



Noise Compatibility Report

2023 Quarter 3
July – August – September

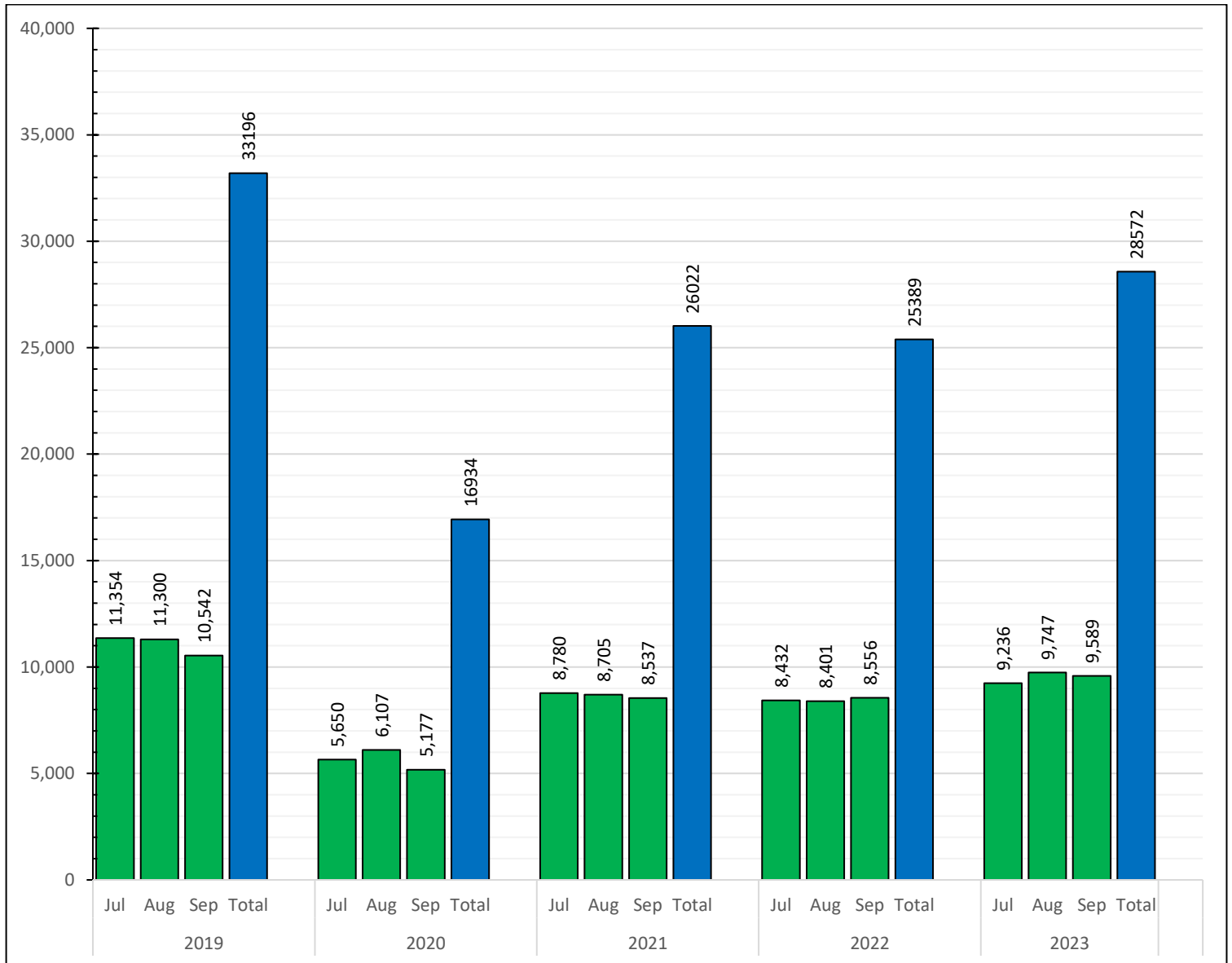
Disclaimer

- The Noise Compatibility Plan (NCP) at Cleveland Hopkins International Airport (CLE) combines the existing approved Part 150 Noise Compatibility Plan with Air Traffic Control Tower (ATCT) requirements to ensure the safe and expeditious handling of air traffic. While safety is paramount to any aircraft operation, noise sensitivity to the surrounding communities is also of key importance in airport operations.
- CLE is not directly responsible for changes made to flight plans or routes of aircraft.
- Adherence to approved noise abatement measures is voluntary and subject to change based on weather, efficiency, and safety.
- The contents of this report are for informational purposes only. The information cannot be used for enforcement of any Noise Abatement Measure.
- Due to the large volume of data when reporting noise, not all noise and flight information can be shown in this report.
- If more information is needed, please contact the noise hotline and the airport will respond as soon as possible.

Aircraft Operations

Cleveland 3rd Quarter Operations 2019 – 2023

- There were **28,572** operations in the 3rd Qtr. 2023; This is an 11% increase over 3rd Qtr. 2022.

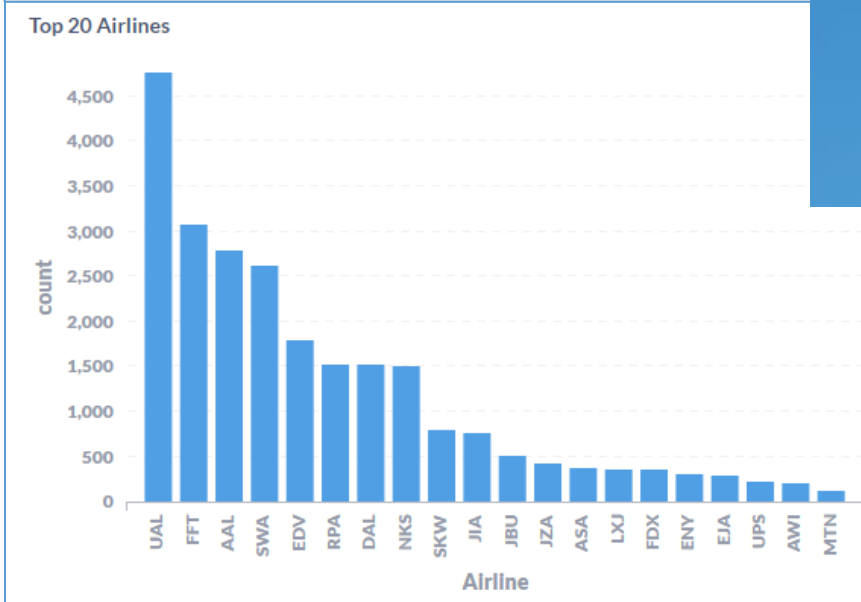
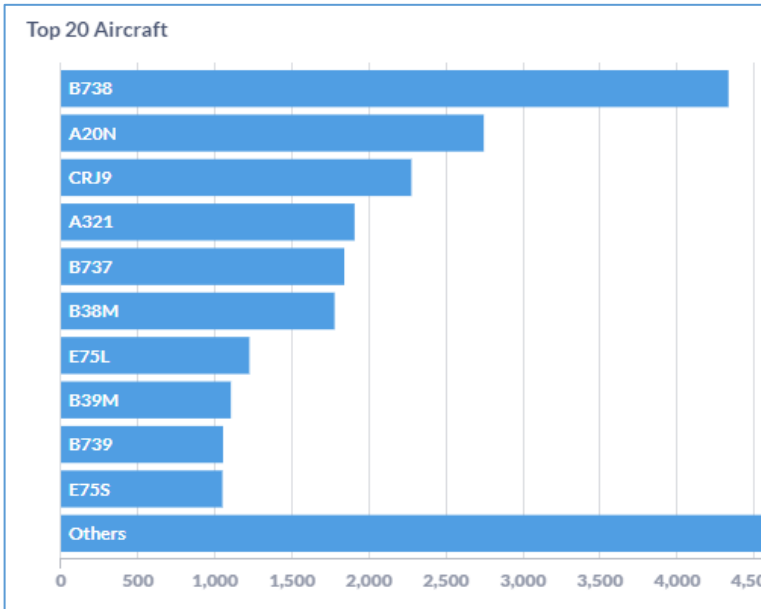


Source: FAA Operations Network (OPSNET) - <https://aspm.faa.gov/opsnet/sys/Main.asp?force=atads>
 The Operations Network (OPSNET) is the official source of FAA air traffic operations and delay data.



