

Monthly Noise Report December 2021

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*FAA has updated their Phoenix NextGen website to: <https://www.faa.gov/air-traffic/community-involvement/phx/>

For additional information, please visit skyharbor.com/FlightPaths

OVERVIEW

The City of Phoenix Aviation Department operates the Phoenix Airport System which consists of Phoenix Sky Harbor International Airport (PHX), Phoenix Deer Valley (DVT) and Phoenix Goodyear (GYR) Airports. The Department serves as the primary liaison between the community, airlines and the Federal Aviation Administration (FAA) regarding aircraft overflight activity and noise concerns. While the authority to control aircraft in flight and on the ground, lies exclusively with the FAA, the airlines control the number of flights and flight schedules. The Department collects aircraft noise and flight operations data to analyze, advise and assist the community with up-to-date information. Additionally, the Department manages noise concerns received from residents through a variety of services including the noise hotline, PlaneNoise smartphone app, PublicVue flight tracker and the Department's website complaint form. This report provides a summary of the data collected for the preceding month and in context with historical data for operation counts, flight direction, complaints, and adherence to noise abatement procedures.

December 2021



PHX: 36,436 operations
(2% less than last month)

DVT: 17,917 operations
(6% less than last month)

GYR: 7,710 operations
(30% more than last month)



- **40 households** filed **1,938** complaints for PHX, DVT and GYR Airports

- **1 household** filed **180,929** complaints for PHX

- Staff received and responded to **60 requests** for follow-up information

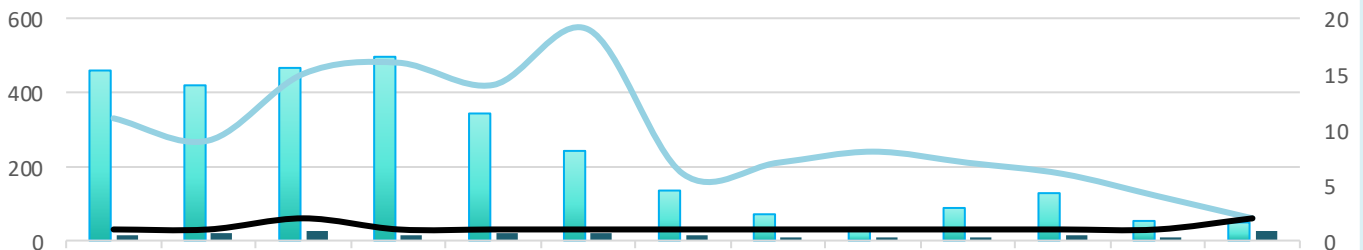
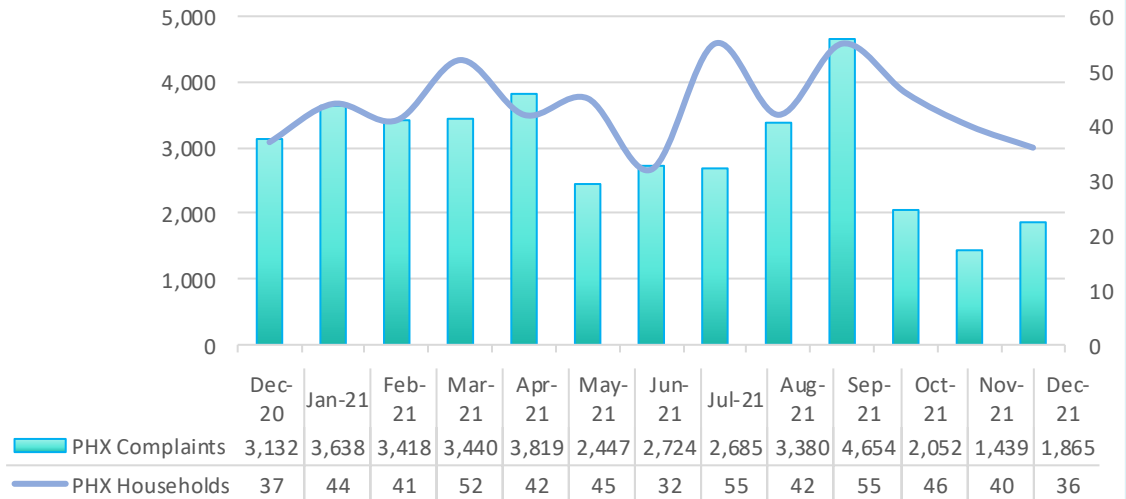


