 100 percent of the day and there were no weather events requiring deviation from the standard departure procedures).

Based on the data extracted from the FTS on average 75 percent of the aircraft in a departure corridor are located within 0.06 nautical miles (approximately 365 feet) of the average track with the remaining 25 percent of the aircraft located on either side of the average track. Notably, because aircraft are aligned with the runway on approach, the dispersal of aircraft in the arrival corridors when the aircraft are close to ATL is minimal. Also, the width of the departure and arrival corridors in 2024 is the same as the corridor width extracted from the FTS and used in the development of the year 2017/2022 NEMs for ATL. An example of an FTS-generated average track and an FTS-generated corridor in which two standard deviations of flight tracks occurred from the average track is provided in **Figure 4**. Notably, arrival and departure corridors were modeled in AEDT using subtracks (modeled flight tracks on either side of the "backbone" track).

The modeled average jet tracks and corridors are presented in **Figures 5 and 6**. Figure 5 presents the east flow arrival and departure corridors, and Figure 6 presents the west flow corridors. Of note, the location and width of the aircraft flight corridors depicted in Figures 5 and 6 represent the average daily corridor location/width. Given certain circumstances (e.g., weather, runway closures) aircraft will be



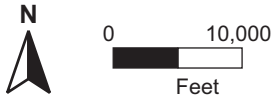


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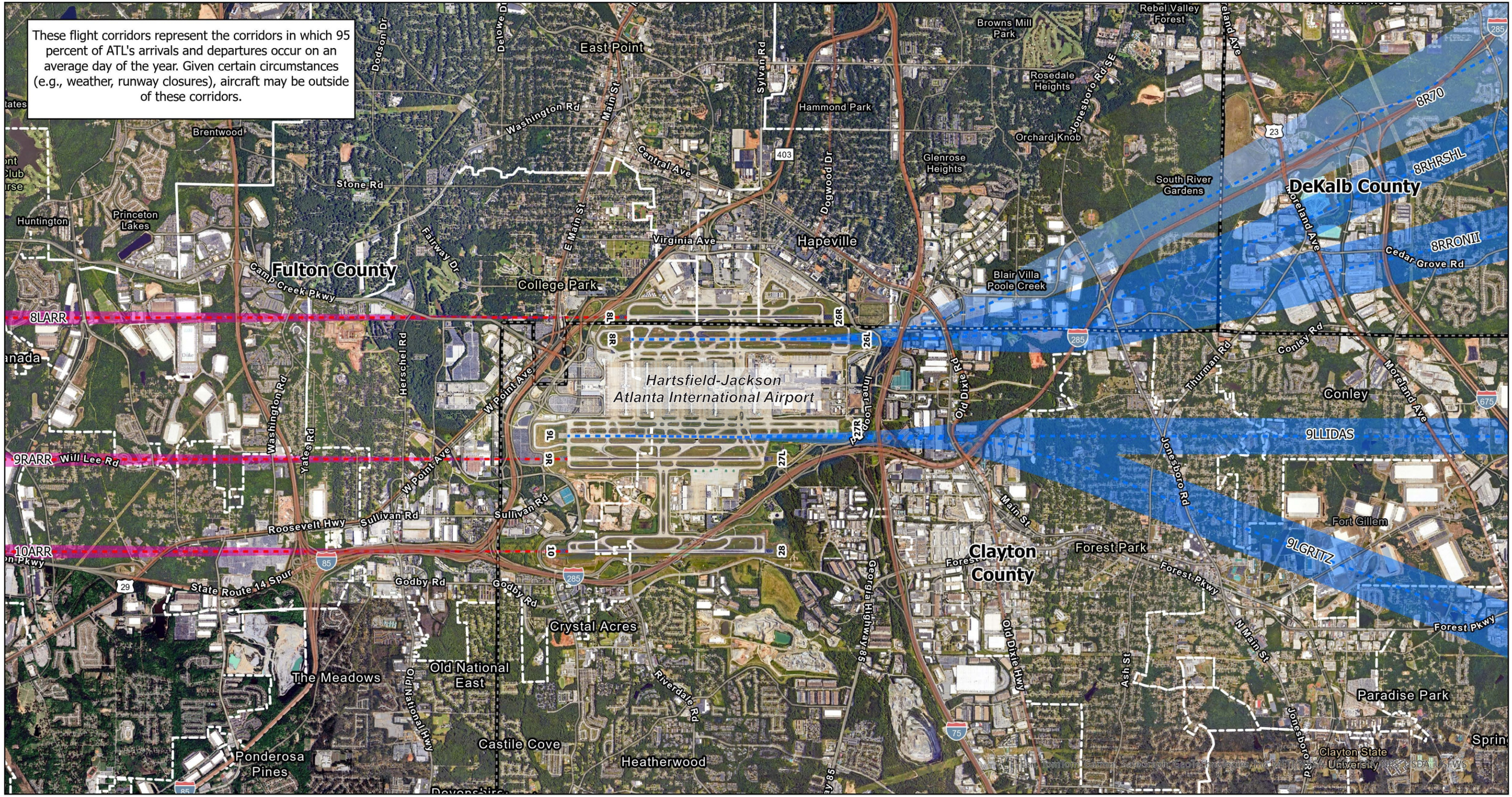
Figure 4
Example Average Flight Track and Corridor

These flight corridors represent the corridors in which 95 percent of ATL's arrivals and departures occur on an average day of the year. Given certain circumstances (e.g., weather, runway closures), aircraft may be outside of these corridors.



- Arrival
- Departure
- Jurisdictional Boundary
- County Boundary
- Jet Departure Track/ Corridor - Nighttime Only
- Jet Departure Track/ Corridor
- Arrival Track/Corridor

0 4,000 8,000 US Feet

N

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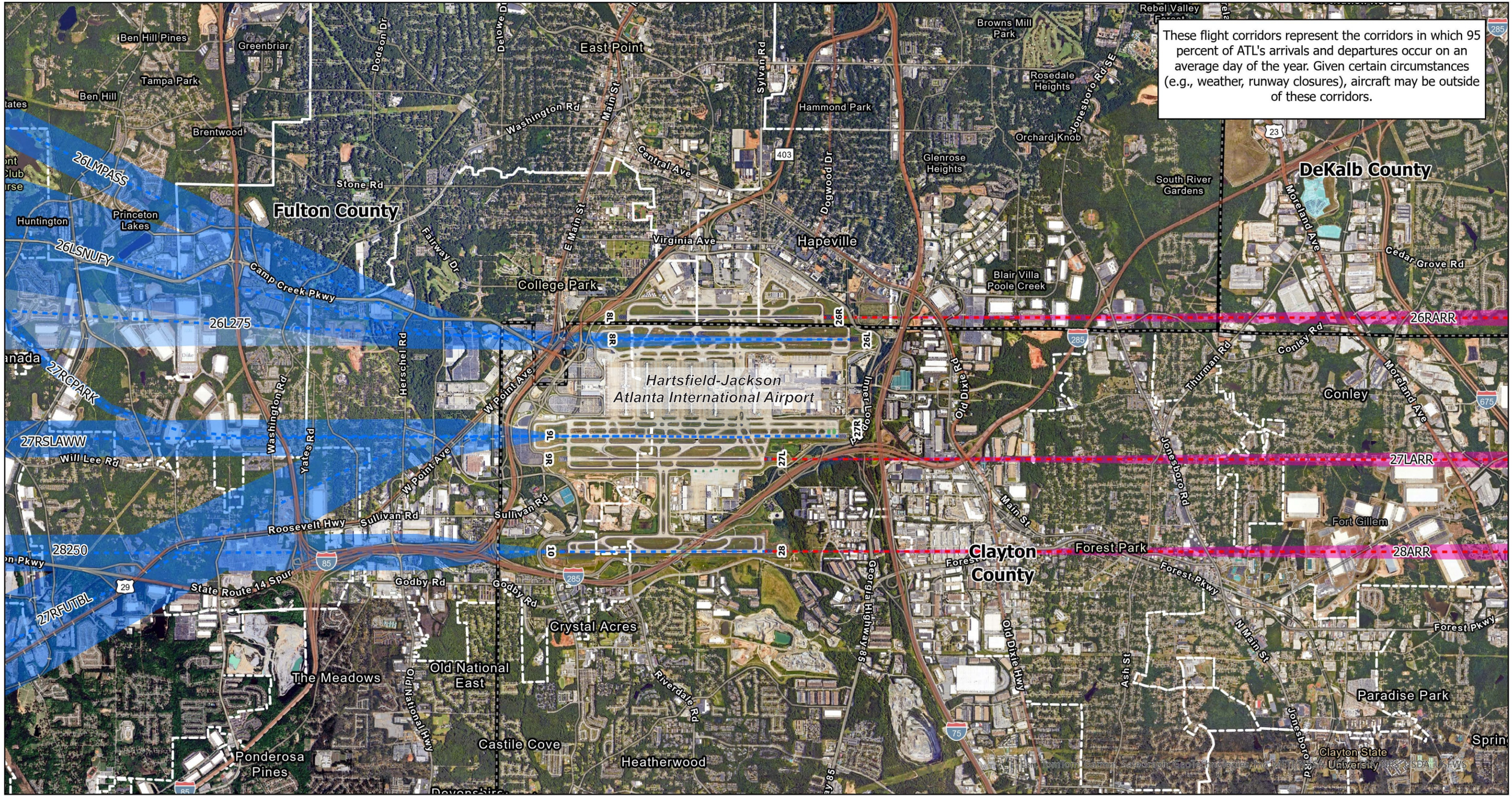
Figure 5
East Flow Corridors - Jets



Arrival
Departure
Jurisdictional Boundary
County Boundary

Jet Departure Track/ Corridor - Nighttime Only
Jet Departure Track/ Corridor
Arrival Track/Corridor

0 4,000 8,000 US Feet

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Figure 6
West Flow Corridors - Jets

outside of these corridors. Because of their width, the modeled average turboprop and prop tracks and corridors are only depicted on the NEMs.

3.6 Departure Profiles

The ground tracks described in the previous section of this document define, within AEDT and from a horizontal perspective when viewing the airport from above, the location of each track in relation to the airport's runways. The vertical profile (i.e., the distance an aircraft is above ground along the track) must also be defined. Arrivals at ATL approach the ends of the arrival runways at a three-degree descent. Aircraft-specific departure profiles were assigned using data from the DOA's FTS that provide departure destinations (i.e., the airport to which a departing aircraft is going). Based on the distances to the destination airports, stage numbers that equate to trip lengths are assigned. The stage numbers/trip lengths used by AEDT are listed in **Table 6**. **Table 7** provides the departure stage lengths for the AEDT modeled aircraft.

Table 6
AEDT Stage Numbers/Trip Lengths

Stage Number	Trip Length (nautical miles)
1	0-500
2	500-1,000
3	1,000-1,500
4	1,500-2,500
5	2,500-3,500
6	3,500-4,500
7	4,500-5,500
8	5,500-6,500
9	6,500-11,000
M	Maximum range at maximum takeoff weight
Source: AEDT Version 3f User Manual, December 2023.	

3.7 Time of Day

As previously stated, YDNL values are calculated such that arrivals and departures that occur after 10 p.m. and before 7 a.m. (i.e., during the nighttime) are penalized by the addition of 10 dBA to each operation. The 10 dB penalty is applied to account for greater human sensitivity to aircraft noise during nighttime hours. The percentages of 2024 operations assumed to occur during these hours were obtained from the FTS. Based on the data sample, 12 percent of the arrivals to ATL and 14 percent of the departures from ATL occur during the night. The number of arrivals and departures during the day and night for each modeled aircraft are also provided in Appendix A.

Table 7
Modeled Stage Lengths

Aircraft	Engine	Stage Length								
		1	2	3	4	5	6	7	8	M[1]
Airbus A220-300	PW1521G	0.3%	92.1%		7.1%		0.5%			
Airbus A300F4-600 Series	PW4158	42.9%	57.1%							
Airbus A319-100 Series	CFM56-5A5	17.6%	74.2%	7.0%	1.0%	0.1%				
Airbus A320-200 Series	CFM56-5A3	9.2%	83.3%	4.2%	3.1%	0.1%				
Airbus A320-NEO	LEAP-1A26/26E1	18.9%	62.1%	7.9%	11.1%					0.1%
Airbus A321-200 Series	CFM56-5B3/3	3.6%	60.9%	9.0%	26.4%	0.0%				
Airbus A321-NEO	PW1133GA-JM	18.9%	49.6%	3.4%	28.1%	0.1%				
Airbus A330-200 Series	PW4168A	3.6%	1.6%		11.3%		10.1%	73.4%		
Airbus A330-300 Series	PW4168A	1.4%	2.0%	0.1%	6.4%		55.3%	34.8%		
Airbus A330-900N Series (Neo)	Trent7000-72_6652	2.4%	7.5%		11.5%		25.6%	53.1%		
Airbus A350-900 series	Trent XWB-84	0.1%	7.4%	0.1%	19.4%	4.1%	15.1%	19.5%	8.1%	26.2%
Boeing 717-200 Series	BR700-715C1-30_85	65.4%	34.4%	0.1%	0.0%		0.1%			
Boeing 737-700 Series	CFM56-7B24	37.0%	55.5%	4.3%	3.1%		0.0%			
Boeing 737-8	LEAP-1B27	32.7%	52.3%	5.8%	9.3%					
Boeing 737-800 Series	CFM56-7B26/3	29.4%	42.6%	16.5%	11.5%		0.1%			
Boeing 737-9	LEAP-1B	0.7%	28.1%	5.9%	65.4%					
Boeing 737-900 Series	CFM56-7B24E	55.6%	27.1%	3.7%	13.5%		0.1%			
Boeing 747-400 Series	CF6-80C2B1	2.3%	6.2%	0.8%	38.0%	30.2%	17.1%	0.8%	4.7%	
Boeing 747-8F	GEnx-2B67	3.7%	29.9%		21.5%	42.1%	2.8%			
Boeing 757-200 Series	PW2037	39.5%	39.6%	6.5%	14.0%	0.2%		0.1%		
Boeing 757-300 Series	PW2040	17.7%	25.7%	0.5%	55.8%		0.3%			
Boeing 767-300 Series	PW4060	40.5%	19.2%	0.1%	22.3%	2.0%	1.5%	14.3%		
Boeing 767-400	CF6-80C2B5F_1058	0.3%	2.2%	0.1%	17.3%		39.0%	41.0%		
Boeing 777-200 Series	TRENT 892B			0.5%			99.5%			
Boeing 777-200-LR	GE90-110B1	4.3%	30.6%	0.3%	13.0%	4.5%	2.4%	44.9%		
Boeing 777-300 ER	GE90-115B_665						100.0%			
Bombardier CRJ-700	CF34-8C1	57.4%	35.6%	6.7%	0.1%	0.1%				
Bombardier CRJ-900	CF34-8C5	62.5%	37.3%	0.0%	0.0%	0.1%				
Cessna 208 Caravan	PT6A-114	100.0%								
Cessna 560 Citation V	JT15D-5, -5A, -5B	100.0%								
Cessna 680-A Citation Latitude	PW306B_6386	100.0%								
Embraer ERJ170	CF34-8E5A1_2560	20.4%	79.6%							
Embraer ERJ175	CF34-8E5A1_3815	0.8%	99.2%							
Embraer ERJ175-LR	CF34-8E	5.0%	94.8%	0.2%						
Embraer ERJ190	CF34-10E6	2.7%	47.5%	49.4%	0.4%					
Embraer Phenom 300 (EMB-505)	PW530	100.0%								
Raytheon Beech 1900-C	PT6A-65B	99.8%	0.2%							

Note: Values subject to rounding.
[1] AEDT assigns Stage Length M to represent the maximum range at maximum takeoff weight for an aircraft.
Source: City of Atlanta/Department of Aviation and Crawford, Murphy, and Tilly, Inc.

3.8 Meteorological Data

For ATL, AEDT used average data for the period 2013-2022 for the airport-specific meteorological data listed below. This data is used to model the influences of meteorological conditions on aircraft performance and noise propagation.

- temperature – 63.85 degrees Fahrenheit,
- pressure – 981.21 millibars,
- sea level pressure – 1018.38 millibars,

- relative humidity – 66.36 percent,
- dew point – 52.38 degrees Fahrenheit, and
- wind speed – 6.99 knots.

3.9 Noise Contours

The aircraft noise contours prepared with AEDT for the year 2024 are illustrated in **Figure 7. Table 8** provides the area (in square miles) of each contour interval (YDNL 65-69 dBA, 70-74 dBA, and 75 and greater dBA). As shown, the total area encompassed by the YDNL 65 dBA contour is approximately 14 square miles.

Table 8
Noise Contour Area – 2024

YDNL Range	Area (Square Miles)
65-69	7.7
70-74	4.0
75+	2.2
Total	13.9
Source: Crawford, Murphy & Tilly, Inc. 2024	

As would be expected given the percent of time the airport is in west flow (61 percent), the contour lobes that are primarily a result of aircraft arrivals extends farther on the east side of the airport than the west and the contour lobes that are primarily a result of aircraft departures are larger/extend farther on the west side of the airport than the east side. In 2024, approximately 50 percent of the total arrivals and departures occurred on the northern runway pair (Runways 8L-26R and 8R-26L), 42 percent on the southern runway pair (Runway 9L-27R and 9R-27L), and eight percent on Runway 10-28.

Table 9 provides the estimated number of residences and people residing within ATL's 2024 YDNL 65 dBA and greater aircraft noise contours. The estimate was prepared using year 2020 census data to derive the average number of persons per household for each of the census blocks within the limit of the YDNL 65 dBA contour. The number of residences within the contour was derived using GIS and aerial imagery. The average number of persons per household was multiplied by the corresponding number of housing units within each block. Based on this methodology, there are approximately 4,649 residences and 9,671 people residing within the YDNL 65 dBA contour. The estimated number of residences/people residing within residences that have and have not been sound insulated is also provided in Table 9. As shown, approximately 36 percent of the residences within the YDNL 65 dBA contour have been sound insulated and are therefore considered to be compatible with aircraft noise.

Jurisdictional Boundary
County Boundary

Aircraft Noise Contours
- YDNL 65 dBA
- YDNL 70 dBA
- YDNL 75 dBA

0 4,000 8,000 US Feet

N

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Figure 7
Aircraft Noise Contours - 2024

Table 9
Estimated Residences and Population Within
YDNL 65 dBA and Greater Contours - 2024

Residences or Population	Number Within Contour Interval						
	Sound Insulated			Not Sound Insulated			
	YDNL 65-69 dBA	YDNL 70-74 dBA	YDNL 75+ dBA	YDNL 65-69 dBA	YDNL 70-74 dBA	YDNL 75+ dBA	Total
Residences	1,694	0	0	2,953	2	0	4,649
Population	3,954	0	0	5,709	8	0	9,671
Source: Derived by Crawford, Murphy & Tilly, Inc. using Year 2020 Census Data.							

As previously stated, the existing year (2024) NEM is provided in Appendix G of this report. The locations of residential properties (single and multi-family residences) are depicted on the NEMs. Notably, the residential properties are delineated by those that have been previously addressed for aircraft noise and are therefore considered to be a compatible land use as well as residential properties that were not addressed. Non-residential properties for which the current land use is noncompatible with aircraft noise are also shown on the NEM (e.g., schools, places of worship) as well as the locations of non-residential properties that have been sound insulated for aircraft noise and therefore are a compatible land use.

It is important to emphasize that the residential and non-residential properties depicted on the NEMs as being compatible are only the properties located inside the 2024 and 2029 YDNL 65 dBA contours. The DOA prepared a first set of noise contours in the late 1970s that guided an early noise insulation and property acquisition program. Noise contours from the 1970s and 1980s covered much more area than the current contour sets. Because these contours covered so much area, more residences were eligible/noise insulated that were located outside of the current 2024 and 2029 YDNL 65 dBA. Over time, both the DOA and the FAA have partnered to fund over $425 million in property acquisitions and noise insulation to improve land use compatibility in the jurisdictions around the Atlanta airport. This effort has greatly increased land use compatibility within the NEMs and surrounding ATL. Notably, federal aircraft noise certification has demonstrated that, aircraft have become much quieter over the last 50 years. Factors contributing to this noise reduction include stricter aircraft engine noise regulations, the retirement of older and noisier aircraft, and the introduction of modern turbojets and turbofan engines.

A list of the non-residential noise sensitive sites within the 2024 NEM is provided in **Table 10**. The locations of the sites are depicted on the NEMs in Appendix G. There is one property, a residence located at 4583 Herschel Road in College Park, which is listed on the National Register of Historic Places. Notably, a combined outdoor sports arena (Badgett Stadium) and a recreational center (Conley Recreational Center) in College Park is also partially located within the YDNL 65-69 dBA area.

Table 10
Non-Residential Noise Sensitive Sites - 2024

Site ID	Name	Address	City	Compatible/ Noncompatible
C1	College Park First United Methodist Church	3726 East Main St	College Park	Noncompatible
C2	Sword of the Spirit	2455 Roosevelt Hwy	College Park	Noncompatible
C3	Christian Mission Holiness Church	4520 Glade Rd	Forest Park	Noncompatible
C4	Iglesia de Jesucristo Palabra Meli	4296 Old Dixie Rd	Atlanta	Noncompatible
C5	Mount Olive Church of God	1991 Princeton Ave	College Park	Noncompatible
C6	United Mission	4517 White City Rd	College Park	Noncompatible
C7	Piney Grove Baptist Church	4578 White City Rd	College Park	Noncompatible
S1	Unidos Dual Language Charter School and Hendrix Dr Elementary School	4475 Hendrix Dr	Forest Park	Compatible
S2	Hunter-Kinder School	2775 Charlestown Dr	College Park	Noncompatible
S3	Atlanta Policy Academy	180 Southside Industrial Pkwy	Atlanta	Noncompatible
SR1	South Fulton Senior Services	3680 College St	College Park	Noncompatible
SR2	Camp Truitt Senior Center	4320 Herschel Rd	College Park	Noncompatible
SR3	Fellowship Senior Services	4530 Janice Dr	College Park	Noncompatible

Source: Crawford, Murphy & Tilly, Inc. 2024.

SECTION 4
Future (2029) Conditions

This section discusses the assumptions that were made to prepare forecast future noise conditions for ATL for the year 2029—a period five years from the current year (2024).

4.1 Runway Layout

The runway configuration in the year 2029 is anticipated to be the same as the current (year 2024) runway configuration.

4.2 Aircraft Operations

The calendar year 2029 fleet mix and operations forecast are predicated on analysis prepared for the 2023 Master Plan Update. The forecasts were prepared in 2023 and incorporated actual reported activity through August 2023. The DOA estimates that by the year 2029 the number of annual operations at ATL will total approximately 878,489 operations. The corresponding number of average daily operations, by aircraft category, is provided in **Table 11**.

Table 11
Average Daily Operations – 2029

Category	Sub-Category	Average Daily Operations	Percent of Operations
Passenger	Air Carrier	2,303	96
	Cargo	47	2
Air Taxi		36	1
General Aviation/Military		22	1
Total		2,406	100
Note: Values subject to rounding. Source: City of Atlanta/Department of Aviation and Crawford, Murphy & Tilly, Inc.			

4.3 Aircraft Fleet Mix

The forecast fleet mix for ATL for the year 2029 is presented in **Table 12**. Airlines continue to evaluate existing fleets for cost-effective operation, ability to carry passenger/cargo loads, assess if a given subfleet is appropriate for existing and future destinations, and the appropriate time to replace aircraft types. From an operational perspective, the most important trend that has been occurring in the airline industry is the use of larger aircraft that can carry more passengers. The fleet mix forecast for 2029 accounts for these factors.

As shown, the forecast predicts the aircraft that will be in primary use in 2029 will be Boeing 737-900s, Airbus A321-200s, Boeing 757-200s, Airbus A321-NEO, and Boeing 737-800. By 2029,

these five aircraft are forecast to comprise approximately 60 percent of ATL's fleet mix. The Airbus A321 aircraft is the most popular (by aircraft orders) representative of the next generation aircraft for fuel efficiency and flying range. Delta continues to operate Boeing 737-900s; these aircraft are still young and will remain in their fleet for another 10-15 years. While the 737-800 is aging, it will also remain in the fleet for a brief time after 2029. The Boeing 757 fleet is much older, and its use will slowly decline between 2024 and 2029 as evidenced in the forecast.

Two aircraft, the Airbus A220-100, and the Boeing 787-9 Dreamliner are also forecast to be introduced into ATL's fleet of aircraft by 2029. Notably, based on published airline reports, the DOA anticipates that by 2029 the following aircraft will no longer be arriving and departing ATL:

- Boeing 717-200s
- Embraer ERJ190s
- Embraer ERJ175-LR

Delta Air Lines is the sole user of the Boeing 717-200. Delta has announced that it plans to retire the aircraft at the end of the calendar year 2025. The two Embraer aircraft are smaller regional aircraft types that will be gradually phased out of service over a period extending beyond 2029 and replaced by larger aircraft. Some Embraer aircraft will remain in the 2029 ATL fleet as shown in Table 12.

Table 12
Aircraft Fleet Mix – 2029

Category		Airframe	Engine	Number of Annual Average Day Operations
Air Carrier	Passenger	Airbus A220-100	PW1524G	111
		Airbus A220-300	PW1521G	106
		Airbus A319-100 Series	CFM56-5A5	91
		Airbus A320-200 Series	CFM56-5A3	133
		Airbus A320-NEO	LEAP-1A26/26E1	152
		Airbus A321-200 Series	CFM56-5B3/3	383
		Airbus A321-NEO	PW1133GA-JM	231
		Airbus A330-200 Series	PW4168A	12
		Airbus A330-300 Series	PW4168A	10
		Airbus A330-900N Series (Neo)	TRENT 7000-72	7
		Airbus A350-900 series	TRENT XWB-84	40
		Boeing 737-700 Series	CFM56-7B24	118
		Boeing 737-8	LEAP-1B27	55
		Boeing 737-800 Series	CFM56-7B26/3	155
		Boeing 737-9	LEAP-1B27	48
		Boeing 737-900 Series	CFM56-7B24E	403
		Boeing 747-8F	GENX-2B67	2
		Boeing 757-200 Series	PW2037	238
		Boeing 757-300 Series	PW2040	26
		Boeing 767-300 Series	PW4060	8
		Boeing 767-400	CF6-80C2B7E	7
		Boeing 777-200 Series	TRENT 892B	7
		Boeing 777-300 ER	GE90-115BL2	2

Category		Airframe	Engine	Number of Annual Average Day Operations
		Boeing 787-9 Dreamliner	GEnx-1B70	2
		Bombardier CRJ-700	CF34-8C1	34
		Bombardier CRJ-900	CF34-8C5	132
		Embraer ERJ170	CF34-8E5A1	6
		Embraer ERJ175	CF34-8E	15
	Cargo	Airbus A300F4-600 Series	PW4158-3	5
		Boeing 747-400 Series Freighter	CF6-80C2B1F	3
		Boeing 747-8F	Genx-2B67	5
		Boeing 757-200 Series	PW2037	3
		Boeing 767-300 Series	PW4060	23
		Boeing 777-200-LR	GE90-110B1L	8
Air Taxi		Cessna 208 Caravan	PT6A-114	12
		Embraer ERJ170	CF34-8E5A1	11
		Raytheon Beech 1900-C	PT6A-65B	13
General Aviation/Military		Cessna 560 Citation V	JT15D-5, -5A, -5B	4
		Cessna 680-A Citation Latitude	PW306C	6
		Embraer Phenom 300 (EMB-505)	PW530	12
Total				2,406
Note: Values subject to rounding. Source: City of Atlanta/Department of Aviation.				

4.4 Airport Flow/Runway Use

The east-west flow used in the analysis of 2024 conditions (39 percent east and 61 percent west) was assumed for the future 2029 condition. The anticipated runway use for 2029 is presented in **Table 13**. The usage is based on data derived for the 2024 contours, conversations with DOA (and DOA's conversations with FAA air traffic staff), as well as general knowledge of Atlanta airspace and procedures. The table presents the utilization percentages for each runway for departures and arrivals separately, and by day and night. Because the forecast is only five years in the future and there are no proposed operational changes that would occur during this time, the runway use assumed for 2029 is essentially unchanged compared to that was used for the evaluation of 2024 conditions. The runway utilization by individual aircraft type is provided in Appendix A.

4.5 Flight Tracks

The departure headings and splay of aircraft (i.e., flight corridors) for the 2029 noise contours were the same as those developed for the evaluation of the 2024 noise contours (i.e., the DOA does not contemplate any changes to either the departure headings or splay of aircraft through 2029).

Table 13
Percent Runway Utilization – 2029

Runway	Arrivals		Departures		Percent of Total Operations
	Daytime	Nighttime	Daytime	Nighttime	
East Flow					
8L	19	25	-	-	10
8R	-	-	19	22	10
9L	-	-	20	17	10
9R	14	11	-	-	7
10	6	3	-	-	3
Subtotal	39	39	39	39	39
West Flow					
26R	30	40	-	-	16
26L	-	-	30	35	15
27R	-	-	31	26	15
27L	22	17	-	-	11
28	9	4	<1	-	4
Subtotal	61	61	61	61	61
TOTAL	100	100	100	100	100

- Denotes that a runway is not typically used for this type of operation.
Note: Numbers reflect rounding. and may not add up to 100 percent.
Source: Crawford, Murphy, and Tilly, Inc.

4.6 Departure Profiles

Except for the aircraft that would be new to the fleet that currently use ATL, the departure profile and stage length assignments used to evaluate 2029 conditions were the same as those used for 2024. Averages of the aircraft replaced by the new aircraft were derived for use in the AEDT for the aircraft new to the fleet.

4.7 Time of Day

For the 2029 NEM, the percentage of arrivals occurring at night was assumed to be the same as in 2024 and the percentage of departures at night increased slightly (12 and 15 percent, respectively). Of note, while the overall percentage of operations was assumed to remain the same/essentially the same in 2029, because the number of average daily operations is greater in 2029 than in 2024, the number of operations occurring at night was assumed to be greater.

4.8 Meteorological Data

The same meteorological data that was used to develop the 2024 contours were also assumed for the evaluation of future conditions.

4.9 Noise Contours

The aircraft noise contours for 2029 are provided in **Figure 8**. **Table 14** provides the area (in square miles) of each contour interval. As shown, the total area encompassed by the YDNL 65 dBA contour is 16 square miles—an increase of 2.1 square miles when compared to the area within the 2024 contours.

Table 14
Noise Contour Area – 2029

YDNL Range	Area (Square Miles)
65-69	8.8
70-74	4.6
75+	2.6
Total	16.0
Source: Crawford, Murphy & Tilly, Inc. 2024.	

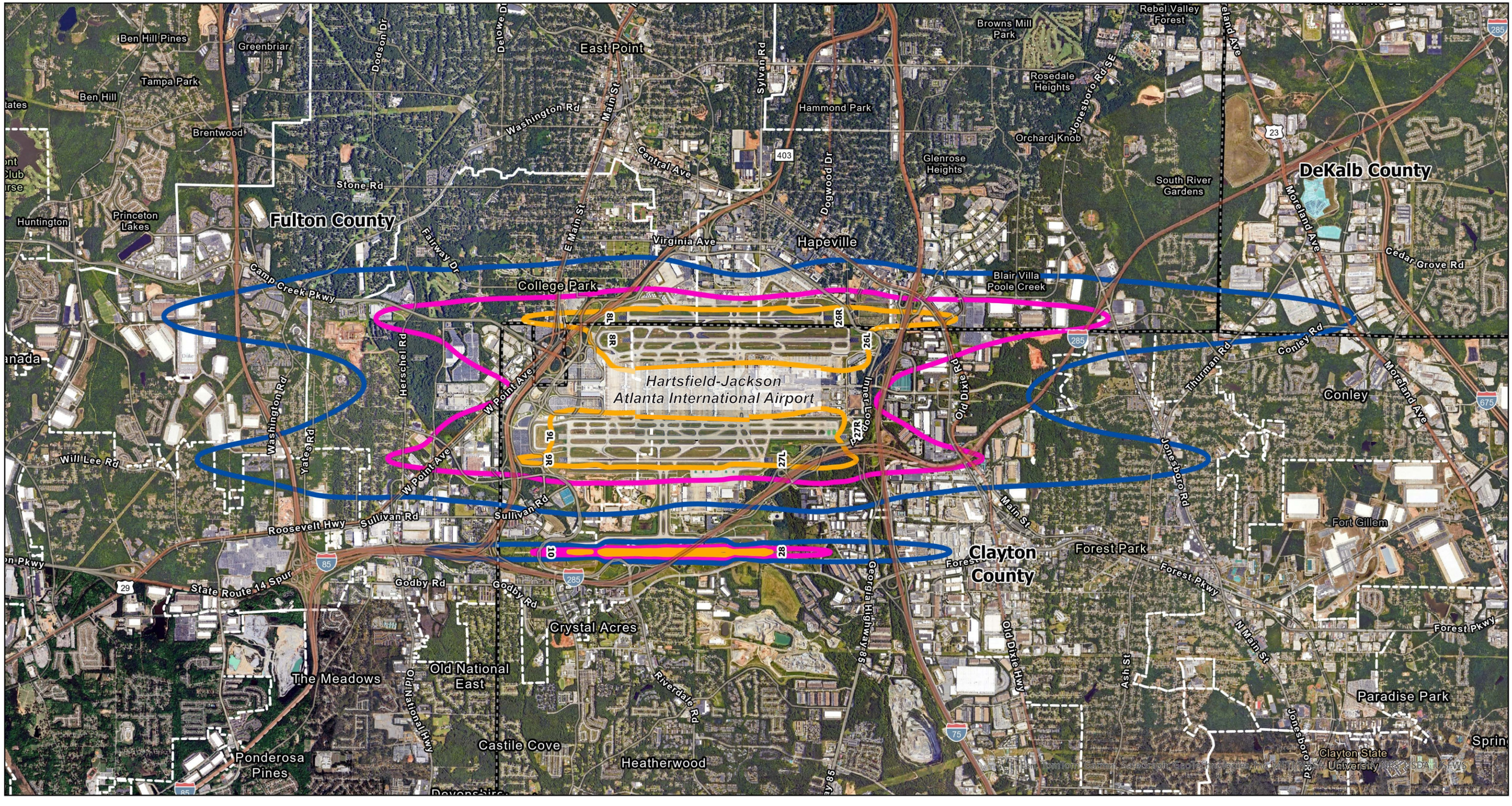
Table 15 provides an estimated number of people residing within ATL's 2029 YDNL 65 dBA and greater noise contour. The estimate was prepared using year 2020 census data to derive the average number of persons per household for each of the census blocks within the limit of the YDNL 65 dBA contour. As shown, there would be approximately 5,789 residences and 12,097 people residing within the YDNL 65 dBA contour. The estimated number of residences/people residing within residences that have and have not been sound insulated is also provided in Table 15. As shown, approximately 38 percent of the residences within the YDNL 65 dBA contour have been sound insulated.

Table 15
Estimated Residences and Population Within
YDNL 65 dBA and Greater Contours – 2029

Residences or Population	Number Within Contour Interval						
	Sound Insulated			Not Sound Insulated			
	YDNL 65-69 dBA	YDNL 70-74 dBA	YDNL 75+ dBA	YDNL 65-69 dBA	YDNL 70-74 dBA	YDNL 75+ dBA	Total
Residences	2,195	8	0	3,525	61	0	5,789
Population	5,141	12	0	6,802	142	0	12,097
Source: Derived by Crawford, Murphy & Tilly, Inc., 2024 using Year 2020 Census data.							

As previously stated, the NEMs are provided in Appendix G of this report. The locations of properties for which the land use is considered noncompatible with aircraft noise are identified on the NEMs in Appendix G as well as properties that were previously addressed by the DOA and are therefore considered to have compatible land uses. Except for the following school, the list of the non-residential noise sensitive sites within the year 2029 noise contours is the same as those provided in Table 10:

- Site S4 – College Park Elementary School located at 2075 Princeton Drive in College Park.



Jurisdictional Boundary

County Boundary

Aircraft Noise Contours

YDNL 65 dBA

YDNL 70 dBA

YDNL 75 dBA

0 4,000 8,000 US Feet

N

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Figure 8

Aircraft Noise Contours - 2029

SECTION 5
Coordination

14 CFR Part 150.21(b) states that "The airport operator shall certify that it has afforded interested persons adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of the draft noise exposure map and descriptions of forecast aircraft operations. Each map and revised map must be accompanied by documentation describing the consultation accomplished under this paragraph and the opportunities afforded the public to review and comment during the development of the map." As such, the DOA employed a comprehensive public and stakeholder outreach campaign to provide the public and interested parties with the opportunity to submit their comments and views on the Draft NEMs.

This section of the report documents the meetings and forums that were specifically held to provide regular aeronautical users of ATL, certain agencies, the political jurisdictions surrounding the Airport, and the public, the opportunity to submit their views, data, and comments concerning the correctness and adequacy of the data used to develop the draft NEMs prior to publishing the final NEMs. The following provides detailed information about a meeting that was held with the Atlanta Airport Affairs Committee as well as a meeting held with representatives of the political jurisdictions surrounding ATL and a Public Workshop. During the meetings and the Workshop, participants were encouraged to verbally provide their views and comments on the information that was presented by the DOA. Following both the meetings and Workshop, the DOA provided opportunities to submit views, data, and comments by emailing or mailing them to the DOA's Director of Government Affairs (Tianna.Evola@ATL.com) or emailing them to NEMComments@cmtengr.com.

On May 16, 2024, the DOA gave a presentation to the Atlanta Airport Affairs Committee (AAAC). The AAAC consists of airline corporate real estate and properties executives who represent their respective airlines for issues affecting their company's operation at ATL. The presentation (provided in **Appendix B**) focused on the data that had been collected as of May 16, 2024 to prepare the 2024 NEM. No verbal or written aeronautical comments were received from the AAAC. Representatives of the following airlines attended the meeting:

- Delta Air Lines
- Frontier Airlines
- Qatar Airways
- Air Canada
- Spirit Airlines
- Alaska Airlines
- Aeroméxico Airlines
- American Airlines
- Air France

Representatives of the political jurisdictions surrounding ATL, boards governing schools in the area, as well as representatives from the Georgia Historic Preservation Division and the Georgia Department of Natural Resources, Environmental Protection Division, were invited to a briefing by the DOA that was held on June 27, 2024 (provided in **Appendix C**). The DOA provided the attendees with an overview of the data that had been, and would be, collected to prepare the year 2024/2029

NEMs. A representative of DeKalb-Peachtree Airport (PDK) and representatives of the following attended the briefing:

- City of College Park
- City of East Point
- City of Forest Park
- City of Hapeville
- City of Jonesboro
- City of Lake City
- City of Morrow
- City of Riverdale
- City of South Fulton
- Clayton County
- DeKalb County
- Fulton County
- Clayton County Schools
- Fulton County Schools

At the conclusion of the briefing, the following topics were raised and/or comments made by those that attended. Each topic is followed by a summary of the response that was given by the DOA (in italics).

- A representative of a political jurisdiction stated that many residents within one of their communities had historically provided avigation easements to the DOA, but more and more complaints were being received from residents of new housing communities regarding aircraft noise and fuel being discharged from aircraft. A question was asked as to whether the update to the NEMs would address either of these concerns.