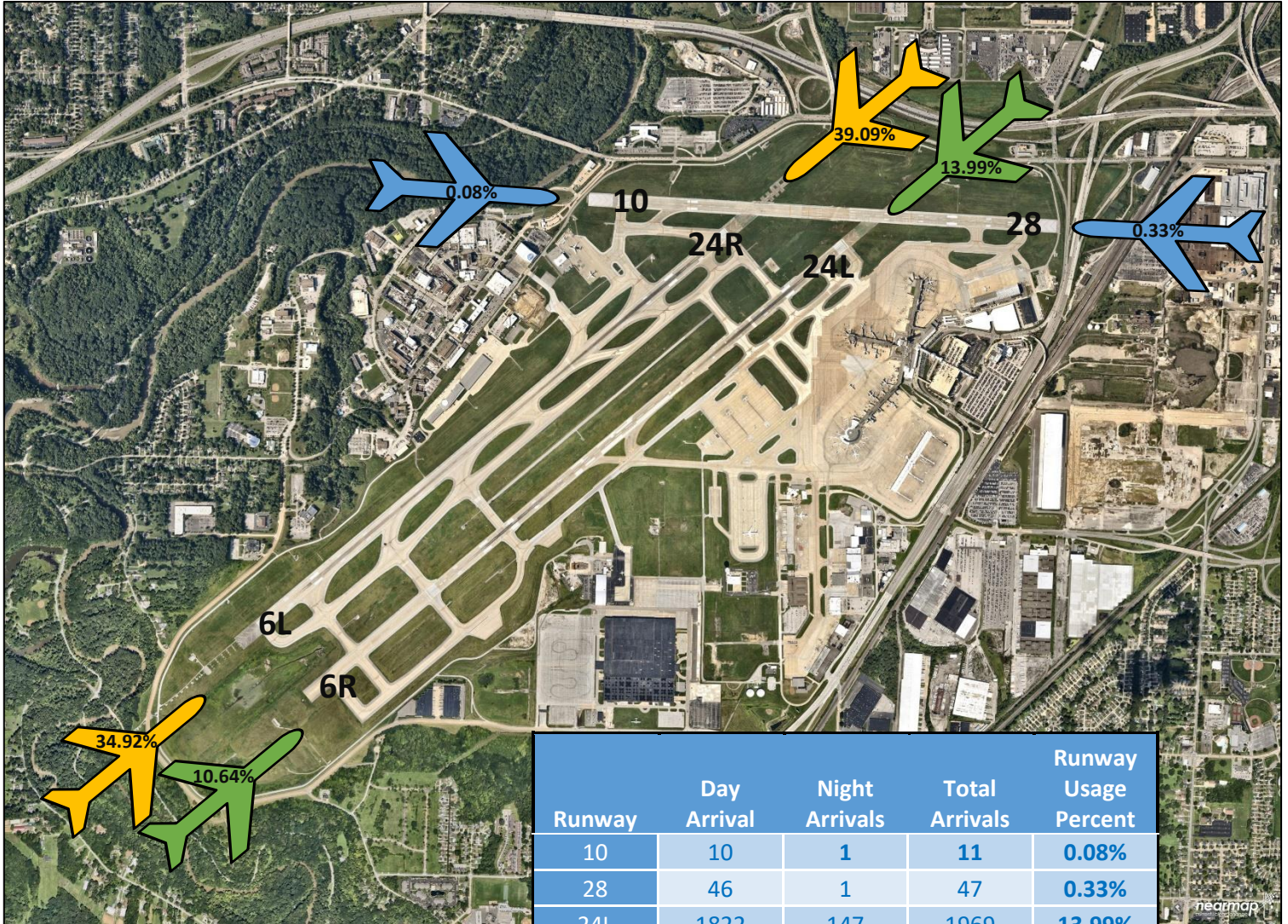
Fleet Mix

Cleveland Hopkins had **28,572** operations in Quarter 3 of 2023. Here are some of the notable aircraft that CLE welcomes and sends off on a regular basis.