"4-DME" compliance rate was **99.7%**

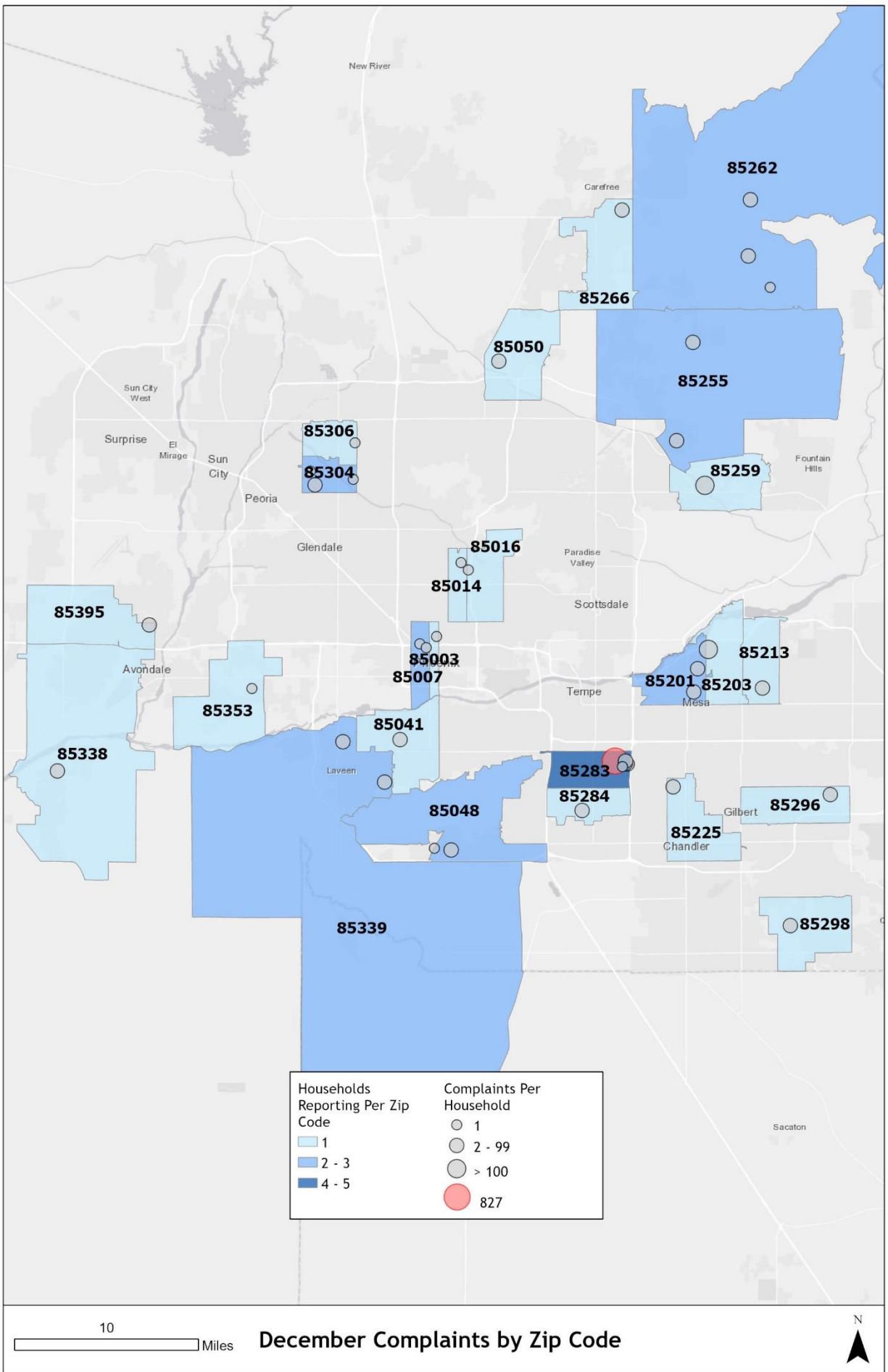
"Equalization" rate was **46%** westerly and **54%** easterly