  The DOA requested that aircraft noise complaints and general airport-related complaints that are received by the political jurisdictions/others be directed to the DOA. The DOA stated that non-compatible structures permitted after 1984 would not be eligible to participate in the Airport's Noise Insulation Program. The DOA also described the rare circumstance in which fuel would be discharged from an aircraft (i.e., only in an emergency) and that only a few aircraft types are capable of jettisoning fuel.

- The representative from PDK asked how they should transmit complaints they receive that are due to activity at ATL.

  The DOA stated that complaints can be submitted on ATL's website[9] or directly to the DOA's noise complaint telephone number at 404-382-1379.

- A representative of a political jurisdiction asked if residences would be sound insulated after the study is completed.

  The DOA explained that the study will update the area in which sound insultation is possible and reiterated that structures permitted for construction after 1984 would not be eligible. It was further explained that there are circumstances in which structures permitted prior to 1984 are not eligible for insulation. One such example being a structure that can't support heavy acoustic doors or windows, such as a mobile home.

[9] Aircraft Noise-Related Comments-Concerns - ATL | Hartsfield-Jackson Atlanta International Airport

The fixed base operator at ATL, Signature Aviation, was not consulted. In calendar year 2023, general aviation (GA) activity consisted of approximately 0.8% of ATL's overall activity. Additionally, zero fixed-wing GA aircraft are based ATL as all aircraft are transient. While three helicopters are based at ATL, the Atlanta Police Department (APD) operate these helicopters. All GA operations, including the APD helicopters, are controlled by the controllers at Atlanta Tower.

On September 19, 2024, the DOA hosted a Public Workshop at its Technical Support Campus. The information provided at the Workshop and the handout that was distributed are provided in **Appendix D** of this report. The Workshop was advertised by legal and display ads that were placed two times prior to the Workshop in the area newspaper with the greatest circulation-- the Atlanta Journal-Constitution (AJC). Copies of the ads are provided in Appendix D. In addition to the announcements in the newspaper, the DOA informed the public about the Workshop through a post on ATL's website and two posts on X (formerly known as Twitter). Notably, on average, the daily print distribution and paid electronic copies of the AJC is 92,395.[10] Additionally, the two posts on X were viewed 1,951 and 1,356 times, respectively. An announcement was also emailed to the following with a request for the purpose and date of the Workshop to be distributed in each community/agency:

- Atlanta City Council
- City of Atlanta
- City of College Park
- City of Fairburn
- City of Forest Park
- City of Hapeville
- City of Union City
- Clayton County
- Clayton County Public Schools
- DeKalb County
- City of East Point
- City of Jonesboro
- City of Lake City
- City of Morrow
- City of Riverdale
- City of South Fulton
- Fulton County
- Fulton County Schools
- Georgia Department of Community Affairs
- Georgia Department of Public Health

The September 19th Workshop was held from 5 PM to 7 PM with a PowerPoint presentation given at 6 PM. The presentation summarized the draft methodologies, data, and assumptions that the DOA had prepared to date for the development of ATL's NEMs. Three members of the public and two elected officials from the communities surrounding the airport attended. Copies of the sign-in sheets and Workshop handout are provided in Appendix D. At the conclusion of the PowerPoint presentation, the following questions were asked. Each question is followed by a summary of the response that was given by the DOA (in italics).

- Are there funds available through the DOA's noise mitigation program to replace windows and doors?

[10] Atlanta Journal Constitution, Circulation Statement – 2024, September 22, 2024.

The DOA explained that their aircraft noise mitigation program uses federal and local funds to replace windows and doors in structures that are eligible to participate in the program. To be eligible structures must have been constructed prior to 1984 as well as meeting other criteria.

- What is the process after the NEMs are finalized?

  After the NEMs are accepted by the FAA, the DOA will contact the owners of property that are identified as being potentially eligible to participate in the noise mitigation program.

- How often does the DOA update ATL's NEMs?

  Ideally, the NEMs are updated at least every five years. ATL's last accepted NEMs were for the years 2017 and 2022. The DOA didn't prepare an update in 2022 because the operational level at ATL was low due to the pandemic and preparing NEMs at that time would not reflect the increase in operations that would occur after the pandemic ended.

The DOA also provided Workshop attendees the opportunity to leave written comments or to provide comments to a court reporter. No written comments were submitted or given to the court reporter. As stated in the presentation and noted in the handout at the Workshop, the public and other interested parties were afforded the opportunity to submit comments on the draft data that was to be used to develop the NEMs by email or mail through a 14-day comment period (i.e., the DOA requested that comments be submitted by October 3, 2024). Following the Workshop, the following comments were submitted to the DOA:

- In the noise map, please add a light-yellow region to show which areas are impacted by 40-44.9 dBA. This is important for areas that are exposed to additional sources of noise.

  The NEMs were prepared to comply with Section A150.101 of Part 150 which stipulates that aircraft noise contours must be developed for YDNL levels of 65, 70, and 75 dB.

- Please consider adding additional versions of the map: (a) does NOT filter out the low frequency noise, (b) one that indicates Lmax. I presume the current map shows average sound level.

  The NEMs depict yearly day-night 24-hour average sound levels (YDNL), in decibels.

- Please add a note to the map that describes the conditions under which those numbers were arrived at. We can tell for sure that it's louder when it's cloudy.

The meteorological conditions that were assumed in the development of the NEMs are described in Section 3.8 of this report. AEDT does not account for presence of cloud cover or percentage of sky containing cloud cover.

- Please add a note to the map that describes how you account for the random airplanes that flow very low off the regular path.

  As stated in Section 3.5, the location and width of the aircraft flight corridors represent the average daily corridor location/width. Given certain circumstances (e.g., weather, runway closures) aircraft will be outside of these corridors.

- Please add a note to the map that indicates the times of no-flight ... or find a way to illustrate how sound levels changes over the course of the day.

  Times during which there are no arrivals or departures at ATL will vary from day to day (i.e., there are no non-flight times). Additionally, given the nature of operations at the airport (e.g., different aircraft arriving/departing hourly, delayed flights), the sound levels due to aircraft operations will also change over the course of each day.

A second Public Workshop is being held on December 5, 2024 at the DOA's Technical Support Campus. The purpose of the Workshop is to review the data presented at the Public Workshop held on September 19, 2024, to present the Draft NEMs, and to announce the availability of the Draft NEM Update Report (i.e., this report). Copies of the sign-in sheets, the handout, and presentation will be provided in **Appendix E** of the Final NEM Update Report. Participants in the Workshop will be afforded the opportunity to provide verbal comments to a court reporter. Following the Workshop, the public may provide views, data, and comments regarding the development of the NEMs to the DOA's Director of Government Affairs by mail using the address below or by email to NEMComments@cmtengr. com.

Ms. Tianna Evola
Director of Government Affairs
City of Atlanta/Department of Aviation
P.O. Box 20509
Atlanta, GA 30320

The comment period for the Draft NEMs and Draft NEM Update Report begins on December 5, 2024 and comments mailed/emailed are to be postmarked/received by January 6, 2025 (i.e., a 32-day comment period).

SECTION 6
Land Use

As stated in Section 2 (Methodology) of this report, the NEMs depict both noncompatible and compatible residences as well as the location(s) of places of worship, schools, daycare centers, senior assisted living facilities and historic sites. The existing types and locations of these land uses were obtained from online sources for each of the political jurisdictions listed in **Table 16** as well as field reviews.

Table 16
Political Jurisdictions in the Vicinity of ATL

Political Jurisdiction	Year of Most Recent Comprehensive Plan or Plan Amendment
City of College Park	2021
City of East Point	2022
City of Hapeville	2022
City of Atlanta	2021
City of Forest Park	2023
City of South Fulton	2021
Unincorporated Clayton County	2022
Unincorporated DeKalb County	2022
Unincorporated Fulton County	2016
Source: Compiled by Crawford, Murphy & Tilly, Inc.	

To determine if any changes in land use are planned within the DNL 65 dB contour for the Airport, the future land use maps from the comprehensive plans prepared by the political jurisdictions listed in Table 16 were reviewed. Copies of the future land use maps are provided in **Appendix F** of this report. The following describes the land uses for each jurisdiction.

- City of College Park – The latest update to the City of College Park's Comprehensive Plan was adopted in 2021.[11] One of the goals stated in the plan is for College Park to capitalize on its proximity to ATL. The Plan also states that the City has made great strides to develop Six West, a planned mixed-use regional center located in central College Park. This development is planned for property that was formerly in residential use. Within the YDNL 65 dB contour, the future land use within College Park is primarily designated to be low density residential (a noncompatible use), suburban commercial, mixed-use hospitality, mixed use commercial, transportation/utilities. The future land use map also depicts areas that are planned for a park/conservation use. At the planned locations, this use is compatible because the property is not within the YDNL 75 dB contour.

- City of East Point – The City of East Point's latest Comprehensive Plan update was approved by the City's Mayor in 2023.[12] Within the YDNL 65 dB contour, the land uses on the future development map are primarily suburban residential, growing residential, and redevelopment neighborhood. At the farthest western extent of the YDNL 65 dB contour lobes (lobes

[11] City of College Park, 2021 Comprehensive Plan, adopted by the Atlanta Regional Commission on October 18, 2021.
[12] City of East Point, Comprehensive Plan 2022-2023 Update, adopted by the City on July 17, 2023.

resulting from operations on the north and south runways), the land use is designated industrial/business park. Gowing residential neighborhoods are located near the East Point city limits and have the newest homes in the city (many developed over the within the last 15 years). In areas designated redevelopment neighborhood, the City plans to improve housing conditions and reduce the number of vacant homes and lots by encouraging more homeownership.

- City of Hapeville – The latest Comprehensive Plan addressing land uses in the City of Hapeville was adopted in 2022.[13] Within the YDNL 65 dB contour, the land use in Hapeville is designated to primarily be transportation/communications/utilities and high intensity mixed use. The Plan states that the high intensity mixed use areas are designated as such to encourage redevelopment to predominately industrial uses. Areas of low intensity mixed use (i.e., commercial/residential) and public/institutional are also planned.

- City of Atlanta – The City of Atlanta's latest Comprehensive Plan was published in 2021.[14] Within ATL's YDNL 65 dBA contour, the land uses are designated residential and low/high industrial/commercial.
- City of Forest Park – Forest Park approved and adopted their latest Comprehensive Plan in 2023.[15] Within the YDNL 65 dB contour lobes from the north and south runways, the land use is primarily low density residential with areas of parks/open space. Within the YDNL 65 dB contour due to operations on Runway 10-28, the land uses are primarily mixed-use office/professional and office/professional.
- City of South Fulton – South Fulton's Comprehensive Plan was published in 2021.[16] Within the 65 YDNL contour, the Future Land Use Development Map illustrates two land uses that have uses that are noncompatible with aircraft noise--Community Live Work and Suburban II Neighborhood.
- Unincorporated Clayton County – Clayton County amended its 2034 Comprehensive Plan in 2022.[17] Planned future (2034) land uses within ATL's YDNL 65 dB contour are denoted as being light industrial, mixed use, and transportation/utilities.
- Unincorporated DeKalb County – DeKalb County's Comprehensive Plan was approved in the year 2022.[18] The Plan designates the area within the YDNL 65 dB contour to be light industrial and industrial.
- Unincorporated Fulton County - The latest update to Fulton County's Comprehensive Plan was adopted in 2016.[19] Planned (2025) land uses within ATL's future (2029) contour are denoted as being residential, transportation/utilities, office, and retail/service.

[13] City of Hapeville, Comprehensive Plan 2022, Adopted on October 18, 2022.
[14] City of Atlanta, 2021 Comprehensive Development Plan, Adopted on August 4, 2021.
[15] City of Forest Park, 2023 Comprehensive Plan, Adopted on December 4, 2023.
[16] City of South Fulton, The 2021 Comprehensive Plan, November, 2021.
[17] Clayton County, 2034 Comprehensive Plan. Amended June 28, 2022.
[18] DeKalb County, 2050 Unified Plan Comprehensive Land Use Plan, Approved on November 17, 2022.
[19] Fulton County, Comprehensive Plan, 2016-2035. Published in October 2016.

APPENDIX A

Number of Day/Night Operations by Profile and Runway: 2024

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
A	Boeing 737-900 Series	CFM56-7B24E	157.108	STANDARD:1	Day	30.794	48.164	0.000	0.000	0.000	0.000	21.590	33.769	8.888	13.902
A	Boeing 737-900 Series	CFM56-7B24E	13.917	STANDARD:1	Night	3.746	5.859	0.000	0.000	0.000	0.000	1.271	1.988	0.411	0.643
A	Airbus A321-200 Series	CFM56-5B3/3	119.603	STANDARD:1	Day	22.984	35.949	0.000	0.000	0.000	0.000	16.634	26.017	7.027	10.991
A	Airbus A321-200 Series	CFM56-5B3/3	17.835	STANDARD:1	Night	4.999	7.819	0.000	0.000	0.000	0.000	1.641	2.566	0.316	0.494
A	Boeing 757-200 Series	PW2037	125.302	STANDARD:1	Day	13.517	21.142	0.000	0.000	0.000	0.000	23.677	37.033	11.674	18.260
A	Boeing 757-200 Series	PW2037	13.161	STANDARD:1	Night	2.437	3.812	0.000	0.000	0.000	0.000	2.150	3.362	0.546	0.854
A	Boeing 717-200 Series	BR700-715C1-30_85	118.894	STANDARD:1	Day	23.017	36.001	0.000	0.000	0.000	0.000	16.784	26.251	6.568	10.273
A	Boeing 717-200 Series	BR700-715C1-30_85	11.141	STANDARD:1	Night	2.520	3.941	0.000	0.000	0.000	0.000	1.314	2.055	0.511	0.800
A	Bombardier CRJ-900	CF34-8C5	79.526	STANDARD:1	Day	14.370	22.476	0.000	0.000	0.000	0.000	11.444	17.899	5.201	8.135
A	Bombardier CRJ-900	CF34-8C5	4.149	STANDARD:1	Night	0.881	1.378	0.000	0.000	0.000	0.000	0.555	0.869	0.182	0.285
A	Boeing 737-800 Series	CFM56-7B26/3	60.200	STANDARD:1	Day	9.736	15.229	0.000	0.000	0.000	0.000	9.614	15.037	4.128	6.456
A	Boeing 737-800 Series	CFM56-7B26/3	7.778	STANDARD:1	Night	1.873	2.930	0.000	0.000	0.000	0.000	0.936	1.463	0.225	0.351
A	Airbus A320-200 Series	CFM56-5A3	50.655	STANDARD:1	Day	12.001	18.771	0.000	0.000	0.000	0.000	5.982	9.357	1.772	2.771
A	Airbus A320-200 Series	CFM56-5A3	9.138	STANDARD:1	Night	2.358	3.688	0.000	0.000	0.000	0.000	1.046	1.636	0.160	0.251
A	Boeing 737-700 Series	CFM56-7B24	51.685	STANDARD:1	Day	9.654	15.100	0.000	0.000	0.000	0.000	7.379	11.542	3.124	4.887
A	Boeing 737-700 Series	CFM56-7B24	6.546	STANDARD:1	Night	1.597	2.497	0.000	0.000	0.000	0.000	0.750	1.173	0.206	0.322
A	Airbus A319-100 Series	CFM56-5A5	26.931	STANDARD:1	Day	5.814	9.093	0.000	0.000	0.000	0.000	3.366	5.266	1.323	2.069
A	Airbus A319-100 Series	CFM56-5A5	4.658	STANDARD:1	Night	1.353	2.116	0.000	0.000	0.000	0.000	0.393	0.615	0.070	0.110
A	Airbus A320-NEO	LEAP-1A26/26E1	31.976	STANDARD:1	Day	5.138	8.037	0.000	0.000	0.000	0.000	5.108	7.989	2.224	3.479
A	Airbus A320-NEO	LEAP-1A26/26E1	4.119	STANDARD:1	Night	0.945	1.478	0.000	0.000	0.000	0.000	0.580	0.907	0.082	0.128
A	Boeing 737-8	LEAP-1B27	22.039	STANDARD:1	Day	3.894	6.091	0.000	0.000	0.000	0.000	3.269	5.113	1.432	2.240
A	Boeing 737-8	LEAP-1B27	3.862	STANDARD:1	Night	0.947	1.481	0.000	0.000	0.000	0.000	0.442	0.691	0.117	0.184
A	Boeing 767-300 Series	PW4060	13.907	STANDARD:1	Day	2.322	3.631	0.000	0.000	0.000	0.000	2.314	3.620	0.788	1.232
A	Boeing 767-300 Series	PW4060	7.669	STANDARD:1	Night	2.099	3.282	0.000	0.000	0.000	0.000	0.652	1.020	0.240	0.375
A	Bombardier CRJ-700	CF34-8C1	20.495	STANDARD:1	Day	2.718	4.251	0.000	0.000	0.000	0.000	3.653	5.714	1.622	2.537
A	Bombardier CRJ-700	CF34-8C1	1.069	STANDARD:1	Night	0.174	0.272	0.000	0.000	0.000	0.000	0.206	0.322	0.038	0.059
A	Airbus A350-900 series	Trent XWB-84	11.312	STANDARD:1	Day	2.406	3.764	0.000	0.000	0.000	0.000	1.464	2.289	0.542	0.847
A	Airbus A350-900 series	Trent XWB-84	2.210	STANDARD:1	Night	0.203	0.318	0.000	0.000	0.000	0.000	0.515	0.805	0.144	0.225
A	Boeing 757-300 Series	PW2040	6.632	STANDARD:1	Day	1.523	2.383	0.000	0.000	0.000	0.000	0.741	1.159	0.322	0.503
A	Boeing 757-300 Series	PW2040	1.349	STANDARD:1	Night	0.418	0.653	0.000	0.000	0.000	0.000	0.083	0.130	0.025	0.040
A	Airbus A321-NEO	PW1133GA-JM	11.627	STANDARD:1	Day	2.627	4.109	0.000	0.000	0.000	0.000	1.447	2.264	0.460	0.720
A	Airbus A321-NEO	PW1133GA-JM	2.915	STANDARD:1	Night	0.823	1.288	0.000	0.000	0.000	0.000	0.256	0.400	0.058	0.090
A	Airbus A330-300 Series	PW4168A	7.845	STANDARD:1	Day	1.631	2.552	0.000	0.000	0.000	0.000	1.170	1.830	0.258	0.404
A	Airbus A330-300 Series	PW4168A	1.770	STANDARD:1	Night	0.427	0.668	0.000	0.000	0.000	0.000	0.217	0.339	0.046	0.072

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
A	Boeing 767-400	CF6-80C2B5F_1058	5.266	STANDARD:1	Day	1.319	2.063	0.000	0.000	0.000	0.000	0.596	0.932	0.138	0.216
A	Boeing 767-400	CF6-80C2B5F_1058	1.433	STANDARD:1	Night	0.266	0.417	0.000	0.000	0.000	0.000	0.222	0.347	0.071	0.111
A	Embraer ERJ190	CF34-10E6	4.817	STANDARD:1	Day	0.626	0.980	0.000	0.000	0.000	0.000	0.830	1.298	0.423	0.661
A	Embraer ERJ190	CF34-10E6	0.283	STANDARD:1	Night	0.103	0.161	0.000	0.000	0.000	0.000	0.007	0.011	0.000	0.000
A	Embraer ERJ175-LR	CF34-8E	3.852	STANDARD:1	Day	0.877	1.372	0.000	0.000	0.000	0.000	0.507	0.793	0.119	0.186
A	Embraer ERJ175-LR	CF34-8E	0.352	STANDARD:1	Night	0.089	0.139	0.000	0.000	0.000	0.000	0.043	0.067	0.006	0.009
A	Boeing 777-200-LR	GE90-110B1	2.134	STANDARD:1	Day	0.059	0.092	0.000	0.000	0.000	0.000	0.619	0.969	0.154	0.240
A	Boeing 777-200-LR	GE90-110B1	1.628	STANDARD:1	Night	0.107	0.168	0.000	0.000	0.000	0.000	0.354	0.553	0.174	0.272
A	Cessna 208 Caravan	PT6A-114	5.982	STANDARD:1	Day	1.791	2.801	0.000	0.000	0.000	0.000	0.453	0.708	0.089	0.140
A	Cessna 208 Caravan	PT6A-114	1.670	STANDARD:1	Night	0.103	0.160	0.000	0.000	0.000	0.000	0.482	0.755	0.066	0.104
A	Embraer ERJ175	CF34-8E5A1_3815	2.131	STANDARD:1	Day	0.672	1.052	0.000	0.000	0.000	0.000	0.146	0.228	0.013	0.021
A	Embraer ERJ175	CF34-8E5A1_3815	0.251	STANDARD:1	Night	0.079	0.123	0.000	0.000	0.000	0.000	0.017	0.026	0.002	0.003
A	Airbus A330-200 Series	PW4168A	2.259	STANDARD:1	Day	0.397	0.622	0.000	0.000	0.000	0.000	0.338	0.529	0.145	0.227
A	Airbus A330-200 Series	PW4168A	0.227	STANDARD:1	Night	0.051	0.080	0.000	0.000	0.000	0.000	0.029	0.045	0.009	0.013
A	Raytheon Beech 1900-C	PT6A-65B	5.621	STANDARD:1	Day	0.067	0.104	0.000	0.000	0.000	0.000	1.550	2.425	0.575	0.900
A	Raytheon Beech 1900-C	PT6A-65B	2.692	STANDARD:1	Night	0.009	0.014	0.000	0.000	0.000	0.000	0.894	1.398	0.147	0.231
A	Embraer ERJ170	CF34-8E5A1_2560	1.903	STANDARD:1	Day	0.360	0.564	0.000	0.000	0.000	0.000	0.261	0.408	0.121	0.190
A	Embraer ERJ170	CF34-8E5A1_2560	0.011	STANDARD:1	Night	0.004	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
A	Boeing 747-400 Series	CF6-80C2B1	0.869	STANDARD:1	Day	0.013	0.021	0.000	0.000	0.000	0.000	0.254	0.397	0.072	0.112
A	Boeing 747-400 Series	CF6-80C2B1	0.507	STANDARD:1	Night	0.036	0.056	0.000	0.000	0.000	0.000	0.126	0.197	0.036	0.056
A	Boeing 777-200 Series	TRENT 892B	1.401	STANDARD:1	Day	0.299	0.467	0.000	0.000	0.000	0.000	0.228	0.357	0.019	0.030
A	Boeing 777-200 Series	TRENT 892B	0.539	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.210	0.329	0.000	0.000
A	Boeing 737-9	LEAP-1B	1.334	STANDARD:1	Day	0.395	0.618	0.000	0.000	0.000	0.000	0.089	0.139	0.037	0.057
A	Boeing 737-9	LEAP-1B	0.185	STANDARD:1	Night	0.057	0.089	0.000	0.000	0.000	0.000	0.013	0.020	0.002	0.004
A	Boeing 747-8F	GEnx-2B67	1.875	STANDARD:1	Day	0.203	0.318	0.000	0.000	0.000	0.000	0.400	0.625	0.128	0.201
A	Boeing 747-8F	GEnx-2B67	0.468	STANDARD:1	Night	0.054	0.084	0.000	0.000	0.000	0.000	0.093	0.146	0.035	0.055
A	Airbus A220-300	PW1521G	3.117	STANDARD:1	Day	0.843	1.319	0.000	0.000	0.000	0.000	0.312	0.488	0.060	0.095
A	Airbus A220-300	PW1521G	0.527	STANDARD:1	Night	0.170	0.265	0.000	0.000	0.000	0.000	0.025	0.039	0.011	0.017
A	Boeing 777-300 ER	GE90-115B_665	0.783	STANDARD:1	Day	0.169	0.264	0.000	0.000	0.000	0.000	0.128	0.200	0.009	0.014
A	Boeing 777-300 ER	GE90-115B_665	0.233	STANDARD:1	Night	0.018	0.028	0.000	0.000	0.000	0.000	0.018	0.028	0.055	0.085
A	Airbus A300F4-600 Series	PW4158	1.373	STANDARD:1	Day	0.531	0.831	0.000	0.000	0.000	0.000	0.004	0.007	0.000	0.000
A	Airbus A300F4-600 Series	PW4158	0.742	STANDARD:1	Night	0.266	0.417	0.000	0.000	0.000	0.000	0.022	0.034	0.001	0.002
A	Embraer Phenom 300 (EMB-505)	PW530	6.503	STANDARD:1	Day	2.514	3.932	0.000	0.000	0.000	0.000	0.022	0.035	0.000	0.000
A	Embraer Phenom 300 (EMB-505)	PW530	1.213	STANDARD:1	Night	0.443	0.693	0.000	0.000	0.000	0.000	0.017	0.027	0.013	0.020
A	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.831	STANDARD:1	Day	0.188	0.294	0.000	0.000	0.000	0.000	0.113	0.177	0.023	0.036

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
A	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.146	STANDARD:1	Night	0.040	0.063	0.000	0.000	0.000	0.000	0.017	0.027	0.000	0.000
A	Cessna 680-A Citation Latitude	PW306B_6386	3.669	STANDARD:1	Day	1.419	2.219	0.000	0.000	0.000	0.000	0.012	0.018	0.000	0.000
A	Cessna 680-A Citation Latitude	PW306B_6386	0.083	STANDARD:1	Night	0.023	0.035	0.000	0.000	0.000	0.000	0.010	0.015	0.000	0.000
A	Cessna 560 Citation V	JT15D-5, -5A, -5B	2.408	STANDARD:1	Day	0.920	1.439	0.000	0.000	0.000	0.000	0.014	0.022	0.005	0.007
A	Cessna 560 Citation V	JT15D-5, -5A, -5B	0.160	STANDARD:1	Night	0.062	0.098	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	76.459	STANDARD:1	Day	0.000	0.000	17.164	26.845	12.655	19.794	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	18.539	STANDARD:1	Night	0.000	0.000	3.856	6.031	3.374	5.277	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	41.295	STANDARD:2	Day	0.000	0.000	8.227	12.867	7.878	12.323	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	5.029	STANDARD:2	Night	0.000	0.000	1.365	2.135	0.596	0.932	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	6.311	STANDARD:3	Day	0.000	0.000	1.222	1.911	1.239	1.938	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	0.067	STANDARD:3	Night	0.000	0.000	0.024	0.038	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	22.142	STANDARD:4	Day	0.000	0.000	6.441	10.075	2.194	3.431	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	1.020	STANDARD:4	Night	0.000	0.000	0.380	0.595	0.018	0.028	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	0.081	STANDARD:6	Day	0.000	0.000	0.018	0.028	0.014	0.021	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	0.029	STANDARD:6	Night	0.000	0.000	0.005	0.007	0.007	0.011	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	4.433	STANDARD:1	Day	0.000	0.000	0.396	0.619	1.333	2.085	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	0.576	STANDARD:1	Night	0.000	0.000	0.076	0.119	0.148	0.232	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	70.571	STANDARD:2	Day	0.000	0.000	12.376	19.357	15.147	23.691	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	13.140	STANDARD:2	Night	0.000	0.000	3.389	5.300	1.736	2.715	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	11.692	STANDARD:3	Day	0.000	0.000	3.359	5.254	1.201	1.879	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	0.693	STANDARD:3	Night	0.000	0.000	0.255	0.399	0.015	0.024	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	32.451	STANDARD:4	Day	0.000	0.000	11.528	18.031	1.128	1.764	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	3.776	STANDARD:4	Night	0.000	0.000	1.352	2.115	0.121	0.189	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	0.054	STANDARD:5	Day	0.000	0.000	0.014	0.022	0.007	0.011	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	0.006	STANDARD:5	Night	0.000	0.000	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	46.359	STANDARD:1	Day	0.000	0.000	2.005	3.136	16.075	25.143	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	8.382	STANDARD:1	Night	0.000	0.000	1.044	1.632	2.225	3.481	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	47.728	STANDARD:2	Day	0.000	0.000	4.803	7.512	13.811	21.602	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	7.153	STANDARD:2	Night	0.000	0.000	1.202	1.881	1.587	2.482	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	9.034	STANDARD:3	Day	0.000	0.000	1.334	2.086	2.190	3.425	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.022	STANDARD:3	Night	0.000	0.000	0.004	0.007	0.004	0.007	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	19.177	STANDARD:4	Day	0.000	0.000	2.734	4.277	4.745	7.421	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.196	STANDARD:4	Night	0.000	0.000	0.066	0.103	0.011	0.017	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.220	STANDARD:5	Day	0.000	0.000	0.026	0.041	0.059	0.093	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.133	STANDARD:7	Day	0.000	0.000	0.039	0.061	0.013	0.020	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.017	STANDARD:7	Night	0.000	0.000	0.004	0.007	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 717-200 Series	BR700-715C1-30_85	73.786	STANDARD:1	Day	0.000	0.000	13.099	20.489	15.677	24.024	0.000	0.000	0.000	0.496

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Boeing 717-200 Series	BR700-715C1-30_85	11.225	STANDARD:1	Night	0.000	0.000	2.300	3.597	2.078	3.250	0.000	0.000	0.000	0.000
D	Boeing 717-200 Series	BR700-715C1-30_85	39.284	STANDARD:2	Day	0.000	0.000	11.971	18.724	3.350	5.239	0.000	0.000	0.000	0.000
D	Boeing 717-200 Series	BR700-715C1-30_85	5.370	STANDARD:2	Night	0.000	0.000	1.569	2.454	0.526	0.822	0.000	0.000	0.000	0.000
D	Boeing 717-200 Series	BR700-715C1-30_85	0.125	STANDARD:3	Day	0.000	0.000	0.042	0.066	0.006	0.010	0.000	0.000	0.000	0.000
D	Boeing 717-200 Series	BR700-715C1-30_85	0.005	STANDARD:3	Night	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 717-200 Series	BR700-715C1-30_85	0.010	STANDARD:4	Day	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 717-200 Series	BR700-715C1-30_85	0.157	STANDARD:6	Day	0.000	0.000	0.050	0.078	0.011	0.018	0.000	0.000	0.000	0.000
D	Boeing 717-200 Series	BR700-715C1-30_85	0.022	STANDARD:6	Night	0.000	0.000	0.004	0.007	0.004	0.007	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	49.323	STANDARD:1	Day	0.000	0.000	9.554	14.944	9.682	15.143	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	2.989	STANDARD:1	Night	0.000	0.000	0.666	1.042	0.499	0.781	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	28.449	STANDARD:2	Day	0.000	0.000	7.776	12.162	3.320	5.192	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	2.730	STANDARD:2	Night	0.000	0.000	0.970	1.518	0.095	0.148	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.020	STANDARD:3	Day	0.000	0.000	0.006	0.009	0.002	0.003	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.010	STANDARD:4	Day	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.082	STANDARD:5	Day	0.000	0.000	0.016	0.025	0.016	0.025	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.038	STANDARD:5	Night	0.000	0.000	0.006	0.010	0.009	0.013	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	16.147	STANDARD:1	Day	0.000	0.000	3.723	5.823	2.575	4.027	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	3.806	STANDARD:1	Night	0.000	0.000	0.960	1.501	0.525	0.821	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	24.165	STANDARD:2	Day	0.000	0.000	4.925	7.703	4.500	7.038	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	4.775	STANDARD:2	Night	0.000	0.000	1.389	2.172	0.473	0.740	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	10.976	STANDARD:3	Day	0.000	0.000	2.919	4.565	1.362	2.130	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	0.230	STANDARD:3	Night	0.000	0.000	0.076	0.120	0.013	0.021	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	7.327	STANDARD:4	Day	0.000	0.000	1.853	2.899	1.004	1.571	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	0.471	STANDARD:4	Night	0.000	0.000	0.166	0.259	0.018	0.028	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	0.049	STANDARD:6	Day	0.000	0.000	0.011	0.017	0.009	0.013	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	0.011	STANDARD:6	Night	0.000	0.000	0.004	0.007	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	3.136	STANDARD:1	Day	0.000	0.000	0.548	0.857	0.675	1.055	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	2.392	STANDARD:1	Night	0.000	0.000	0.514	0.805	0.419	0.655	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	42.624	STANDARD:2	Day	0.000	0.000	8.801	13.765	7.823	12.236	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	7.189	STANDARD:2	Night	0.000	0.000	2.058	3.219	0.745	1.166	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	2.160	STANDARD:3	Day	0.000	0.000	0.761	1.190	0.081	0.127	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.379	STANDARD:3	Night	0.000	0.000	0.139	0.218	0.009	0.014	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Airbus A320-200 Series	CFM56-5A3	1.793	STANDARD:4	Day	0.000	0.000	0.457	0.715	0.243	0.379	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.056	STANDARD:4	Night	0.000	0.000	0.022	0.034	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.040	STANDARD:5	Day	0.000	0.000	0.011	0.017	0.004	0.007	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	18.487	STANDARD:1	Day	0.000	0.000	3.356	5.250	3.854	6.027	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	3.046	STANDARD:1	Night	0.000	0.000	0.480	0.751	0.707	1.107	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	28.825	STANDARD:2	Day	0.000	0.000	6.060	9.479	5.182	8.105	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	3.494	STANDARD:2	Night	0.000	0.000	0.834	1.305	0.528	0.827	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	2.297	STANDARD:3	Day	0.000	0.000	0.880	1.377	0.015	0.024	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	0.212	STANDARD:3	Night	0.000	0.000	0.074	0.116	0.009	0.014	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	1.487	STANDARD:4	Day	0.000	0.000	0.547	0.855	0.033	0.052	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	0.342	STANDARD:4	Night	0.000	0.000	0.111	0.174	0.022	0.035	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	0.020	STANDARD:6	Day	0.000	0.000	0.003	0.004	0.005	0.008	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	3.601	STANDARD:1	Day	0.000	0.000	0.485	0.758	0.920	1.438	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	1.967	STANDARD:1	Night	0.000	0.000	0.544	0.851	0.223	0.349	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	20.154	STANDARD:2	Day	0.000	0.000	3.933	6.152	3.927	6.142	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	3.268	STANDARD:2	Night	0.000	0.000	0.930	1.455	0.345	0.539	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	2.208	STANDARD:3	Day	0.000	0.000	0.651	1.018	0.210	0.329	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	0.011	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.004	0.007	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	0.308	STANDARD:4	Day	0.000	0.000	0.118	0.184	0.002	0.003	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	0.022	STANDARD:4	Night	0.000	0.000	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	0.023	STANDARD:5	Day	0.000	0.000	0.004	0.007	0.004	0.007	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	0.017	STANDARD:5	Night	0.000	0.000	0.004	0.007	0.002	0.003	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	5.504	STANDARD:1	Day	0.000	0.000	0.718	1.124	1.428	2.234	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	1.303	STANDARD:1	Night	0.000	0.000	0.259	0.404	0.250	0.391	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	17.788	STANDARD:2	Day	0.000	0.000	3.194	4.996	3.743	5.855	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	4.615	STANDARD:2	Night	0.000	0.000	1.329	2.079	0.471	0.736	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	1.581	STANDARD:3	Day	0.000	0.000	0.251	0.393	0.366	0.572	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	1.268	STANDARD:3	Night	0.000	0.000	0.442	0.692	0.052	0.082	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	3.278	STANDARD:4	Day	0.000	0.000	0.841	1.316	0.437	0.684	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	0.710	STANDARD:4	Night	0.000	0.000	0.242	0.378	0.035	0.055	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	0.015	STANDARD:M	Day	0.000	0.000	0.004	0.006	0.002	0.003	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	0.015	STANDARD:M	Night	0.000	0.000	0.005	0.008	0.001	0.001	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	7.102	STANDARD:1	Day	0.000	0.000	1.584	2.477	1.186	1.855	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	1.355	STANDARD:1	Night	0.000	0.000	0.185	0.289	0.344	0.537	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	11.487	STANDARD:2	Day	0.000	0.000	2.261	3.536	2.219	3.471	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	2.058	STANDARD:2	Night	0.000	0.000	0.512	0.801	0.290	0.454	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	1.326	STANDARD:3	Day	0.000	0.000	0.511	0.799	0.007	0.010	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	0.163	STANDARD:3	Night	0.000	0.000	0.059	0.093	0.004	0.007	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Boeing 737-8	LEAP-1B27	2.055	STANDARD:4	Day	0.000	0.000	0.782	1.222	0.020	0.031	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	0.355	STANDARD:4	Night	0.000	0.000	0.127	0.199	0.011	0.017	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	4.000	STANDARD:1	Day	0.000	0.000	0.584	0.914	0.976	1.526	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	4.737	STANDARD:1	Night	0.000	0.000	1.411	2.206	0.437	0.683	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	2.076	STANDARD:2	Day	0.000	0.000	0.320	0.500	0.490	0.766	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	2.063	STANDARD:2	Night	0.000	0.000	0.400	0.625	0.405	0.633	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.015	STANDARD:3	Day	0.000	0.000	0.003	0.005	0.003	0.005	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.015	STANDARD:3	Night	0.000	0.000	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	4.122	STANDARD:4	Day	0.000	0.000	0.861	1.347	0.746	1.167	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.686	STANDARD:4	Night	0.000	0.000	0.044	0.069	0.223	0.349	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.078	STANDARD:5	Day	0.000	0.000	0.000	0.000	0.030	0.047	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.362	STANDARD:5	Night	0.000	0.000	0.015	0.024	0.126	0.197	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.071	STANDARD:6	Day	0.000	0.000	0.003	0.004	0.025	0.039	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.259	STANDARD:6	Night	0.000	0.000	0.035	0.055	0.066	0.103	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	3.044	STANDARD:7	Day	0.000	0.000	0.060	0.094	1.127	1.763	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.045	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.017	0.027	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	11.262	STANDARD:1	Day	0.000	0.000	2.057	3.217	2.336	3.653	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	1.114	STANDARD:1	Night	0.000	0.000	0.291	0.455	0.143	0.224	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	7.317	STANDARD:2	Day	0.000	0.000	1.426	2.230	1.428	2.234	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.360	STANDARD:2	Night	0.000	0.000	0.120	0.188	0.020	0.031	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	1.449	STANDARD:3	Day	0.000	0.000	0.563	0.881	0.002	0.003	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.030	STANDARD:4	Day	0.000	0.000	0.012	0.018	0.000	0.000	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.013	STANDARD:5	Day	0.000	0.000	0.003	0.004	0.003	0.004	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.007	STANDARD:5	Night	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.015	STANDARD:1	Day	0.000	0.000	0.002	0.003	0.004	0.006	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.005	STANDARD:1	Night	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.815	STANDARD:2	Day	0.000	0.000	0.112	0.175	0.206	0.322	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.184	STANDARD:2	Night	0.000	0.000	0.050	0.078	0.022	0.034	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.005	STANDARD:3	Day	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.005	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	2.608	STANDARD:4	Day	0.000	0.000	0.384	0.600	0.633	0.991	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.011	STANDARD:4	Night	0.000	0.000	0.002	0.003	0.002	0.003	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.550	STANDARD:5	Day	0.000	0.000	0.004	0.007	0.210	0.329	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	1.559	STANDARD:6	Day	0.000	0.000	0.011	0.017	0.597	0.934	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.480	STANDARD:6	Night	0.000	0.000	0.007	0.010	0.181	0.283	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	2.297	STANDARD:7	Day	0.000	0.000	0.007	0.010	0.889	1.391	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.342	STANDARD:7	Night	0.000	0.000	0.004	0.007	0.129	0.202	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.673	STANDARD:8	Day	0.000	0.000	0.000	0.000	0.263	0.411	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Airbus A350-900 series	Trent XWB-84	0.426	STANDARD:8	Night	0.000	0.000	0.002	0.003	0.164	0.257	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	2.150	STANDARD:M	Day	0.000	0.000	0.000	0.000	0.839	1.312	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	1.389	STANDARD:M	Night	0.000	0.000	0.007	0.011	0.534	0.836	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.873	STANDARD:1	Day	0.000	0.000	0.018	0.027	0.323	0.505	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.537	STANDARD:1	Night	0.000	0.000	0.067	0.105	0.143	0.223	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	1.027	STANDARD:2	Day	0.000	0.000	0.366	0.572	0.035	0.055	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	1.022	STANDARD:2	Night	0.000	0.000	0.368	0.575	0.031	0.048	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.040	STANDARD:3	Day	0.000	0.000	0.007	0.010	0.009	0.014	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	4.258	STANDARD:4	Day	0.000	0.000	1.516	2.371	0.145	0.226	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.190	STANDARD:4	Night	0.000	0.000	0.072	0.113	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.015	STANDARD:6	Day	0.000	0.000	0.002	0.003	0.004	0.006	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.005	STANDARD:6	Night	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	2.422	STANDARD:1	Day	0.000	0.000	0.499	0.780	0.446	0.698	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	0.317	STANDARD:1	Night	0.000	0.000	0.074	0.116	0.049	0.077	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	5.323	STANDARD:2	Day	0.000	0.000	0.447	0.698	1.629	2.549	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	1.874	STANDARD:2	Night	0.000	0.000	0.361	0.565	0.370	0.579	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	0.444	STANDARD:3	Day	0.000	0.000	0.089	0.139	0.084	0.132	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	0.056	STANDARD:3	Night	0.000	0.000	0.017	0.027	0.004	0.007	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	3.640	STANDARD:4	Day	0.000	0.000	1.352	2.115	0.067	0.105	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	0.439	STANDARD:4	Night	0.000	0.000	0.154	0.240	0.018	0.027	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	0.010	STANDARD:5	Day	0.000	0.000	0.002	0.003	0.002	0.003	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.130	STANDARD:1	Day	0.000	0.000	0.008	0.013	0.042	0.066	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.184	STANDARD:2	Day	0.000	0.000	0.026	0.041	0.046	0.072	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.006	STANDARD:2	Night	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.010	STANDARD:3	Day	0.000	0.000	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.603	STANDARD:4	Day	0.000	0.000	0.180	0.281	0.056	0.087	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.016	STANDARD:4	Night	0.000	0.000	0.000	0.000	0.006	0.010	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	4.228	STANDARD:6	Day	0.000	0.000	0.032	0.050	1.617	2.529	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	1.090	STANDARD:6	Night	0.000	0.000	0.022	0.034	0.403	0.631	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	2.357	STANDARD:7	Day	0.000	0.000	0.017	0.027	0.902	1.411	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.992	STANDARD:7	Night	0.000	0.000	0.017	0.027	0.370	0.578	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.020	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.008	0.012	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.117	STANDARD:2	Day	0.000	0.000	0.011	0.017	0.035	0.054	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.033	STANDARD:2	Night	0.000	0.000	0.004	0.007	0.009	0.014	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.005	STANDARD:3	Day	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Boeing 767-400	CF6-80C2B5F_1058	0.005	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	1.120	STANDARD:4	Day	0.000	0.000	0.398	0.622	0.039	0.062	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.039	STANDARD:4	Night	0.000	0.000	0.013	0.021	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	1.805	STANDARD:6	Day	0.000	0.000	0.013	0.021	0.691	1.080	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.805	STANDARD:6	Night	0.000	0.000	0.035	0.055	0.278	0.435	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	2.068	STANDARD:7	Day	0.000	0.000	0.002	0.003	0.804	1.258	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.671	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.262	0.409	0.000	0.000	0.000	0.000
D	Embraer ERJ190	CF34-10E6	0.106	STANDARD:1	Day	0.000	0.000	0.035	0.055	0.007	0.010	0.000	0.000	0.000	0.000
D	Embraer ERJ190	CF34-10E6	0.034	STANDARD:1	Night	0.000	0.000	0.013	0.020	0.000	0.000	0.000	0.000	0.000	0.000
D	Embraer ERJ190	CF34-10E6	2.179	STANDARD:2	Day	0.000	0.000	0.262	0.409	0.588	0.920	0.000	0.000	0.000	0.000
D	Embraer ERJ190	CF34-10E6	0.240	STANDARD:2	Night	0.000	0.000	0.078	0.122	0.015	0.024	0.000	0.000	0.000	0.000
D	Embraer ERJ190	CF34-10E6	2.497	STANDARD:3	Day	0.000	0.000	0.910	1.424	0.063	0.099	0.000	0.000	0.000	0.000
D	Embraer ERJ190	CF34-10E6	0.022	STANDARD:3	Night	0.000	0.000	0.002	0.003	0.007	0.010	0.000	0.000	0.000	0.000
D	Embraer ERJ190	CF34-10E6	0.020	STANDARD:4	Day	0.000	0.000	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000
D	Embraer ERJ175-LR	CF34-8E	0.199	STANDARD:1	Day	0.000	0.000	0.015	0.024	0.062	0.097	0.000	0.000	0.000	0.000
D	Embraer ERJ175-LR	CF34-8E	0.011	STANDARD:1	Night	0.000	0.000	0.002	0.003	0.002	0.003	0.000	0.000	0.000	0.000
D	Embraer ERJ175-LR	CF34-8E	3.794	STANDARD:2	Day	0.000	0.000	0.533	0.834	0.947	1.481	0.000	0.000	0.000	0.000
D	Embraer ERJ175-LR	CF34-8E	0.194	STANDARD:2	Night	0.000	0.000	0.052	0.081	0.024	0.037	0.000	0.000	0.000	0.000
D	Embraer ERJ175-LR	CF34-8E	0.010	STANDARD:3	Day	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.133	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.052	0.081	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.027	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.010	0.016	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.496	STANDARD:2	Day	0.000	0.000	0.003	0.004	0.191	0.298	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.654	STANDARD:2	Night	0.000	0.000	0.034	0.053	0.221	0.346	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.010	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.137	STANDARD:4	Day	0.000	0.000	0.000	0.000	0.053	0.084	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.353	STANDARD:4	Night	0.000	0.000	0.025	0.040	0.112	0.175	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.150	STANDARD:5	Day	0.000	0.000	0.000	0.000	0.059	0.092	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.020	STANDARD:5	Night	0.000	0.000	0.000	0.000	0.008	0.012	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.090	STANDARD:6	Night	0.000	0.000	0.000	0.000	0.035	0.055	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.559	STANDARD:7	Day	0.000	0.000	0.000	0.000	0.218	0.341	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	1.131	STANDARD:7	Night	0.000	0.000	0.041	0.064	0.400	0.626	0.000	0.000	0.000	0.000
D	Cessna 208 Caravan	PT6A-114	6.567	STANDARD:1	Day	0.000	0.000	1.688	2.640	0.195	0.305	0.000	0.000	0.678	1.061
D	Cessna 208 Caravan	PT6A-114	1.080	STANDARD:1	Night	0.000	0.000	0.227	0.356	0.152	0.237	0.000	0.000	0.042	0.066