Source: PASSUR Symphony EnvironmentalVue

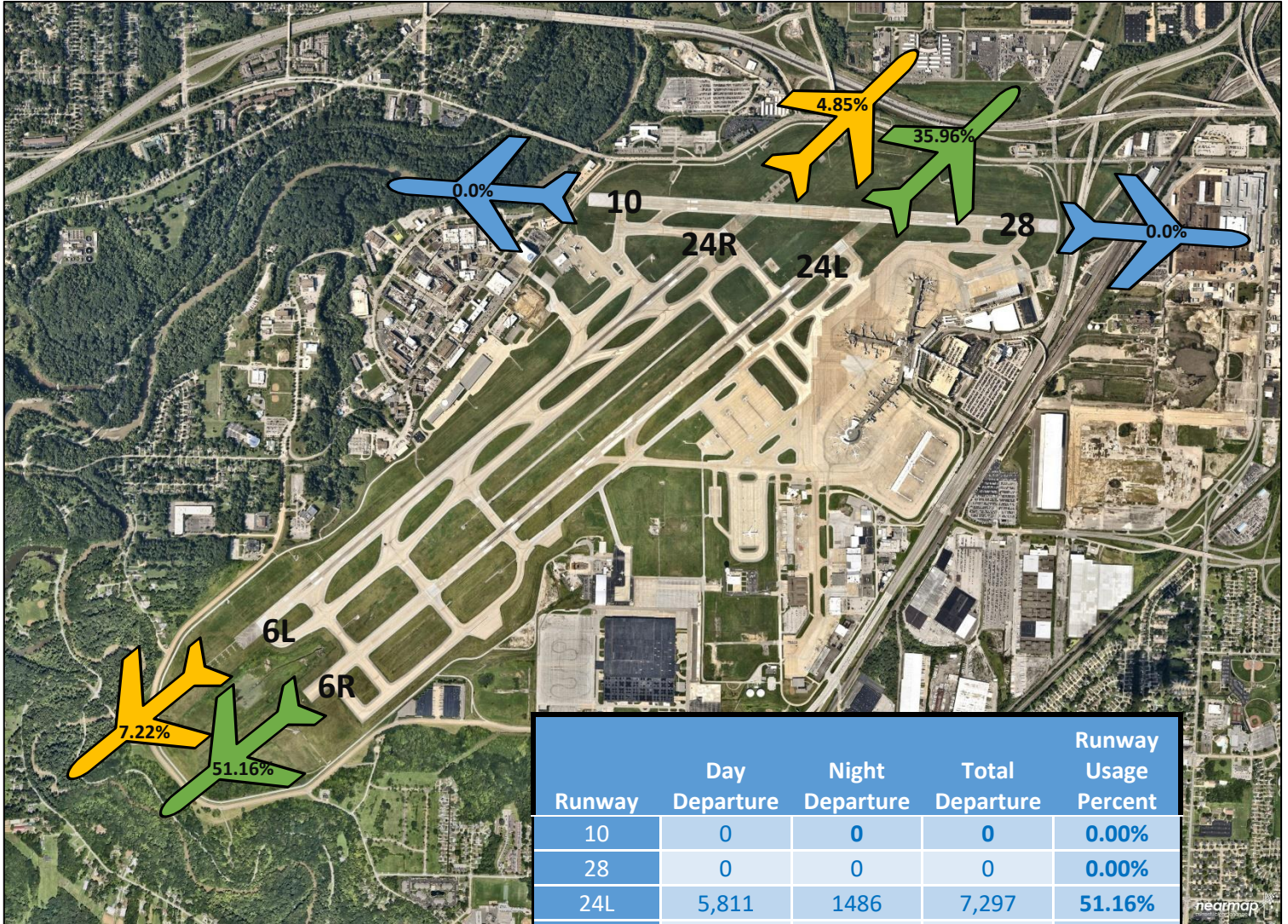
Runway Use: 3rd Quarter, 2023 Arrivals



Runway	Day Arrival	Night Arrivals	Total Arrivals	Runway Usage Percent
10	10	1	11	0.08%
28	46	1	47	0.33%
24L	1822	147	1969	13.99%
24R	4,378	1122	5,500	39.09%
6L	3,999	915	4,914	34.92%
6R	1405	92	1497	10.64%
UNK	119	14	133	0.95%
TOTALS	11779	2292	14071	100.00%

Note: Runway usage totals may not match FAA operation totals due to different system tracking methods and potential duplicate data. Data is generated using PASSUR Symphony EnvironmentalVue.

Runway Use: 3rd Quarter, 2023 Departures

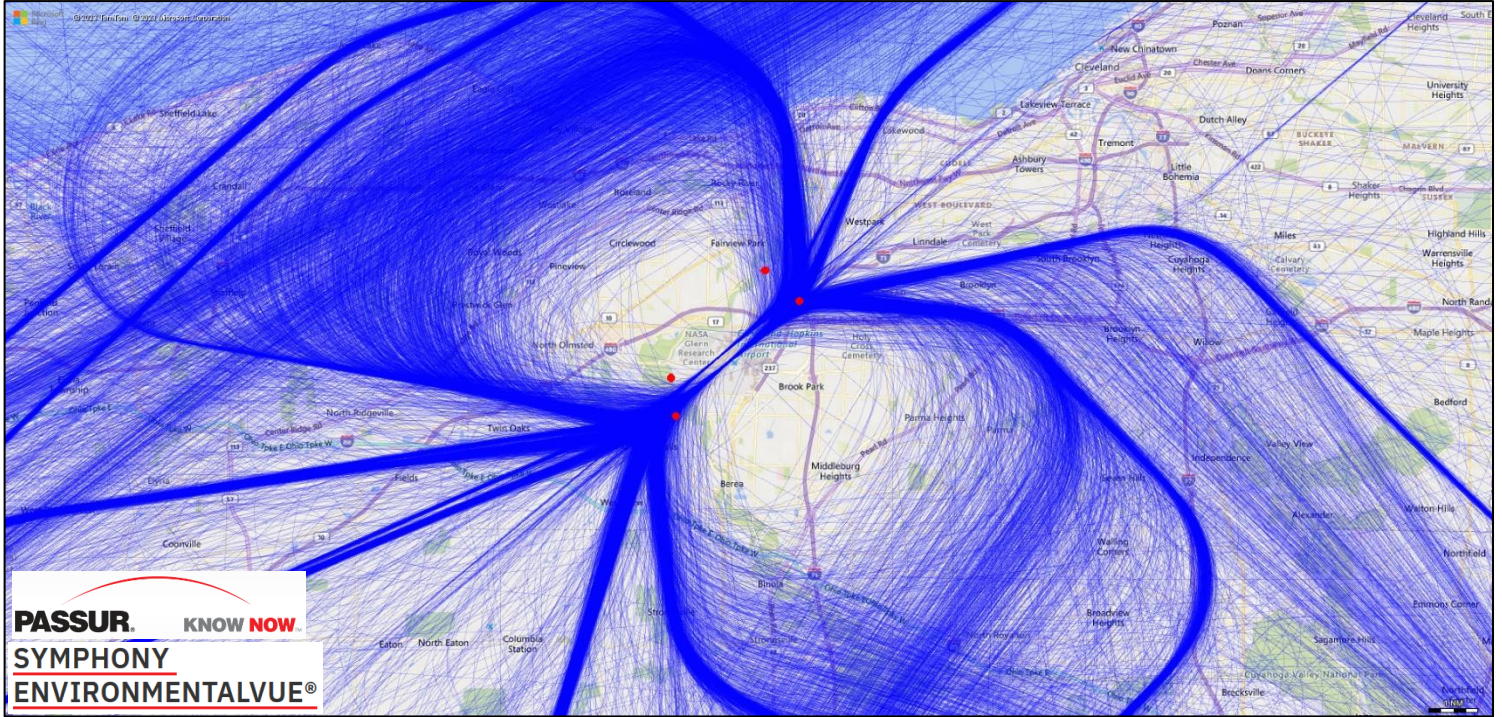


Runway	Day Departure	Night Departure	Total Departure	Runway Usage Percent
10	0	0	0	0.00%
28	0	0	0	0.00%
24L	5,811	1,486	7,297	51.16%
24R	969	61	1,030	7.22%
6L	683	9	692	4.85%
6R	4,490	639	5,129	35.96%
UNK	109	7	116	0.81%
Totals	12,062	2,202	14,264	100.00%

Note: Runway usage totals may not match FAA operation totals due to different system tracking methods and potential duplicate data. Data is generated using PASSUR Symphony EnvironmentalVue.

Departure Headings, 3rd Quarter: Day-time

2023 3rd Quarter Day-time departure – 13,147 flight tracks (jet propulsion only). Day-time reflects 06:00 am to 11:00 pm.



Flight tracks generated using PASSUR Symphony EnvironmentalVue

Key:

Flight Tracks 

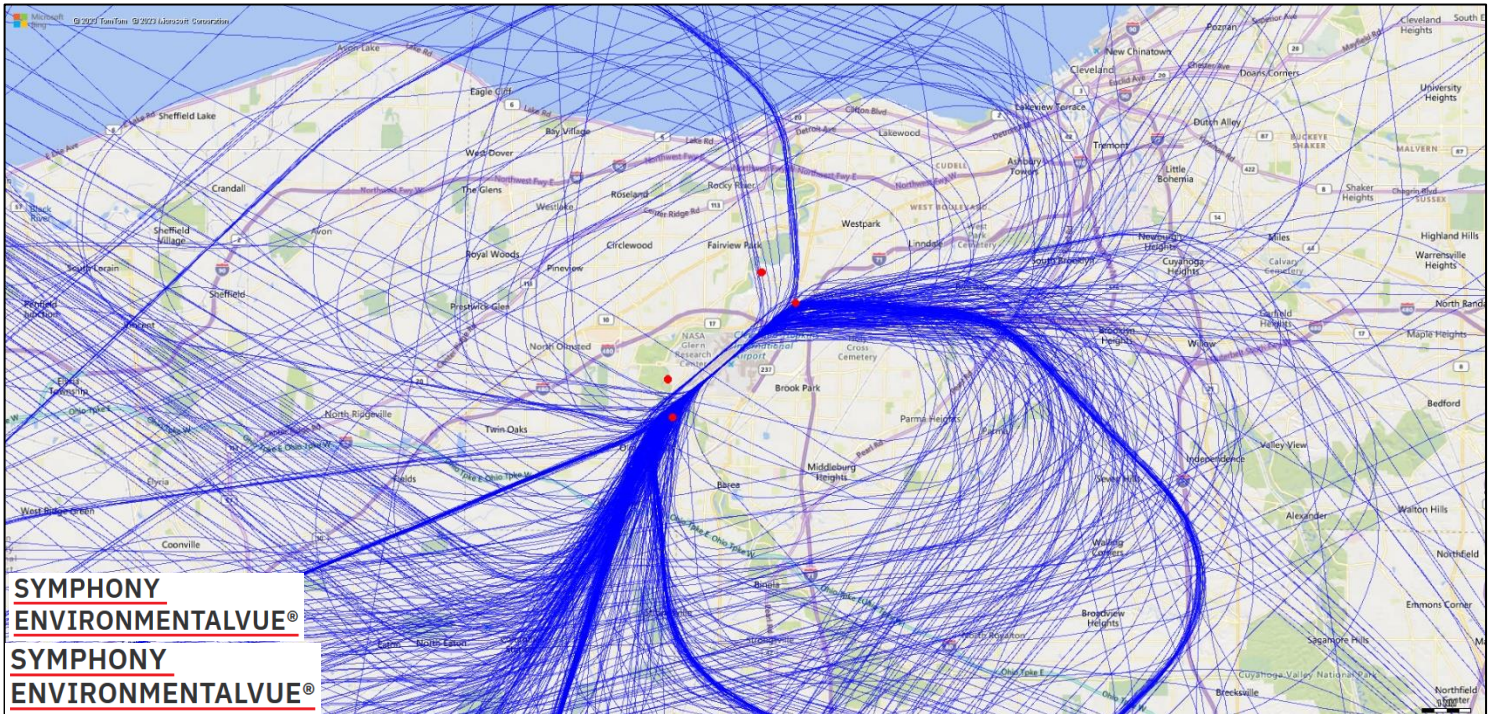
Departure Gates 

Noise Monitoring Station 

Departure Headings, 3rd Quarter: Night-time

2023 3rd Quarter nighttime departure flight tracks (jet propulsion only). Night-time reflects 11:00 pm to 06:00 am.

Of **639** departure flights, **251 (39%)** were outside their respective late night departure corridor. These corridors represent the airspace through which aircraft depart and arrive. These corridors are not mandatory. When an aircraft departs, it has a certain path it follows which is a function of altitude and heading.



Flight tracks generated using PASSUR Symphony EnvironmentalVue

Key:

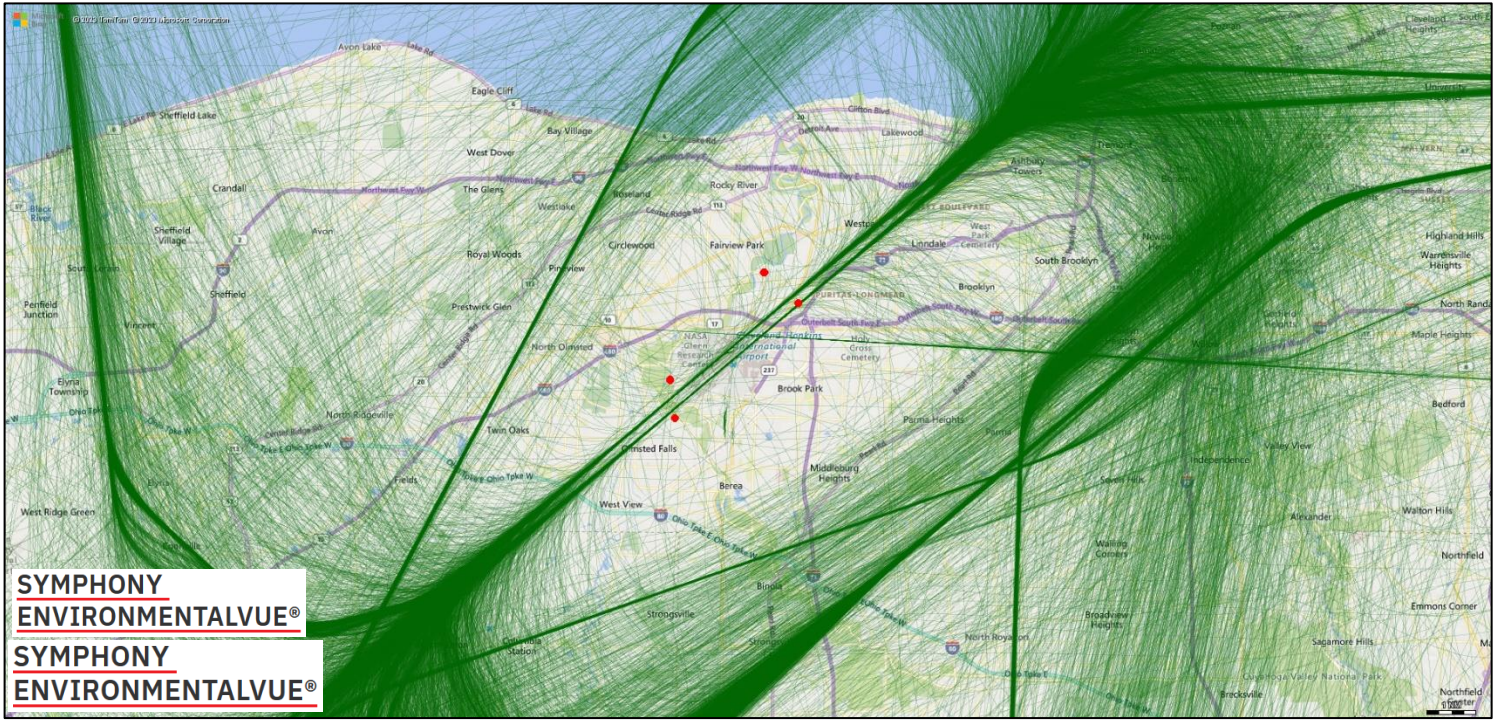
Flight Tracks 

Departure Gates 

Noise Monitoring Station 

Arrival Headings, 3rd Quarter

Day-time and night-time arrivals for all of Quarter 3 are shown here (all propulsion types). Note that a voluntary measure or the Noise Compatibility Program calls for all aircraft arriving between 11:00 pm and 6:00 am, wind and weather permitting, to intercept final approach course no closer than four miles before touchdown.