Noise Complaints

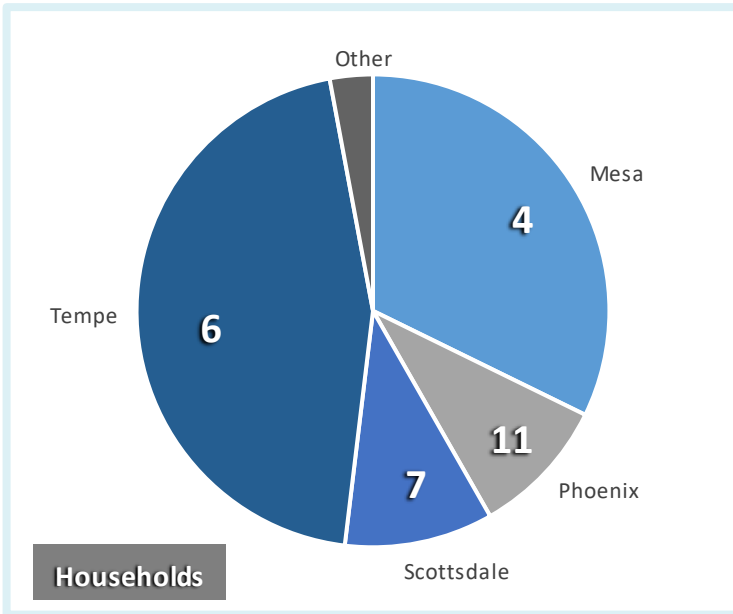
Many factors contribute to the number of complaints received each month and by how many households. Factors can include irregular operations, weather events, seasonal demand changes, new residents moving into an area impacted by aircraft operations and more.



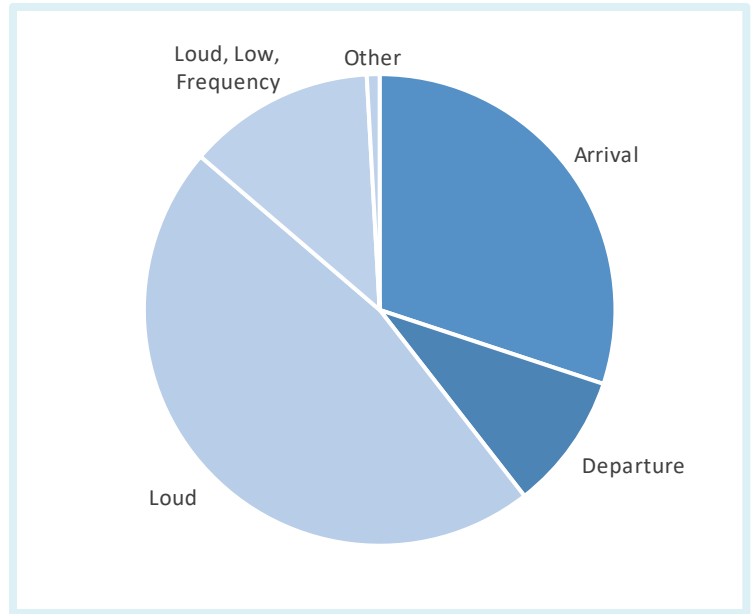
	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
DVT Complaints	459	419	466	496	343	242	135	71	34	88	128	53	49
GYR Complaints	17	18	25	14	22	18	15	9	6	8	14	10	24
DVT Households	11	9	15	16	14	19	6	7	8	7	6	4	2
GYR Households	1	1	2	1	1	1	1	1	1	1	1	1	2