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Embraer ERJ175	CF34-8E5A1_3815	0.015	STANDARD:1	Day	0.000	0.000	0.002	0.003	0.004	0.006	0.000	0.000	0.000	0.000
D	Embraer ERJ175	CF34-8E5A1_3815	0.005	STANDARD:1	Night	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000
D	Embraer ERJ175	CF34-8E5A1_3815	2.031	STANDARD:2	Day	0.000	0.000	0.383	0.599	0.409	0.640	0.000	0.000	0.000	0.000
D	Embraer ERJ175	CF34-8E5A1_3815	0.328	STANDARD:2	Night	0.000	0.000	0.108	0.169	0.020	0.031	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.090	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.035	0.055	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.040	STANDARD:2	Day	0.000	0.000	0.010	0.015	0.006	0.009	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.242	STANDARD:4	Day	0.000	0.000	0.075	0.118	0.019	0.030	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.038	STANDARD:4	Night	0.000	0.000	0.008	0.013	0.006	0.010	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.128	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.050	0.078	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.122	STANDARD:6	Night	0.000	0.000	0.002	0.003	0.045	0.071	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	1.748	STANDARD:7	Day	0.000	0.000	0.017	0.027	0.664	1.039	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.071	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.028	0.043	0.000	0.000	0.000	0.000
D	Raytheon Beech 1900-C	PT6A-65B	6.834	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.641	1.002	0.000	0.000	2.024	3.166
D	Raytheon Beech 1900-C	PT6A-65B	1.454	STANDARD:1	Night	0.000	0.000	0.071	0.111	0.283	0.443	0.000	0.000	0.213	0.332
D	Raytheon Beech 1900-C	PT6A-65B	0.020	STANDARD:2	Day	0.000	0.000	0.000	0.000	0.008	0.012	0.000	0.000	0.000	0.000
D	Embraer ERJ170	CF34-8E5A1_2560	0.379	STANDARD:1	Day	0.000	0.000	0.011	0.017	0.137	0.214	0.000	0.000	0.000	0.000
D	Embraer ERJ170	CF34-8E5A1_2560	0.011	STANDARD:1	Night	0.000	0.000	0.002	0.003	0.002	0.003	0.000	0.000	0.000	0.000
D	Embraer ERJ170	CF34-8E5A1_2560	1.514	STANDARD:2	Day	0.000	0.000	0.425	0.665	0.165	0.258	0.000	0.000	0.000	0.000
D	Embraer ERJ170	CF34-8E5A1_2560	0.006	STANDARD:2	Night	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.020	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.008	0.012	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.010	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.053	STANDARD:2	Day	0.000	0.000	0.000	0.000	0.021	0.033	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.027	STANDARD:2	Night	0.000	0.000	0.000	0.000	0.010	0.016	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.005	STANDARD:3	Day	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.005	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.224	STANDARD:4	Day	0.000	0.000	0.000	0.000	0.087	0.137	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.266	STANDARD:4	Night	0.000	0.000	0.007	0.010	0.097	0.152	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.258	STANDARD:5	Day	0.000	0.000	0.000	0.000	0.101	0.158	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.132	STANDARD:5	Night	0.000	0.000	0.003	0.005	0.048	0.075	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.182	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.071	0.111	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.037	STANDARD:6	Night	0.000	0.000	0.002	0.003	0.013	0.020	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.007	STANDARD:7	Day	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.003	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.023	STANDARD:8	Day	0.000	0.000	0.000	0.000	0.009	0.014	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.037	STANDARD:8	Night	0.000	0.000	0.002	0.003	0.013	0.020	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.062	STANDARD:9	Day	0.000	0.000	0.000	0.000	0.024	0.038	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.028	STANDARD:9	Night	0.000	0.000	0.000	0.000	0.011	0.017	0.000	0.000	0.000	0.000
D	Boeing 777-200 Series	TRENT 892B	0.010	STANDARD:3	Day	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Boeing 777-200 Series	TRENT 892B	0.836	STANDARD:6	Day	0.000	0.000	0.002	0.003	0.324	0.507	0.000	0.000	0.000	0.000
D	Boeing 777-200 Series	TRENT 892B	1.093	STANDARD:6	Night	0.000	0.000	0.004	0.007	0.422	0.660	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.010	STANDARD:1	Day	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.374	STANDARD:2	Day	0.000	0.000	0.048	0.075	0.098	0.153	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.056	STANDARD:2	Night	0.000	0.000	0.017	0.027	0.004	0.007	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.090	STANDARD:3	Day	0.000	0.000	0.035	0.055	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.988	STANDARD:4	Day	0.000	0.000	0.353	0.552	0.033	0.051	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.011	STANDARD:4	Night	0.000	0.000	0.004	0.007	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.033	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.013	0.020	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.007	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.082	STANDARD:2	Day	0.000	0.000	0.000	0.000	0.032	0.050	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.238	STANDARD:2	Night	0.000	0.000	0.019	0.029	0.074	0.116	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.176	STANDARD:4	Day	0.000	0.000	0.003	0.004	0.066	0.103	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.054	STANDARD:4	Night	0.000	0.000	0.000	0.000	0.021	0.033	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.307	STANDARD:5	Day	0.000	0.000	0.000	0.000	0.120	0.187	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.143	STANDARD:5	Night	0.000	0.000	0.016	0.025	0.040	0.062	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.022	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.009	0.014	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.007	STANDARD:6	Night	0.000	0.000	0.000	0.000	0.003	0.005	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	1.263	STANDARD:9	Day	0.000	0.000	0.000	0.000	0.492	0.770	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.007	STANDARD:9	Night	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	0.010	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	2.795	STANDARD:2	Day	0.000	0.000	0.144	0.225	0.946	1.480	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	0.563	STANDARD:2	Night	0.000	0.000	0.122	0.190	0.098	0.154	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	0.260	STANDARD:4	Day	0.000	0.000	0.101	0.159	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	0.020	STANDARD:6	Day	0.000	0.000	0.003	0.004	0.005	0.008	0.000	0.000	0.000	0.000
D	Boeing 777-300 ER	GE90-115B_665	0.120	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.047	0.073	0.000	0.000	0.000	0.000
D	Boeing 777-300 ER	GE90-115B_665	0.460	STANDARD:6	Night	0.000	0.000	0.002	0.003	0.178	0.278	0.000	0.000	0.000	0.000
D	Boeing 777-300 ER	GE90-115B_665	0.440	STANDARD:9	Day	0.000	0.000	0.000	0.000	0.172	0.268	0.000	0.000	0.000	0.000
D	Airbus A300F4-600 Series	PW4158	0.558	STANDARD:1	Day	0.000	0.000	0.218	0.340	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A300F4-600 Series	PW4158	0.352	STANDARD:1	Night	0.000	0.000	0.128	0.201	0.009	0.014	0.000	0.000	0.000	0.000
D	Airbus A300F4-600 Series	PW4158	0.023	STANDARD:2	Day	0.000	0.000	0.006	0.009	0.003	0.005	0.000	0.000	0.000	0.000
D	Airbus A300F4-600 Series	PW4158	1.187	STANDARD:2	Night	0.000	0.000	0.451	0.705	0.012	0.019	0.000	0.000	0.000	0.000
D	Embraer Phenom 300 (EMB-505)	PW530	6.632	STANDARD:1	Day	0.000	0.000	2.479	3.877	0.107	0.168	0.000	0.000	0.000	0.000
D	Embraer Phenom 300 (EMB-505)	PW530	1.086	STANDARD:1	Night	0.000	0.000	0.400	0.625	0.024	0.037	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.090	STANDARD:1	Day	0.000	0.000	0.009	0.014	0.026	0.041	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Number of Annual Average Daily Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.280	STANDARD:2	Day	0.000	0.000	0.067	0.105	0.042	0.066	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.408	STANDARD:4	Day	0.000	0.000	0.109	0.170	0.050	0.079	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.021	STANDARD:4	Night	0.000	0.000	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.235	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.091	0.143	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.725	STANDARD:6	Night	0.000	0.000	0.000	0.000	0.283	0.442	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	1.818	STANDARD:7	Day	0.000	0.000	0.000	0.000	0.709	1.109	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.171	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.067	0.104	0.000	0.000	0.000	0.000
D	Cessna 680-A Citation Latitude	PW306B_6386	2.508	STANDARD:1	Day	0.000	0.000	0.903	1.412	0.076	0.118	0.000	0.000	0.000	0.000
D	Cessna 680-A Citation Latitude	PW306B_6386	0.061	STANDARD:1	Night	0.000	0.000	0.024	0.037	0.000	0.000	0.000	0.000	0.000	0.000
D	Cessna 560 Citation V	JT15D-5, -5A, -5B	1.277	STANDARD:1	Day	0.000	0.000	0.452	0.706	0.047	0.073	0.000	0.000	0.000	0.000
D	Cessna 560 Citation V	JT15D-5, -5A, -5B	0.082	STANDARD:1	Night	0.000	0.000	0.028	0.045	0.004	0.006	0.000	0.000	0.000	0.000

Number of Day/Night Operations by Profile and Runway: 2029

Operation Type (A/D)	Airframe	Engine	Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
A	Airbus A220-100	PW1524G	47.175	STANDARD:1	Day	12.764	19.965	0.000	0.000	0.000	0.000	4.718	7.380	0.916	1.432
A	Airbus A220-100	PW1524G	8.325	STANDARD:1	Night	2.677	4.187	0.000	0.000	0.000	0.000	0.397	0.620	0.173	0.271
A	Airbus A220-300	PW1521G	45.050	STANDARD:1	Day	12.189	19.065	0.000	0.000	0.000	0.000	4.506	7.048	0.874	1.367
A	Airbus A220-300	PW1521G	7.950	STANDARD:1	Night	2.556	3.998	0.000	0.000	0.000	0.000	0.379	0.592	0.166	0.259
A	Airbus A300F4-600 Series	PW4158-3	1.623	STANDARD:1	Day	0.628	0.982	0.000	0.000	0.000	0.000	0.005	0.008	0.000	0.000
A	Airbus A300F4-600 Series	PW4158-3	0.877	STANDARD:1	Night	0.315	0.492	0.000	0.000	0.000	0.000	0.026	0.040	0.002	0.002
A	Airbus A319-100 Series	CFM56-5A5	38.365	STANDARD:1	Day	8.282	12.954	0.000	0.000	0.000	0.000	4.796	7.501	1.885	2.948
A	Airbus A319-100 Series	CFM56-5A5	6.635	STANDARD:1	Night	1.927	3.015	0.000	0.000	0.000	0.000	0.560	0.876	0.100	0.157
A	Airbus A320-200 Series	CFM56-5A3	2.965	STANDARD:1	Day	0.702	1.099	0.000	0.000	0.000	0.000	0.350	0.548	0.104	0.162
A	Airbus A320-200 Series	CFM56-5A3	0.535	STANDARD:1	Night	0.138	0.216	0.000	0.000	0.000	0.000	0.061	0.096	0.009	0.015
A	Airbus A320-NEO	LEAP-1A26/26E1	19.975	STANDARD:1	Day	3.210	5.021	0.000	0.000	0.000	0.000	3.191	4.991	1.390	2.173
A	Airbus A320-NEO	LEAP-1A26/26E1	3.525	STANDARD:1	Night	0.809	1.265	0.000	0.000	0.000	0.000	0.496	0.776	0.070	0.109
A	Airbus A321-200 Series	CFM56-5B3/3	166.650	STANDARD:1	Day	32.025	50.090	0.000	0.000	0.000	0.000	23.177	36.251	9.791	15.315
A	Airbus A321-200 Series	CFM56-5B3/3	24.850	STANDARD:1	Night	6.965	10.895	0.000	0.000	0.000	0.000	2.286	3.576	0.440	0.688
A	Airbus A321-NEO	PW1133GA-JM	100.077	STANDARD:1	Day	22.613	35.369	0.000	0.000	0.000	0.000	12.456	19.483	3.960	6.195
A	Airbus A321-NEO	PW1133GA-JM	14.923	STANDARD:1	Night	4.215	6.593	0.000	0.000	0.000	0.000	1.309	2.047	0.296	0.463
A	Airbus A330-200 Series	PW4168A	5.452	STANDARD:1	Day	0.959	1.501	0.000	0.000	0.000	0.000	0.817	1.277	0.350	0.548
A	Airbus A330-200 Series	PW4168A	0.548	STANDARD:1	Night	0.123	0.193	0.000	0.000	0.000	0.000	0.070	0.109	0.021	0.032
A	Airbus A330-300 Series	PW4168A	4.080	STANDARD:1	Day	0.848	1.327	0.000	0.000	0.000	0.000	0.609	0.952	0.134	0.210
A	Airbus A330-300 Series	PW4168A	0.920	STANDARD:1	Night	0.222	0.347	0.000	0.000	0.000	0.000	0.113	0.176	0.024	0.038
A	Airbus A330-900N Series (Neo)	TRENT 7000-72	2.976	STANDARD:1	Day	0.673	1.052	0.000	0.000	0.000	0.000	0.404	0.633	0.084	0.131
A	Airbus A330-900N Series (Neo)	TRENT 7000-72	0.524	STANDARD:1	Night	0.143	0.224	0.000	0.000	0.000	0.000	0.061	0.096	0.000	0.000
A	Airbus A350-900 series	Trent XWB-84	16.731	STANDARD:1	Day	3.559	5.567	0.000	0.000	0.000	0.000	2.165	3.386	0.801	1.253
A	Airbus A350-900 series	Trent XWB-84	3.269	STANDARD:1	Night	0.301	0.470	0.000	0.000	0.000	0.000	0.761	1.191	0.213	0.333
A	Boeing 737-700 Series	CFM56-7B24	52.368	STANDARD:1	Day	9.782	15.299	0.000	0.000	0.000	0.000	7.477	11.694	3.165	4.951
A	Boeing 737-700 Series	CFM56-7B24	6.632	STANDARD:1	Night	1.618	2.530	0.000	0.000	0.000	0.000	0.760	1.189	0.209	0.326
A	Boeing 737-8	LEAP-1B27	23.100	STANDARD:1	Day	4.081	6.384	0.000	0.000	0.000	0.000	3.427	5.360	1.501	2.348
A	Boeing 737-8	LEAP-1B27	4.400	STANDARD:1	Night	1.079	1.687	0.000	0.000	0.000	0.000	0.504	0.788	0.134	0.209
A	Boeing 737-800 Series	CFM56-7B26/3	68.633	STANDARD:1	Day	11.100	17.362	0.000	0.000	0.000	0.000	10.960	17.143	4.706	7.361
A	Boeing 737-800 Series	CFM56-7B26/3	8.867	STANDARD:1	Night	2.135	3.340	0.000	0.000	0.000	0.000	1.067	1.668	0.256	0.401
A	Boeing 737-9	LEAP-1B27	20.160	STANDARD:1	Day	5.966	9.332	0.000	0.000	0.000	0.000	1.341	2.098	0.555	0.868
A	Boeing 737-9	LEAP-1B27	3.840	STANDARD:1	Night	1.178	1.842	0.000	0.000	0.000	0.000	0.269	0.421	0.050	0.079
A	Boeing 737-900 Series	CFM56-7B24E	185.103	STANDARD:1	Day	36.281	56.747	0.000	0.000	0.000	0.000	25.437	39.787	10.472	16.379
A	Boeing 737-900 Series	CFM56-7B24E	16.397	STANDARD:1	Night	4.413	6.902	0.000	0.000	0.000	0.000	1.497	2.342	0.485	0.758
A	Boeing 747-400 Series	CF6-80C2B1	0.947	STANDARD:1	Day	0.014	0.023	0.000	0.000	0.000	0.000	0.277	0.433	0.078	0.122
A	Boeing 747-400 Series	CF6-80C2B1	0.553	STANDARD:1	Night	0.039	0.061	0.000	0.000	0.000	0.000	0.137	0.215	0.039	0.061
A	Boeing 747-8F	Genx-2B67	2.801	STANDARD:1	Day	0.303	0.474	0.000	0.000	0.000	0.000	0.597	0.934	0.192	0.300
A	Boeing 747-8F	Genx-2B67	0.699	STANDARD:1	Night	0.081	0.126	0.000	0.000	0.000	0.000	0.139	0.218	0.053	0.083
A	Boeing 757-200 Series	PW2037	109.046	STANDARD:1	Day	11.763	18.399	0.000	0.000	0.000	0.000	20.605	32.228	10.160	15.891
A	Boeing 757-200 Series	PW2037	11.454	STANDARD:1	Night	2.121	3.317	0.000	0.000	0.000	0.000	1.871	2.926	0.475	0.743
A	Boeing 757-300 Series	PW2040	10.803	STANDARD:1	Day	2.482	3.881	0.000	0.000	0.000	0.000	1.207	1.888	0.524	0.820
A	Boeing 757-300 Series	PW2040	2.197	STANDARD:1	Night	0.680	1.064	0.000	0.000	0.000	0.000	0.135	0.212	0.041	0.064
A	Boeing 767-300 Series	PW4060	9.991	STANDARD:1	Day	1.668	2.609	0.000	0.000	0.000	0.000	1.663	2.600	0.566	0.885
A	Boeing 767-300 Series	PW4060	5.509	STANDARD:1	Night	1.508	2.358	0.000	0.000	0.000	0.000	0.469	0.733	0.172	0.270

Operation Type (A/D)	Airframe	Engine	Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
A	Boeing 767-400	CF6-80C2B7E	2.751	STANDARD:1	Day	0.689	1.078	0.000	0.000	0.000	0.000	0.311	0.487	0.072	0.113
A	Boeing 767-400	CF6-80C2B7E	0.749	STANDARD:1	Night	0.139	0.218	0.000	0.000	0.000	0.000	0.116	0.181	0.037	0.058
A	Boeing 777-200 Series	TRENT 892B	2.527	STANDARD:1	Day	0.539	0.843	0.000	0.000	0.000	0.000	0.412	0.645	0.035	0.054
A	Boeing 777-200 Series	TRENT 892B	0.973	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.379	0.594	0.000	0.000
A	Boeing 777-200-LR	GE90-110B1L	2.269	STANDARD:1	Day	0.063	0.098	0.000	0.000	0.000	0.000	0.659	1.030	0.163	0.256
A	Boeing 777-200-LR	GE90-110B1L	1.731	STANDARD:1	Night	0.114	0.178	0.000	0.000	0.000	0.000	0.376	0.588	0.185	0.289
A	Boeing 777-300 ER	GE90-115B	0.771	STANDARD:1	Day	0.166	0.260	0.000	0.000	0.000	0.000	0.126	0.197	0.009	0.014
A	Boeing 777-300 ER	GE90-115B	0.229	STANDARD:1	Night	0.018	0.028	0.000	0.000	0.000	0.000	0.018	0.028	0.054	0.084
A	Boeing 787-9 Dreamliner	GEnx-1B70	0.840	STANDARD:1	Day	0.091	0.142	0.000	0.000	0.000	0.000	0.179	0.280	0.058	0.090
A	Boeing 787-9 Dreamliner	GEnx-1B70	0.160	STANDARD:1	Night	0.018	0.029	0.000	0.000	0.000	0.000	0.032	0.050	0.012	0.019
A	Bombardier CRJ-700	CF34-8C1	16.157	STANDARD:1	Day	2.143	3.351	0.000	0.000	0.000	0.000	2.880	4.504	1.279	2.000
A	Bombardier CRJ-700	CF34-8C1	0.843	STANDARD:1	Night	0.137	0.214	0.000	0.000	0.000	0.000	0.162	0.254	0.030	0.046
A	Bombardier CRJ-900	CF34-8C5	62.727	STANDARD:1	Day	11.335	17.729	0.000	0.000	0.000	0.000	9.026	14.118	4.102	6.417
A	Bombardier CRJ-900	CF34-8C5	3.273	STANDARD:1	Night	0.695	1.087	0.000	0.000	0.000	0.000	0.438	0.685	0.143	0.224
A	Cessna 208 Caravan	PT6A-114	4.691	STANDARD:1	Day	1.404	2.196	0.000	0.000	0.000	0.000	0.355	0.555	0.070	0.109
A	Cessna 208 Caravan	PT6A-114	1.309	STANDARD:1	Night	0.080	0.126	0.000	0.000	0.000	0.000	0.378	0.592	0.052	0.081
A	Cessna 560 Citation V	JT15D-5, -5A, -5B	1.875	STANDARD:1	Day	0.717	1.121	0.000	0.000	0.000	0.000	0.011	0.017	0.004	0.006
A	Cessna 560 Citation V	JT15D-5, -5A, -5B	0.125	STANDARD:1	Night	0.049	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
A	Cessna 680-A Citation Latitude	PW306C	2.934	STANDARD:1	Day	1.135	1.775	0.000	0.000	0.000	0.000	0.009	0.015	0.000	0.000
A	Cessna 680-A Citation Latitude	PW306C	0.066	STANDARD:1	Night	0.018	0.028	0.000	0.000	0.000	0.000	0.008	0.012	0.000	0.000
A	Embraer ERJ170	CF34-8E5A1	8.451	STANDARD:1	Day	1.600	2.502	0.000	0.000	0.000	0.000	1.158	1.810	0.539	0.842
A	Embraer ERJ170	CF34-8E5A1	0.049	STANDARD:1	Night	0.019	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
A	Embraer ERJ175	CF34-8E5A1	6.711	STANDARD:1	Day	2.117	3.311	0.000	0.000	0.000	0.000	0.458	0.717	0.042	0.066
A	Embraer ERJ175	CF34-8E5A1	0.789	STANDARD:1	Night	0.248	0.388	0.000	0.000	0.000	0.000	0.053	0.083	0.006	0.010
A	Embraer Phenom 300 (EMB-505)	PW530	5.057	STANDARD:1	Day	1.955	3.057	0.000	0.000	0.000	0.000	0.017	0.027	0.000	0.000
A	Embraer Phenom 300 (EMB-505)	PW530	0.943	STANDARD:1	Night	0.345	0.539	0.000	0.000	0.000	0.000	0.013	0.021	0.010	0.016
A	Raytheon Beech 1900-C	PT6A-65B	4.395	STANDARD:1	Day	0.052	0.082	0.000	0.000	0.000	0.000	1.212	1.896	0.450	0.703
A	Raytheon Beech 1900-C	PT6A-65B	2.105	STANDARD:1	Night	0.007	0.011	0.000	0.000	0.000	0.000	0.699	1.093	0.115	0.180
D	Airbus A220-300	PW1521G	0.145	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.057	0.089	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	0.000	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	40.605	STANDARD:2	Day	0.000	0.000	2.089	3.267	13.747	21.502	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	8.184	STANDARD:2	Night	0.000	0.000	1.766	2.763	1.426	2.230	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	3.775	STANDARD:4	Day	0.000	0.000	1.472	2.303	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	0.000	STANDARD:4	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	0.290	STANDARD:6	Day	0.000	0.000	0.038	0.059	0.076	0.118	0.000	0.000	0.000	0.000
D	Airbus A220-300	PW1521G	0.000	STANDARD:6	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A300F4-600 Series	PW4158	0.658	STANDARD:1	Day	0.000	0.000	0.257	0.402	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A300F4-600 Series	PW4158	0.415	STANDARD:1	Night	0.000	0.000	0.151	0.237	0.011	0.017	0.000	0.000	0.000	0.000
D	Airbus A300F4-600 Series	PW4158	0.027	STANDARD:2	Day	0.000	0.000	0.007	0.011	0.004	0.006	0.000	0.000	0.000	0.000
D	Airbus A300F4-600 Series	PW4158	1.400	STANDARD:2	Night	0.000	0.000	0.532	0.832	0.014	0.022	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	5.131	STANDARD:1	Day	0.000	0.000	0.691	1.081	1.310	2.050	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	2.803	STANDARD:1	Night	0.000	0.000	0.775	1.212	0.318	0.498	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	28.719	STANDARD:2	Day	0.000	0.000	5.605	8.767	5.596	8.752	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	4.657	STANDARD:2	Night	0.000	0.000	1.325	2.073	0.491	0.768	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	3.147	STANDARD:3	Day	0.000	0.000	0.927	1.450	0.300	0.469	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	0.016	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.006	0.010	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Airbus A319-100 Series	CFM56-5A5	0.439	STANDARD:4	Day	0.000	0.000	0.168	0.263	0.003	0.005	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	0.031	STANDARD:4	Night	0.000	0.000	0.012	0.019	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	0.033	STANDARD:5	Day	0.000	0.000	0.006	0.010	0.006	0.010	0.000	0.000	0.000	0.000
D	Airbus A319-100 Series	CFM56-5A5	0.024	STANDARD:5	Night	0.000	0.000	0.006	0.010	0.003	0.005	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.184	STANDARD:1	Day	0.000	0.000	0.032	0.050	0.040	0.062	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.140	STANDARD:1	Night	0.000	0.000	0.030	0.047	0.025	0.038	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	2.496	STANDARD:2	Day	0.000	0.000	0.515	0.806	0.458	0.716	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.421	STANDARD:2	Night	0.000	0.000	0.121	0.189	0.044	0.068	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.126	STANDARD:3	Day	0.000	0.000	0.045	0.070	0.005	0.007	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.022	STANDARD:3	Night	0.000	0.000	0.008	0.013	0.001	0.001	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.105	STANDARD:4	Day	0.000	0.000	0.027	0.042	0.014	0.022	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.003	STANDARD:4	Night	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.002	STANDARD:5	Day	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A320-200 Series	CFM56-5A3	0.000	STANDARD:5	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	3.585	STANDARD:1	Day	0.000	0.000	0.468	0.732	0.930	1.455	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	0.849	STANDARD:1	Night	0.000	0.000	0.168	0.263	0.163	0.254	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	11.586	STANDARD:2	Day	0.000	0.000	2.081	3.254	2.438	3.814	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	3.006	STANDARD:2	Night	0.000	0.000	0.866	1.354	0.307	0.480	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	1.030	STANDARD:3	Day	0.000	0.000	0.164	0.256	0.238	0.372	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	0.826	STANDARD:3	Night	0.000	0.000	0.288	0.451	0.034	0.053	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	2.135	STANDARD:4	Day	0.000	0.000	0.548	0.857	0.285	0.445	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	0.463	STANDARD:4	Night	0.000	0.000	0.157	0.246	0.023	0.036	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	0.010	STANDARD:M	Day	0.000	0.000	0.003	0.004	0.001	0.002	0.000	0.000	0.000	0.000
D	Airbus A320-NEO	LEAP-1A26/26E1	0.010	STANDARD:M	Night	0.000	0.000	0.003	0.005	0.000	0.001	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	6.178	STANDARD:1	Day	0.000	0.000	0.551	0.862	1.858	2.906	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	0.802	STANDARD:1	Night	0.000	0.000	0.106	0.166	0.207	0.323	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	98.363	STANDARD:2	Day	0.000	0.000	17.250	26.980	21.112	33.021	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	18.314	STANDARD:2	Night	0.000	0.000	4.723	7.387	2.420	3.784	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	16.297	STANDARD:3	Day	0.000	0.000	4.682	7.323	1.674	2.619	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	0.966	STANDARD:3	Night	0.000	0.000	0.355	0.556	0.021	0.034	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	45.231	STANDARD:4	Day	0.000	0.000	16.068	25.132	1.572	2.459	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	5.263	STANDARD:4	Night	0.000	0.000	1.885	2.948	0.168	0.263	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	0.075	STANDARD:5	Day	0.000	0.000	0.020	0.031	0.010	0.015	0.000	0.000	0.000	0.000
D	Airbus A321-200 Series	CFM56-5B3/3	0.008	STANDARD:5	Night	0.000	0.000	0.003	0.005	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	19.179	STANDARD:1	Day	0.000	0.000	3.948	6.175	3.532	5.525	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	2.507	STANDARD:1	Night	0.000	0.000	0.587	0.918	0.391	0.612	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	42.145	STANDARD:2	Day	0.000	0.000	3.536	5.530	12.901	20.178	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	14.841	STANDARD:2	Night	0.000	0.000	2.860	4.473	2.928	4.580	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	3.518	STANDARD:3	Day	0.000	0.000	0.703	1.100	0.669	1.046	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	0.440	STANDARD:3	Night	0.000	0.000	0.137	0.215	0.034	0.054	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	28.816	STANDARD:4	Day	0.000	0.000	10.705	16.743	0.534	0.834	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	3.476	STANDARD:4	Night	0.000	0.000	1.216	1.903	0.139	0.217	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	0.079	STANDARD:5	Day	0.000	0.000	0.015	0.024	0.015	0.024	0.000	0.000	0.000	0.000
D	Airbus A321-NEO	PW1133GA-JM	0.000	STANDARD:5	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.218	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.085	0.133	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.000	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Airbus A330-200 Series	PW4168A	0.097	STANDARD:2	Day	0.000	0.000	0.024	0.037	0.014	0.022	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.000	STANDARD:2	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.586	STANDARD:4	Day	0.000	0.000	0.182	0.284	0.047	0.073	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.091	STANDARD:4	Night	0.000	0.000	0.020	0.032	0.015	0.024	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.309	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.121	0.189	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.296	STANDARD:6	Night	0.000	0.000	0.005	0.008	0.110	0.172	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	4.231	STANDARD:7	Day	0.000	0.000	0.042	0.066	1.608	2.515	0.000	0.000	0.000	0.000
D	Airbus A330-200 Series	PW4168A	0.172	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.067	0.105	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.068	STANDARD:1	Day	0.000	0.000	0.004	0.007	0.022	0.034	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.000	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.096	STANDARD:2	Day	0.000	0.000	0.014	0.021	0.024	0.037	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.003	STANDARD:2	Night	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.005	STANDARD:3	Day	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.000	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.314	STANDARD:4	Day	0.000	0.000	0.093	0.146	0.029	0.045	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.009	STANDARD:4	Night	0.000	0.000	0.000	0.000	0.003	0.005	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	2.198	STANDARD:6	Day	0.000	0.000	0.017	0.026	0.841	1.315	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.567	STANDARD:6	Night	0.000	0.000	0.011	0.018	0.210	0.328	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	1.225	STANDARD:7	Day	0.000	0.000	0.009	0.014	0.469	0.734	0.000	0.000	0.000	0.000
D	Airbus A330-300 Series	PW4168A	0.516	STANDARD:7	Night	0.000	0.000	0.009	0.014	0.192	0.301	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.084	STANDARD:1	Day	0.000	0.000	0.008	0.013	0.025	0.038	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.000	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.261	STANDARD:2	Day	0.000	0.000	0.063	0.098	0.039	0.061	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.000	STANDARD:2	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.381	STANDARD:4	Day	0.000	0.000	0.102	0.159	0.047	0.073	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.020	STANDARD:4	Night	0.000	0.000	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.219	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.085	0.134	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.677	STANDARD:6	Night	0.000	0.000	0.000	0.000	0.264	0.413	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	1.698	STANDARD:7	Day	0.000	0.000	0.000	0.000	0.662	1.036	0.000	0.000	0.000	0.000
D	Airbus A330-900N Series (Neo)	Trent7000-72_6652	0.160	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.062	0.097	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.022	STANDARD:1	Day	0.000	0.000	0.003	0.005	0.006	0.009	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.007	STANDARD:1	Night	0.000	0.000	0.003	0.005	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	1.207	STANDARD:2	Day	0.000	0.000	0.166	0.259	0.305	0.477	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.273	STANDARD:2	Night	0.000	0.000	0.074	0.116	0.032	0.050	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.007	STANDARD:3	Day	0.000	0.000	0.000	0.000	0.003	0.005	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.007	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	3.859	STANDARD:4	Day	0.000	0.000	0.568	0.888	0.937	1.466	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.017	STANDARD:4	Night	0.000	0.000	0.003	0.005	0.003	0.005	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.814	STANDARD:5	Day	0.000	0.000	0.006	0.010	0.311	0.486	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.000	STANDARD:5	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	2.307	STANDARD:6	Day	0.000	0.000	0.016	0.025	0.883	1.382	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.711	STANDARD:6	Night	0.000	0.000	0.010	0.015	0.268	0.419	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	3.400	STANDARD:7	Day	0.000	0.000	0.010	0.015	1.316	2.058	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.506	STANDARD:7	Night	0.000	0.000	0.006	0.010	0.191	0.298	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.996	STANDARD:8	Day	0.000	0.000	0.000	0.000	0.389	0.608	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	0.631	STANDARD:8	Night	0.000	0.000	0.003	0.005	0.243	0.380	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Airbus A350-900 series	Trent XWB-84	3.182	STANDARD:M	Day	0.000	0.000	0.000	0.000	1.241	1.941	0.000	0.000	0.000	0.000
D	Airbus A350-900 series	Trent XWB-84	2.055	STANDARD:M	Night	0.000	0.000	0.011	0.016	0.791	1.237	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	18.738	STANDARD:1	Day	0.000	0.000	3.402	5.321	3.906	6.109	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	3.087	STANDARD:1	Night	0.000	0.000	0.487	0.762	0.717	1.122	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	29.216	STANDARD:2	Day	0.000	0.000	6.142	9.607	5.252	8.215	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	3.541	STANDARD:2	Night	0.000	0.000	0.845	1.322	0.536	0.838	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	2.328	STANDARD:3	Day	0.000	0.000	0.892	1.396	0.015	0.024	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	0.215	STANDARD:3	Night	0.000	0.000	0.075	0.117	0.009	0.014	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	1.507	STANDARD:4	Day	0.000	0.000	0.554	0.867	0.034	0.052	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	0.347	STANDARD:4	Night	0.000	0.000	0.113	0.176	0.023	0.035	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	0.020	STANDARD:6	Day	0.000	0.000	0.003	0.004	0.005	0.008	0.000	0.000	0.000	0.000
D	Boeing 737-700 Series	CFM56-7B24	0.000	STANDARD:6	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	7.540	STANDARD:1	Day	0.000	0.000	1.681	2.630	1.259	1.970	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	1.439	STANDARD:1	Night	0.000	0.000	0.196	0.307	0.365	0.570	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	12.197	STANDARD:2	Day	0.000	0.000	2.400	3.755	2.356	3.685	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	2.185	STANDARD:2	Night	0.000	0.000	0.544	0.851	0.308	0.482	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	1.408	STANDARD:3	Day	0.000	0.000	0.542	0.848	0.007	0.011	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	0.173	STANDARD:3	Night	0.000	0.000	0.063	0.098	0.005	0.007	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	2.181	STANDARD:4	Day	0.000	0.000	0.830	1.298	0.021	0.033	0.000	0.000	0.000	0.000
D	Boeing 737-8	LEAP-1B27	0.377	STANDARD:4	Night	0.000	0.000	0.135	0.211	0.012	0.019	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	18.415	STANDARD:1	Day	0.000	0.000	4.246	6.641	2.936	4.592	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	4.340	STANDARD:1	Night	0.000	0.000	1.094	1.712	0.598	0.936	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	27.559	STANDARD:2	Day	0.000	0.000	5.616	8.784	5.132	8.027	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	5.445	STANDARD:2	Night	0.000	0.000	1.584	2.478	0.540	0.844	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	12.518	STANDARD:3	Day	0.000	0.000	3.329	5.206	1.553	2.429	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	0.262	STANDARD:3	Night	0.000	0.000	0.087	0.136	0.015	0.023	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	8.356	STANDARD:4	Day	0.000	0.000	2.113	3.306	1.145	1.791	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	0.537	STANDARD:4	Night	0.000	0.000	0.189	0.296	0.020	0.032	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	0.056	STANDARD:6	Day	0.000	0.000	0.012	0.019	0.010	0.015	0.000	0.000	0.000	0.000
D	Boeing 737-800 Series	CFM56-7B26/3	0.012	STANDARD:6	Night	0.000	0.000	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.157	STANDARD:1	Day	0.000	0.000	0.061	0.096	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.000	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	5.869	STANDARD:2	Day	0.000	0.000	0.752	1.176	1.537	2.405	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.876	STANDARD:2	Night	0.000	0.000	0.273	0.427	0.068	0.107	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	1.412	STANDARD:3	Day	0.000	0.000	0.551	0.861	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.000	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	15.511	STANDARD:4	Day	0.000	0.000	5.537	8.660	0.513	0.802	0.000	0.000	0.000	0.000
D	Boeing 737-9	LEAP-1B	0.175	STANDARD:4	Night	0.000	0.000	0.068	0.107	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	90.111	STANDARD:1	Day	0.000	0.000	20.228	31.639	14.915	23.329	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	21.849	STANDARD:1	Night	0.000	0.000	4.545	7.108	3.976	6.219	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	48.669	STANDARD:2	Day	0.000	0.000	9.696	15.165	9.285	14.523	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	5.927	STANDARD:2	Night	0.000	0.000	1.609	2.517	0.702	1.099	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	7.437	STANDARD:3	Day	0.000	0.000	1.440	2.252	1.461	2.285	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	0.079	STANDARD:3	Night	0.000	0.000	0.028	0.044	0.003	0.004	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	26.095	STANDARD:4	Day	0.000	0.000	7.592	11.874	2.586	4.044	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	1.203	STANDARD:4	Night	0.000	0.000	0.448	0.701	0.021	0.033	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Boeing 737-900 Series	CFM56-7B24E	0.095	STANDARD:6	Day	0.000	0.000	0.021	0.033	0.016	0.025	0.000	0.000	0.000	0.000
D	Boeing 737-900 Series	CFM56-7B24E	0.034	STANDARD:6	Night	0.000	0.000	0.005	0.008	0.008	0.012	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.022	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.008	0.013	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.011	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.004	0.007	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.058	STANDARD:2	Day	0.000	0.000	0.000	0.000	0.023	0.035	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.029	STANDARD:2	Night	0.000	0.000	0.000	0.000	0.011	0.018	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.005	STANDARD:3	Day	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.005	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.243	STANDARD:4	Day	0.000	0.000	0.000	0.000	0.095	0.149	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.289	STANDARD:4	Night	0.000	0.000	0.007	0.011	0.105	0.165	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.281	STANDARD:5	Day	0.000	0.000	0.000	0.000	0.110	0.171	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.143	STANDARD:5	Night	0.000	0.000	0.004	0.006	0.052	0.081	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.198	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.077	0.121	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.041	STANDARD:6	Night	0.000	0.000	0.002	0.003	0.014	0.022	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.007	STANDARD:7	Day	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.004	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.025	STANDARD:8	Day	0.000	0.000	0.000	0.000	0.010	0.015	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.040	STANDARD:8	Night	0.000	0.000	0.002	0.003	0.014	0.021	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.067	STANDARD:9	Day	0.000	0.000	0.000	0.000	0.026	0.041	0.000	0.000	0.000	0.000
D	Boeing 747-400 Series	CF6-80C2B1	0.031	STANDARD:9	Night	0.000	0.000	0.000	0.000	0.012	0.019	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.050	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.019	0.030	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.010	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.122	STANDARD:2	Day	0.000	0.000	0.000	0.000	0.048	0.075	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.356	STANDARD:2	Night	0.000	0.000	0.028	0.043	0.111	0.174	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.263	STANDARD:4	Day	0.000	0.000	0.004	0.006	0.099	0.154	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.081	STANDARD:4	Night	0.000	0.000	0.000	0.000	0.032	0.049	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.459	STANDARD:5	Day	0.000	0.000	0.000	0.000	0.179	0.280	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.214	STANDARD:5	Night	0.000	0.000	0.024	0.037	0.060	0.093	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.034	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.013	0.021	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.011	STANDARD:6	Night	0.000	0.000	0.000	0.000	0.004	0.007	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	1.889	STANDARD:9	Day	0.000	0.000	0.000	0.000	0.737	1.152	0.000	0.000	0.000	0.000
D	Boeing 747-8F	GEnx-2B67	0.010	STANDARD:9	Night	0.000	0.000	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	40.356	STANDARD:1	Day	0.000	0.000	1.745	2.730	13.994	21.888	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	7.297	STANDARD:1	Night	0.000	0.000	0.909	1.421	1.937	3.030	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	41.549	STANDARD:2	Day	0.000	0.000	4.181	6.539	12.023	18.805	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	6.227	STANDARD:2	Night	0.000	0.000	1.047	1.637	1.382	2.161	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	7.865	STANDARD:3	Day	0.000	0.000	1.161	1.816	1.906	2.981	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.020	STANDARD:3	Night	0.000	0.000	0.004	0.006	0.004	0.006	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	16.694	STANDARD:4	Day	0.000	0.000	2.380	3.723	4.130	6.460	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.171	STANDARD:4	Night	0.000	0.000	0.057	0.089	0.010	0.015	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.191	STANDARD:5	Day	0.000	0.000	0.023	0.036	0.052	0.081	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.000	STANDARD:5	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.116	STANDARD:7	Day	0.000	0.000	0.034	0.053	0.011	0.018	0.000	0.000	0.000	0.000
D	Boeing 757-200 Series	PW2037	0.015	STANDARD:7	Night	0.000	0.000	0.004	0.006	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	1.424	STANDARD:1	Day	0.000	0.000	0.029	0.045	0.527	0.824	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.876	STANDARD:1	Night	0.000	0.000	0.109	0.171	0.233	0.364	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Boeing 757-300 Series	PW2040	1.676	STANDARD:2	Day	0.000	0.000	0.597	0.933	0.057	0.089	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	1.667	STANDARD:2	Night	0.000	0.000	0.600	0.939	0.050	0.078	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.065	STANDARD:3	Day	0.000	0.000	0.011	0.017	0.015	0.023	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.000	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	6.948	STANDARD:4	Day	0.000	0.000	2.473	3.869	0.236	0.370	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.311	STANDARD:4	Night	0.000	0.000	0.118	0.184	0.004	0.006	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.024	STANDARD:6	Day	0.000	0.000	0.003	0.005	0.006	0.010	0.000	0.000	0.000	0.000
D	Boeing 757-300 Series	PW2040	0.008	STANDARD:6	Night	0.000	0.000	0.003	0.005	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	2.874	STANDARD:1	Day	0.000	0.000	0.420	0.657	0.701	0.593	0.000	0.000	0.000	0.503
D	Boeing 767-300 Series	PW4060	3.404	STANDARD:1	Night	0.000	0.000	1.014	1.585	0.314	0.491	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	1.491	STANDARD:2	Day	0.000	0.000	0.230	0.359	0.352	0.550	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	1.482	STANDARD:2	Night	0.000	0.000	0.287	0.449	0.291	0.455	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.011	STANDARD:3	Day	0.000	0.000	0.002	0.003	0.002	0.003	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.011	STANDARD:3	Night	0.000	0.000	0.004	0.007	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	2.962	STANDARD:4	Day	0.000	0.000	0.619	0.968	0.536	0.839	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.493	STANDARD:4	Night	0.000	0.000	0.032	0.050	0.160	0.251	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.056	STANDARD:5	Day	0.000	0.000	0.000	0.000	0.022	0.034	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.260	STANDARD:5	Night	0.000	0.000	0.011	0.017	0.090	0.141	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.051	STANDARD:6	Day	0.000	0.000	0.002	0.003	0.018	0.028	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.186	STANDARD:6	Night	0.000	0.000	0.025	0.040	0.047	0.074	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	2.187	STANDARD:7	Day	0.000	0.000	0.043	0.068	0.810	1.267	0.000	0.000	0.000	0.000
D	Boeing 767-300 Series	PW4060	0.032	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.013	0.020	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.010	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.000	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.061	STANDARD:2	Day	0.000	0.000	0.006	0.009	0.018	0.028	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.017	STANDARD:2	Night	0.000	0.000	0.002	0.004	0.005	0.007	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.003	STANDARD:3	Day	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.003	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.586	STANDARD:4	Day	0.000	0.000	0.208	0.325	0.021	0.032	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.021	STANDARD:4	Night	0.000	0.000	0.007	0.011	0.001	0.002	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.944	STANDARD:6	Day	0.000	0.000	0.007	0.011	0.361	0.565	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.421	STANDARD:6	Night	0.000	0.000	0.019	0.029	0.146	0.228	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	1.082	STANDARD:7	Day	0.000	0.000	0.001	0.002	0.421	0.658	0.000	0.000	0.000	0.000
D	Boeing 767-400	CF6-80C2B5F_1058	0.351	STANDARD:7	Night	0.000	0.000	0.000	0.000	0.137	0.214	0.000	0.000	0.000	0.000
D	Boeing 777-200 Series	TRENT 892B	0.018	STANDARD:3	Day	0.000	0.000	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 777-200 Series	TRENT 892B	0.000	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 777-200 Series	TRENT 892B	1.510	STANDARD:6	Day	0.000	0.000	0.004	0.006	0.585	0.915	0.000	0.000	0.000	0.000
D	Boeing 777-200 Series	TRENT 892B	1.972	STANDARD:6	Night	0.000	0.000	0.008	0.012	0.761	1.191	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.142	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.055	0.087	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.028	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.011	0.017	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.527	STANDARD:2	Day	0.000	0.000	0.003	0.004	0.203	0.317	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.696	STANDARD:2	Night	0.000	0.000	0.036	0.056	0.235	0.368	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.000	STANDARD:3	Day	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.011	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.146	STANDARD:4	Day	0.000	0.000	0.000	0.000	0.057	0.089	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.375	STANDARD:4	Night	0.000	0.000	0.027	0.042	0.119	0.187	0.000	0.000	0.000	0.000