Flight tracks generated using PASSUR Symphony EnvironmentalVue

- Flight Tracks —
- Noise Monitoring Station ●

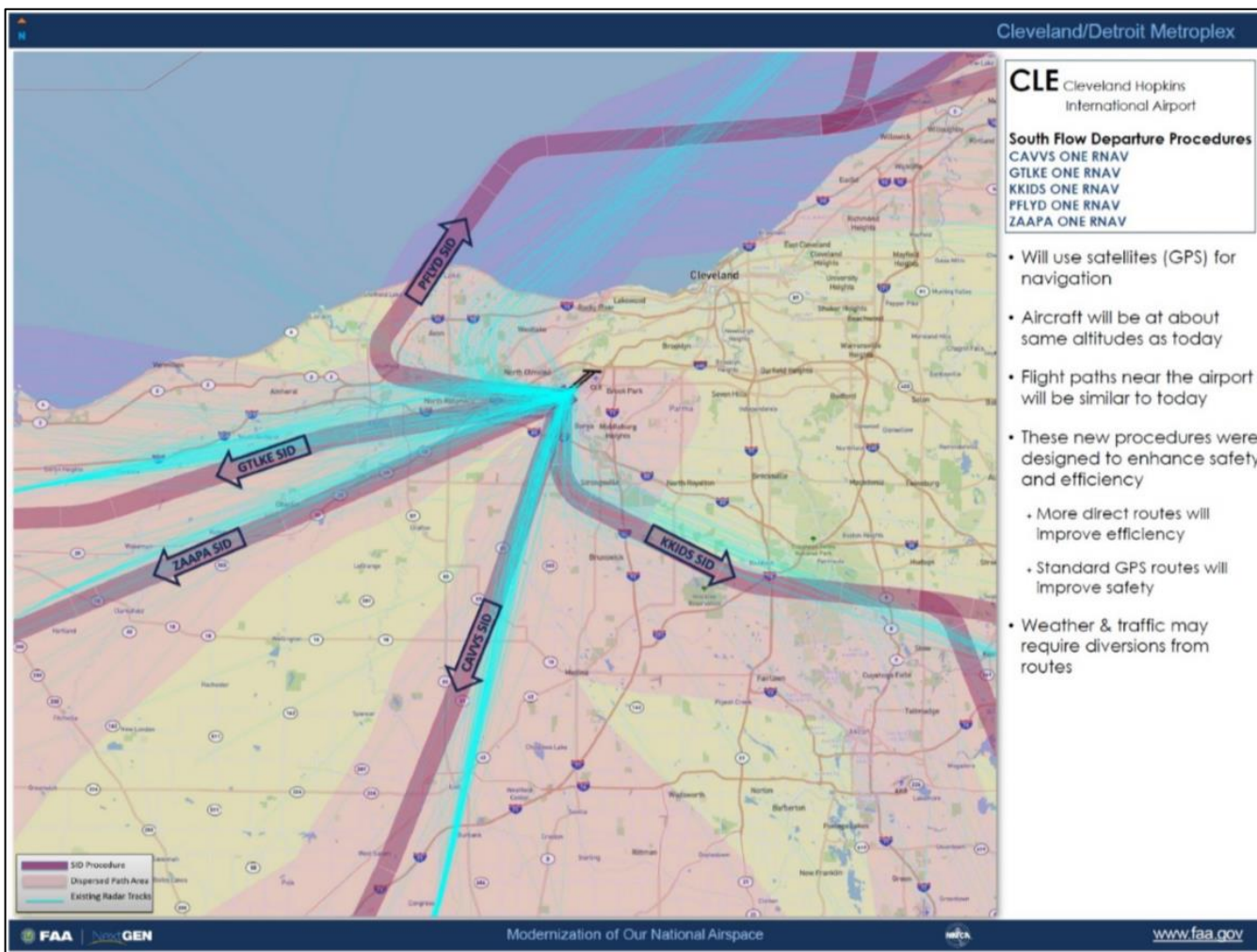
Metroplex: South Flow (Departures)

What is the Cleveland/Detroit Metroplex?

- Starting in mid-September 2018, the Federal Aviation Administration (FAA) made airspace changes in and around Cleveland and Detroit airports. These changes are part of the Cleveland-Detroit Metroplex project, which will bring updated satellite procedures to improve traffic flow.
- In most cases, aircraft will follow the same tracks that they do today. The difference is that aircraft will be using modernized procedures that replace dozens of decades-old conventional air traffic control procedures. In all, the Cleveland/Detroit Metroplex project includes 71 new satellite-based procedures. This project is a key component of the FAA's Next Generation Air Transportation System (NextGen) and a nationwide effort to build the foundation for future safety and efficiency improvements.

Source: <https://www.clevelandairport.com/faa-makes-airspace-changes-clevelanddetroit-metroplex-project>

South flow departures take off from runway 24L and runway 24R.

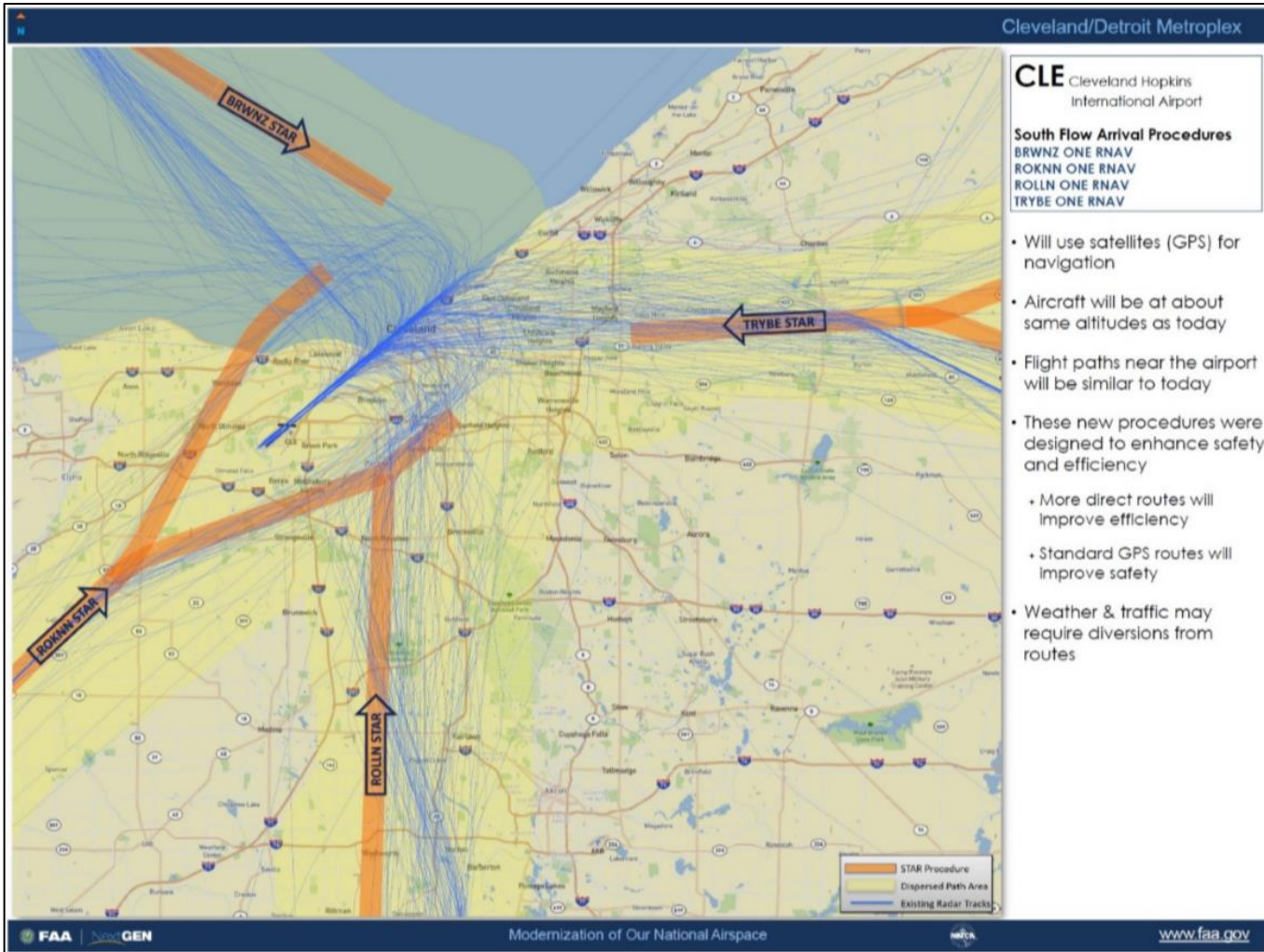


Note: Flight tracks are historic and do not represent the current quarter.

Source: www.metroplexenvironmental.com

Metroplex: South Flow (Arrivals)

South flow arrivals land on runway 24L and runway 24R.