Noise Complaints – By Community

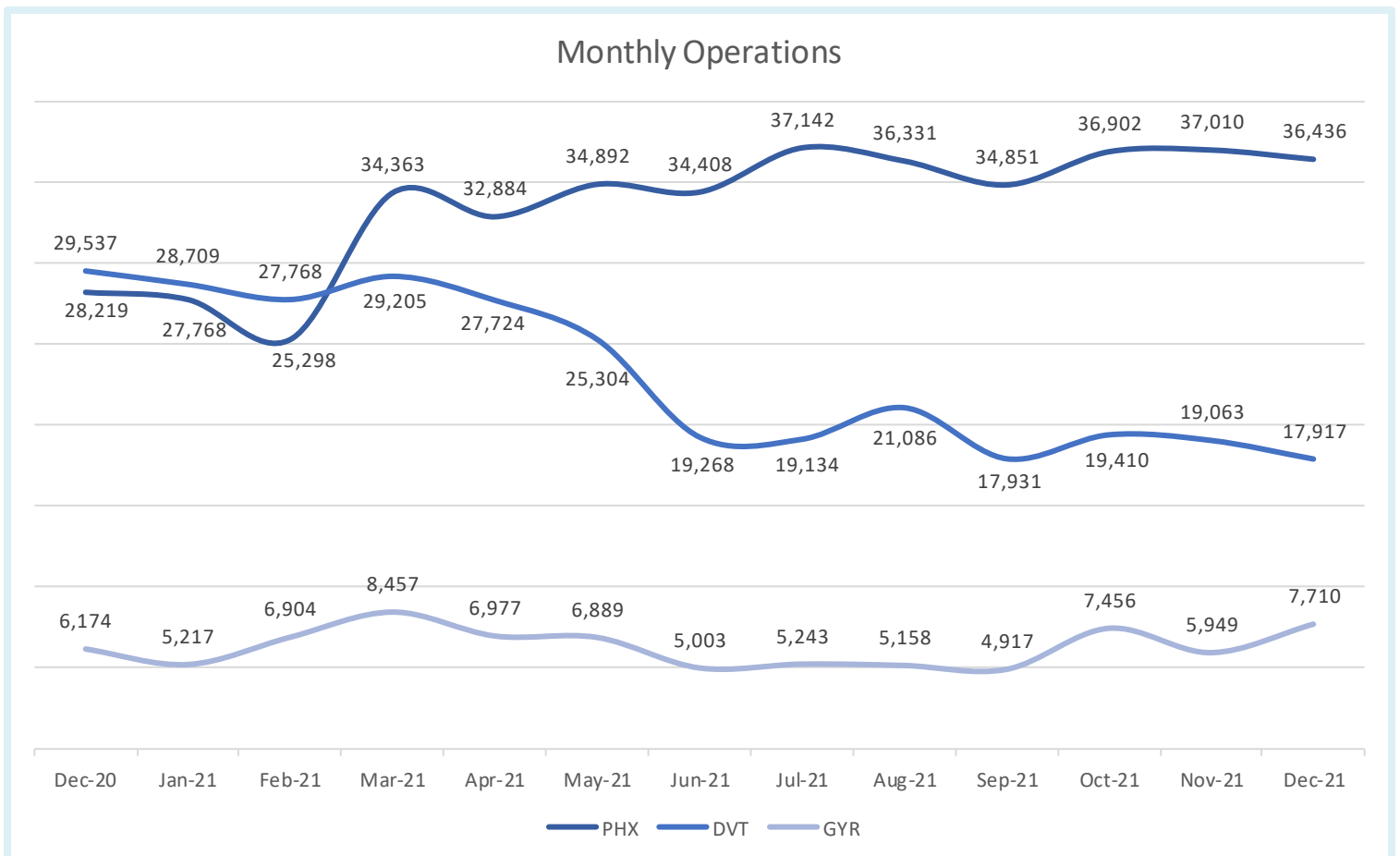


Noise Complaints – By Type



OPERATIONS

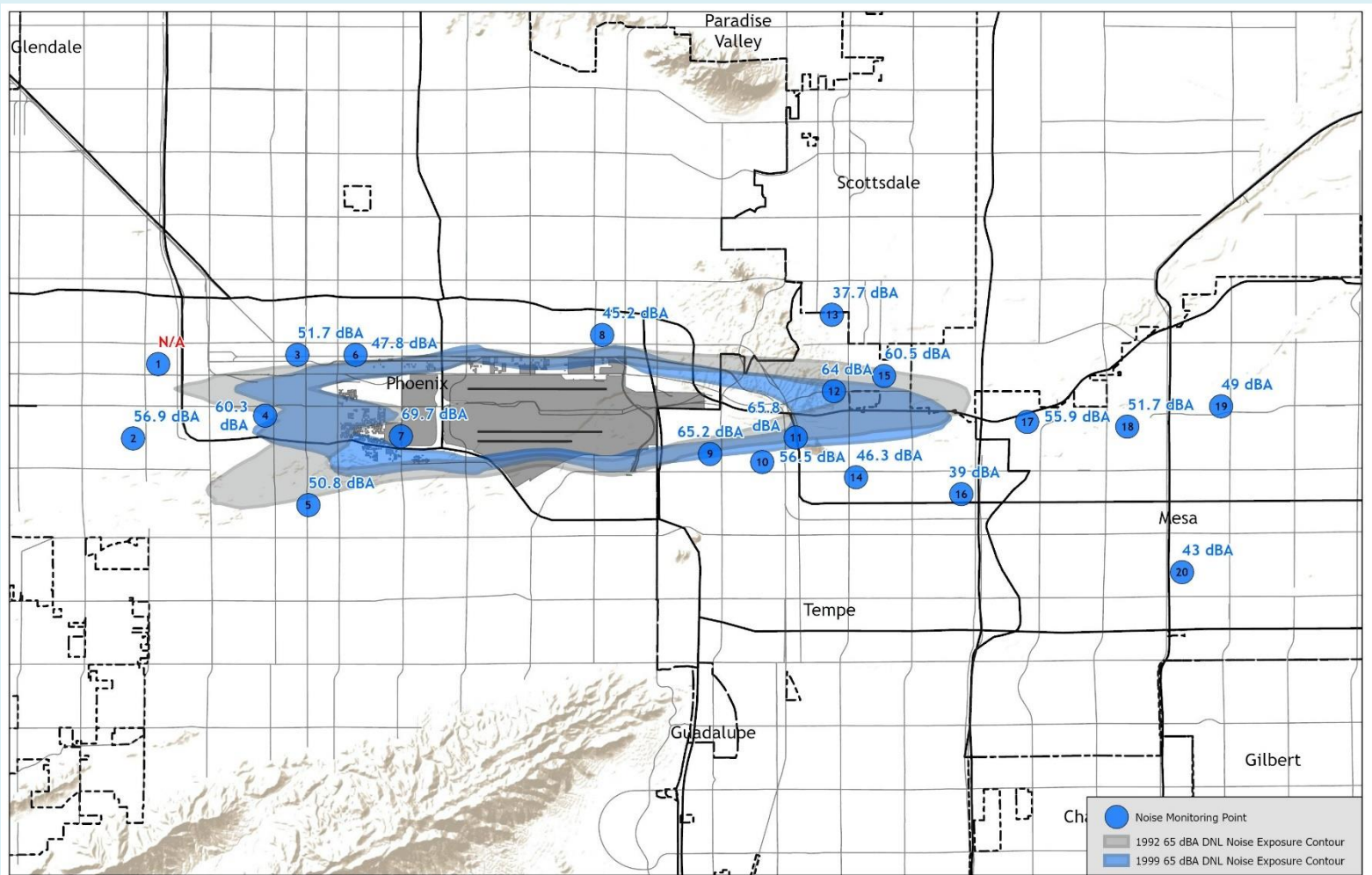
The graph below shows monthly aircraft operations over the last year (March is historically the PHX peak).