Operation Type (A/D)	Airframe	Engine	Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Boeing 777-200-LR	GE90-110B1	0.160	STANDARD:5	Day	0.000	0.000	0.000	0.000	0.062	0.098	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.021	STANDARD:5	Night	0.000	0.000	0.000	0.000	0.008	0.013	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.000	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.096	STANDARD:6	Night	0.000	0.000	0.000	0.000	0.037	0.058	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	0.595	STANDARD:7	Day	0.000	0.000	0.000	0.000	0.232	0.363	0.000	0.000	0.000	0.000
D	Boeing 777-200-LR	GE90-110B1	1.203	STANDARD:7	Night	0.000	0.000	0.044	0.068	0.426	0.666	0.000	0.000	0.000	0.000
D	Boeing 777-300 ER	GE90-115B_665	0.117	STANDARD:6	Day	0.000	0.000	0.000	0.000	0.046	0.072	0.000	0.000	0.000	0.000
D	Boeing 777-300 ER	GE90-115B_665	0.451	STANDARD:6	Night	0.000	0.000	0.002	0.003	0.174	0.272	0.000	0.000	0.000	0.000
D	Boeing 777-300 ER	GE90-115B_665	0.431	STANDARD:9	Day	0.000	0.000	0.000	0.000	0.168	0.263	0.000	0.000	0.000	0.000
D	Boeing 777-300 ER	GE90-115B_665	0.000	STANDARD:9	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	8.883	STANDARD:1	Day	0.000	0.000	1.622	2.537	1.842	2.881	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.879	STANDARD:1	Night	0.000	0.000	0.230	0.359	0.113	0.177	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	5.772	STANDARD:2	Day	0.000	0.000	1.125	1.759	1.126	1.762	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.284	STANDARD:2	Night	0.000	0.000	0.095	0.148	0.016	0.025	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	1.143	STANDARD:3	Day	0.000	0.000	0.444	0.695	0.002	0.003	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.000	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.024	STANDARD:4	Day	0.000	0.000	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.000	STANDARD:4	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.011	STANDARD:5	Day	0.000	0.000	0.002	0.003	0.002	0.003	0.000	0.000	0.000	0.000
D	Bombardier CRJ-700	CF34-8C1	0.005	STANDARD:5	Night	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	38.920	STANDARD:1	Day	0.000	0.000	7.539	11.792	7.640	11.949	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	2.359	STANDARD:1	Night	0.000	0.000	0.526	0.823	0.394	0.616	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	22.449	STANDARD:2	Day	0.000	0.000	6.136	9.597	2.619	4.097	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	2.154	STANDARD:2	Night	0.000	0.000	0.766	1.197	0.075	0.117	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.016	STANDARD:3	Day	0.000	0.000	0.005	0.007	0.002	0.002	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.000	STANDARD:3	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.008	STANDARD:4	Day	0.000	0.000	0.003	0.005	0.000	0.000	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.000	STANDARD:4	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.065	STANDARD:5	Day	0.000	0.000	0.013	0.020	0.013	0.020	0.000	0.000	0.000	0.000
D	Bombardier CRJ-900	CF34-8C5	0.030	STANDARD:5	Night	0.000	0.000	0.005	0.008	0.007	0.010	0.000	0.000	0.000	0.000
D	Cessna 208 Caravan	PT6A-114	5.153	STANDARD:1	Day	0.000	0.000	1.324	2.071	0.153	0.239	0.000	0.000	0.532	0.833
D	Cessna 208 Caravan	PT6A-114	0.847	STANDARD:1	Night	0.000	0.000	0.178	0.279	0.119	0.186	0.000	0.000	0.033	0.052
D	Cessna 560 Citation V	JT15D-5, -5A, -5B	1.879	STANDARD:1	Day	0.000	0.000	0.664	1.039	0.069	0.107	0.000	0.000	0.000	0.000
D	Cessna 560 Citation V	JT15D-5, -5A, -5B	0.121	STANDARD:1	Night	0.000	0.000	0.042	0.066	0.005	0.008	0.000	0.000	0.000	0.000
D	Cessna 680-A Citation Latitude	PW306B_6386	2.929	STANDARD:1	Day	0.000	0.000	1.054	1.648	0.088	0.138	0.000	0.000	0.000	0.000
D	Cessna 680-A Citation Latitude	PW306B_6386	0.071	STANDARD:1	Night	0.000	0.000	0.028	0.043	0.000	0.000	0.000	0.000	0.000	0.000
D	Embraer ERJ170	CF34-8E5A1_2560	1.686	STANDARD:1	Day	0.000	0.000	0.048	0.076	0.609	0.953	0.000	0.000	0.000	0.000
D	Embraer ERJ170	CF34-8E5A1_2560	0.050	STANDARD:1	Night	0.000	0.000	0.010	0.015	0.010	0.015	0.000	0.000	0.000	0.000
D	Embraer ERJ170	CF34-8E5A1_2560	6.739	STANDARD:2	Day	0.000	0.000	1.893	2.961	0.736	1.150	0.000	0.000	0.000	0.000
D	Embraer ERJ170	CF34-8E5A1_2560	0.025	STANDARD:2	Night	0.000	0.000	0.000	0.000	0.010	0.015	0.000	0.000	0.000	0.000
D	Embraer ERJ175	CF34-8E5A1_3815	0.047	STANDARD:1	Day	0.000	0.000	0.006	0.010	0.012	0.019	0.000	0.000	0.000	0.000
D	Embraer ERJ175	CF34-8E5A1_3815	0.016	STANDARD:1	Night	0.000	0.000	0.006	0.010	0.000	0.000	0.000	0.000	0.000	0.000
D	Embraer ERJ175	CF34-8E5A1_3815	6.403	STANDARD:2	Day	0.000	0.000	1.207	1.887	1.290	2.018	0.000	0.000	0.000	0.000
D	Embraer ERJ175	CF34-8E5A1_3815	1.034	STANDARD:2	Night	0.000	0.000	0.341	0.533	0.063	0.098	0.000	0.000	0.000	0.000
D	Embraer Phenom 300 (EMB-505)	PW530	5.156	STANDARD:1	Day	0.000	0.000	1.927	3.015	0.084	0.131	0.000	0.000	0.000	0.000
D	Embraer Phenom 300 (EMB-505)	PW530	0.844	STANDARD:1	Night	0.000	0.000	0.311	0.486	0.018	0.029	0.000	0.000	0.000	0.000

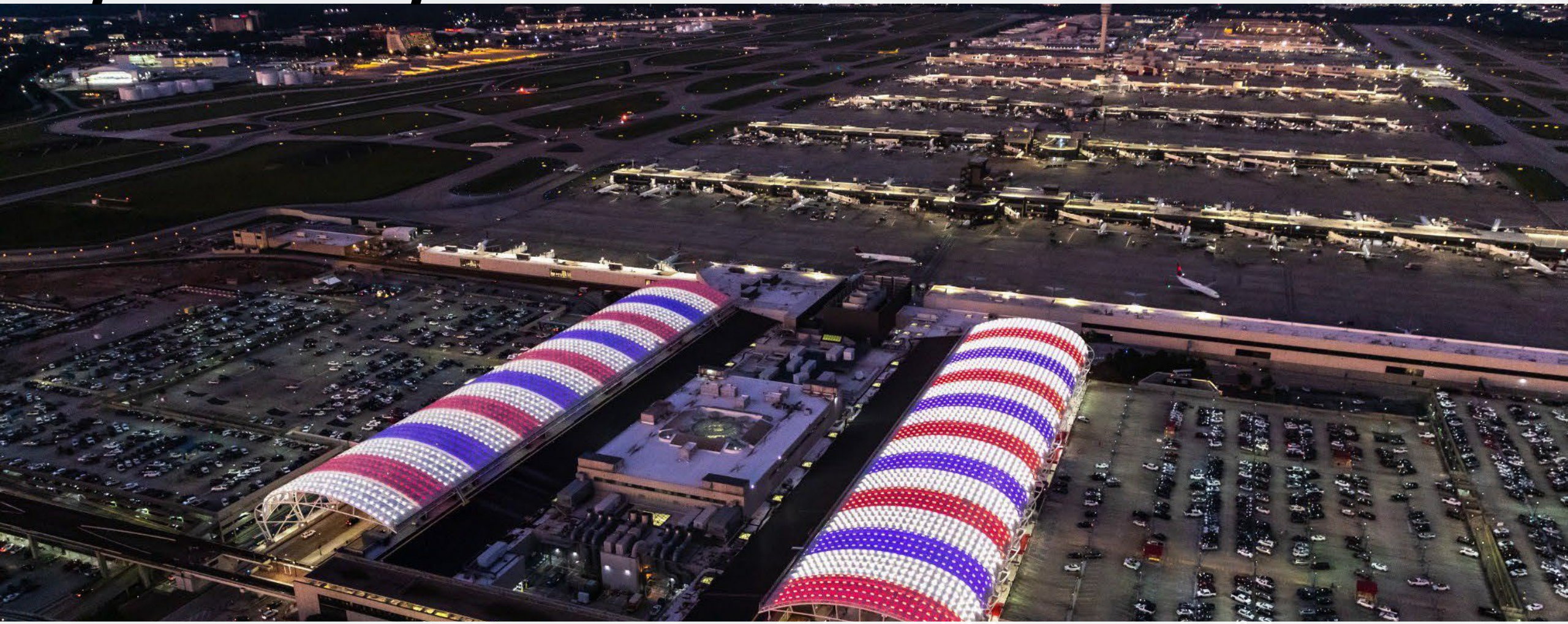
Operation Type (A/D)	Airframe	Engine	Operations	Profile	Day/Night	Number of Operations by Runway									
						8L	26R	8R	26L	9L	27R	9R	27L	10	28
D	Raytheon Beech 1900-C	PT6A-65B	5.347	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.501	0.784	0.000	0.000	1.584	2.478
D	Raytheon Beech 1900-C	PT6A-65B	1.137	STANDARD:1	Night	0.000	0.000	0.055	0.087	0.222	0.347	0.000	0.000	0.166	0.260
D	Raytheon Beech 1900-C	PT6A-65B	0.016	STANDARD:2	Day	0.000	0.000	0.000	0.000	0.006	0.010	0.000	0.000	0.000	0.000
D	Raytheon Beech 1900-C	PT6A-65B	0.000	STANDARD:2	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A220-100	PW1524G	0.152	STANDARD:1	Day	0.000	0.000	0.000	0.000	0.059	0.093	0.000	0.000	0.000	0.000
D	Airbus A220-100	PW1524G	0.000	STANDARD:1	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A220-100	PW1524G	42.520	STANDARD:2	Day	0.000	0.000	2.187	3.421	14.396	22.516	0.000	0.000	0.000	0.000
D	Airbus A220-100	PW1524G	8.571	STANDARD:2	Night	0.000	0.000	1.850	2.893	1.493	2.335	0.000	0.000	0.000	0.000
D	Airbus A220-100	PW1524G	3.953	STANDARD:4	Day	0.000	0.000	1.542	2.412	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A220-100	PW1524G	0.000	STANDARD:4	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Airbus A220-100	PW1524G	0.304	STANDARD:6	Day	0.000	0.000	0.040	0.062	0.079	0.124	0.000	0.000	0.000	0.000
D	Airbus A220-100	PW1524G	0.000	STANDARD:6	Night	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	Boeing 787-9 Dreamliner	GEnx-1B70	0.870	STANDARD:M	Day	0.000	0.000	0.001	0.002	0.338	0.529	0.000	0.000	0.000	0.000
D	Boeing 787-9 Dreamliner	GEnx-1B70	0.130	STANDARD:M	Night	0.000	0.000	0.009	0.015	0.041	0.064	0.000	0.000	0.000	0.000

APPENDIX B

Updating ATL's Noise Exposure Maps

Thomas E. Nissalke, Ph.D.

May 16, 2024



MAYOR ANDRE DICKENS
CITY OF ATLANTA

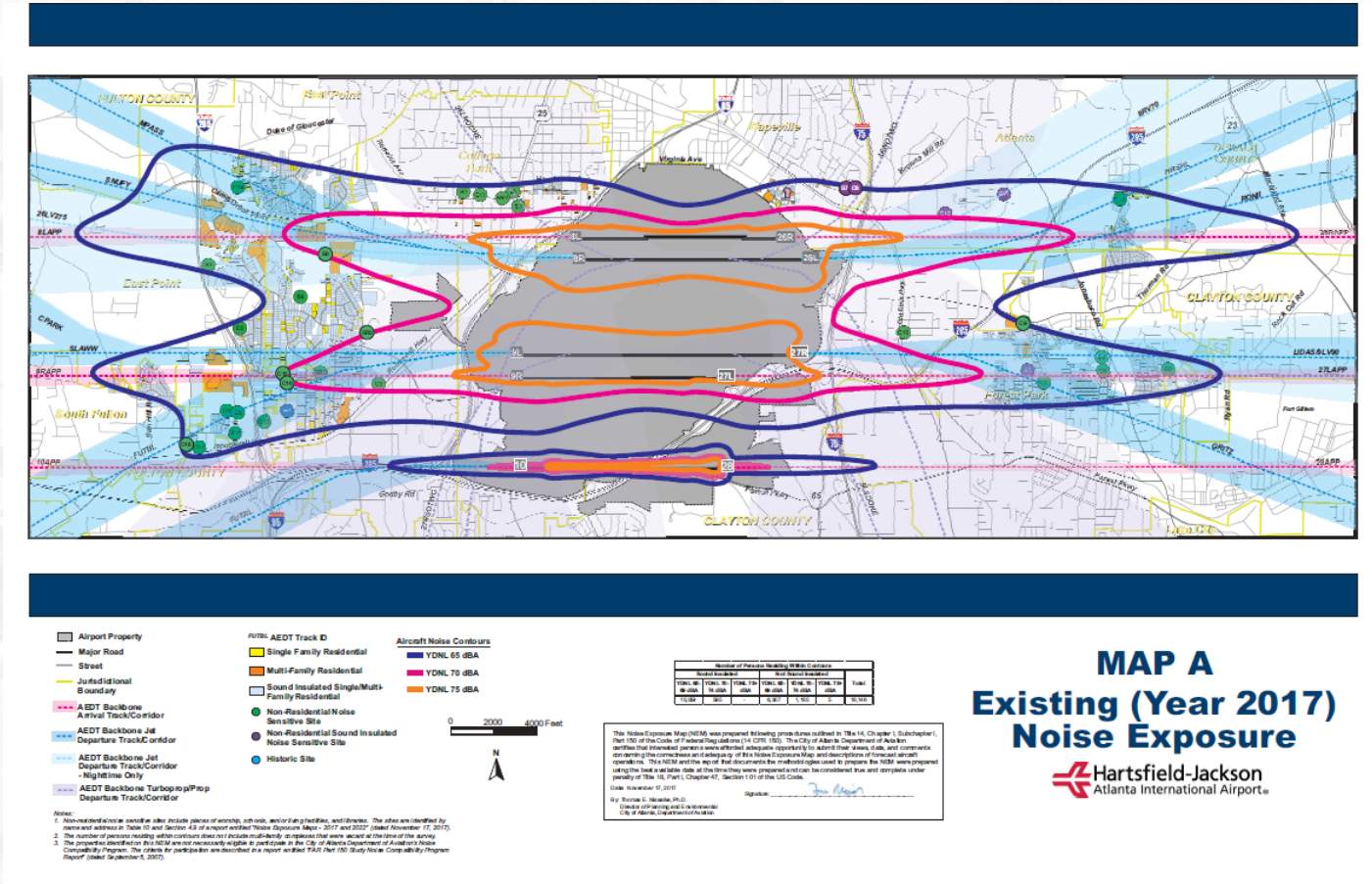
Hartsfield-Jackson Atlanta International Airport®

BALRAM "B" BHEODARI
AIRPORT GENERAL MANAGER

What's a NEM?

- ***A scaled, geographic depiction of an airport overlaid with aircraft noise contours of average day-night sound levels (65, 70, and 75 decibels).***

- ***NEMs identify land uses within the contours that are incompatible with the above levels of aircraft noise (e.g., residences, schools).***



Purpose of Presentation

- ***In accordance with Title 14, Part 150 of the Code of Federal Regulations, the DOA is updating ATL's NEMs to reflect existing, year 2024, operations and forecast, year 2029, operations.***

- ***Subpart B, Section 150.21(b) of Part 150 requires consultation with "regular aeronautical users" of the airport during NEM development to provide opportunity for views, data, and comments to be submitted and considered.***

Aircraft Fleet Data (Average Day) - 2024

DRAFT

Category	Airframe	Engine	No. of Ops
Passenger - Air Carrier	Boeing 737-900 Series	CFM56-7B26_2503	326
	Airbus A321-200 Series	CFM56-5B3/P_1032	299
	Boeing 757-200 Series	RB211-535E4B_392	284
	Boeing 717-200 Series	BR700-715C1-30_85	239
	Bombardier CRJ-900	CF34-8C5A2_3998	160
	Boeing 737-800 Series	CFM56-7B27_203	152
	Airbus A320-200 Series	CFM56-5A3	130
	Boeing 737-700 Series	CFM56-7B22	113
	Airbus A319-100 Series	CFM56-5A5	79
	Airbus A320-NEO	LEAP-1A26/26E1	75
	Boeing 737-800 Series	CFM56-7B27E	53
	Boeing 767-300 Series	CF6-80C2B6	24
	Bombardier CRJ-700	CF34-8C5A1_3639	36
	Airbus A350-900 series	Trent XWB-84	27
	Boeing 757-300 Series	RB211-535E4B_381	21
	Airbus A321-NEO	PW1133G-JM	20
	Airbus A330-300 Series	CF6-80E1A3_1054	19
	Boeing 767-400	CF6-80C2B5F_1058	13
	Embraer ERJ190	CF34-10E5A1_4014	6
	Embraer ERJ175	CF34-8E5A1_3815	2
	Airbus A320-200 Series	CFM56-5-A1	5
	Boeing 777-200 Series	GE90-90B_609	4
	Boeing 737-900-ER	CFM56-7B26	4
	Boeing 747-8F	GEnx-2B67	2
	Airbus A220-300	PW1521GA	4
	Boeing 777-300 ER	GE90-115B_665	1
	Airbus A330-900N Series (Neo)	Trent7000-72_6652	2
Cargo	Boeing 767-300 Series	CF6-80C2B6	19
	Boeing 777-200-LR	GE90-110B1	7
	Boeing 747-400 Series	RB211-524G_5130	4
	Airbus A300F4-600 Series	PW4158	4
	Boeing 757-200 Series	RB211-535E4B_392	2
	Boeing 777-300 ER	GE90-115B_665	2
	Boeing 747-8F	GEnx-2B67	2
	Boeing MD-11	CF6-80E1A3_2035	2
Air Taxi/ General Aviation / Military	Cessna 208 Caravan	PT6A-114	10
	Embraer ERJ175	CF34-8E5A1_3815	10
	Raytheon Beech 1900-C	PT6A-67B	8
	Embraer ERJ170	CF34-8E5A1_2560	7
	Embraer ERJ175	CF34-8E5A1_3815	7
	Embraer Phenom 300 (EMB-505)	PW530	4
	Bombardier CRJ-200	CF34-3B/-3B1	4
	Cessna 680-A Citation Latitude	PW306B_6386	3
	Cessna 560 Citation V	JT15D-5, -5A, -5B	3
	Embraer ERJ190	CF34-10E5A1_4014	2
Total			2,201

Developed using data from the DOA's Flight Tracking System and Aviation Activity Forecast prepared by Ricondo & Associates.

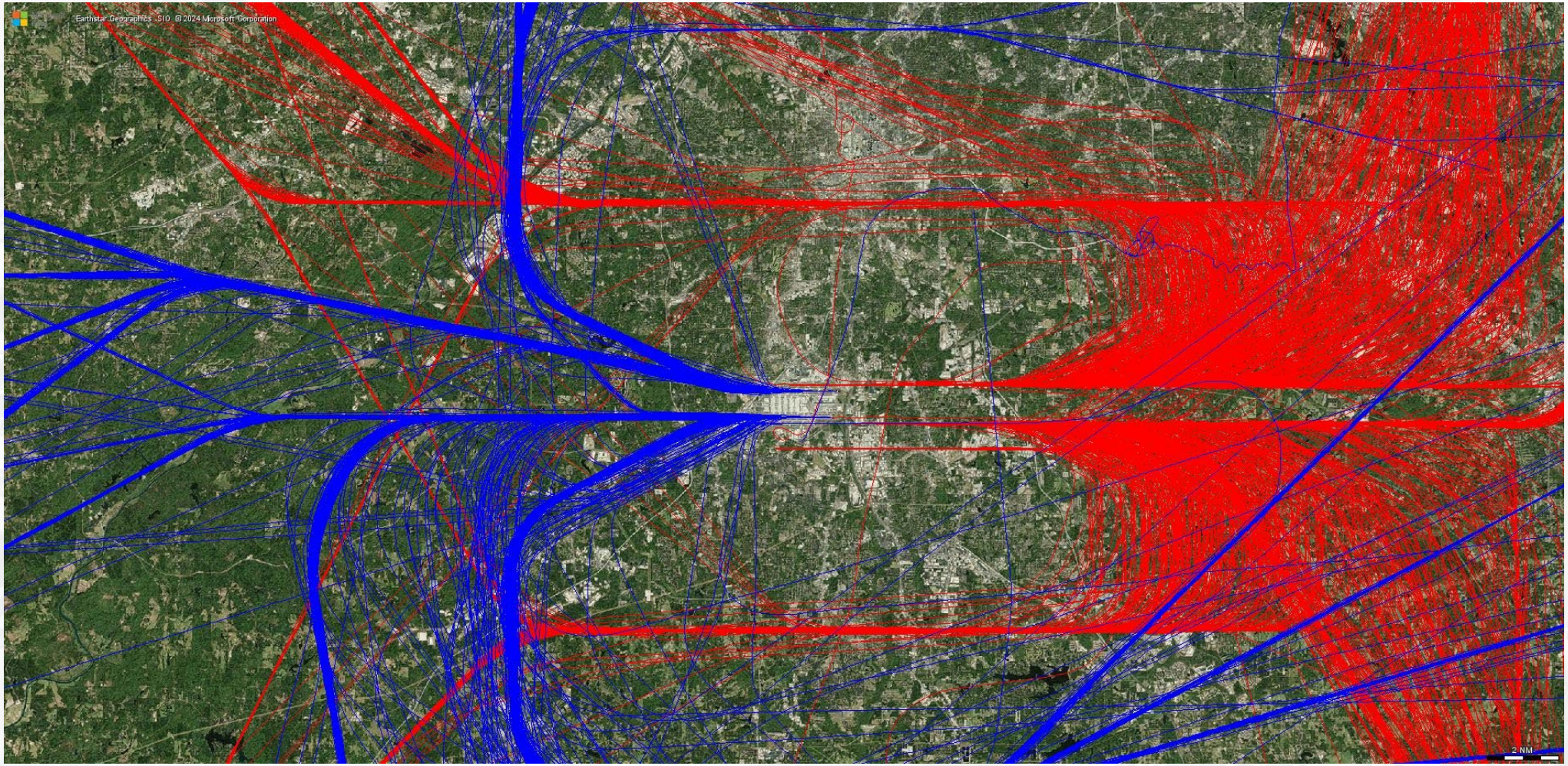
Aircraft Fleet Data (Average Day) - 2029

Under Development

Category	Airframe	Engine	No. of Ops
Passenger - Air Carrier	Boeing 737-900 Series	CFM56-7B26_2503	
	Airbus A321-200 Series	CFM56-5B3/P_1032	
	Boeing 757-200 Series	RB211-535E4B_392	
	Boeing 717-200 Series	BR700-715C1-30_85	
	Bombardier CRJ-900	CF34-8C5A2_3998	
	Boeing 737-800 Series	CFM56-7B27_203	
	Airbus A320-200 Series	CFM56-5A3	
	Boeing 737-700 Series	CFM56-7B22	
	Airbus A319-100 Series	CFM56-5A5	
	Airbus A320-NEO	LEAP-1A26/26E1	
	Boeing 737-800 Series	CFM56-7B27E	
	Boeing 767-300 Series	CF6-80C2B6	
	Bombardier CRJ-700	CF34-8C5A1_3639	
	Airbus A350-900 series	Trent XWB-84	
	Boeing 757-300 Series	RB211-535E4B_381	
	Airbus A321-NEO	PW1133G-JM	
	Airbus A330-300 Series	CF6-80E1A3_1054	
	Boeing 767-400	CF6-80C2B5F_1058	
	Embraer ERJ190	CF34-10E5A1_4014	
	Embraer ERJ175	CF34-8E5A1_3815	
	Airbus A320-200 Series	CFM56-5-A1	
	Boeing 777-200 Series	GE90-90B_609	
	Boeing 737-900-ER	CFM56-7B26	
	Boeing 747-8F	GEnx-2B67	
	Airbus A220-300	PW1521GA	
	Boeing 777-300 ER	GE90-115B_665	
	Airbus A330-900N Series (Neo)	Trent7000-72_6652	
Cargo	Boeing 767-300 Series	CF6-80C2B6	
	Boeing 777-200-LR	GE90-110B1	
	Boeing 747-400 Series	RB211-524G_5130	
	Airbus A300F4-600 Series	PW4158	
	Boeing 757-200 Series	RB211-535E4B_392	
	Boeing 777-300 ER	GE90-115B_665	
	Boeing 747-8F	GEnx-2B67	
	Boeing MD-11	CF6-80E1A3_2035	
Air Taxi/ General Aviation / Military	Cessna 208 Caravan	PT6A-114	
	Embraer ERJ175	CF34-8E5A1_3815	
	Raytheon Beech 1900-C	PT6A-67B	
	Embraer ERJ170	CF34-8E5A1_2560	
	Embraer ERJ175	CF34-8E5A1_3815	
	Embraer Phenom 300 (EMB-505)	PW530	
	Bombardier CRJ-200	CF34-3B/-3B1	
	Cessna 680-A Citation Latitude	PW306B_6386	
	Cessna 560 Citation V	JT15D-5, -5A, -5B	
	Embraer ERJ190	CF34-10E5A1_4014	
Total			2,406

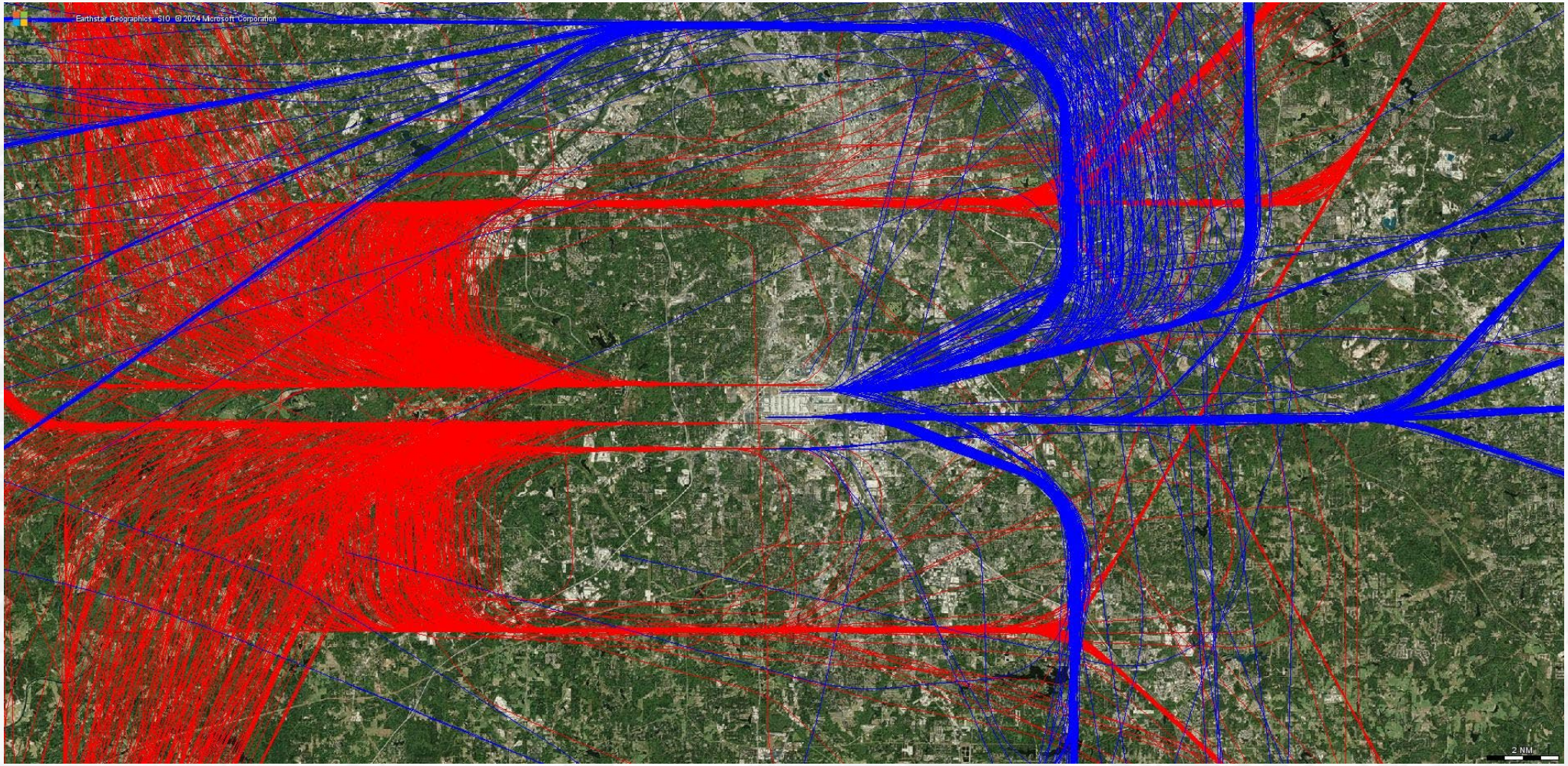
Arrival and Departure Tracks - West Flow

April 8, 2024



Arrival and Departure Tracks - East Flow

April 15, 2024



Schedule

Today	Scoping session with airport users
June	Scoping sessions with elected officials and the public
July-August	DOA prepares Draft NEM Report and hosts an open house
September	Comment Period
October	Comment period closes, DoA prepares Final NEM Report and submits to FAA

Views, Data, Comments

- ***Submit today***
- ***Submit in writing:***
  - ***Mail to -***

    Thomas Nissalke, Ph.D.
    Assistant General Manager of Planning and Development
    1255 South Road
    College Park, GA 30337

  - ***Email to -***

    Tom.Nissalke@ATL.com

APPENDIX C

Invitation to Attend Scoping Meeting Held June 27, 2024.