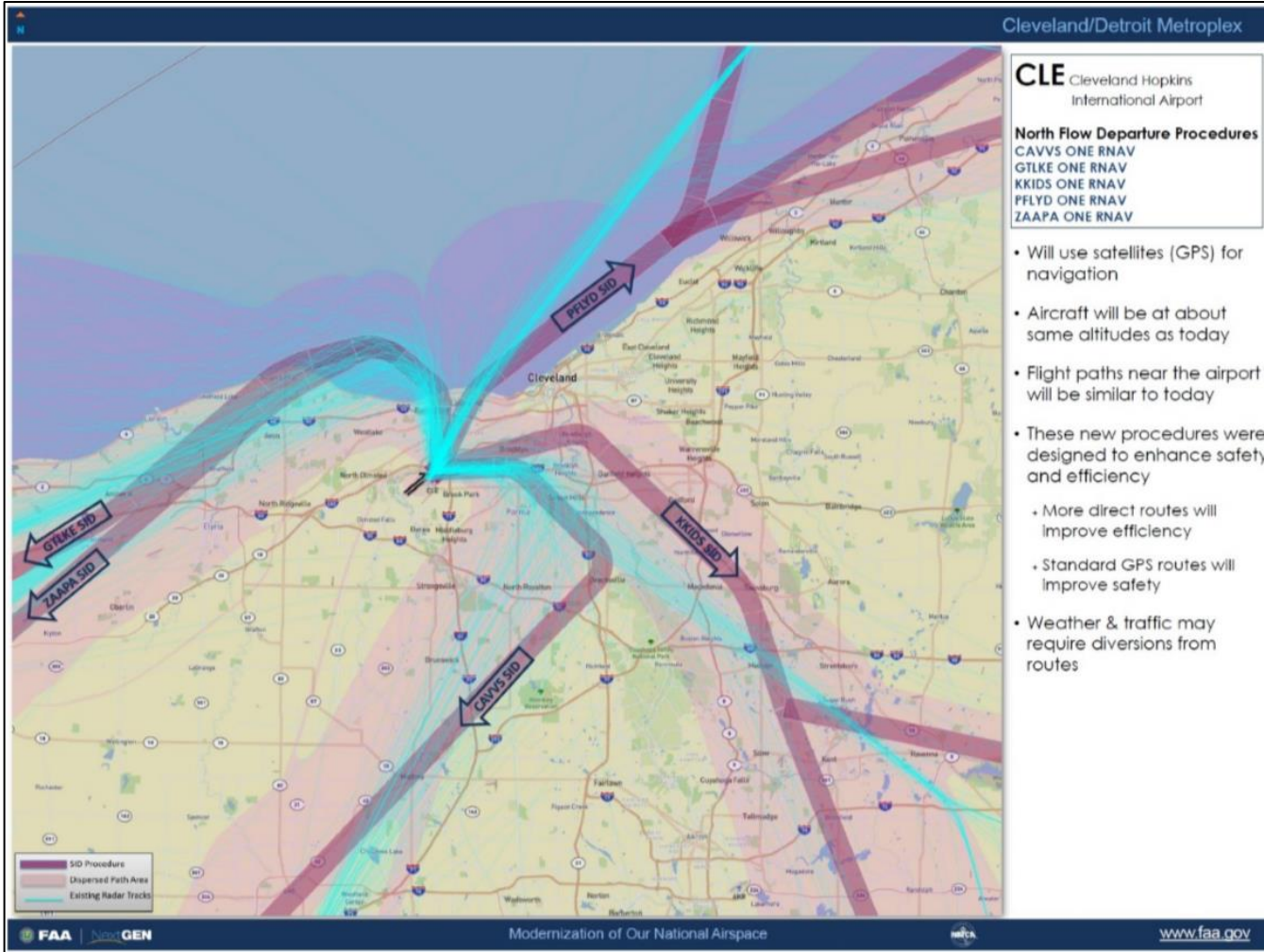


Note: Flight tracks are historic and do not represent the current quarter.

Source: www.metroplexenvironmental.com

Metroplex: North Flow (Departures)

North flow departures take off from runway 6L and runway 6R.

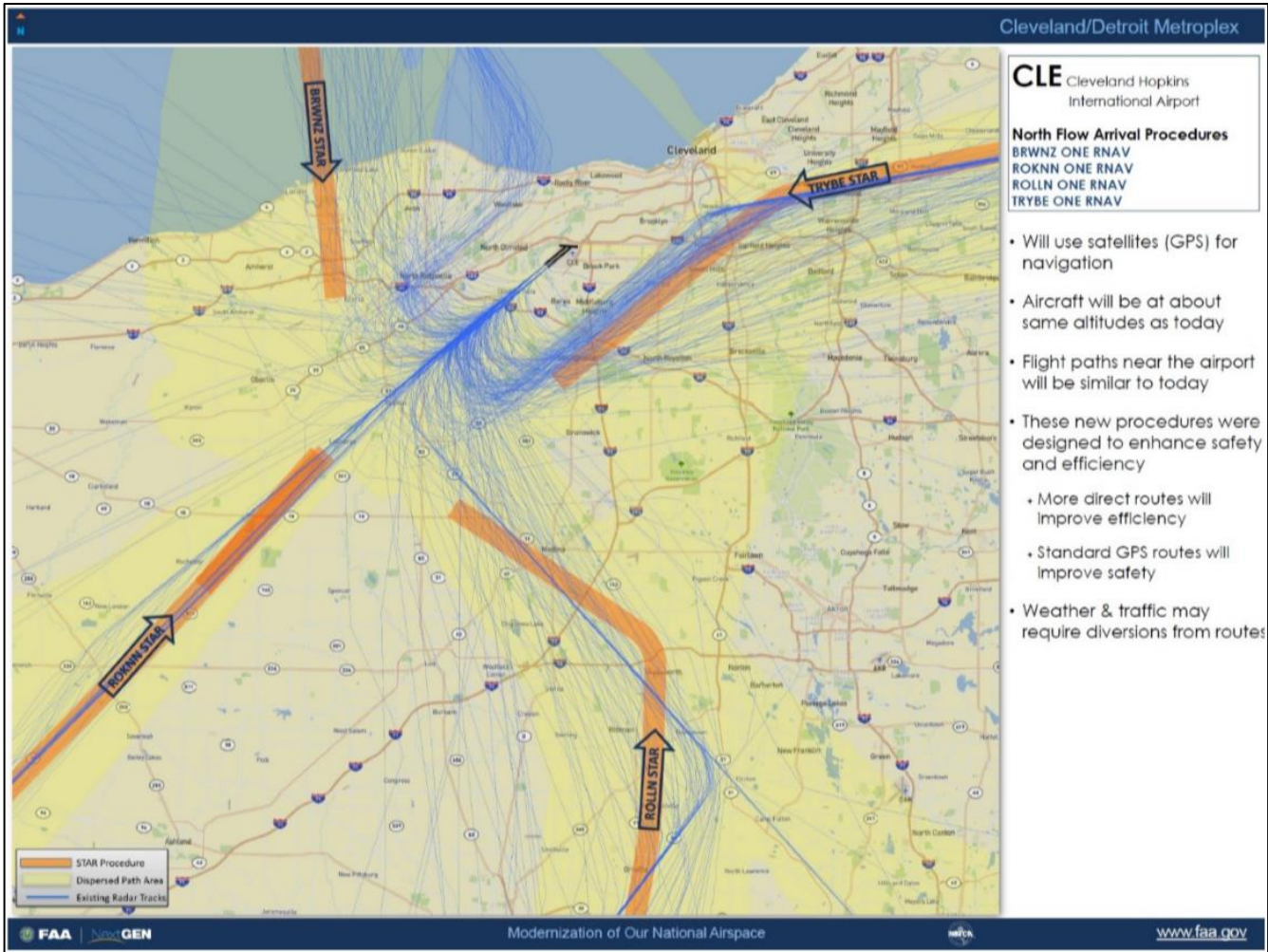


Note: Flight tracks are historic and do not represent the current quarter.