NOISE MONITORING TERMINALS

NMT	1	2	3	4	5	6	7	8	9	10
LdnA	N/A	56.9	51.7	60.3	50.8	47.8	69.7	45.2	65.2	56.5
%Δ	N/A	-1.0	-1.8	-1.4	-3.0	-3.6	-0.7	-8.0	-0.3	-6.7
NMT	11	12	13	14	15	16	17	18	19	20
LdnA	65.8	64.0	37.7	46.3	60.5	39.0	55.9	51.7	49.0	43.0
%Δ	1.1	1.0	5.4	12.5	5.2	0.5	4.8	7.4	6.7	0.9

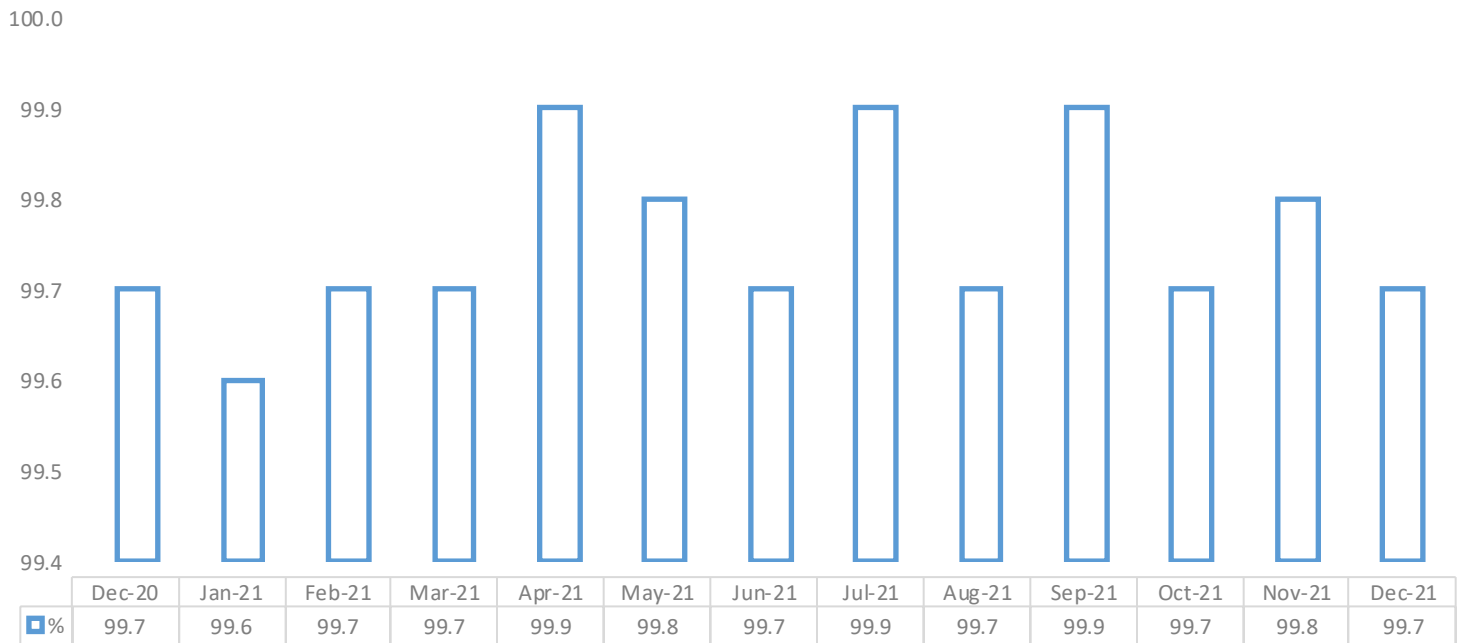
Twenty noise monitors surround PHX in the communities of Phoenix (8), Tempe (8), and Mesa (4). The noise readings are computed as A-weighted day/night sound level (LdnA) averaged over a 24-hour period with penalty weighting for noise events between 10pm and 7am. Use of the LdnA (measured in dBA) and penalty weighting for nighttime events help ensure noise readings reflect community annoyance factors and issues specific to human hearing and noise energy frequencies.