Dear Invitee:

In accordance with 14 CFR 150 and use of Federal Aviation Administration guidance, the City of Atlanta/Department of Aviation (City) is preparing new Noise Exposure Maps (NEMs) for Hartsfield-Jackson Atlanta International Airport. The NEMs will be prepared for existing year 2024 conditions and forecast future year 2029 conditions. To obtain your input and comments on the update, the City is inviting you to an agency and jurisdiction scoping meeting. During the meeting, the City will present background on the preparation of NEMs; the City's noise insulation program; and data that has been collected for the purpose of preparing the NEMs.

The scoping meeting will be held virtually at 1:00 p.m. on June 27, 2024. A link to the meeting will follow shortly.

Of note, the City is not proposing to modify Hartfield-Jackson Atlanta International's Noise Compatibility Program nor is the City evaluating any changes to the arrival/departure corridors to/from the Airport. Additionally, except for a forecast increase in aircraft operations and changing aircraft fleet mix, there are no operational changes being proposed that would change aircraft noise in the vicinity of the Airport in the future.

If you have any questions or require additional information, please contact Ms. Tianna Evola, the Department of Aviation's Director of Government Affairs at (404) 382-2293 or at Tianna.Evola@atl.com. If you are unable to attend the meeting, but wish to provide scoping comments, please email your comments to Ms. Evola.

List of Invitees

- Detrick Stanford, Chief Operating Officer, Clayton County
- Michael Thurmond, Chief Executive Officer, Dekalb County
- Richard Anderson, County Manager, Fulton County
- Dr. Emmanuel O. Adediran, City Manager, College Park
- Howard Brown Jr., City Manager, East Point
- Sharon Subadan, City Manager, City of South Fulton
- Ricky L. Clark, Jr., City Manager, Forest Park
- Tim Young, City Manager, Hapeville
- Jeff Baker, City Manager, Morrow
- Seddrick Hall, City Manager, Jonesboro
- Christopher Leighty, City Manager, Lake City
- E. Scott Wood, City Manager, Riverdale
- Alan Hallman, Mayor, Hapeville
- Michael Rast, Councilmember, Hapeville
- Brett Reichert, Councilmember, Hapeville
- Mark Adams, Councilmember, Hapeville
- Chloe Alexander, Councilmember, Hapeville
- Bianca Broome, Mayor, College Park
- Jamelle Mckenzie, Councilmember, College Park
- Tracie Arnold, Councilmember, College Park
- Roderick Gay, Councilmember, College Park
- Joe Carn, Councilmember, College Park
- Khalid Kamau, Mayor, City of South Fulton
- Catherine Foster-Rowell, Councilmember, City of South Fulton
- Carmalitha Gumbs, Councilmember, City of South Fulton
- Helen Willis, Councilmember, City of South Fulton
- Jaceey Sevastian, Councilmember, City of South Fulton
- Keosha B. Bell, Councilmember, City of South Fulton
- Carmalitha Gumbs, Councilmember, City of South Fulton
- Natasha Williams-Brown, Councilmember, City of South Fulton
- Linda Pritchett, Councilmember, City of South Fulton
- Angelyne Butle, Mayor, Forest Park
- Kimberly James, Councilmember, Forest Park
- Dabouze Antoine, Councilmember, Forest Park
- Hector Gutierrez, Councilmember, Forest Park
- Latresa Akdin-Wells, Councilmember, Forest Park
- Allan Mears, Councilmember, Forest Park
- Anthony Smith, Superintendent, Clayton County Schools
- Mike Looney, Superintendent, Fulton County Schools

List of Attendees

- Dr. Emmanuel Adediran, City Manager, City of College Park
- Korey Barnes, Interim Deputy Directory, DeKalb Peachtree Airport
- Barrett Alexander, Plan Reviewer, City of South Fulton Community Development and Regulatory Affairs
- Noel Maloof, Chief Operations Office, Fulton County Schools
- Ronick, Unknown Association
- Franklin Sanchez, Environmental Health, Georgia Department of Public Health
- Tracie Sanchez, Community Development, Georgia Department of Community Affairs
- Matthew Williams, Unknown Association
- Helen Willis, Councilwoman, City of South Fulton

Scoping Session for Update to ATL's Noise Exposure Maps (NEMS)

Thomas E. Nissalke, Ph.D.

June 27, 2024

MAYOR ANDRE DICKENS
CITY OF ATLANTA

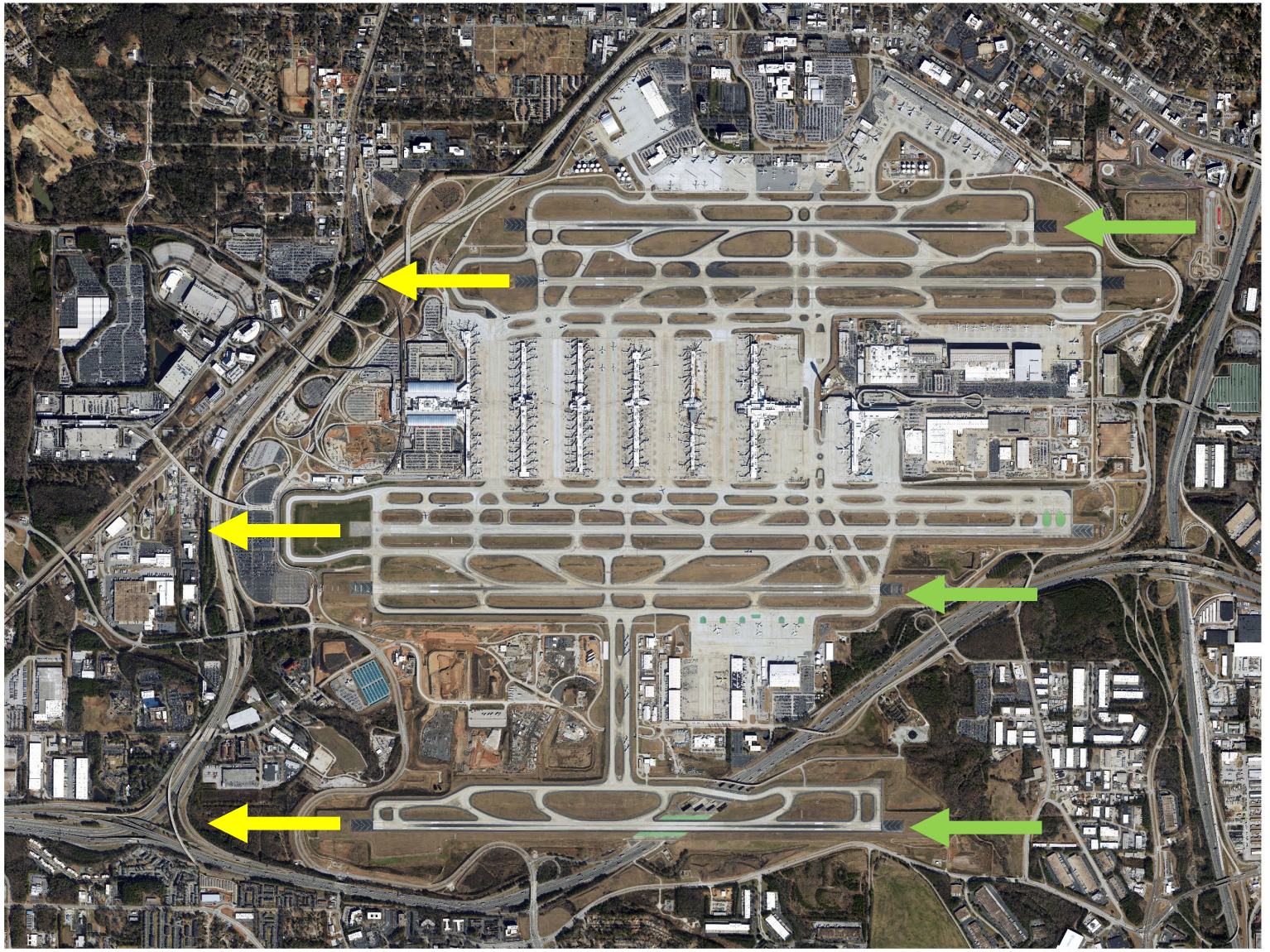
Hartsfield-Jackson Atlanta International Airport®

BALRAM "B" BHEODARI
AIRPORT GENERAL MANAGER

Purpose of Presentation and Background

- ***The City of Atlanta/Department of Aviation sponsors an aircraft noise mitigation program. The goal of the program is to reduce the number of structures identified as being incompatible with aircraft noise within a specified geographic area around Hartsfield-Jackson Atlanta International Airport (ATL).***
- ***The geographic area is generally defined by aircraft noise contours placed on a land-use map to create a Noise Exposure Map (NEM).***
- ***Funding for the noise mitigation program is 80% federal and 20% local; the program is predicated on the availability of federal funding.***
- ***In accordance with 14 CFR 150, the DOA is updating ATL's NEMs to reflect existing, year 2024, operations and forecast, year 2029, operations.***
- ***Subpart B, Section 150.21(b) of Part 150 requires consultation with "public agencies and planning agencies whose area, or any portion of whose area" is within the annual average Day-Night Level (YDNL) 65 decibel (dB) contour of a NEM during NEM development to provide opportunity for views, data, and comments to be submitted and considered.***

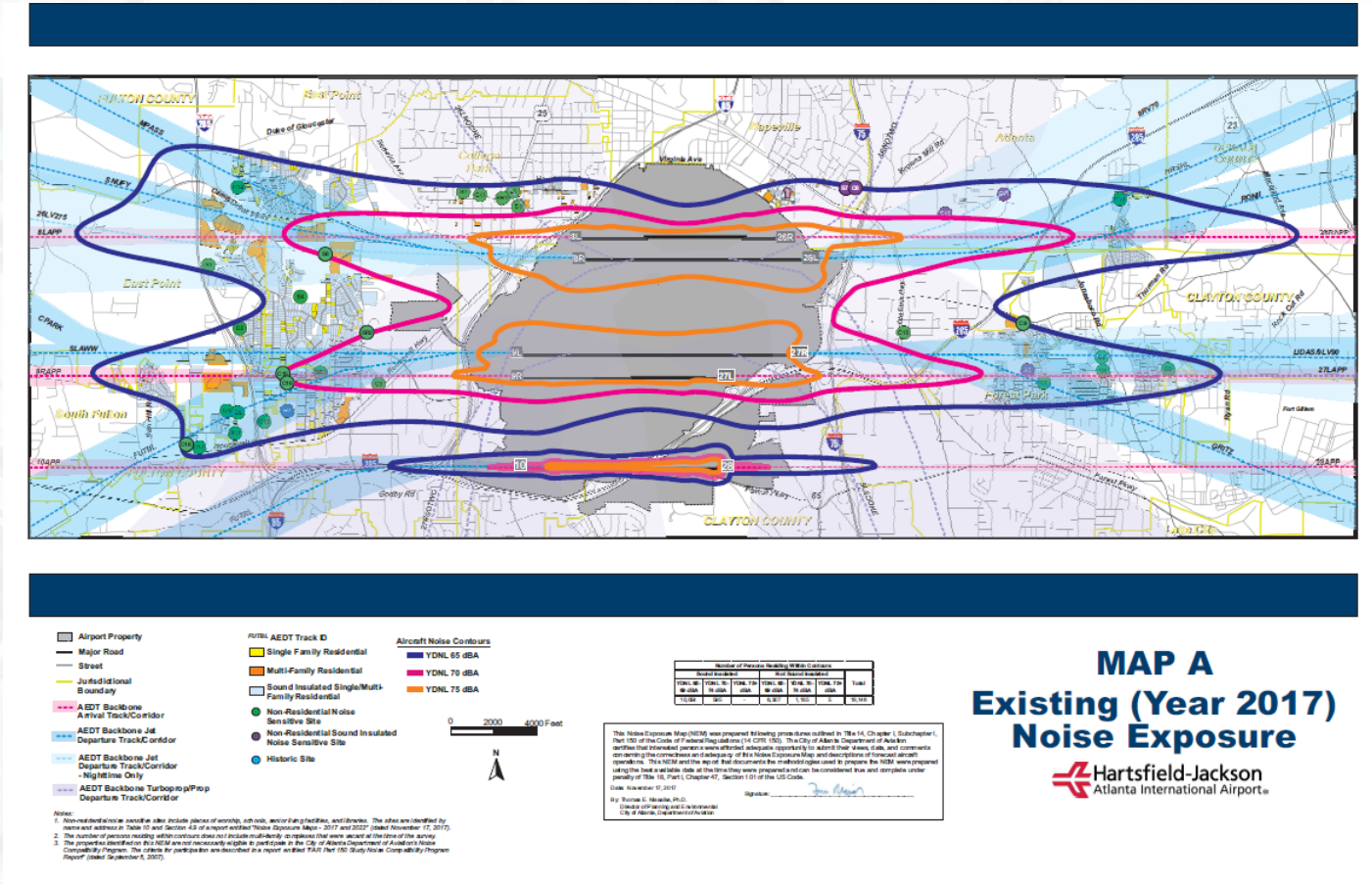
2024 Aerial Photo of ATL



What's a NEM?

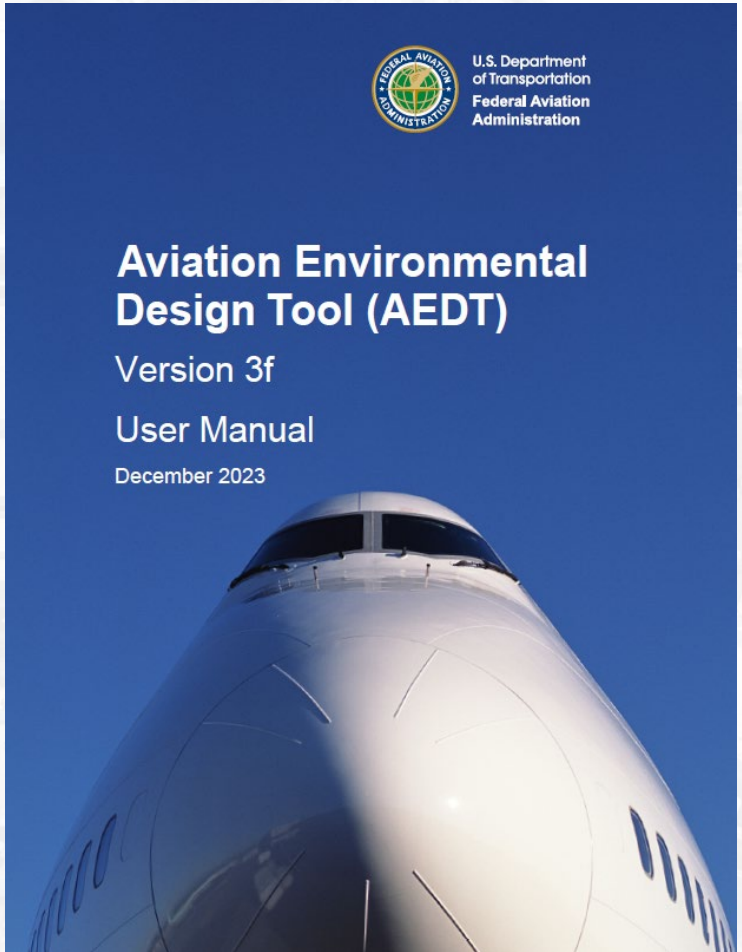
- ***A scaled, geographic depiction of an airport overlaid with aircraft noise contours using the YDNL metric.***

- ***NEMs identify land uses within the contours that are incompatible with aircraft noise (e.g., residences, schools, etc.).***



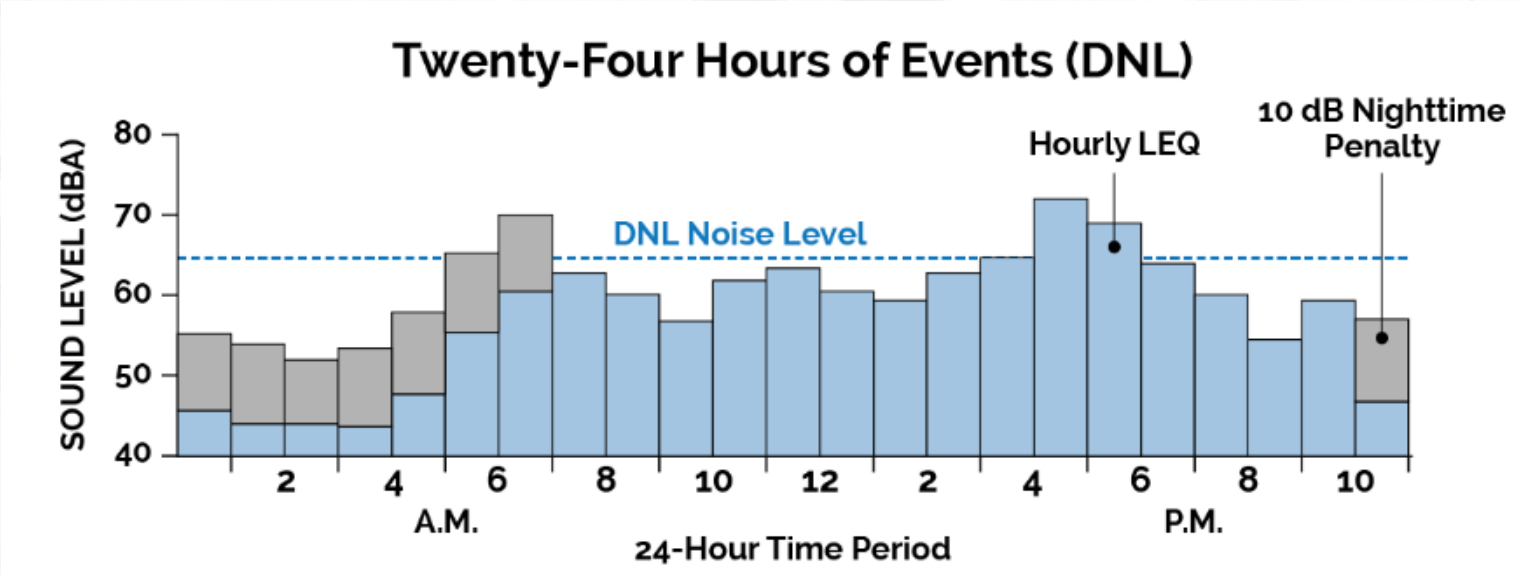
How are NEMs Developed?

- ***NEMs are developed using the Federal Aviation Administration's (FAA's) Aviation Environmental Design Tool (AEDT).***
  - ***AEDT was designed to model aviation-related operations for noise, emissions, and fuel consumption.***



What Is the YDNL?

- *ATL's NEMs will depict aircraft-related YDNL values of 65, 70, and 75 dB.*
- *The YDNL accounts for the increase in human sensitivity to aircraft noise occurring between the hours of 10 p.m. and 7 a.m. (i.e., nighttime).*
- *In AEDT's calculations, each aircraft operation (an arrival or a departure) occurring at night is counted as if ten such events occurred (i.e., a 10 dB nighttime penalty).*



Source: FAA

Review of Draft Data for Development of 2024 NEM

- ***Runway Use and Characteristics***
- ***Year 2024 Aircraft Fleet Mix and Number of Average Day Operations***
- ***Arrival and Departure Times***
- ***Airport Flow***
- ***Flight Tracks and AEDT Modeled Corridors***

Source: FAA

Runway Use and Characteristics

- ***Hartsfield-Jackson has five runways aligned in an east-west orientation.***
- ***Generally, the two inboard runways (8R-26L and 9L-27R) are used for departures.***
- ***Generally, the three other runways (8L-26R, 9R-27L, and 10-28) are used for arrivals.***
- ***In calendar year 2023, the Airport handled approximately 776,000 operations; our record is approximately 994,000 in 2007.***
- ***Runway 9L-27R is 12, 390 feet long; Runway 8R-26L is 9,999 feet long; and the others are 9,000 feet long each.***

Source: FAA

Aircraft Fleet Data (Average Day) - 2024

DRAFT

Category	Aircraft	Engine	Number of Avg Day Ops
Passenger - Air Carrier	Boeing 737-900 Series	CFM56-7B26_2503	326
	Airbus A321-200 Series	CFM56-5B3/P_1032	300
	Boeing 757-200 Series	RB211-535E4B_392	284
	Boeing 717-200 Series	BR700-715C1-30_85	240
	Bombardier CRJ-900	CF34-8C5A2_3998	160
	Boeing 737-800 Series	CFM56-7B27_203	152
	Airbus A320-200 Series	CFM56-5A3	130
	Boeing 737-700 Series	CFM56-7B22	114
	Airbus A319-100 Series	CFM56-5A5	78
	Airbus A320-NEO	LEAP-1A26/26E1	74
	Boeing 737-800 Series	CFM56-7B27E	53
	Bombardier CRJ-700	CF34-8C5A1_3639	36
	Airbus A350-900 series	Trent XWB-84	27
	Boeing 767-300 Series	CF6-80C2B6	24
	Boeing 757-300 Series	RB211-535E4B_381	21
	Airbus A321-NEO	PW1133G-JM	20
	Airbus A330-300 Series	CF6-80E1A3_1054	19
	Boeing 767-400	CF6-80C2B5F_1058	13
	Embraer ERJ190	CF34-10E5A1_4014	6
	Airbus A320-200 Series	CFM56-5-A1	5
	Boeing 777-200 Series	GE90-90B_609	4
	Boeing 737-900-ER	CFM56-7B26	4
	Airbus A220-300	PW1521GA	4
	Embraer ERJ175	CF34-8E5A1_3815	2
	Boeing 747-8F	GEnx-2B67	2
	Airbus A330-900N Series (Neo)	Trent7000-72_6652	2
	Boeing 777-300 ER	GE90-115B_665	1
Cargo - Air Carrier	Boeing 767-300 Series	CF6-80C2B6	19
	Boeing 777-200-LR	GE90-110B1	7
	Boeing 747-400 Series	RB211-524G_5130	4
	Airbus A300F4-600 Series	PW4158	4
	Boeing 757-200 Series	RB211-535E4B_392	2
	Boeing 777-300 ER	GE90-115B_665	2
	Boeing 747-8F	GEnx-2B67	2
	Boeing MD-11	CF6-80E1A3_2035	2
Subtotal			2,143

Category	Aircraft	Engine	Number of Avg Day Ops
Air Taxi, GA, Military	Cessna 208 Caravan	PT6A-114	9
	Embraer ERJ175	CF34-8E5A1_3815	9
	Raytheon Beech 1900-C	PT6A-67B	7
	Embraer ERJ170	CF34-8E5A1_2560	7
	Embraer ERJ175	CF34-8E5A1_3815	7
	Embraer Phenom 300 (EMB-505)	PW530	4
	Bombardier CRJ-200	CF34-3B/-3B1	4
	Cessna 680-A Citation Latitude	PW306B_6386	3
	Cessna 560 Citation V	JT15D-5, -5A, -5B	3
	Embraer ERJ190	CF34-10E5A1_4014	2
Subtotal			55
Total			2,200

Developed using data from the DOA's Flight Tracking System and Aviation Activity Forecast prepared by Ricondo & Associates.

Arrival and Departure Times

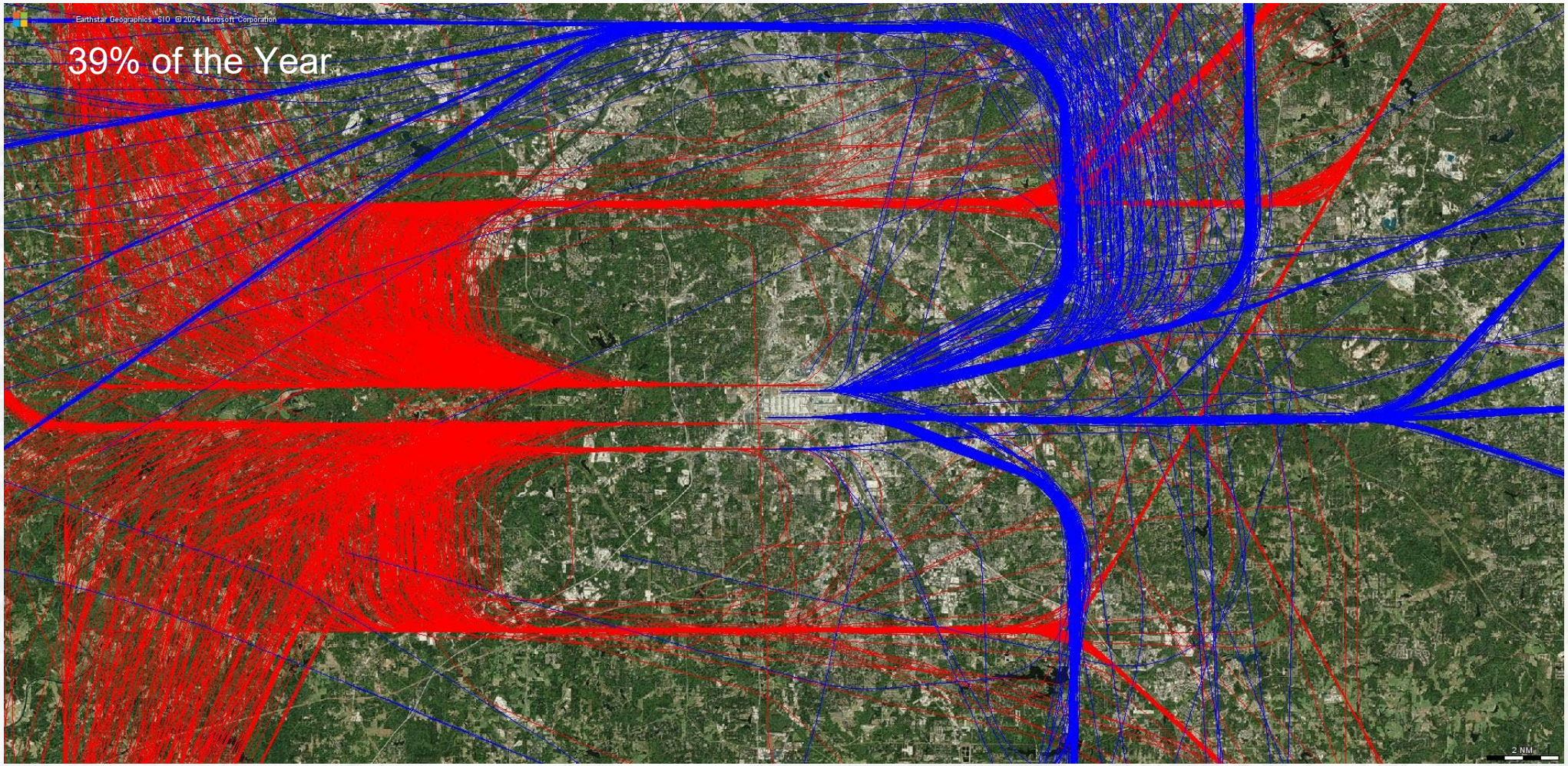
Arrivals/Departures	Percent in Daytime (7 a.m. – 10 p.m.)	Percent in Nighttime (10 p.m. – 7 a.m.)
Arrivals	90	10
Departures	86	14

Developed using data from the DOA's Flight Tracking System.

DRAFT

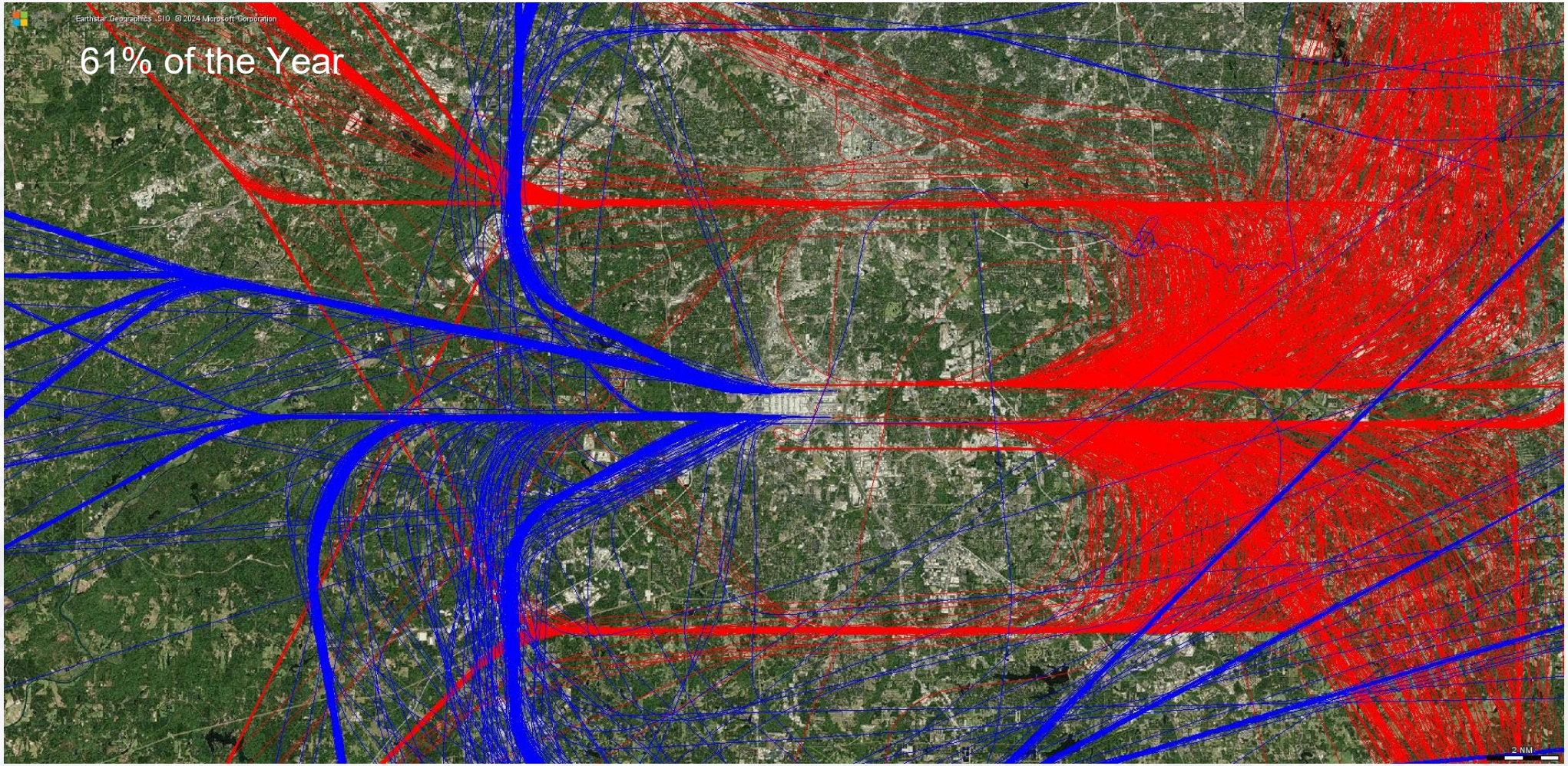
Arrival and Departure Tracks - East Flow

April 15, 2024

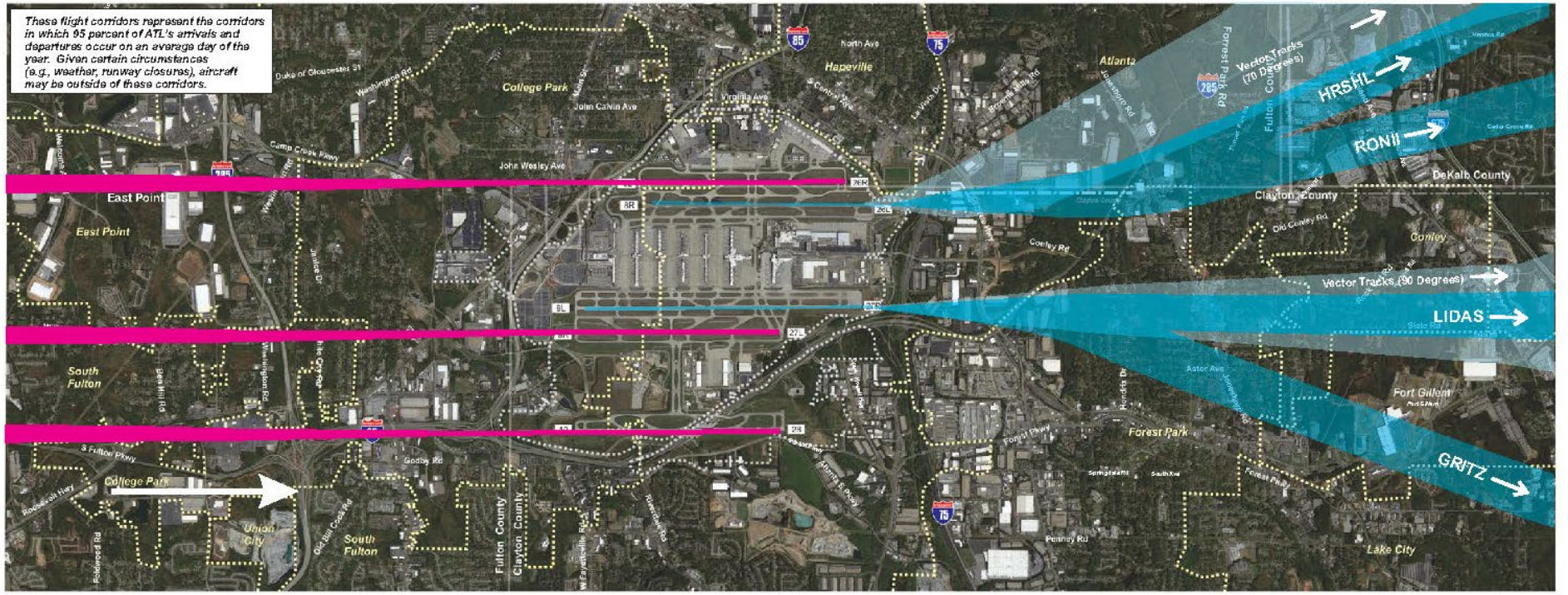


Arrival and Departure Tracks - West Flow

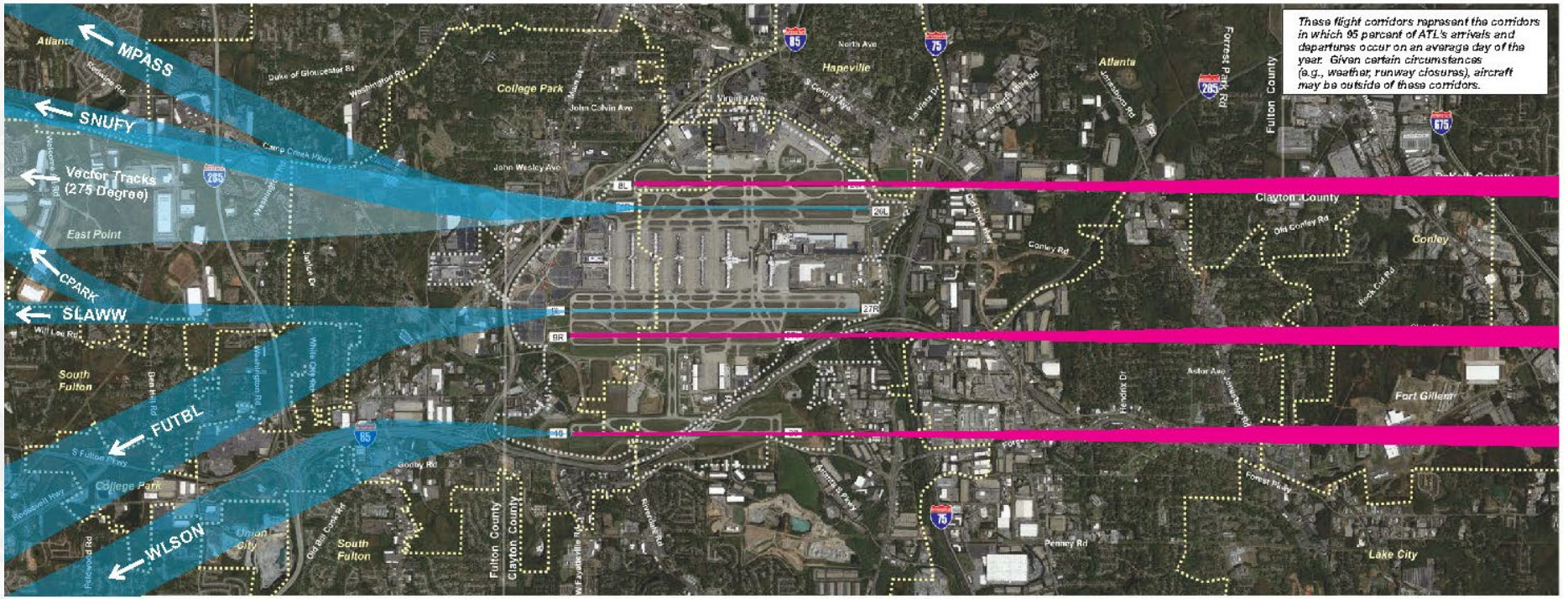
April 8, 2024



AEDT Arrival and Departure Corridors - East Flow



AEDT Arrival and Departure Corridors - West Flow



Forecast 2029 Conditions

- ***The Department of Aviation is not proposing to modify ATL's Noise Compatibility Plan, nor will the Department be evaluating any changes to the arrival/departure corridors to/from the Airport.***
- ***Except for a forecast increase in aircraft operations, there are no operational changes being proposed that would change aircraft noise in the vicinity of ATL in the year 2029.***
- ***The forecast number of year 2029 aircraft operations and fleet mix will be derived using data from an Aviation Activity Forecast that is currently being prepared by Ricondo & Associates.***