Source: www.metroplexenvironmental.com

Metroplex: North Flow (Arrivals)

North flow arrivals land on runway 6L and runway 6R.



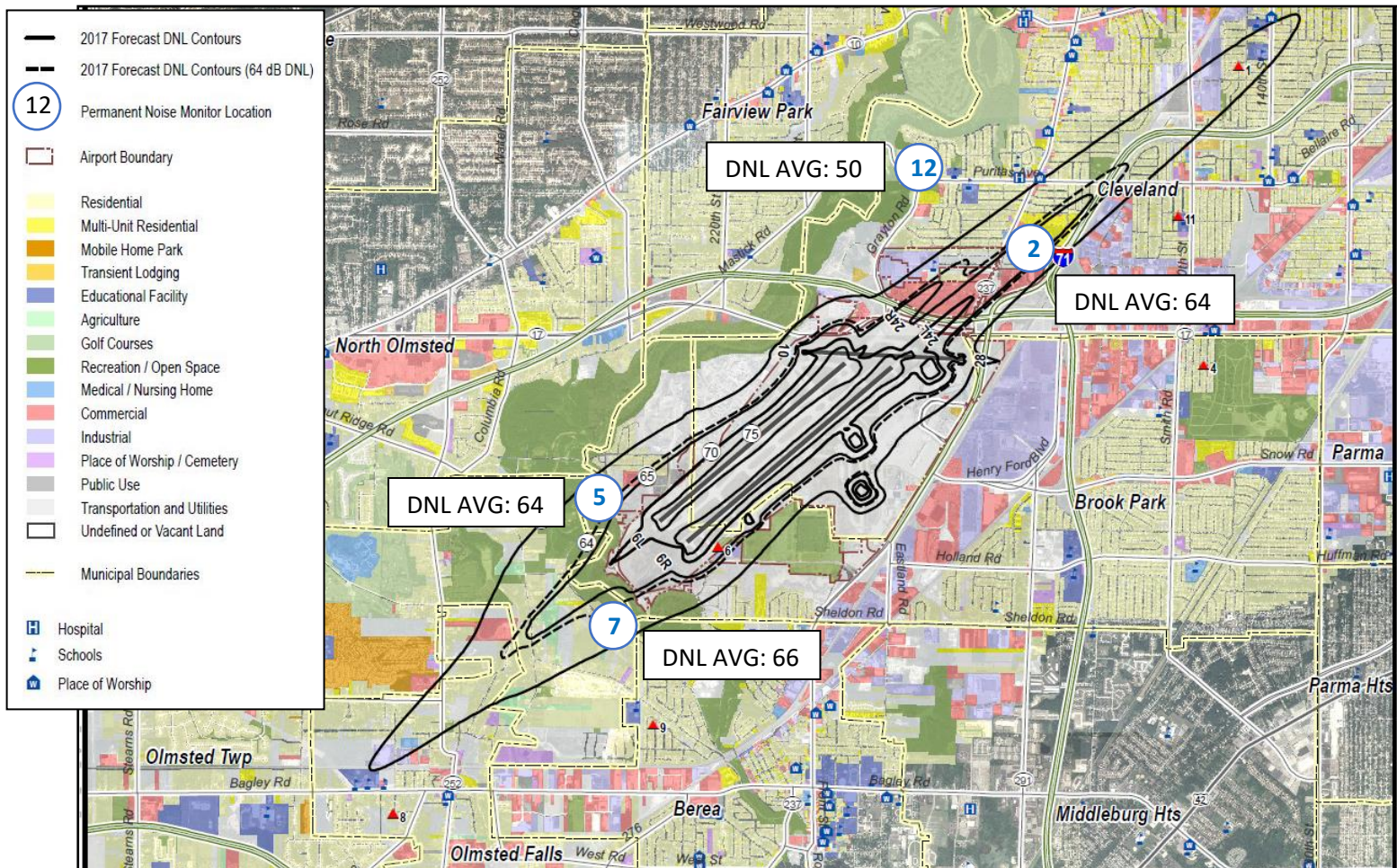
Note: Flight tracks are historic and do not represent the current quarter.

Source: www.metroplexenvironmental.com

Aircraft Noise: Q3 Average DNL by Noise Monitoring Station (NMS)

What is DNL?

- As FAA's primary metric for aviation noise analysis, the FAA has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of the day-night average sound level (DNL) in decibels (dB). The 65 DNL is the Federal significance threshold for aircraft noise exposure.
- If interested in the Fundamentals of Noise and Sound, please visit: https://www.faa.gov/regulations_policies/policy_guidance/noise/basics/



Data generated using PASSUR Symphony EnvironmentalVue

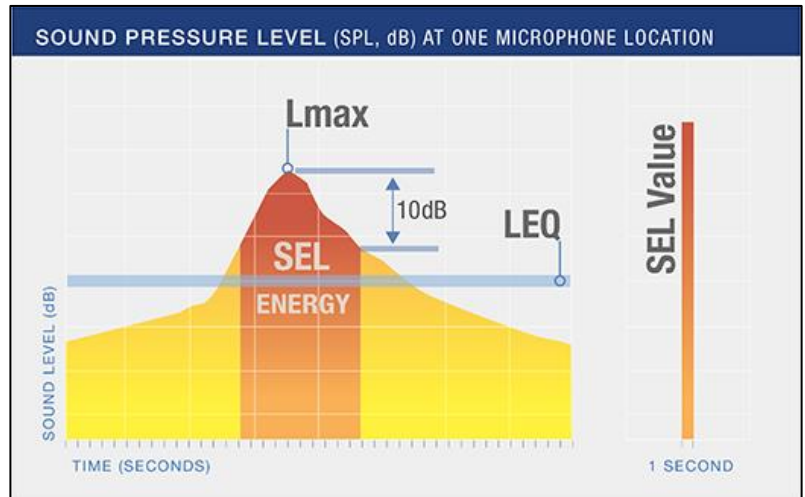
Top Three Lmax at Each NMS

Lmax is the single loudest point during a noise event.

Sounds Exposure Level (SEL) is a measure that takes into account all noises over the entire duration of the noise event.

Decibel (db) is the unit used to measure the intensity of a sound. The human ear hears sound pressures over a wide range. Decibels, which are measured on a *logarithmic* scale, correspond to the way our ears interpret sound pressures.

NMS – Noise Monitoring Station: For a map of these stations, refer to the previous pages.