NOISE MITIGATION PROCEDURES

Working with the community, the FAA has implemented a variety of noise reduction measures. While some procedures might not always be used because of wind, weather, and other operational considerations; the Aviation Department encourages maximum use to the extent possible by monitoring and reporting on procedure compliance.

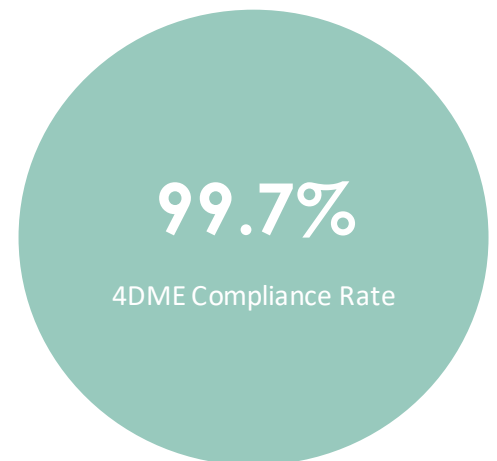
4 DME Procedure Monthly Compliance



Tempe “4DME”

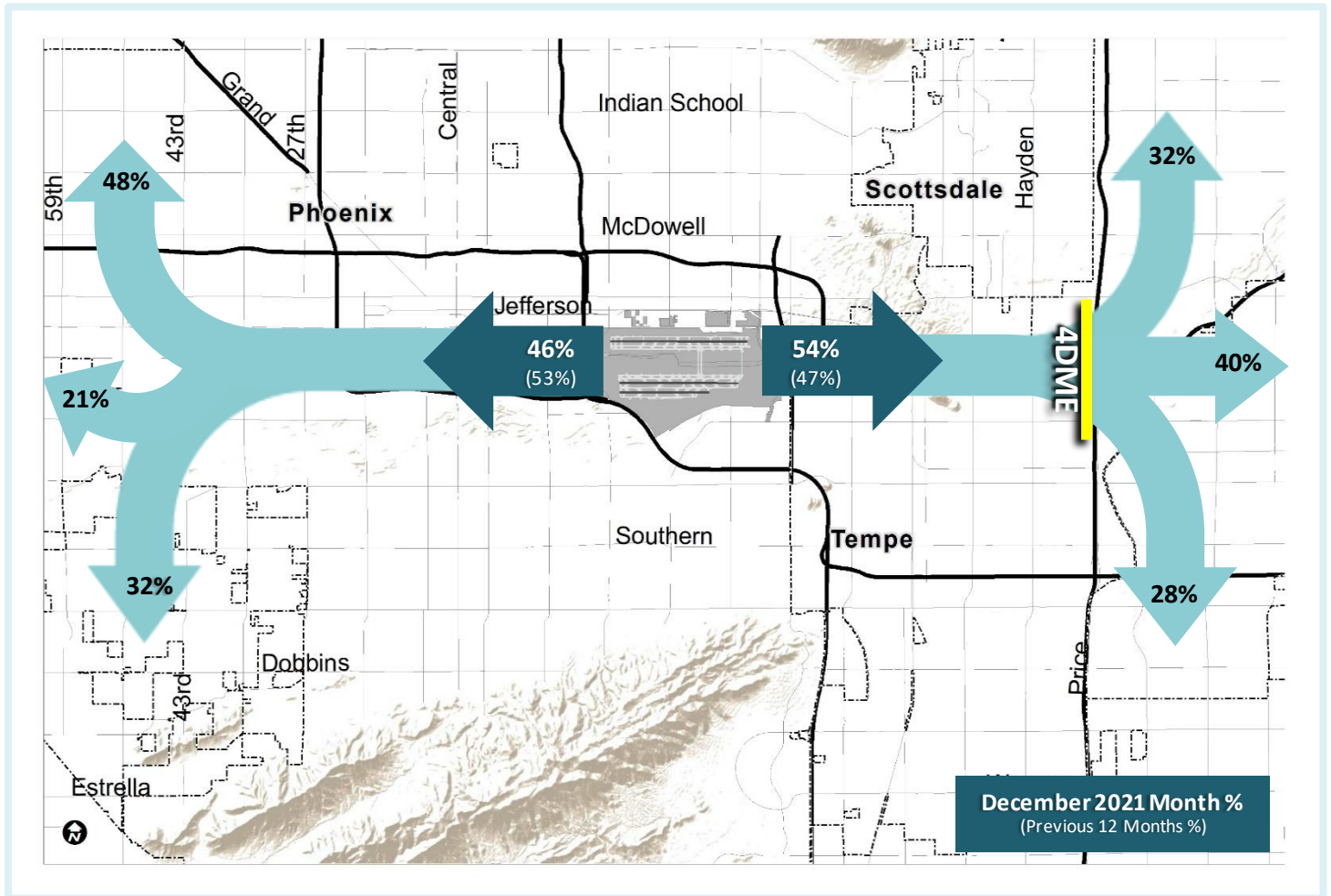
The 4DME departure procedure directs all jet aircraft departing PHX heading east to fly generally along the Salt River for approximately 6 miles, before turning. The 4DME procedure is designed to keep jet aircraft over the Salt River, until they pass the 101 freeway, where it intersects the 202 Red Mountain freeway.