Schedule

Today	Scoping session with airport users
July	Scoping sessions with elected officials and the public
July-August	DOA prepares Draft NEM Report and hosts an open house
September	Comment Period
October	Comment period closes, DOA prepares Final NEM Report and submits to FAA

Views, Data, Comments

- ***Submit today***
- ***Submit in writing:***
  - ***Mail to -***

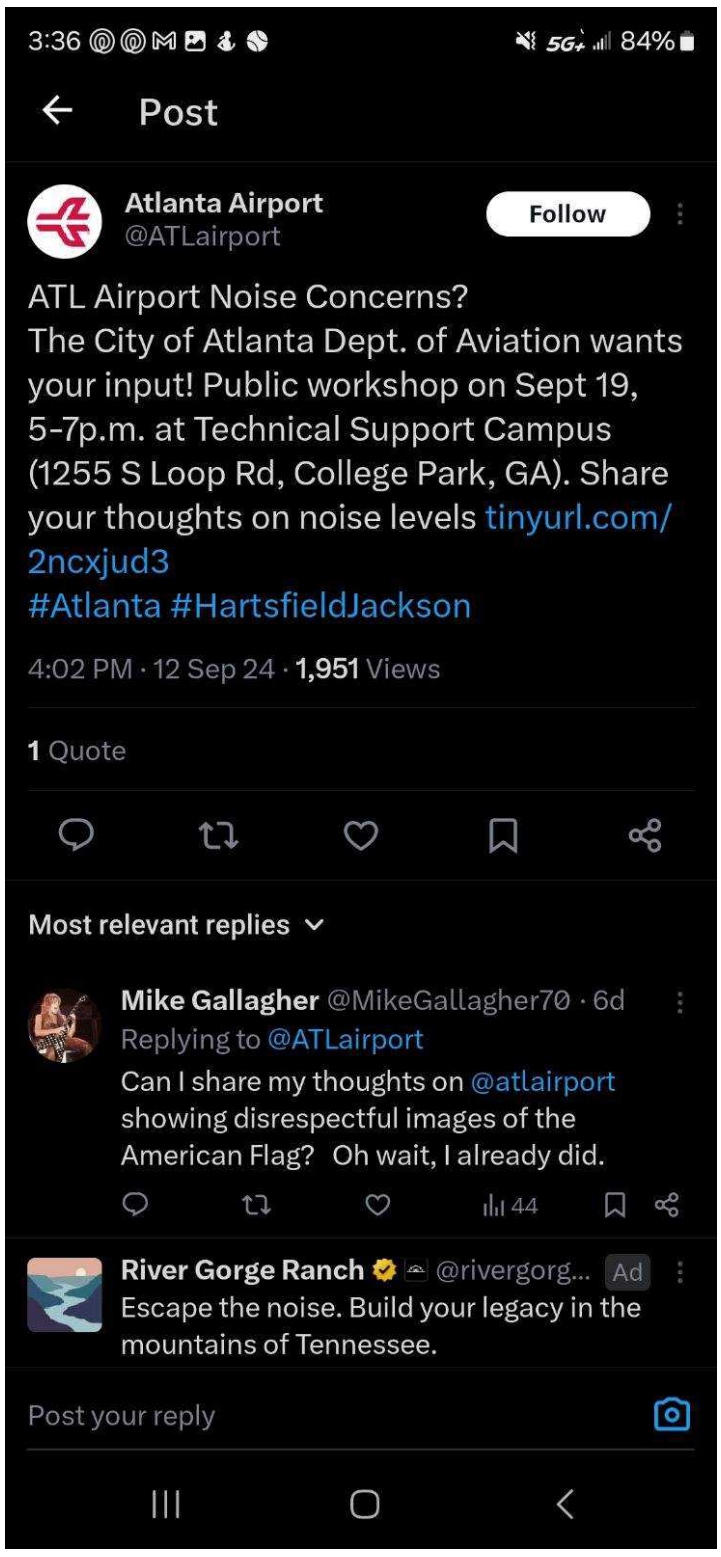
    Tianna Evola
    Director, Government Affairs
    6000 N. Terminal Parkway, Atrium
    Suite 4000
    Atlanta, GA 30320

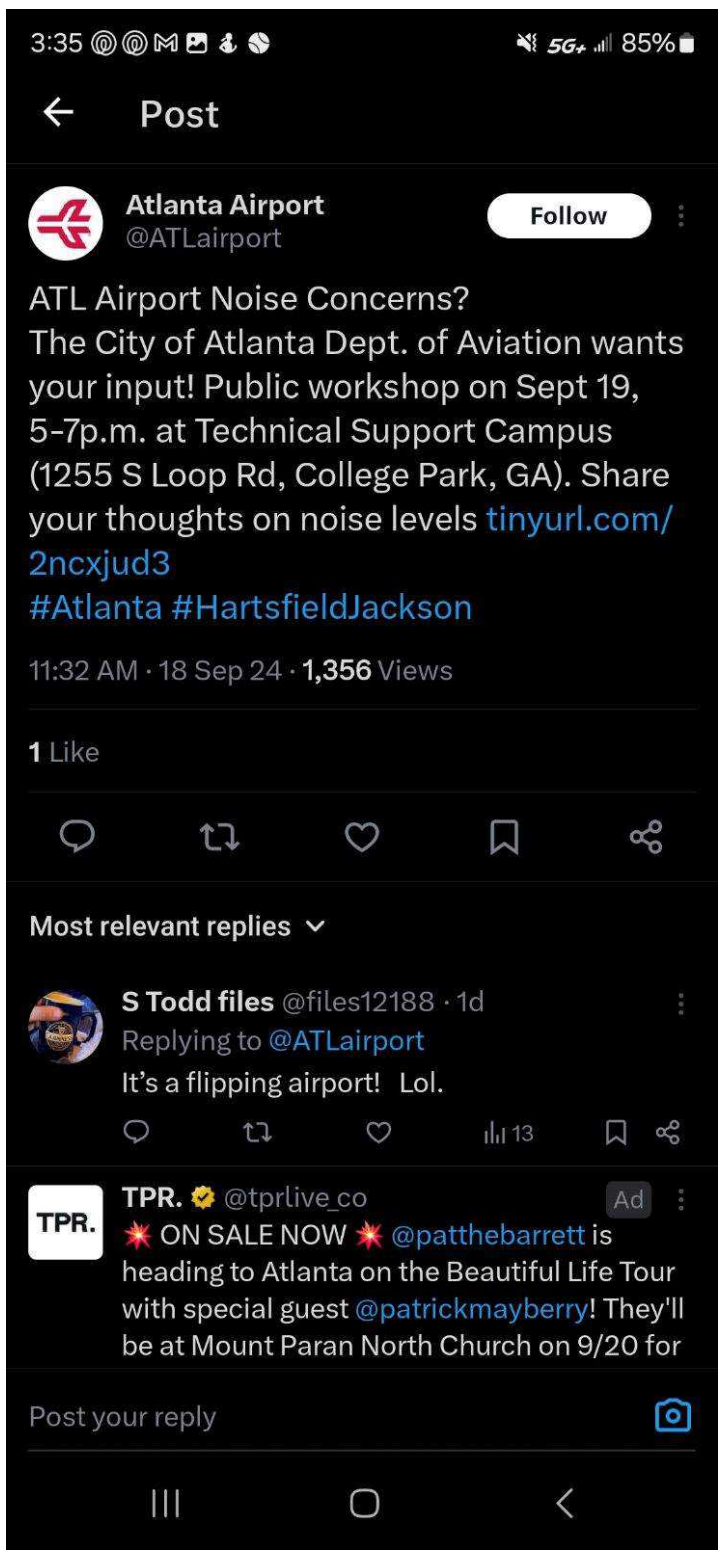
  - ***Email to -***

    Tianna.Evola@ATL.com

APPENDIX D

Posts on X (formerly Twitter)





The Atlanta Journal-Constitution

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Paid:	$9,092.48
Balance Due:	$0.00

Signed Nora Jenson
(Legal Advertising Agent)

Sworn or affirmed to, and subscribed before me, this 16th day of September, 2024 in Testimony whereof, I have hereunto set my hand and affixed my official seal, the day and year aforesaid.

Signed Sarah A. Perez
(Notary)

Please see Ad on following page(s).

Sarah A. Perez
Notary Public – State of New York
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Qualified in Erie County
Commission Expires: 4/27/2027

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Ad Cost:	$9,092.48
Paid:	$9,092.48
Balance Due:	$0.00

Hartsfield-Jackson
Atlanta International Airport

A Public Workshop Will Be Held Thursday, September 19, 2024 to Obtain Comments on the Development of Year 2024 and 2029 Noise Exposure Maps (NEMs) for Hartsfield-Jackson Atlanta International Airport (ATL)

The Workshop will be held at the Technical Support Campus located at 1255 South Loop Road, College Park, Georgia from 5 PM to 7 PM. The Department of Aviation (DOA) will give a presentation at 6 PM and DOA staff will be available prior to and after the presentation to answer questions. The presentation will also be available for download on the DOA's website (ATL.com).

Comments may be submitted at the Workshop, be mailed to:

Ms. Tianna Evola
Director, Government Affairs
City of Atlanta/Department of Aviation
P. O. Box 20509
Atlanta, GA 30320

or emailed to: NEMComments@cmtengr.com. All comments must be received by October 3, 2024.

Before including your address, phone number, email address, or other identifying information, be advised that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can request that your comment be withheld from public review of your personal identifying information, we cannot guarantee that we will be able to do so.

For further information please contact Tianna Evola (phone: 404-382-2293 or email: Tianna.Evola@ATL.com).

The Atlanta Journal-Constitution

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STATE OF GEORGIA

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Invoice/Order Number:	0000845623
Ad Cost:	$2,208.00
Paid:	$2,208.00
Balance Due:	$0.00

Signed Nora Henson
(Legal Advertising Agent)

Sworn or affirmed to, and subscribed before me, this 16th day of September, 2024 in Testimony whereof, I have hereunto set my hand and affixed my official seal, the day and year aforesaid.

Signed Sarah A. Perez
(Notary)

Please see Ad on following page(s).

Sarah A. Perez
Notary Public – State of New York
No. 01PE0006459
Qualified in Erie County
Commission Expires: 4/27/2027

CRAWFORD, MURPHY & TILLY | ENGINEERS & CONSULTANTS
450 CARILLON PKWY
SUITE 110
ST. PETERSBURG, FL 33716

Invoice/Order Number:	0000845623
Ad Cost:	$2,208.00
Paid:	$2,208.00
Balance Due:	$0.00

Hartsfield-Jackson Atlanta International Airport (ATL)

Notice of Public Workshop to Obtain Comments on the Development of Year 2024 and 2029 Noise Exposure Maps for ATL.

The City of Atlanta Department of Aviation (DOA) is hosting a Public Workshop on September 19, 2024 to obtain comments on the development of Year 2024 and 2029 Noise Exposure Maps (NEMs) for Hartsfield-Jackson Atlanta International Airport (ATL). The Workshop will be held at the Technical Support Campus located at 1255 South Loop Road, College Park, Georgia from 5 PM to 7 PM. The DOA will give a presentation at 6 PM and DOA staff will be available prior to and after the presentation to answer questions. The presentation will also be available for download on the DOA's website (ATL.com).

Comments may be submitted at the Workshop, mailed to Ms. Tianna Evola, Director of Government Affairs, City of Atlanta/Department of Aviation, P. O. Box 20509, Atlanta GA 30320, or emailed to NEMComments@cmtengr.com. All comments must be received by October 3, 2024.

Before including your address, phone number, email address, or other identifying information in your comments, be advised that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can request that your comment be withheld from public review of your personal identifying information, we cannot guarantee that we will be able to do so.

For further information please contact Tianna Evola (phone: 404-382-2293 or email: Tianna.Evola@ATL.com).

9-11, 15-24

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PASSENGER SECURITY (/passenger-information/passenger-security/)

CAREERS (/airport-information/careers/)

VOLUNTEERS (/community/airport-volunteer-program/)

Announcement on ATL's Website

ALERTS

Opportunity for Public Comment on the Development of Year 2024 and 2029 Noise Exposure Maps (NEMs) (https://www.atl.com/wp-content/uploads/2024/09/ATL-Noise-Exposure-Workshop_Public-Notice_090924.pdf)

Notice of Federal Aviation Administration (FAA) Determination And Availability of Noise Exposure Maps (NEMs) (https://www.atl.com/community/planningnoiseenvironmental-nem/)

Notice of Availability of Final Environmental Assessment for the Widening of Concourse D and Domestic Terminal Parking Reconfiguration (https://projectmeetingonline.com/ATL-EA/)

For the most up-to-date information on weather-related impacts at ATL, follow our Twitter feed @ATLairport. For flight information, please monitor your airline's communication channels. (https://mobile.twitter.com/atlairport/)

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Our mission is to provide the Atlanta region a safe, secure and cost-competitive gateway to the world that drives economic development, operates with the highest level of customer service and efficiency, and exercises fiscal and environmental responsibility.

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Hartsfield-Jackson
Atlanta International Airport®

Draft Current and Forecast (Year 2024 and 2029) Noise Exposure Maps
Public Information Workshop

September 19, 2024

Name	Address	City, State	Zipcode
Peter Green	FAA Southern Region	College Park	
JENNIFER P. ADAMS	FAA ATL ADO	COLLEGE PARK	
Carolina Silva	Atlanta	Atlanta	30305
Renee Mathier	3081 Carmel Dr	East Point	30344
Mayor A. Butler	740 Forest Parkway	Forest Park	30297
Ana Maria Tarow	Peachtree City, GA		30269

Hartsfield-Jackson
Atlanta International Airport®

Draft Current and Forecast (Year 2024 and 2029) Noise Exposure Maps
Public Information Workshop

September 19, 2024

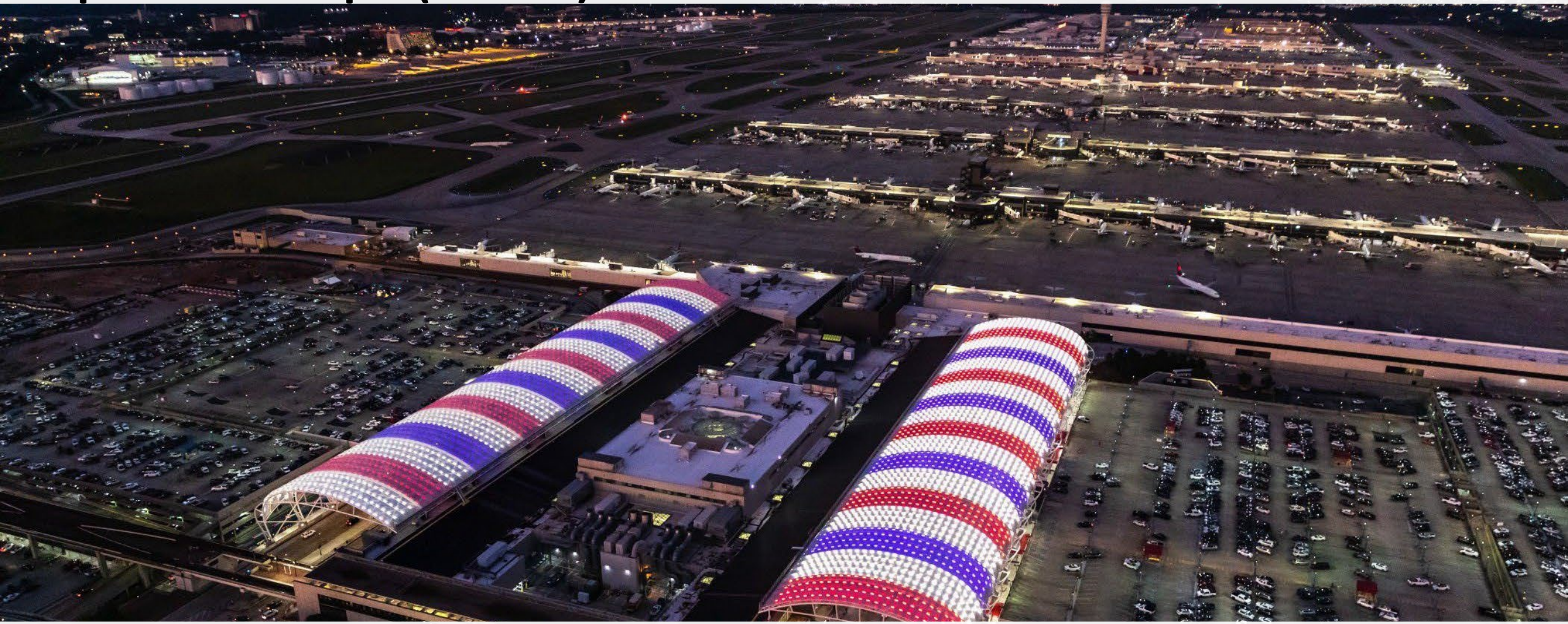
Elected and Appointed Officials

Name	Title	Representing
Dr. Martin Rogers	East Point city council	

Updating ATL's Noise Exposure Maps (NEMs)

Thomas E. Nissalke, Ph.D.

September 19, 2024



MAYOR ANDRE DICKENS
CITY OF ATLANTA

Hartsfield-Jackson Atlanta International Airport®

JAN LENNON
INTERIM AIRPORT GENERAL MANAGER

Purpose of Presentation

- The City of Atlanta owns Hartsfield-Jackson Atlanta International Airport (ATL) and the City's Department of Aviation (DOA) operates the airport.
- The DOA implements an aircraft noise mitigation program and uses federal funds to fund the program.
- To receive and use federal funds, the DOA must follow a process prescribed in Code of Federal Regulations Title 14, Part 150 that guides an airport sponsor in the preparation of Noise Exposure Maps (NEMs).
- The NEMs provide the basis for the geographic boundaries of the noise insulation program.
- In accordance with 14 CFR 150, the DOA is updating ATL's NEMs to reflect existing, year 2024, operations and forecast, year 2029, operations.
- Subpart B, Section 150.21(b) of Part 150 requires that the public be afforded the opportunity to review and comment during the development of the NEMs.

ATL Facts and Figures

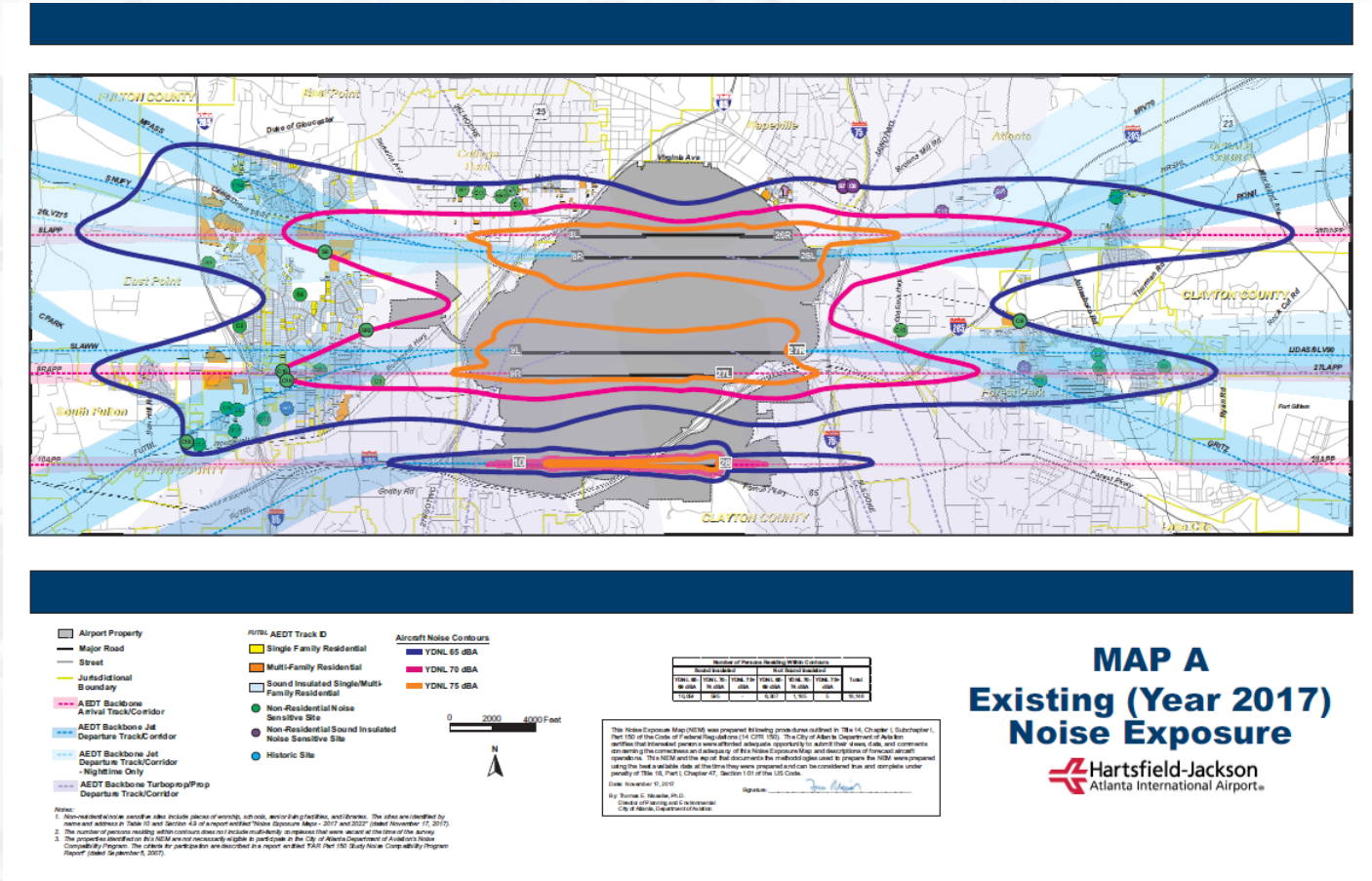
- Since 1998, Hartsfield-Jackson Atlanta International Airport (ATL) has been the busiest airport in the world for 24 out of 25 years.
- ATL has five parallel runways (two primarily used for arrivals, two primarily used for departures, and one used for both arrivals and departures).
- ATL serves more than 150 destinations within the U.S. and more than 70 international destinations in 43 countries.

Year	Annual Number of	
	Passengers	Operations
2019	110,531,300	904,301
2020	42,918,685	548,016
2021	75,704,760	707,661
2022	93,699,630	724,145
2023	104,663,451	775,818

What's an NEM?

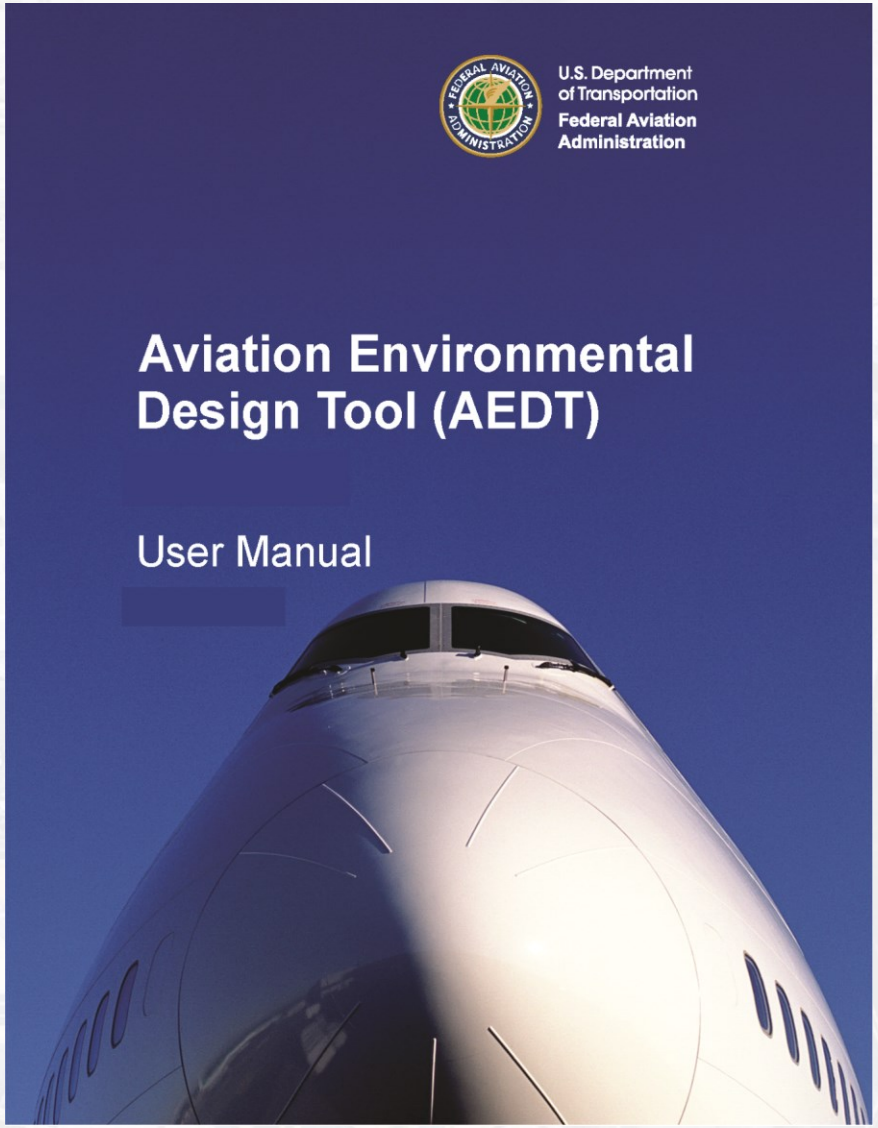
- A scaled, geographic depiction of a land use map overlaid with aircraft noise contours of yearly average day-night sound levels (YDNL 65, 70, and 75 decibels).

- NEMs identify land uses within the contours that are noncompatible with the above levels of aircraft noise (e.g., residences, schools).



How are NEMs Developed?

- NEMs are developed using a computer program-the Aviation Environmental Design Tool (AEDT).
- The AEDT was designed by the Federal Aviation Administration to model aviation-related operations to computer noise, emissions, and fuel consumption.
- AEDT Version 3f will be used in the preparation of the noise contours that are placed on the land use map.



Roles/Responsibilities

- There are multiple entities involved in the process of updating NEMs:
  - DOA:
    - **Responsible for preparing NEMs in consultation with those that use ATL, political jurisdictions, and planning agencies with property within ATL's NEMs, and the public. Meetings were held earlier this year with users of the airport and the political jurisdictions/planning agencies with authority over the properties within ATL's NEMs.**
  - Federal Aviation Administration:
    - **Establish regulations that provide a uniform system of evaluating aircraft noise exposure. Regulate the maximum noise level that civilian aircraft can emit through noise certification standards. Review and accept NEMs.**
  - Land Use Planning Officials:
    - **Responsible for considering the effects of aviation activity on local land use.**

Review of Draft AEDT Input

- Year 2024 and 2029 aircraft fleet mix data and number of average day operations
- Arrival and departure runway use
- Airfield directional use
- East and west flow flight tracks and corridors
- Arrival and departure profiles
- Time of day airfield use
- ATL average annual temperature
- Airfield elevation

Note: Other than fleet mix, there are no proposed changes from the Draft AEDT input that will be reviewed for the Year 2029.

Aircraft Fleet Data (Average Day) - 2024

DRAFT

Category		Airframe	Engine	Number of Operations
Air Carrier	Passenger	Airbus A220-300	PW1521G	7
		Airbus A319-100 Series	CFM56-5A5	63
		Airbus A320-200 Series	CFM56-5A3	120
		Airbus A320-NEO	LEAP-1A26/26E1	72
		Airbus A321-200 Series	CFM56-5B3/3	275
		Airbus A321-NEO	PW1133GA-JM	29
		Airbus A330-200 Series	PW4168A	5
		Airbus A330-300 Series	PW4168A	19
		Airbus A330-900N Series (Neo)	TRENT 7000-72	2
		Airbus A350-900 series	TRENT XWB-84	27
		Boeing 717-200 Series	BR700-715C1-30	260
		Boeing 737-700 Series	CFM56-7B24	116
		Boeing 737-8	LEAP-1B27	52
		Boeing 737-800 Series	CFM56-7B26/3	136
		Boeing 737-9	LEAP-1B27	3
		Boeing 737-900 Series	CFM56-7B24E	342
		Boeing 757-200 Series	PW2037	275
		Boeing 757-300 Series	PW2040	16
		Boeing 767-300 Series	PW4060	22
		Boeing 767-400	CF6-80C2B7E	13
		Boeing 777-200 Series	TRENT 892B	4
		Boeing 777-300 ER	GE90-115BL2	2
		Bombardier CRJ-700	CF34-8C1	43
		Bombardier CRJ-900	CF34-8C5	167
		Embraer ERJ170	CF34-8E5A1	4
		Embraer ERJ175	CF34-8E	5
		Embraer ERJ175-LR	CF34-8E	8
		Embraer ERJ190	CF34-10E6	10
	Cargo	Airbus A300F4-600 Series	PW4158-3	4
		Boeing 747-400 Series Freighter	CF6-80C2B1F	3
		Boeing 747-8F	GENX-2B67	5
		Boeing 757-200 Series	PW2037	2
		Boeing 767-300 Series	PW4060	21
		Boeing 777-200-LR	GE90-110B1L	8
Air Taxi		Cessna 208 Caravan	PT6A-114	15
		Embraer ERJ170	CF34-8E5A1	0
		Raytheon Beech 1900-C	PT6A-65B	17
General Aviation/Military		Cessna 560 Citation V	JT15D-5, -5A, -5B	5
		Cessna 680-A Citation Latitude	PW306C	8
		Embraer Phenom 300 (EMB-505)	PW530	15
Total				2,201

Developed using data from the DOA's Flight Tracking System and Aviation Activity Forecast prepared by Ricondo & Associates.

Aircraft Fleet Data (Average Day) - 2029

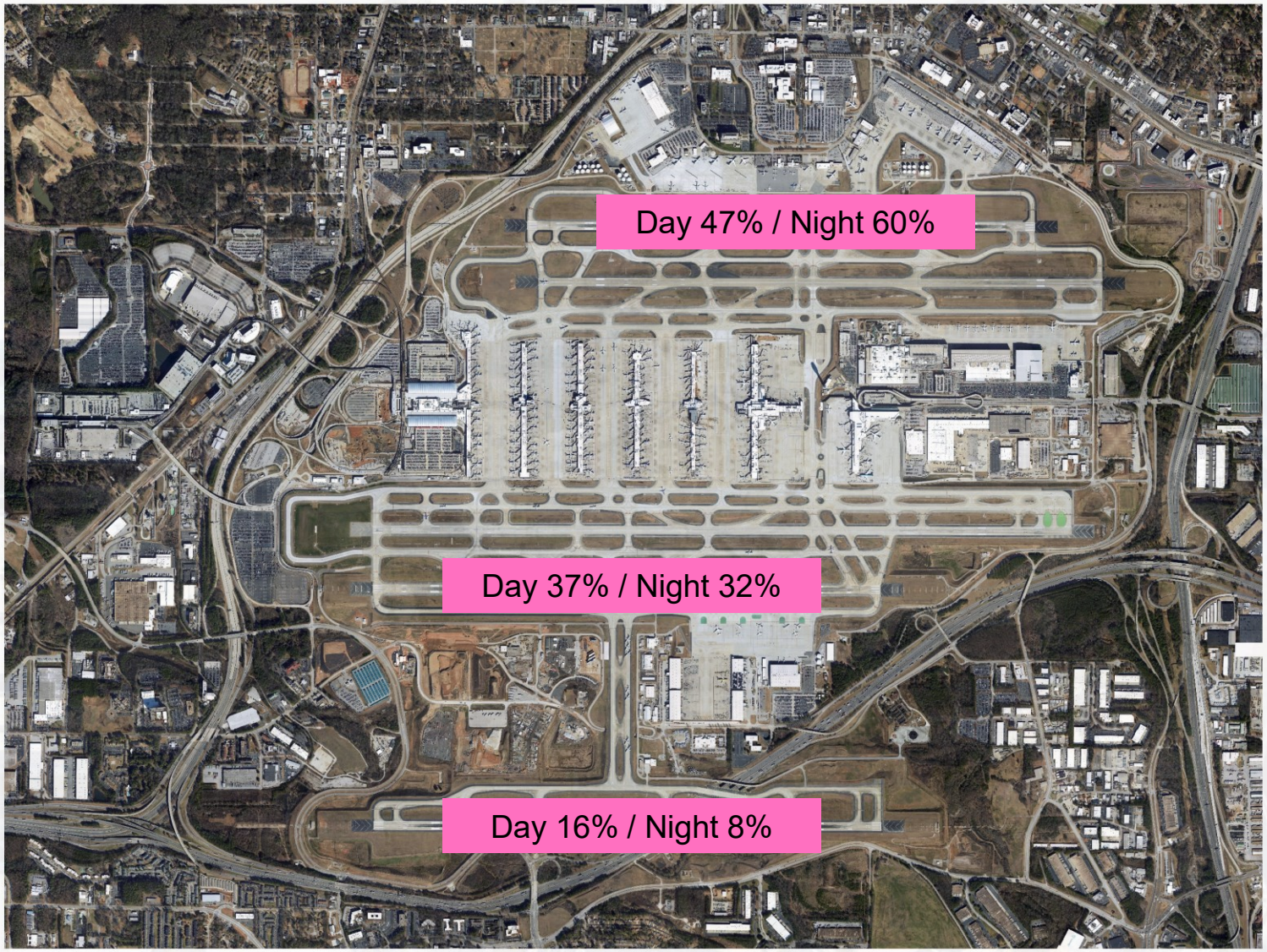
DRAFT

Category		Airframe	Engine	Number of Operations
Air Carrier	Passenger	Airbus A220-100	PW1524G	111
		Airbus A220-300	PW1521G	106
		Airbus A319-100 Series	CFM56-5A5	91
		Airbus A320-200 Series	CFM56-5A3	7
		Airbus A320-NEO	LEAP-1A26/26E1	47
		Airbus A321-200 Series	CFM56-5B3/3	383
		Airbus A321-NEO	PW1133GA-JM	231
		Airbus A330-200 Series	PW4168A	12
		Airbus A330-300 Series	PW4168A	10
		Airbus A330-900N Series (Neo)	TRENT 7000-72	7
		Airbus A350-900 series	TRENT XWB-84	40
		Boeing 737-700 Series	CFM56-7B24	118
		Boeing 737-8	LEAP-1B27	55
		Boeing 737-800 Series	CFM56-7B26/3	155
		Boeing 737-9	LEAP-1B27	48
		Boeing 737-900 Series	CFM56-7B24E	403
		Boeing 747-8F	GENX-2B67	2
		Boeing 757-200 Series	PW2037	238
		Boeing 757-300 Series	PW2040	26
		Boeing 767-300 Series	PW4060	8
		Boeing 767-400	CF6-80C2B7E	7
		Boeing 777-200 Series	TRENT 892B	7
		Boeing 777-300 ER	GE90-115BL2	2
		Boeing 787-9 Dreamliner	GENX-1B70	2
		Bombardier CRJ-700	CF34-8C1	34
		Bombardier CRJ-900	CF34-8C5	132
		Embraer ERJ170	CF34-8E5A1	6
		Embraer ERJ175	CF34-8E	15
	Cargo	Airbus A300F4-600 Series	PW4158-3	5
		Boeing 747-400 Series Freighter	CF6-80C2B1F	3
		Boeing 747-8F	GENX-2B67	5
		Boeing 757-200 Series	PW2037	3
		Boeing 767-300 Series	PW4060	23
		Boeing 777-200-LR	GE90-110B1L	8
Air Taxi		Cessna 208 Caravan	PT6A-114	12
		Embraer ERJ170	CF34-8E5A1	11
		Raytheon Beech 1900-C	PT6A-65B	13
General Aviation/Military		Cessna 560 Citation V	JT15D-5, -5A, -5B	4
		Cessna 680-A Citation Latitude	PW306C	6
		Embraer Phenom 300 (EMB-505)	PW530	12
Total				2,406

Developed using data from the DOA's Flight Tracking System and Aviation Activity Forecast prepared by Ricondo & Associates.