Source: www.faa.gov

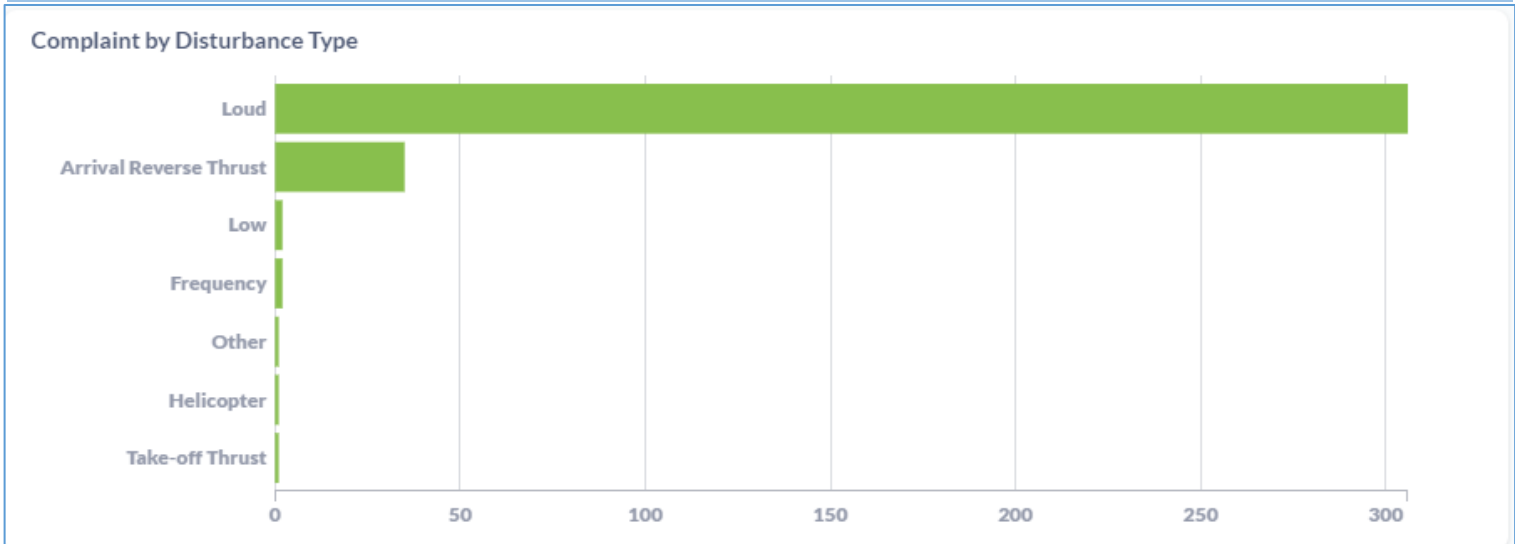
Date and Time	NMS	Lmax (dB)	Sound Exposure Level (dB)	Duration (sec)	Operation	Aircraft
9/1/2023 12:21	NMS02	106.2	111.24	14	Departure 6R	Boeing 737-800
8/9/2023 2:48	NMS02	96.4	100.78	16	Arrival 6R	Boeing 722
9/8/2023 9:09	NMS02	93.2	100.67	25	Departure 6R	MD-83
8/19/2023 10:57	NMS05	111	117.94	18	Departure 24L	Boeing 737-800
9/7/2023 12:24	NMS05	97.2	105.52	29	Departure 24R	F-16 Thunderbird
8/6/2023 11:36	NMS05	92.2	98.52	11	Departure 24L	Embraer75L
7/22/2023 1:15	NMS07	95.8	105.2	42	Departure 24L	Boeing 722
9/13/2023 8:08	NMS07	95.4	101.97	21	Departure 24L	Boeing 722
8/18/2023 2:56	NMS07	94	101.54	32	Departure 24L	MD-82
9/29/2023 16:22	NMS12	87.8	96.65	44	Departure 6L	MD-83
9/15/2023 17:17	NMS12	87.8	96.27	41	Departure 6R	MD-83
9/11/2023 13:07	NMS12	86.1	88.12	30	Departure 6R	Airbus A320N

Data generated using PASSUR Symphony EnvironmentalVue

Noise Complainant Metrics – Q3 2023



City	Complainant	Count
Cleveland	A001	2,399
Cleveland	A005	6
Fairview Park	O002	4
Lakewood	N001	1
Olmsted Falls	P003	1
Parma	A001	1
Valley City	O002	286

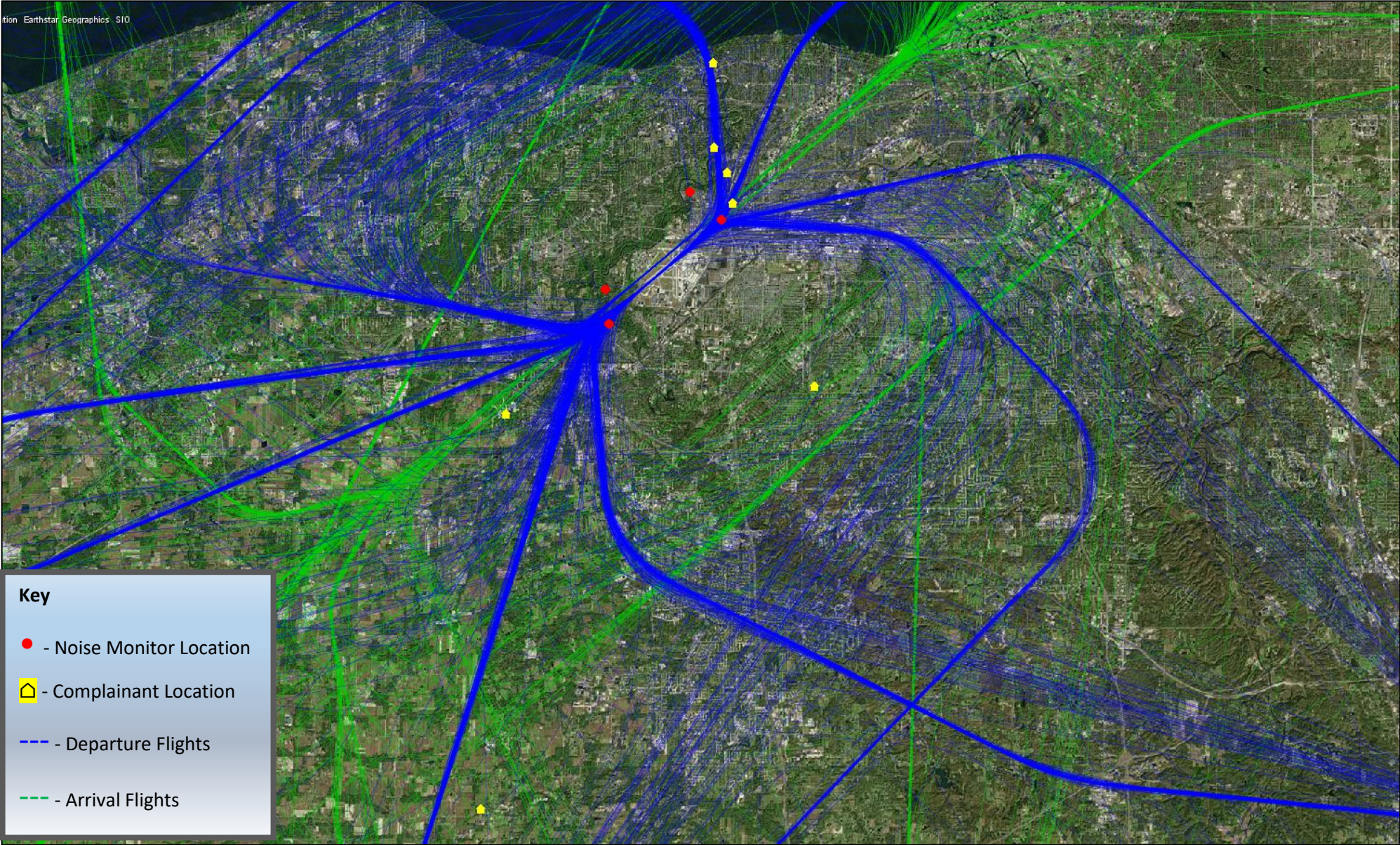


Noise Events, Count, Grouped by Site

SITE	Count
NMS02	12,069
NMS05	7,026
NMS07	14,679
NMS12	2,052



Noise Complainant Map – Q3 2023



Do you have a question or noise complaint?

Please visit the [Symphony PublicVue](https://www.clevelandairport.com/contact) to submit a noise complaint. This site can also be found by going to <https://www.clevelandairport.com/contact> and click on “Learn More” under Noise Complaints. Please be patient while we take time to process your message and respond with the appropriate information.