	Operator	Dev.	Dep.	% Compliant
75+ Operations	Southwest Airlines	6	2,434	99.8%
	American Airlines	3	2,020	99.9%
	SkyWest Airlines	1	730	99.9%
	Mesa Airlines	0	555	100.0%
	United Airlines	2	433	99.5%
	Delta Airlines	0	391	100.0%
	UPS Airlines	3	169	98.2%
	Alaska Airlines	2	162	98.8%
	General Aviation	0	144	100.0%
	FedEx Airlines	0	118	100.0%
	Frontier Airlines	0	92	100.0%

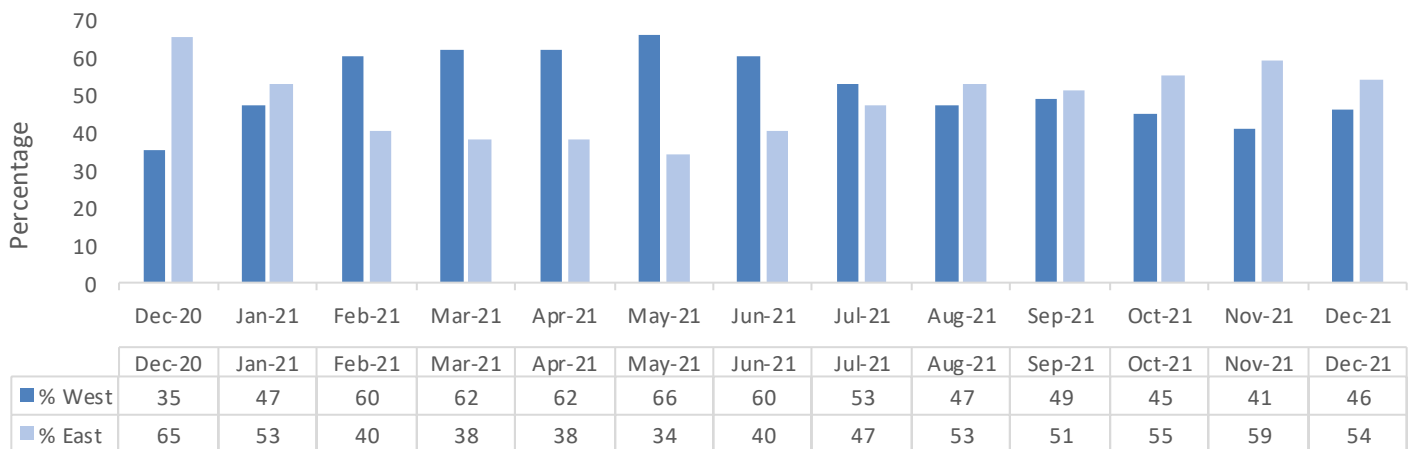


Equalization

The equalization policy for departures ensures that averaged over a calendar year, the number of departures is equally distributed in east and west flow, to minimize noise impacts to any one specific area. FAA typically directs more operations to the west during spring and summer, and to the east during fall and winter, due to the prevailing winds during those seasons.