Runway Use – Arrivals

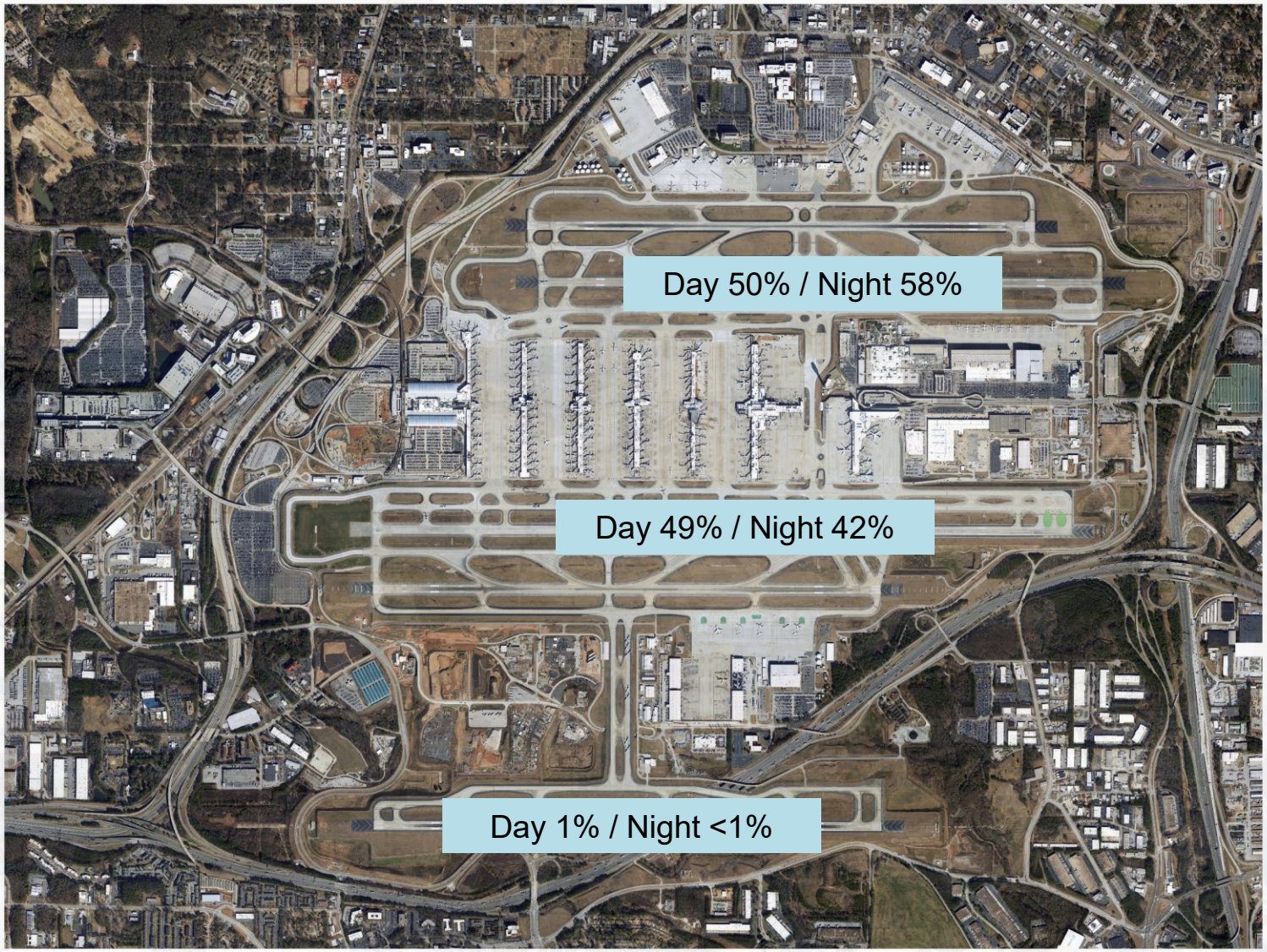
DRAFT



Developed using data from the DOA's Flight Tracking System and Aviation Activity Forecast prepared by Ricondo & Associates.

Runway Use – Departures

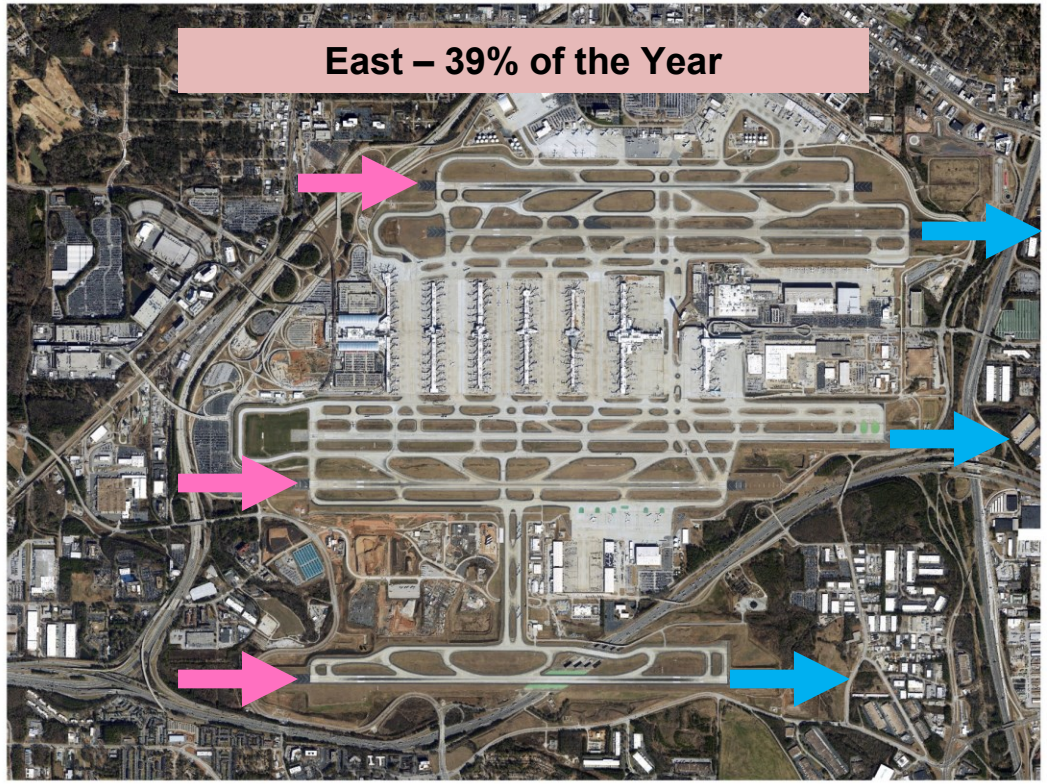
DRAFT



Developed using data from the DOA's Flight Tracking System and Aviation Activity Forecast prepared by Ricondo & Associates.

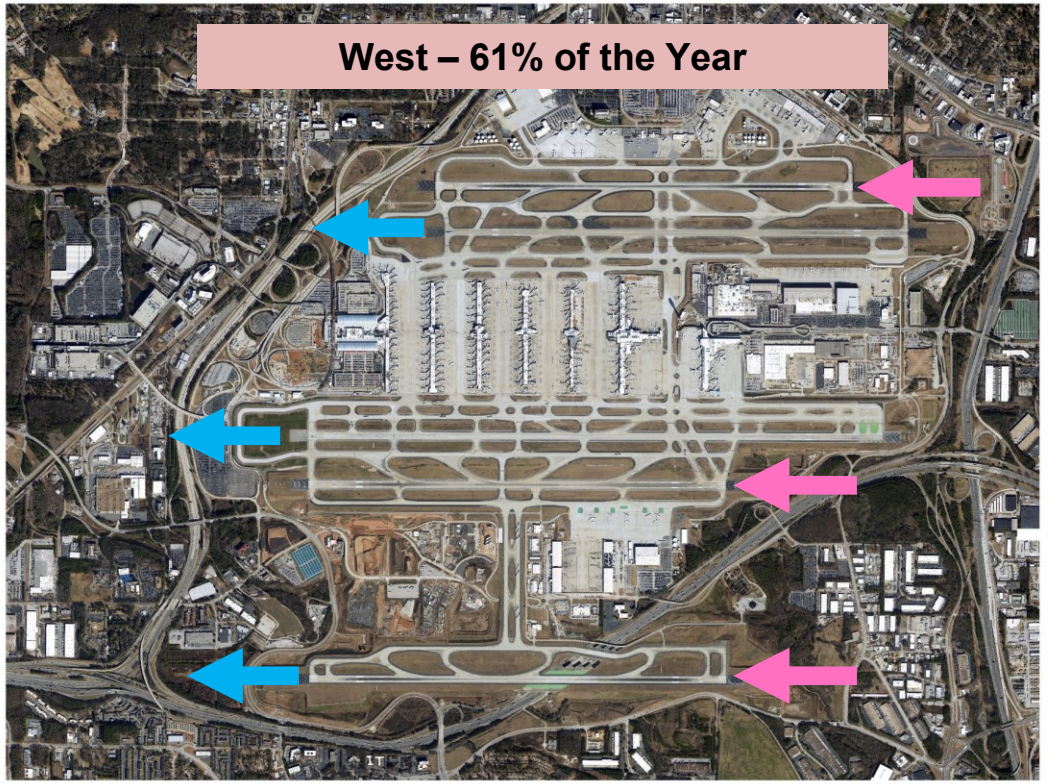
Airfield Directional Use

DRAFT



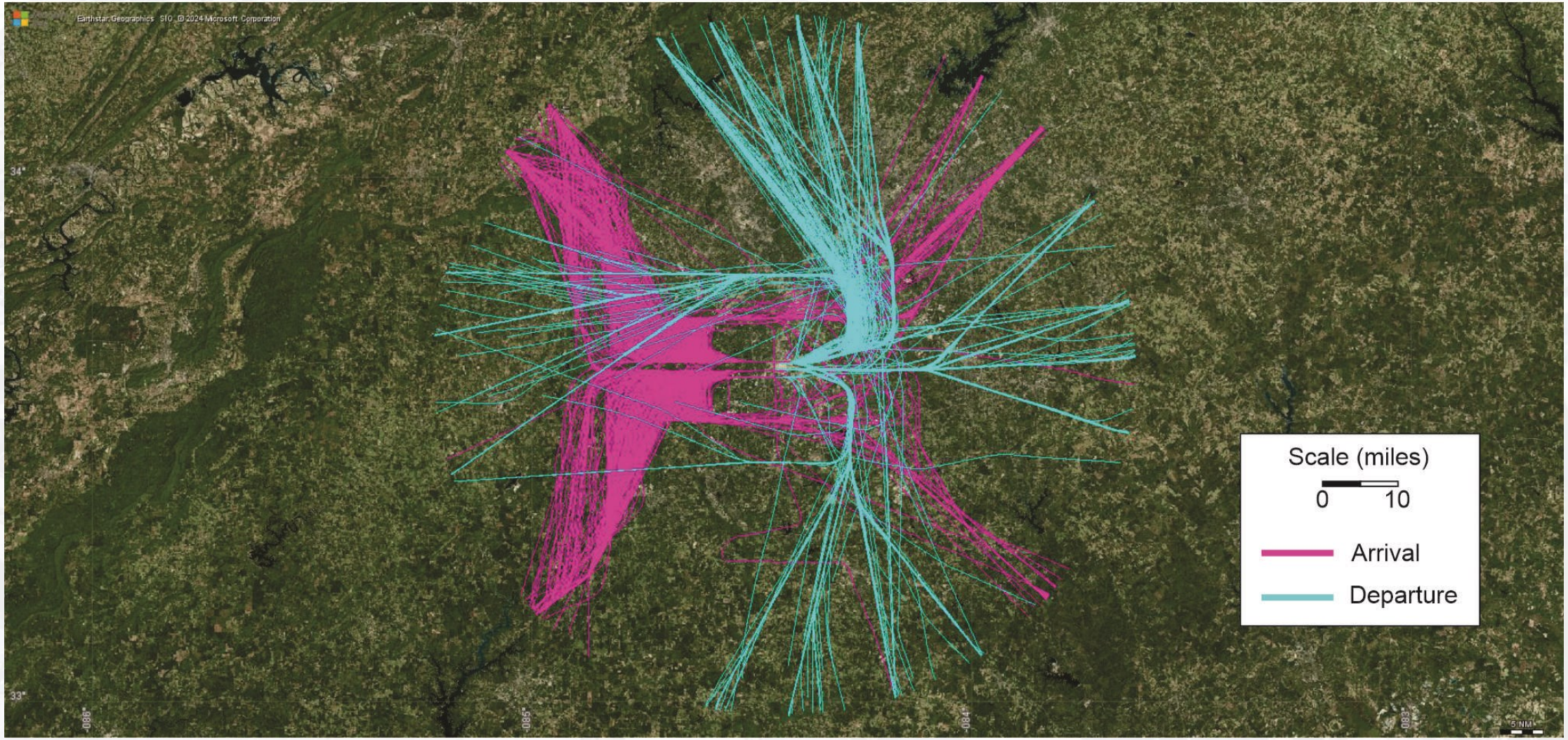
Arrivals

Departures



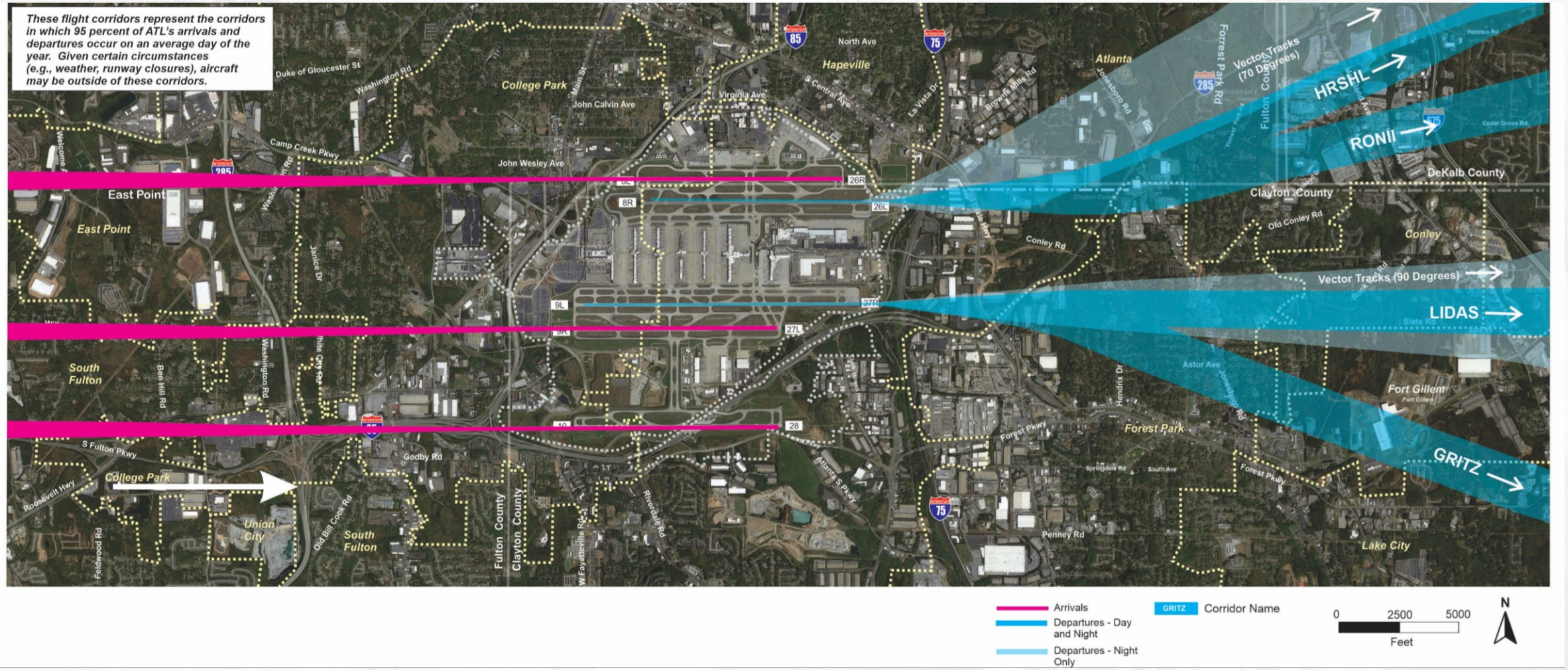
Developed using data from the DOA's Flight Tracking System.

Arrival/Departure Tracks- East Flow

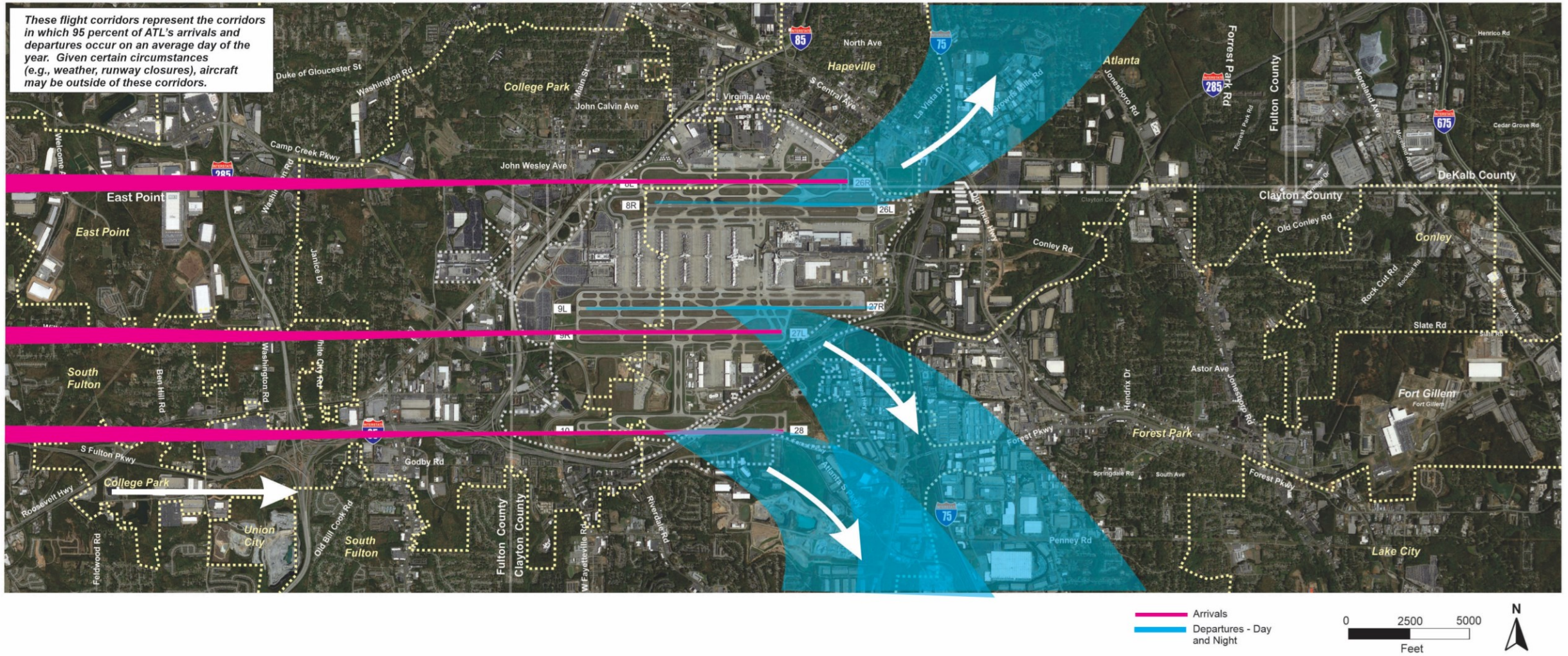


Source: FAA radar data (coverage 45 miles from airport center and up to 20,000 ft in altitude).

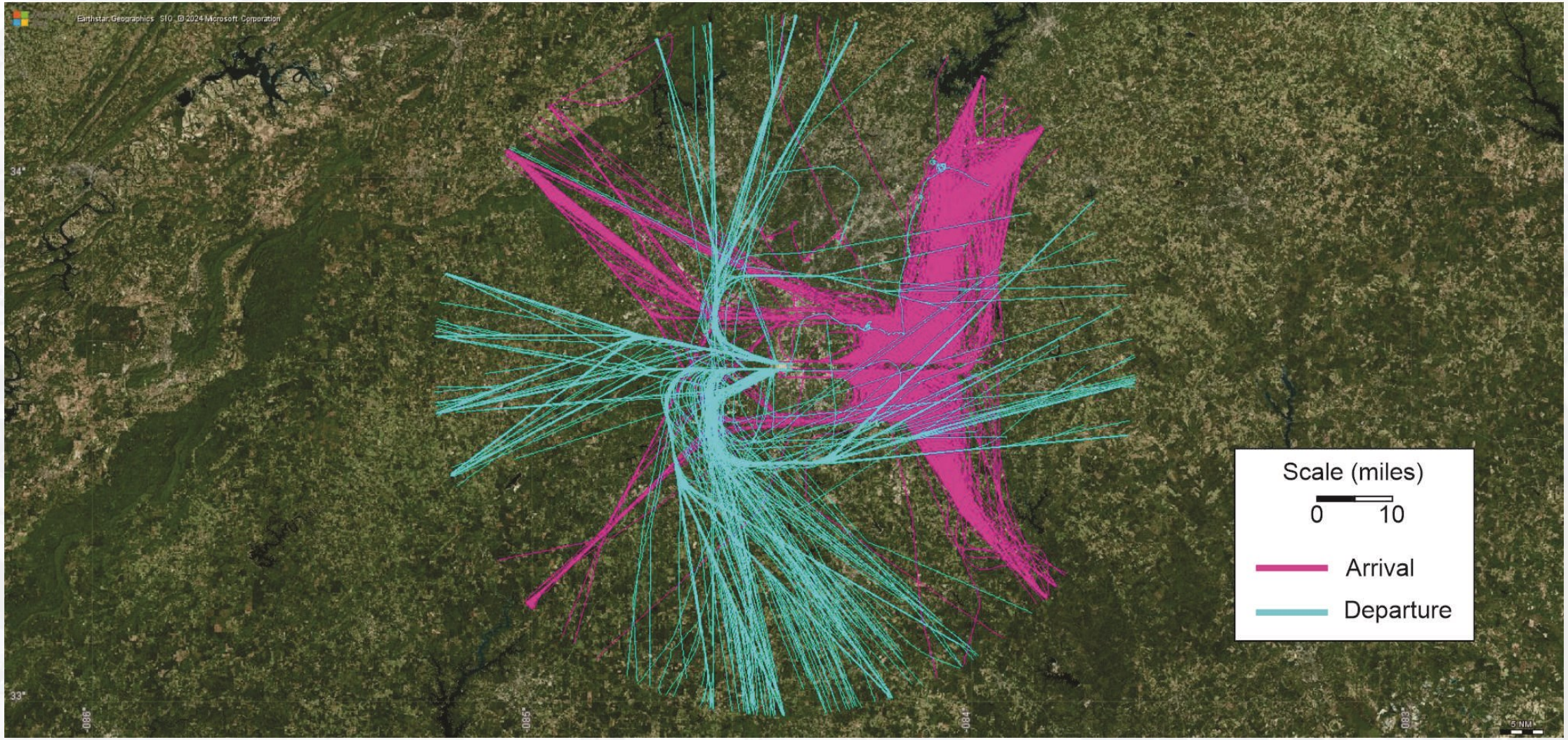
Jet Arrival/Departure Corridors – East Flow



Prop/Turboprop Arrival/Departure Corridors – East Flow

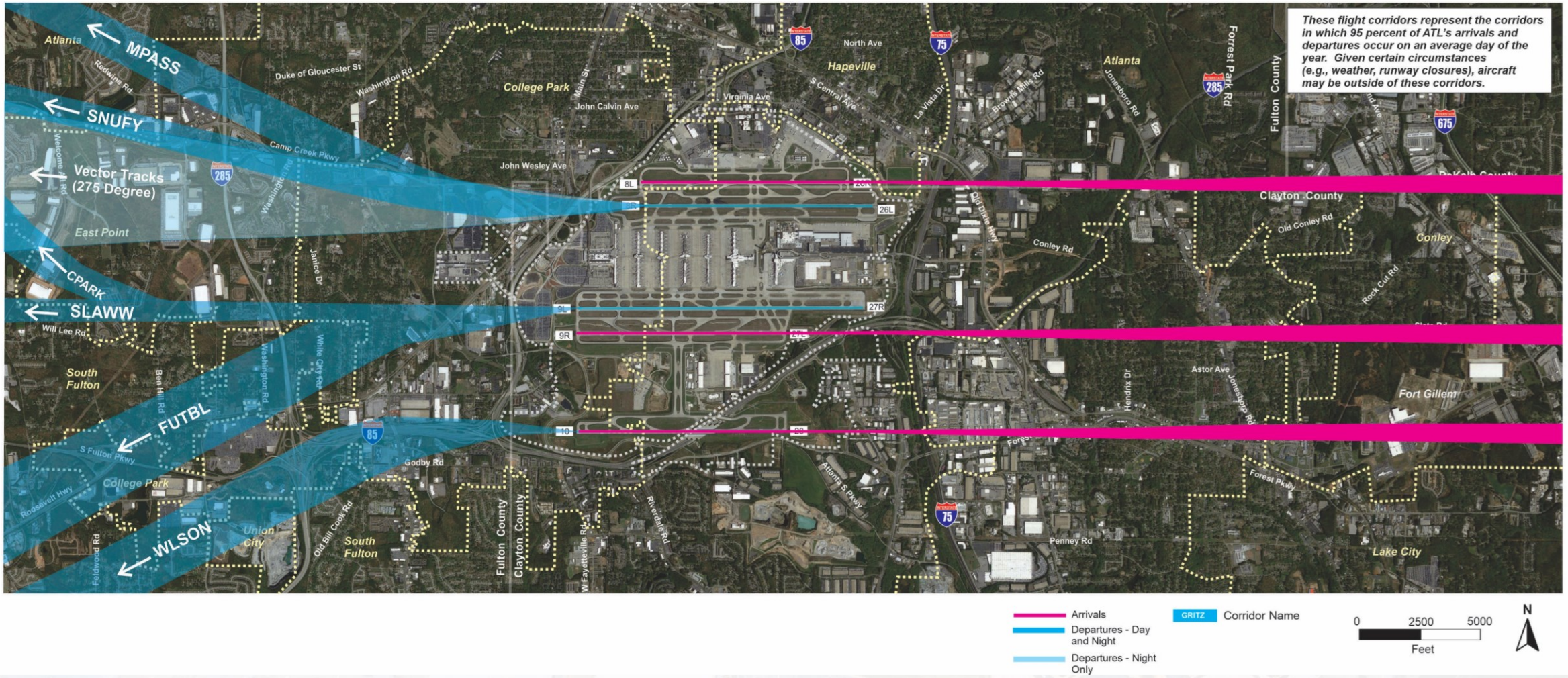


Arrival/Departure Tracks- West Flow

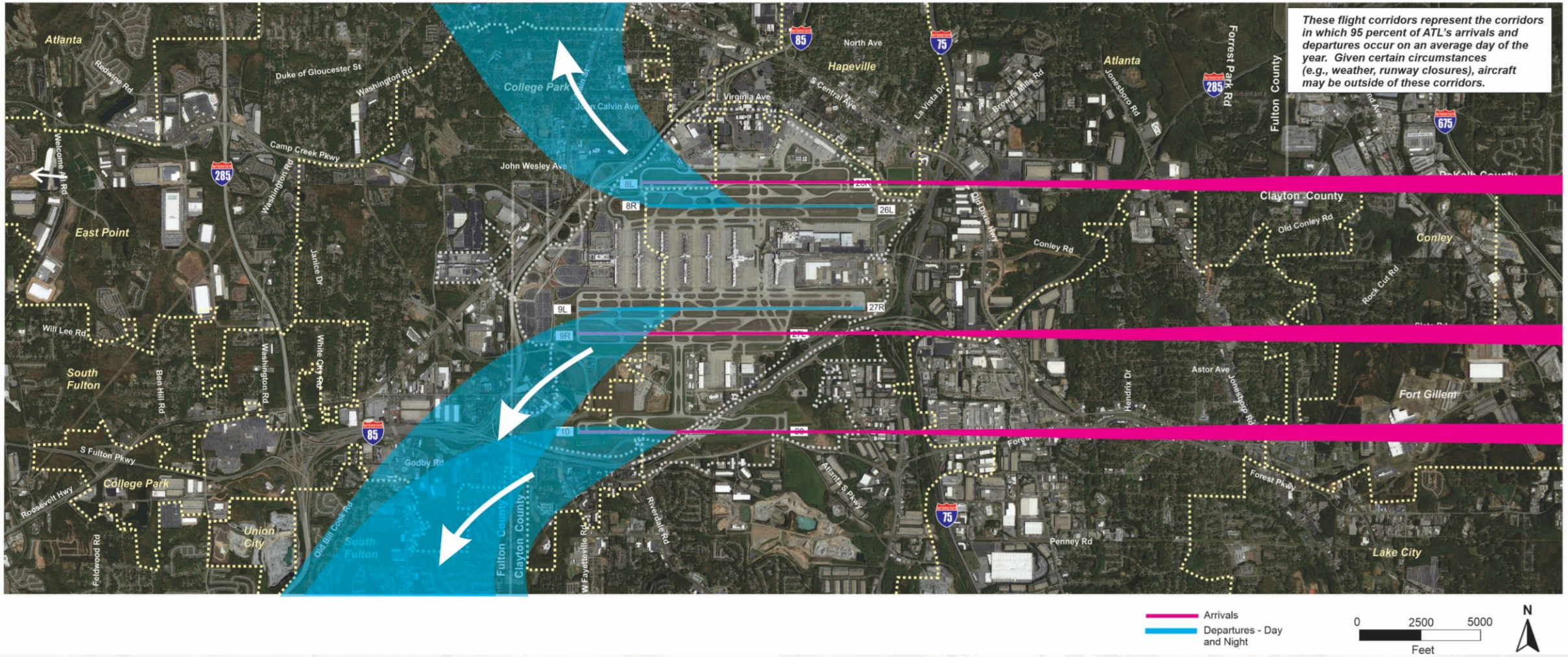


Source: FAA radar data (coverage 45 miles from airport center and up to 20,000 ft in altitude).

Jet Arrival/Departure Corridors – West Flow

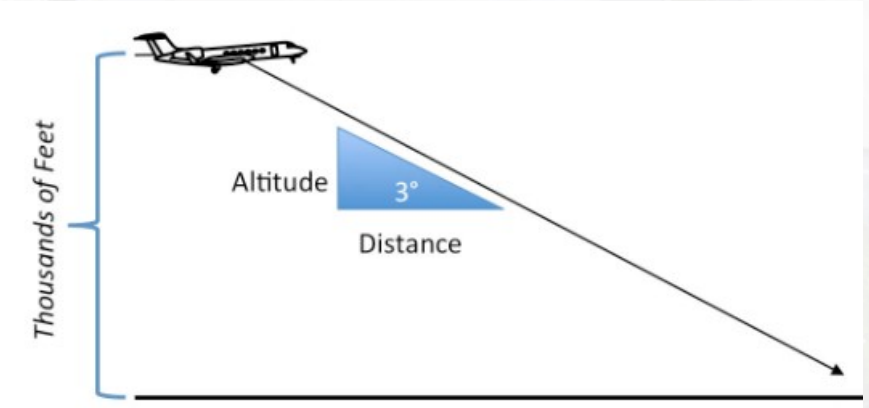


Prop/Turboprop Arrival/Departure Corridors–West Flow



Arrival and Departure Profiles

- Arrivals: At established distances from ATL's runways, aircraft descend to the end of a runway using a three-degree glideslope.



- Departures: The profiles of the aircraft departing ATL will be based on data from the DOA's Flight Tracking System (FTS). The FTS provides destination airports for each departure that are then assigned an aircraft stage (i.e., trip) length for input to AEDT. AEDT uses the trip length to approximate the weight of the aircraft on departure which, in combination with AEDT's meteorological data, determines the aircraft departure profiles.

Operation Time ▲ 1	AC Type	Runway	Origin Airport	Destination Airport
2024-09-08 09:25:02	B739	8R	ATL	CLE
2024-09-08 09:25:49	B739	8R	ATL	SMF
2024-09-08 09:26:54	B739	8R	ATL	CVG
2024-09-08 09:32:49	B739	8R	ATL	SJC
2024-09-08 09:34:54	B739	8R	ATL	DTW
2024-09-08 09:56:45	B739	8R	ATL	GEG
2024-09-08 10:03:54	B739	8R	ATL	MEM

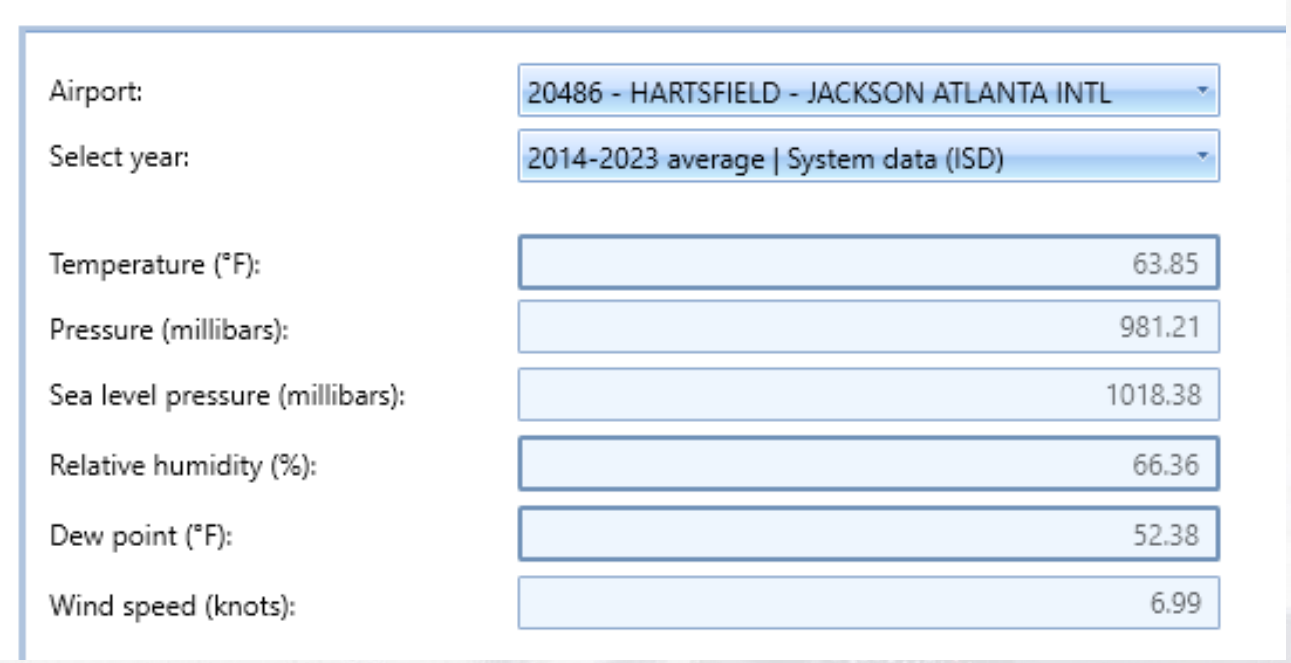
Time of Day

DRAFT

Arrivals/Departures	Percent	
	Daytime (7 AM - 10 PM)	Nighttime (10 PM - 7 AM)
Arrivals	88	12
Departures	86	14

Developed using data from the DOA's Flight Tracking System and Aviation Activity Forecast prepared by Ricondo & Associates.

Meteorological Data



Source: AEDT

Airfield Location and Elevation

Airport: KATL - HARTSFIELD - JACKSON ATLANTA INTL

Location

City	ATLANTA
State	GEORGIA
Country	UNITED STATES
Latitude	33.6366996111
Longitude	-84.427864
Elevation MSL (ft)	1027

Source: AEDT

Schedule

Today	First Public Workshop (Comments due October 3rd)
September-October	DOA prepares Draft NEMs and Draft NEM Report
November	Second Public Workshop to Present Draft NEMs
December	Draft Final NEMs/Report Submitted to the Federal Aviation Administration

Views, Data, Comments

- Tonight:
  - Provide your input to the court reporter
  - Submit the comment sheet attached to the handout

- Tomorrow through October 3, 2024, using **the addresses on the handout:**
  - Mail to -

    Tianna Evola
    Director of Government Affairs
    City of Atlanta/Department of Aviation
    P. O. Box 20509
    Atlanta, GA 30320

  - Email to -

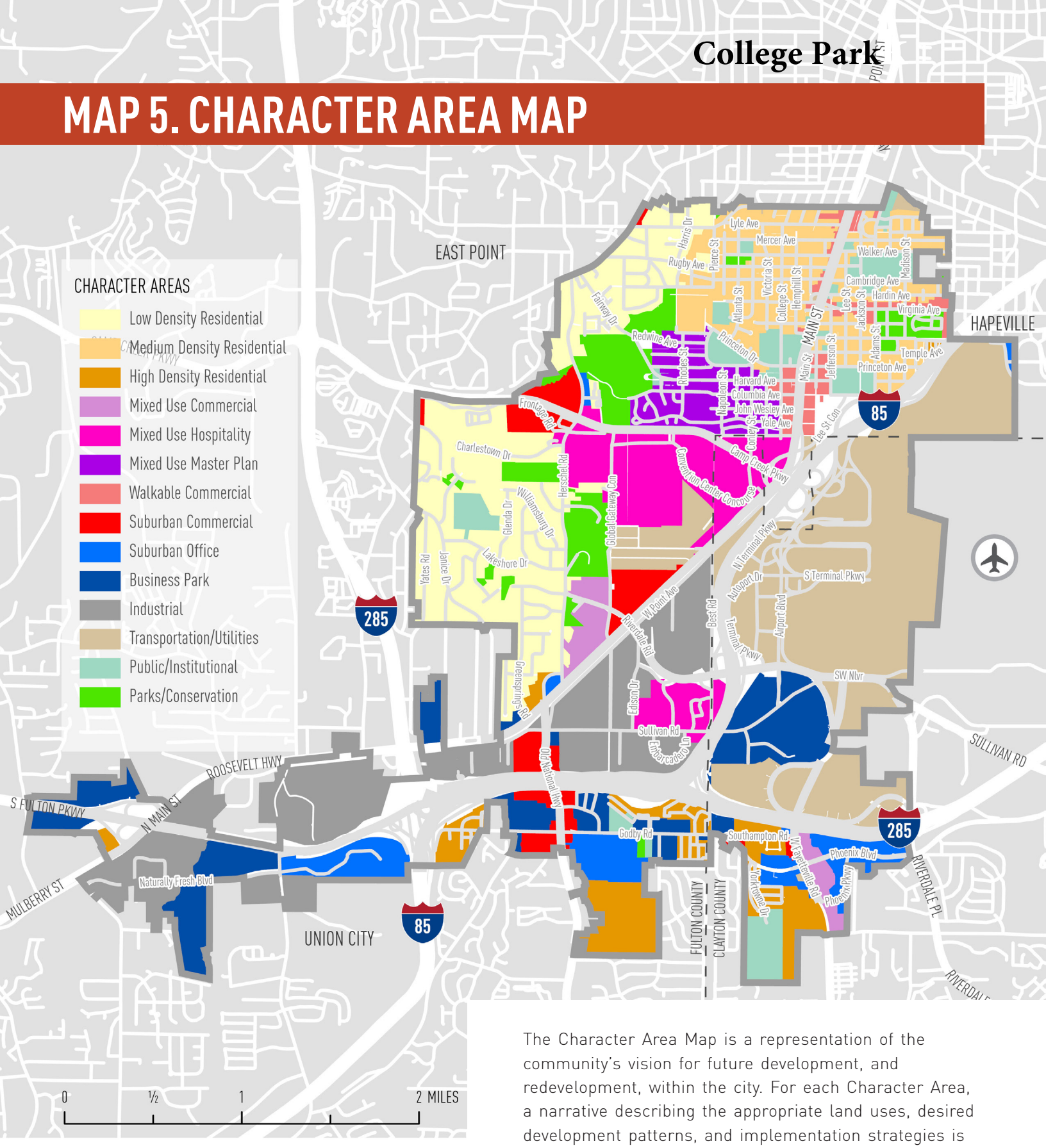
    NEMComments@cmtengr.com

Note: This presentation is available for download on ATL's website (ATL.com).