Annual Flow Equalization

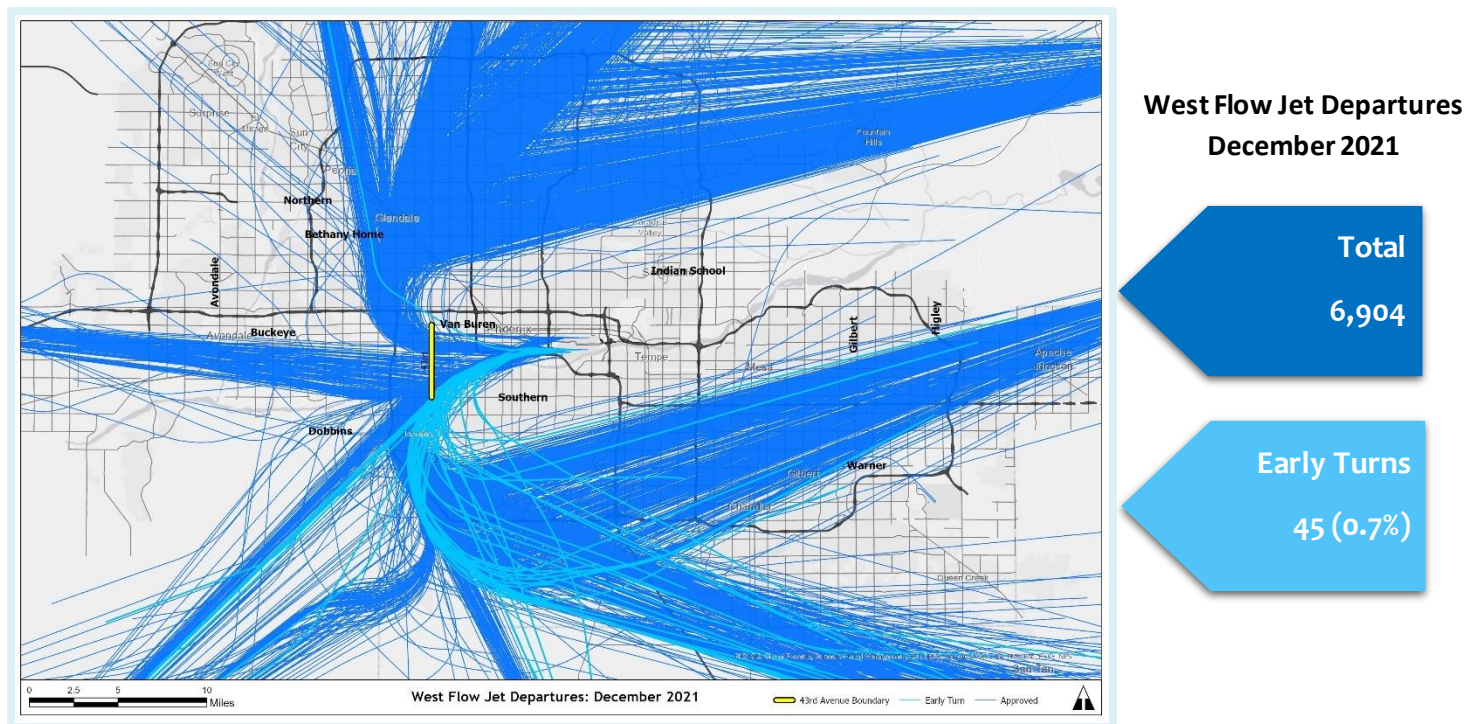


Joint Petition “43rd Ave Gate”

Per the Joint Petition between FAA, City, and Historic Neighborhoods accepted by the US Court of Appeals; FAA must approximate the location of historical west-flow departures in using performance-based navigation or RNAV. The Joint Petition provides that in approximating the historical departures, the FAA will not turn aircraft before 43rd Avenue unless there is a unique safety or weather issue. Similar to the 4DME compliance monitoring the Aviation Department conducts for east-flow departures; the following graphic shows the amount of “early turns” relative to 43rd Avenue for the preceding month

CONCLUSION

Monitoring community noise impacts and advocating for continuous improvement through noise mitigation and abatement is a team effort. The Aviation Department relies on valued feedback from our community members in sharing ongoing concerns and new issues. The Aviation Department strives to facilitate compliance with current noise abatement procedures, awareness and positive change with regulators (FAA) and operators (Airlines) so our community can enjoy all the benefits of a world-class Airport System with the absolute minimum impact. Please contact the Aviation Department Noise Office with questions regarding this report or any other matter related to aircraft noise and the City’s Airport System.



Complaint Hotline

Toll-free (844) 244-7430



Complaint Webform

<http://www.planenoise.com/copad/q3qH4u/>



Download the Plane Noise app

<http://www.planenoise.com/mobile/phenix/jr3wcQ2/>



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