APPENDIX E
TO BE PROVIDED

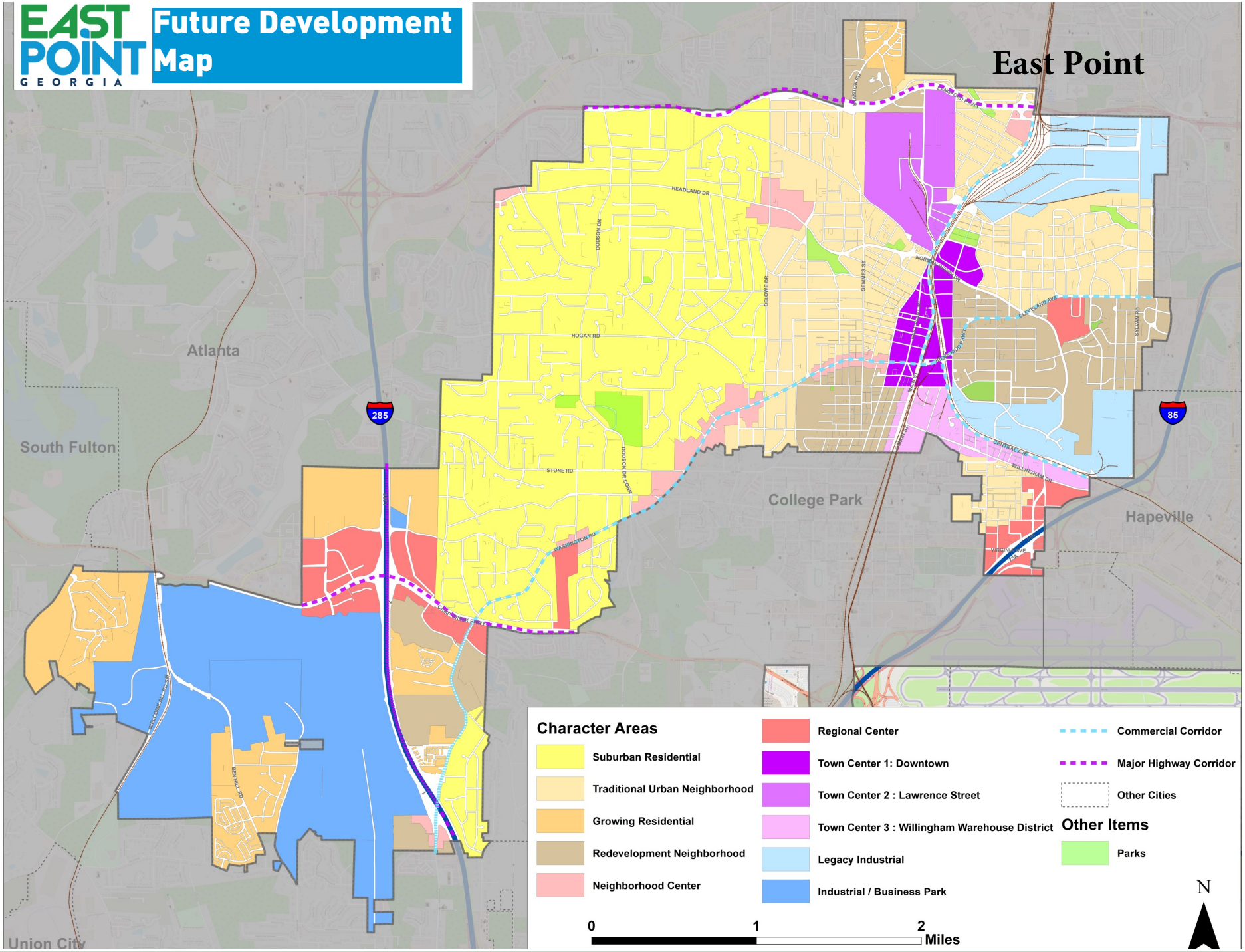
APPENDIX F

MAP 5. CHARACTER AREA MAP

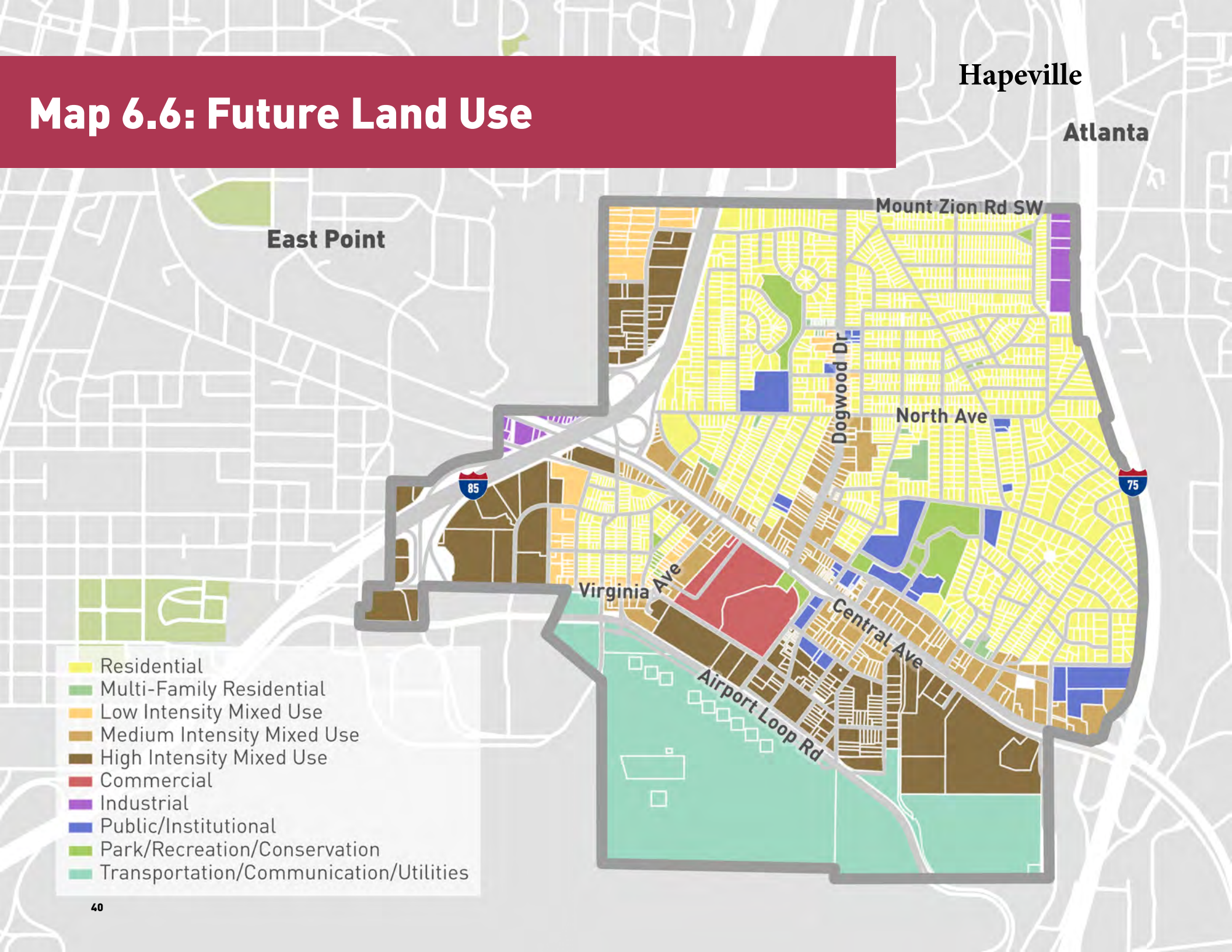


The Character Area Map is a representation of the community's vision for future development, and redevelopment, within the city. For each Character Area, a narrative describing the appropriate land uses, desired development patterns, and implementation strategies is included, as well as representative pictures of the type and style of development desired. It should be noted that the Character Area Map does not change the current zoning of any property but is intended to guide policy decisions for the next five years.

Future Development Map

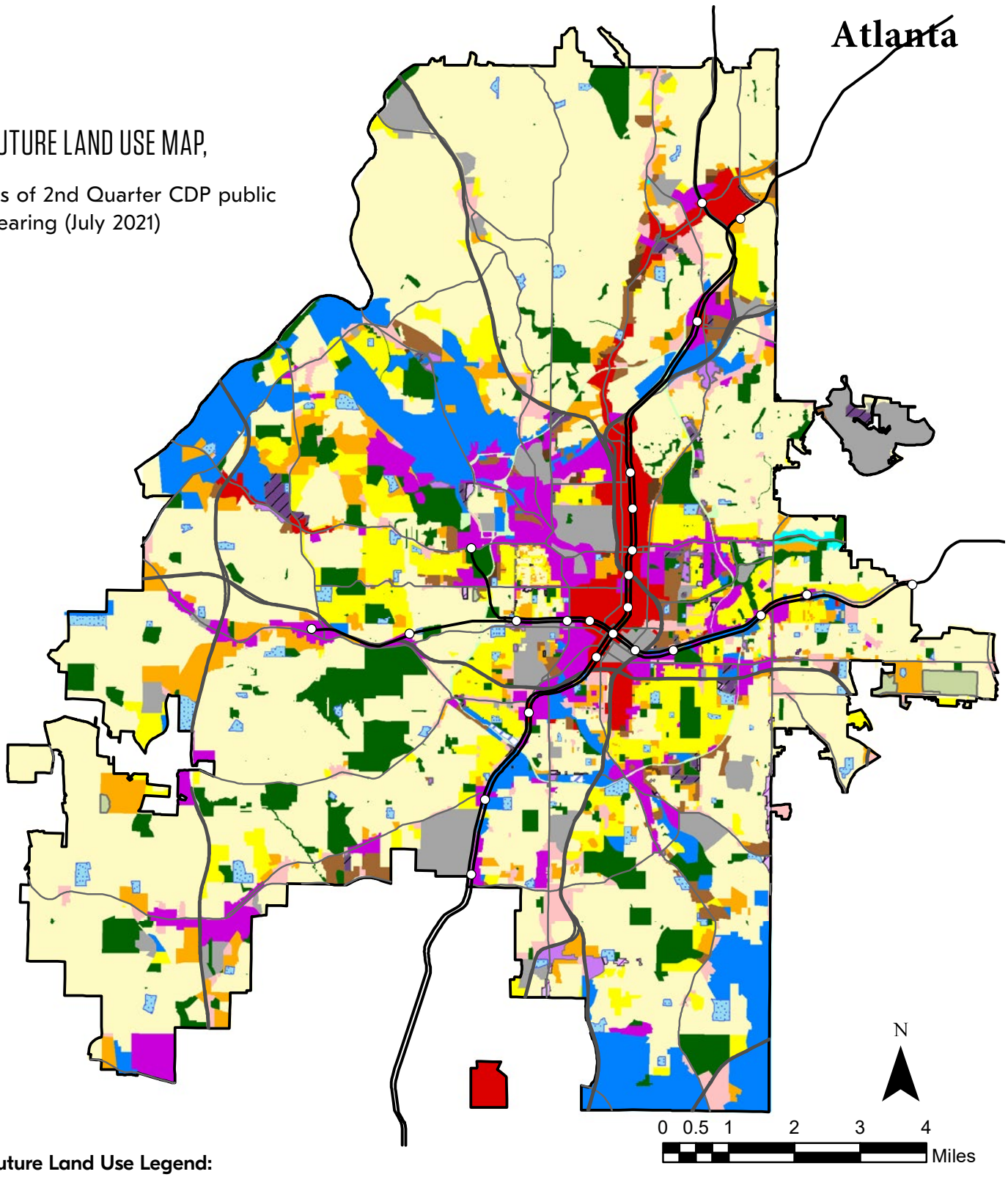


Map 6.6: Future Land Use



FUTURE LAND USE MAP,

As of 2nd Quarter CDP public hearing (July 2021)



Future Land Use Legend:

- Business Park
- Community Facilities
- Single Family Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Very High Density Residential
- Low Density Commercial
- High Density Commercial
- Industrial
- I-Mix
- Mixed Use
- Mixed Use High Density
- Mixed Use Medium Density
- Mixed Use Low Density
- Office/Institution
- Office/Institution/Res
- Open Space
- Private Open Space
- Transportation/ Communications/ Utilities

FUTURE LAND USE MAP

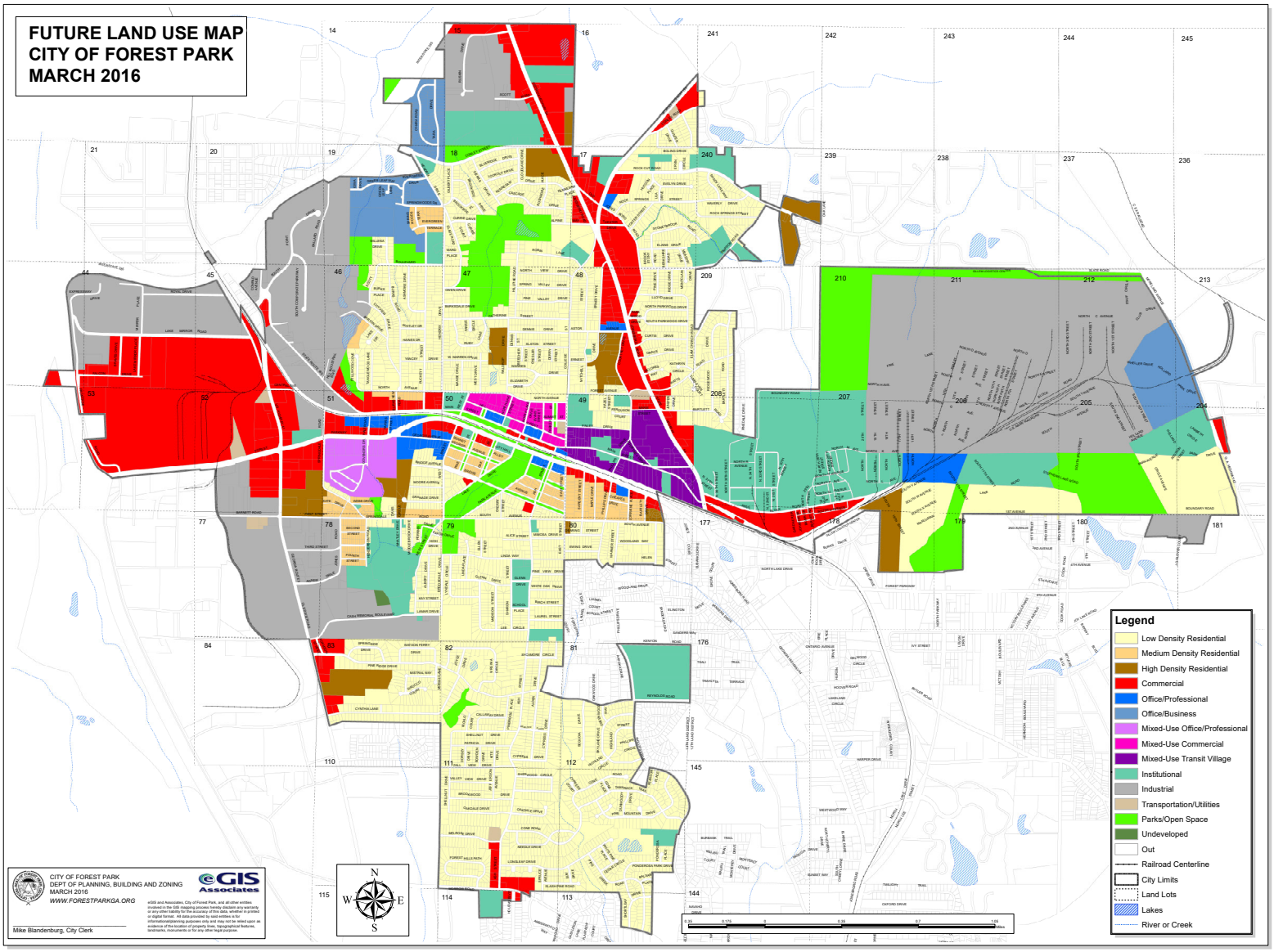
The Future Land Use Map geographically organizes future development the City of Forest Park desires to achieve in the future and is a graphic representation of goals and objectives of this Comprehensive Plan.

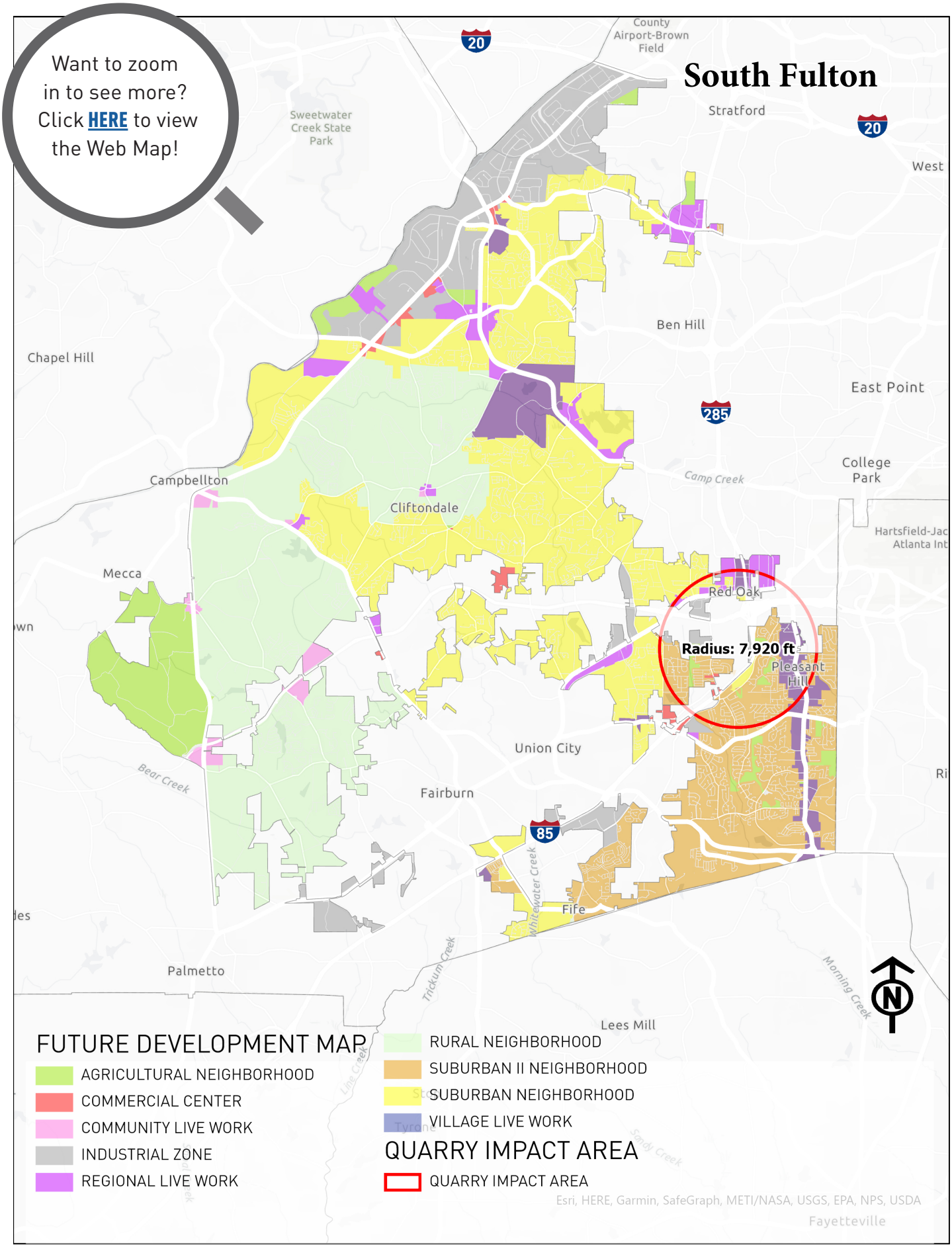
Zoning, development regulations, and infrastructure investment will need to evolve to accommodate future land use goals and principles. Decision-makers will also use the future land use descriptions as a policy guide for future rezoning decisions, and as a way to understand broader context around development proposals.

Future land uses provide descriptions regarding these planning elements:

- Desired infrastructure, economic objectives, housing types and building types
- Building form, massing, and style
- Desired use or mix of uses
- Goals to achieve the desired development types

As Forest Park is primarily built out, redevelopment will be key to any growth within the City.




Want to zoom in to see more? Click HERE to view the Web Map!
South Fulton
Sweetwater Creek State Park
County Airport-Brown Field
Stratford
West
Ben Hill
Chapel Hill
East Point
College Park
Campbellton
Camp Creek
Cliftondale
Hartsfield-Jac Atlanta Int
Mecca
Red Oak
Radius: 7,920 ft
Pleasant Hill
Union City
Bear Creek
Fairburn
Fife
Whitewater Creek
Palmetto
Trickum Creek
Morning Creek
Lees Mill
Line Creek
Tyrone
Sandy Creek
Fayetteville
Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA
FUTURE DEVELOPMENT MAP
AGRICULTURAL NEIGHBORHOOD
COMMERCIAL CENTER
COMMUNITY LIVE WORK
INDUSTRIAL ZONE
REGIONAL LIVE WORK
RURAL NEIGHBORHOOD
SUBURBAN II NEIGHBORHOOD
SUBURBAN NEIGHBORHOOD
VILLAGE LIVE WORK
QUARRY IMPACT AREA
QUARRY IMPACT AREA
N

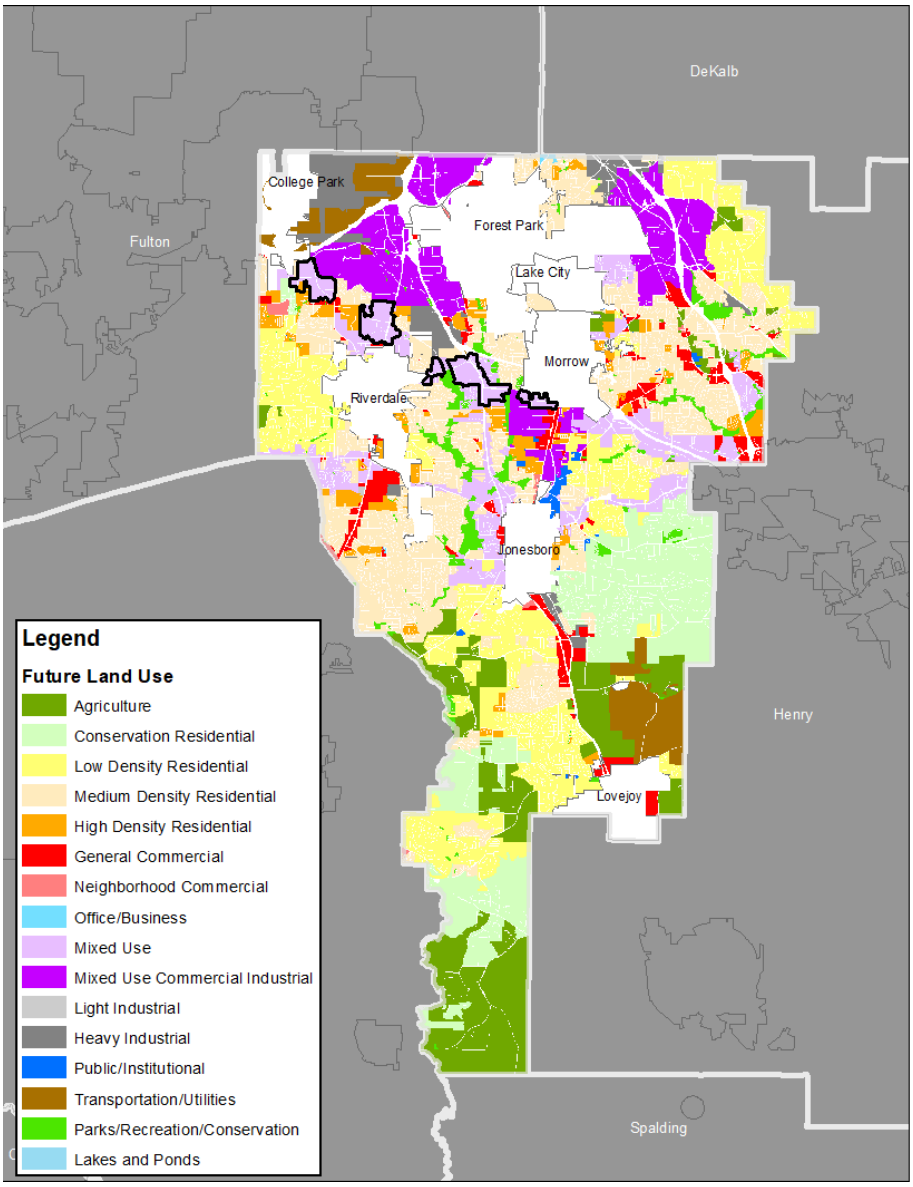
Future Land Use

Clayton County

Clayton County's future land use map was last updated in 2019. Since this time, planning for the Southlake BRT has advanced and should be reflected in this vision for development in the County.

To acknowledge the future transit station areas and the different growth patterns desired, this Amendment shows future station areas being designated as Mixed Use. Mixed Use is a future land use that is already established in the Comprehensive Plan, described as:

Figure 12. Updated Future Land Use Map (Changes Outlined in Black)



"Allows a mixture of retail, residential, and office uses in a town center style. Uses may include residentially compatible retail uses such as grocery stores, drugstores, banks on ground floors or fronting on commercial streets. There may also be a residential component including lofts, condominiums, apartments, town homes, and smaller single-family houses located above commercial uses or in other portions of the development. Residential densities of 4 to 16 units per acre are appropriate. Higher densities may be allowable if the mix of uses results in a town center style development which can be expected to cut down the number of car trips that would otherwise be generated. A key method for reducing car trips would be balancing the likely jobs with supplied appropriately priced housing. Mixed-use development must be designed to encourage walking and bicycling as well as be designed to be transit-ready."

To underscore support for growth around transit stations, this Amendment adds the following sentence to the description: "Station areas are encouraged to have higher densities to promote transit-oriented development (TOD)."

Development Nodes

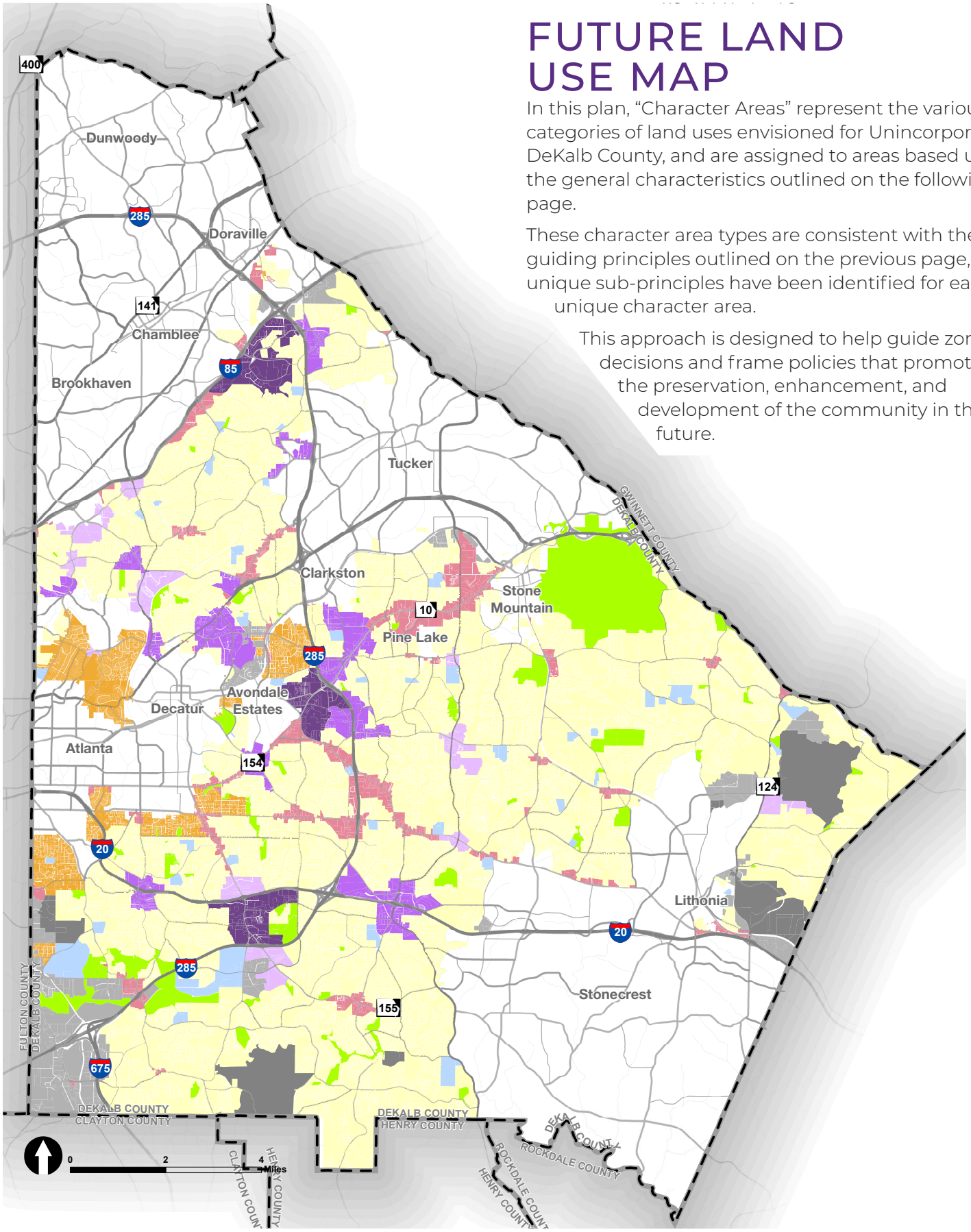
In addition to future land use, the Clayton County Comprehensive Plan outlines special Development Nodes. The future transit station areas should be added to this map in the County's upcoming update, with the following suggested text:

FUTURE LAND USE MAP

In this plan, “Character Areas” represent the various categories of land uses envisioned for Unincorporated DeKalb County, and are assigned to areas based upon the general characteristics outlined on the following page.

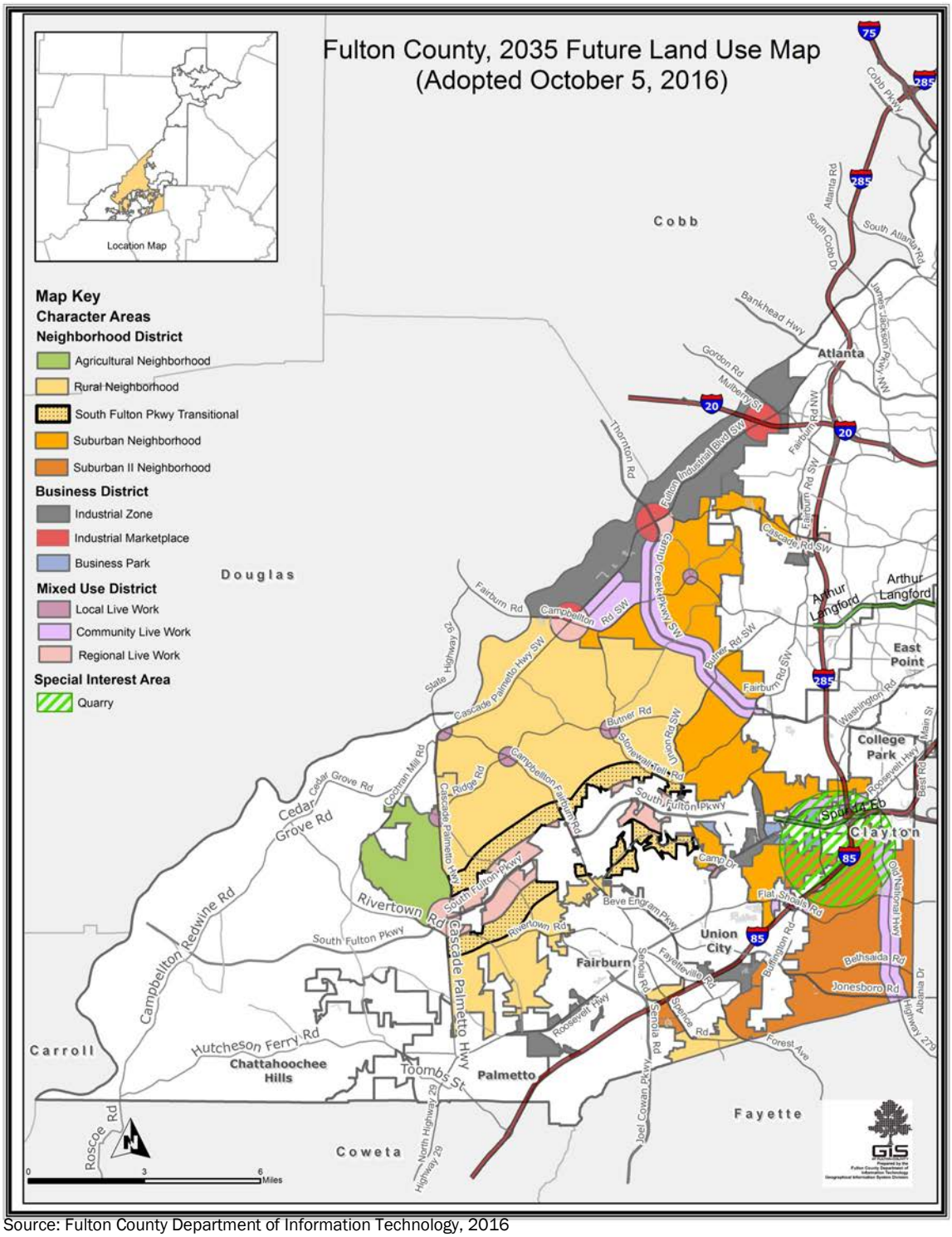
These character area types are consistent with the guiding principles outlined on the previous page, and unique sub-principles have been identified for each unique character area.

This approach is designed to help guide zoning decisions and frame policies that promote the preservation, enhancement, and development of the community in the future.



FUTURE DEVELOPMENT

Figure 2E



Source: Fulton County Department of Information Technology, 2016

APPENDIX G

DRAFT

- AEDT Backbone Arrival Track
- AEDT Backbone Departure Track
- Turboprop/Prop Departure Corridor
- Jet Departure Corridor - Nighttime Only
- Jet Departure Corridor
- Arrival Corridor

- Sound Insulated Single/ Multi-Family Residential
- Multi-Family Residential
- Single Family Residential
- Non-Residential Noise Sensitive Site
- Non-Residential Sound Insulated Noise Sensitive Site
- Airport Property

- Counties
- Jurisdictional Boundary
- Runway

Aircraft Noise Contours

- YDNL 65 dBA
- YDNL 70 dBA
- YDNL 75 dBA
- label_block

0 2,000 4,000 Feet

N

Number of Persons Residing Within Contours						
Sound Insulated			Not Sound Insulated			Total
YDNL 65 - 69 dBA	YDNL 70 - 74 dBA	YDNL 75+ dBA	YDNL 65 - 69 dBA	YDNL 70 - 74 dBA	YDNL 75+ dBA	
3,954	0	0	5,709	8	0	9,671

This Noise Exposure Map (NEM) was prepared following procedures outlined in Title 14, Chapter 1, Subchapter 1, Part 150 of the Code of Federal Regulations (14 CFR 150). The City of Atlanta Department of Aviation certifies that interested persons were afforded adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of this NEM and descriptions of forecast aircraft operations. This NEM and the report that documents the methodology used to prepare the NEM were prepared using the best available data at the time they were prepared and can be considered true and complete under penalty of Title 18, Part 1, Chapter 47, Section 101 of the US Code.

Date: October 24, 2024

Signature:_____

By: Thomas E. Nissalke, Ph.D.
Assistant General Manager, Planning and Development
City of Atlanta, Department of Aviation

MAP A
Existing (Year 2024) Noise Exposure Map

Hartsfield-Jackson Atlanta International Airport®

Notes:
1. Non-residential noise sensitive sites include places of worship, schools, and senior living facilities. The sites are identified by name and address in Table 10 and Section 4.9 of a report entitles "Noise Exposure Maps - 2024 and 2029" (dated October 24, 2024).
2. The properties identified on this NEM are not necessarily eligible to participate in the City of Atlanta Department of Aviation's Noise Compatibility Program. The criteria for participation are described in a report entitled "FAR Part 150 Study Noise Compatibility Program Report" (dated September 5, 2007).

Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

DRAFT

- AEDT Backbone Arrival Track
- AEDT Backbone Departure Track
- Turboprop/Prop Departure Corridor
- Jet Departure Corridor - Nighttime Only
- Jet Departure Corridor
- Arrival Corridor
- Sound Insulated Single/ Multi-Family Residential
- Multi-Family Residential
- Single Family Residential
- Non-Residential Noise Sensitive Site
- Non-Residential Sound Insulated Noise Sensitive Site
- Airport Property
- Counties
- Jurisdictional Boundary
- Runway

Aircraft Noise Contours

- YDNL 65 dBA
- YDNL 70 dBA
- YDNL 75 dBA

0 2,000 4,000 Feet

N

Number of Persons Residing Within Contours						
Sound Insulated			Not Sound Insulated			Total
YDNL 65 - 69 dBA	YDNL 70 - 74 dBA	YDNL 75+ dBA	YDNL 65 - 69 dBA	YDNL 70 - 74 dBA	YDNL 75+ dBA	
5,141	12	0	6,802	142	0	12,097

This Noise Exposure Map (NEM) was prepared following procedures outlined in Title 14, Chapter 1, Subchapter 1, Part 150 of the Code of Federal Regulations (14 CFR 150). The City of Atlanta Department of Aviation certifies that interested persons were afforded adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of this NEM and descriptions of forecast aircraft operations. This NEM and the report that documents the methodology used to prepare the NEM were prepared using the best available data at the time they were prepared and can be considered true and complete under penalty of Title 18, Part 1, Chapter 47, Section 101 of the US Code.

Date: October 24, 2024

Signature:_____

By: Thomas E. Nissalke, Ph.D.
Assistant General Manager, Planning and Development
City of Atlanta, Department of Aviation

Notes:
1. Non-residential noise sensitive sites include places of worship, schools, and senior living facilities. The sites are identified by name and address in Table 10 and Section 4.9 of a report entitles "Noise Exposure Maps - 2024 and 2029" (dated October 24, 2024).
2. The properties identified on this NEM are not necessarily eligible to participate in the City of Atlanta Department of Aviation's Noise Compatibility Program. The criteria for participation are described in a report entitled "FAR Part 150 Study Noise Compatibility Program Report" (dated September 5, 2007).

MAP B
Future (Year 2029) Noise Exposure Map

Hartsfield-Jackson Atlanta International Airport®

Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS