

# Monthly Noise Report September 2017

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# Overview

The City of Phoenix Aviation Department operates the Phoenix Airport System which consists of Phoenix Sky Harbor International Airport (PHX), Deer Valley (DVT) and Goodyear (GYR) Airports. The Department serves as the primary liaison between the community, Airlines and the Federal Aviation Administration (FAA) with regard to 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.

## SEPTEMBER 2017



- PHX had 31,930 operations (10.0% less than last month)
- DVT had 29,661 operations (0.3% more than last month)
- GYR had 11,628 operations (8.0% less than last month)



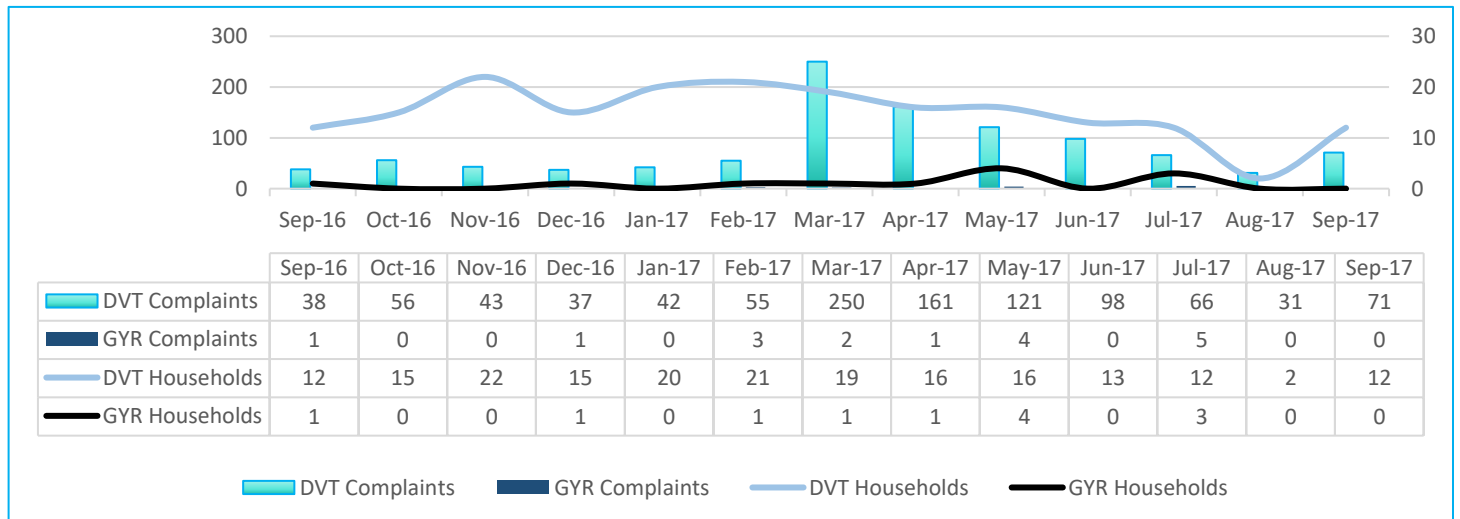
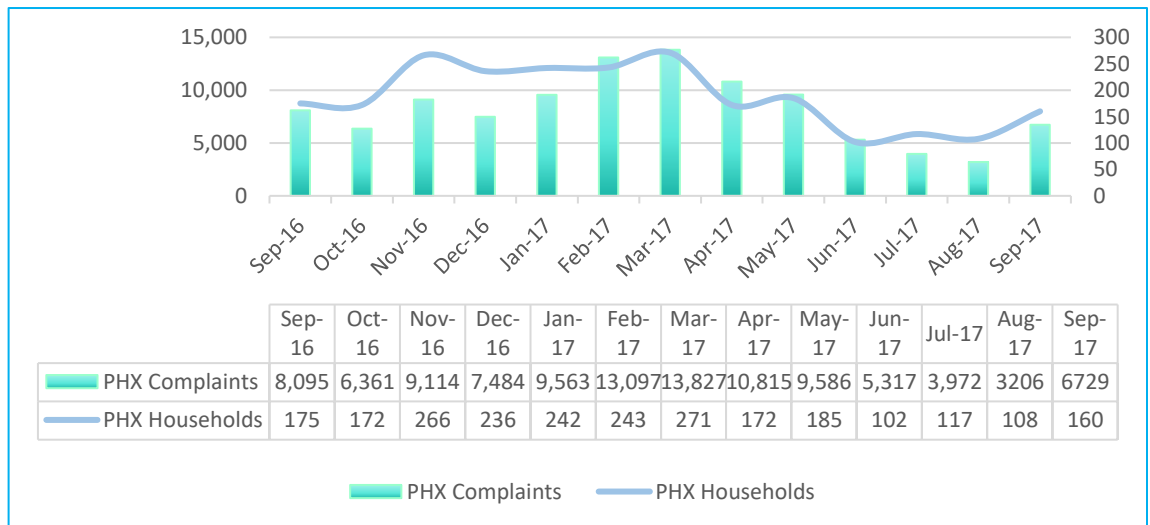
- 172 households filed 6,800 complaints (PHX, DVT and GYR)
- Staff received and responded to 96 requests for follow-up



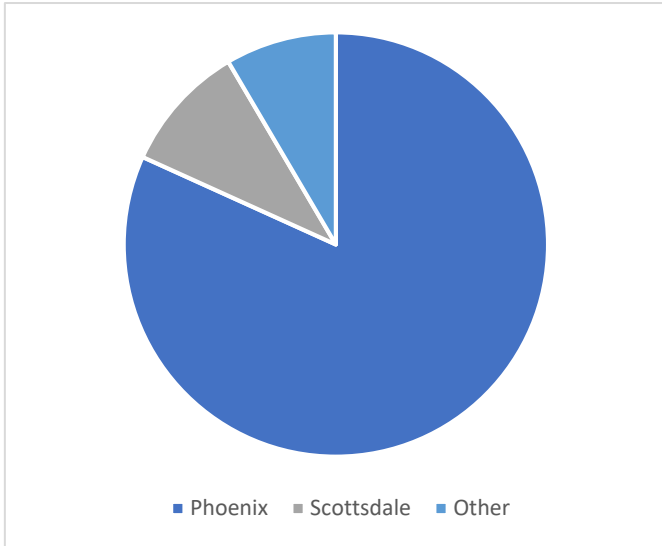
- "4-DME" compliance rate was 99.59% (PHX)
- "Equalization" rate was 41.76% westerly and 58.33% easterly (PHX)
- "Early Turn" ops were 23 (PHX northwest departures)

## Noise Complaints

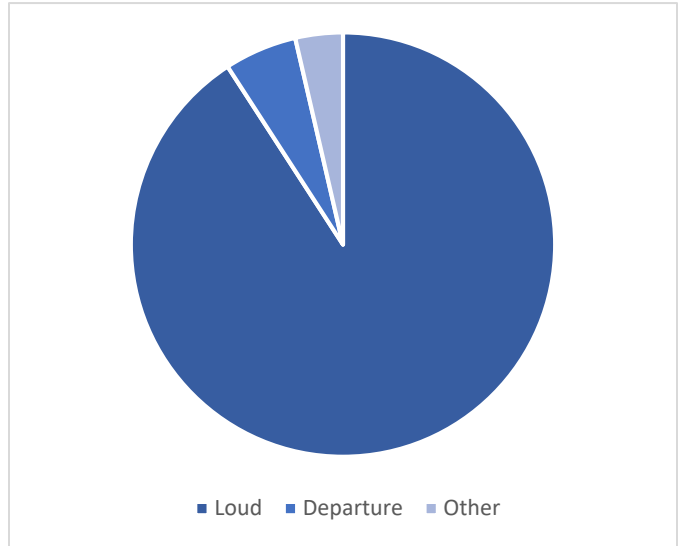
Many factors contribute to the number of complaints received each month and by how many people (households) including irregular operations, weather, seasonal demand changes, or new residents moving into an area impacted by aircraft operations.



Noise Complaints – By City

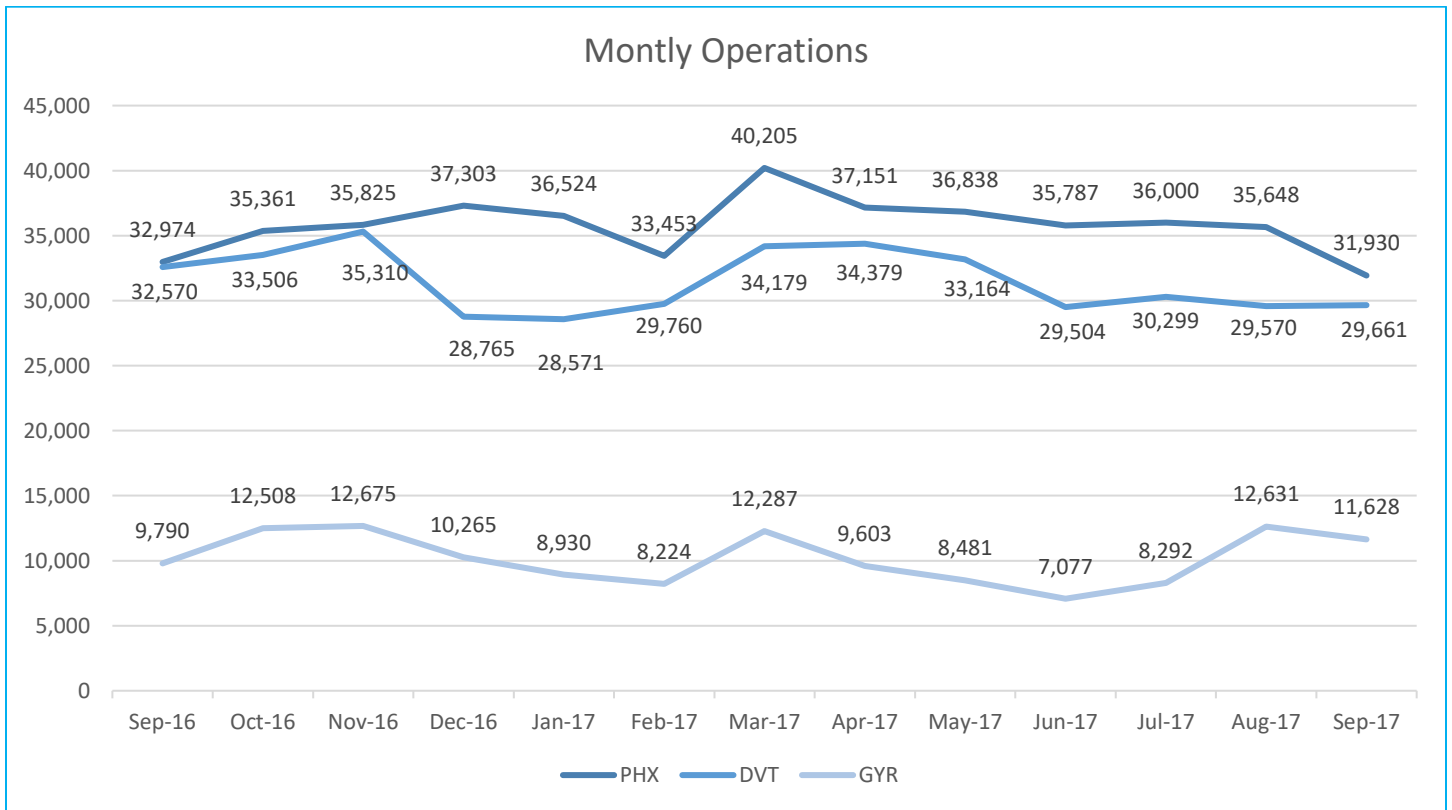


Noise Complaints – By Type



## Operations

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

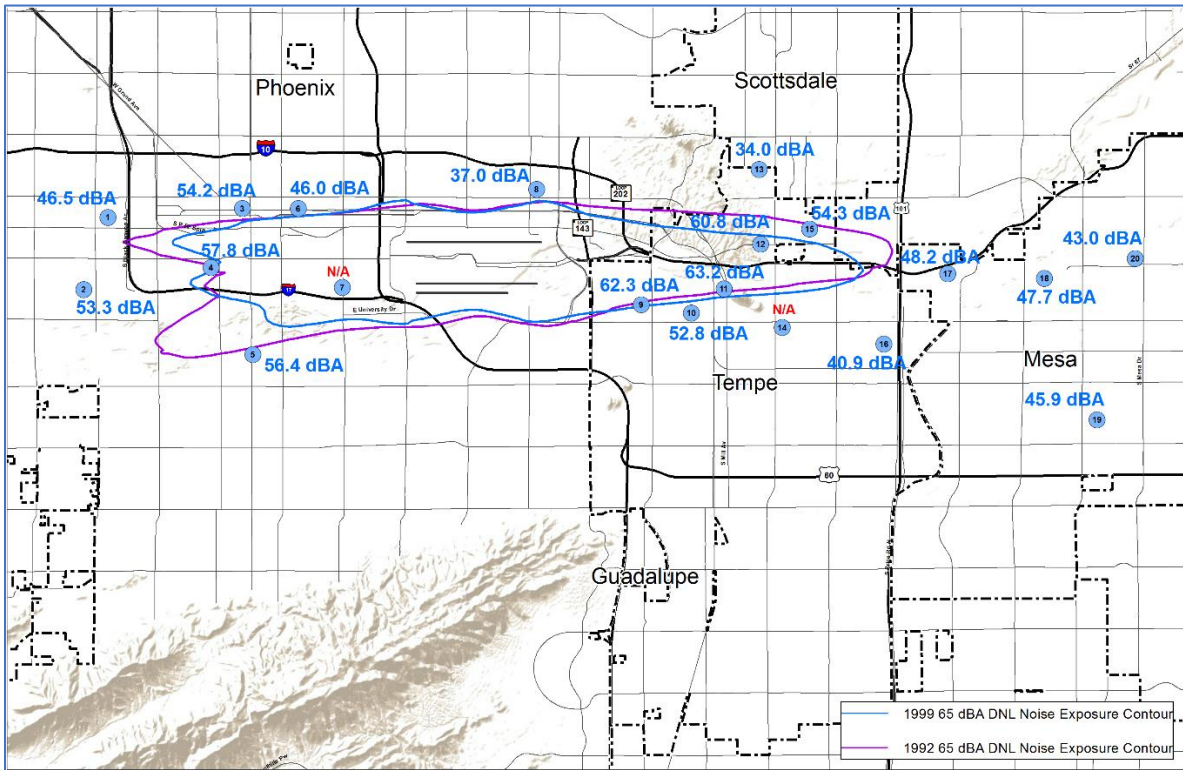


# Noise Monitoring Sites

20 noise monitors surround PHX in the communities of Phoenix (8), Tempe (8), and Mesa (4). The noise readings are computed as A-weighted sound level averaged over a 24-hour period with penalty weighting for noise events between 10pm and 7am. Use of the 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 Monitoring Site	LdnA	Change From Previous Month	Noise Monitoring Site	LdnA	Change From Previous Month
NMS01	46.5	-0.8	NMS11	63.2	-0.6
NMS02	53.3	-1.4	NMS12	60.8	-0.7
NMS03	54.2	0.3	NMS13	34	-3.6
NMS04	57.8	-0.1	NMS14	N/A	N/A
NMS05	56.4	1.3	NMS15	54.3	1.1
NMS06	46	3.4	NMS16	40.9	-0.4
NMS07	N/A	N/A	NMS17	48.2	N/A
NMS08	37	-1.3	NMS18	47.7	0.7
NMS09	62.3	-0.7	NMS19	45.9	2.2
NMS10	52.8	0.6	NMS20	43	-2.1

**\*NMS7 & NMS14 were removed for construction & will be replaced**

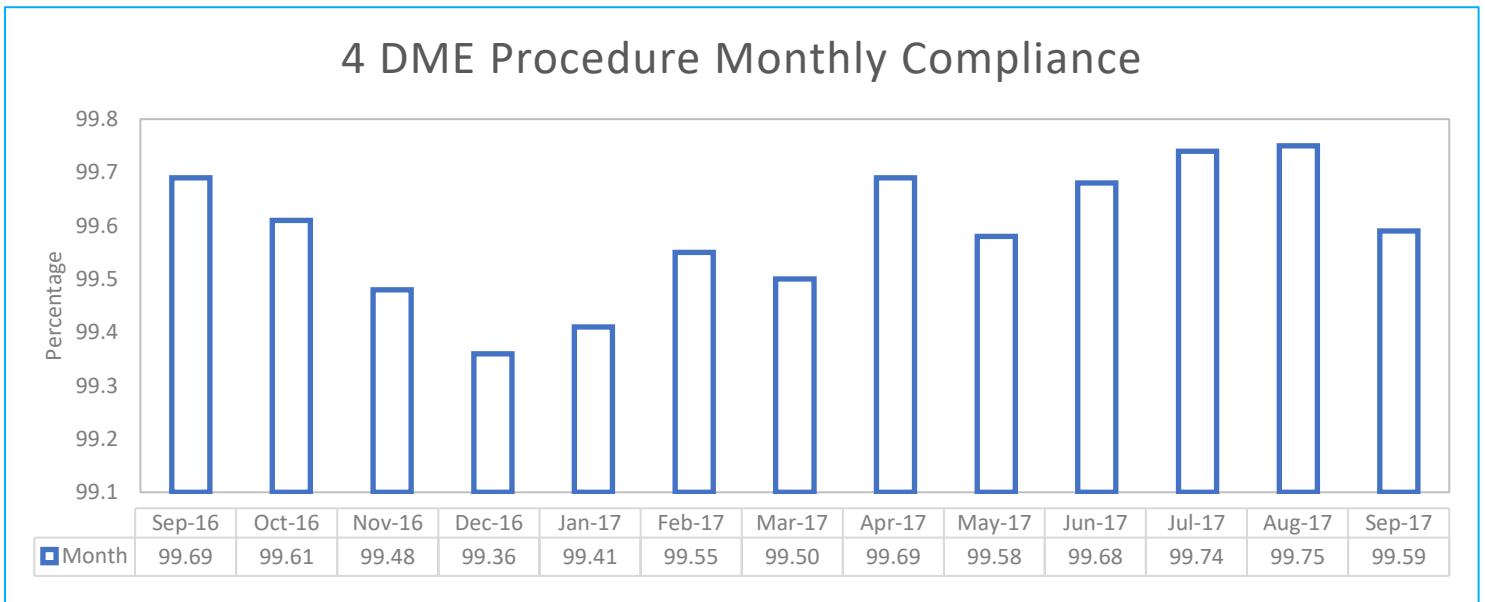


## Noise Mitigation Procedures

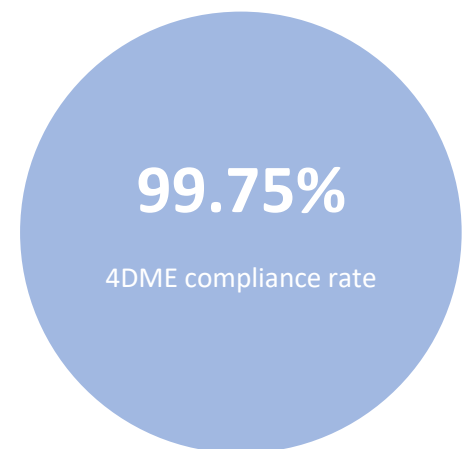
Working with the community, the FAA has implemented a variety of noise reduction measures. While some procedures may not be used at all times because of wind, weather, and other operational considerations; the Aviation Department encourages maximum use to the extent possible by monitoring and reporting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

### Tempe “4 DME”

The 4 DME departure procedure directs jet aircraft departing PHX to the east to fly generally along the Salt River for approximately 6 miles before turning. The 4 DME procedure is designed to keep aircraft over the Salt River.

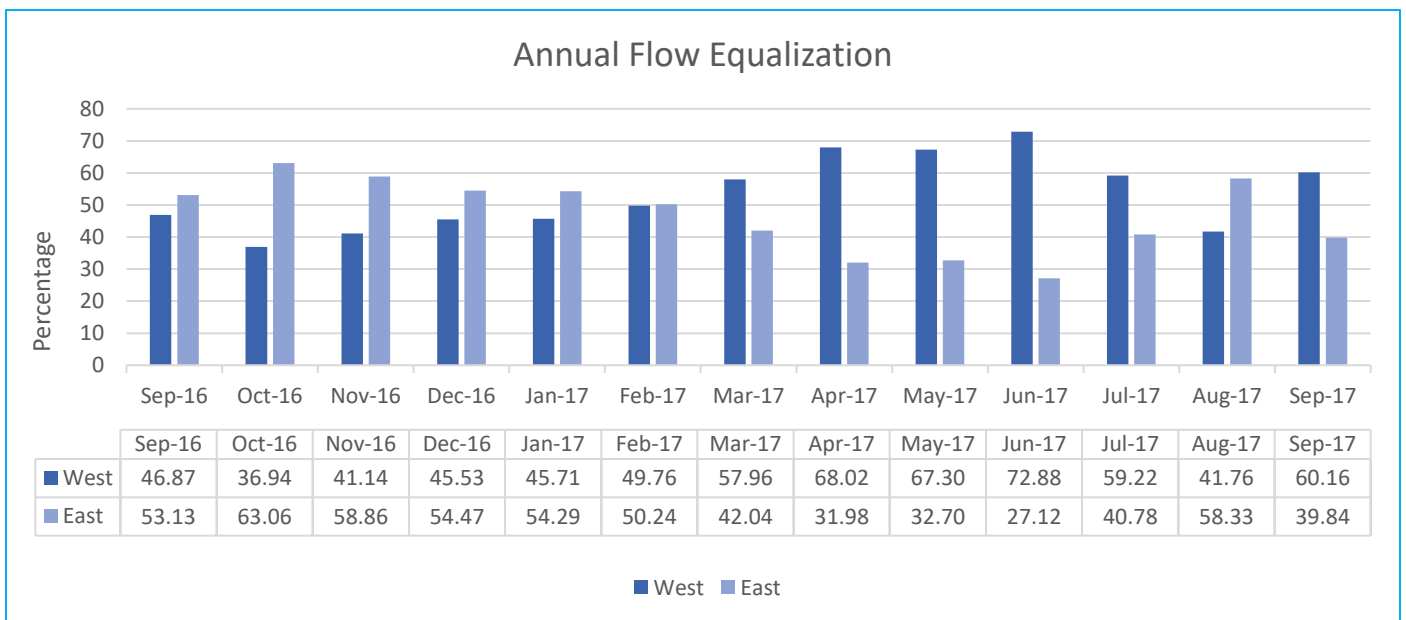
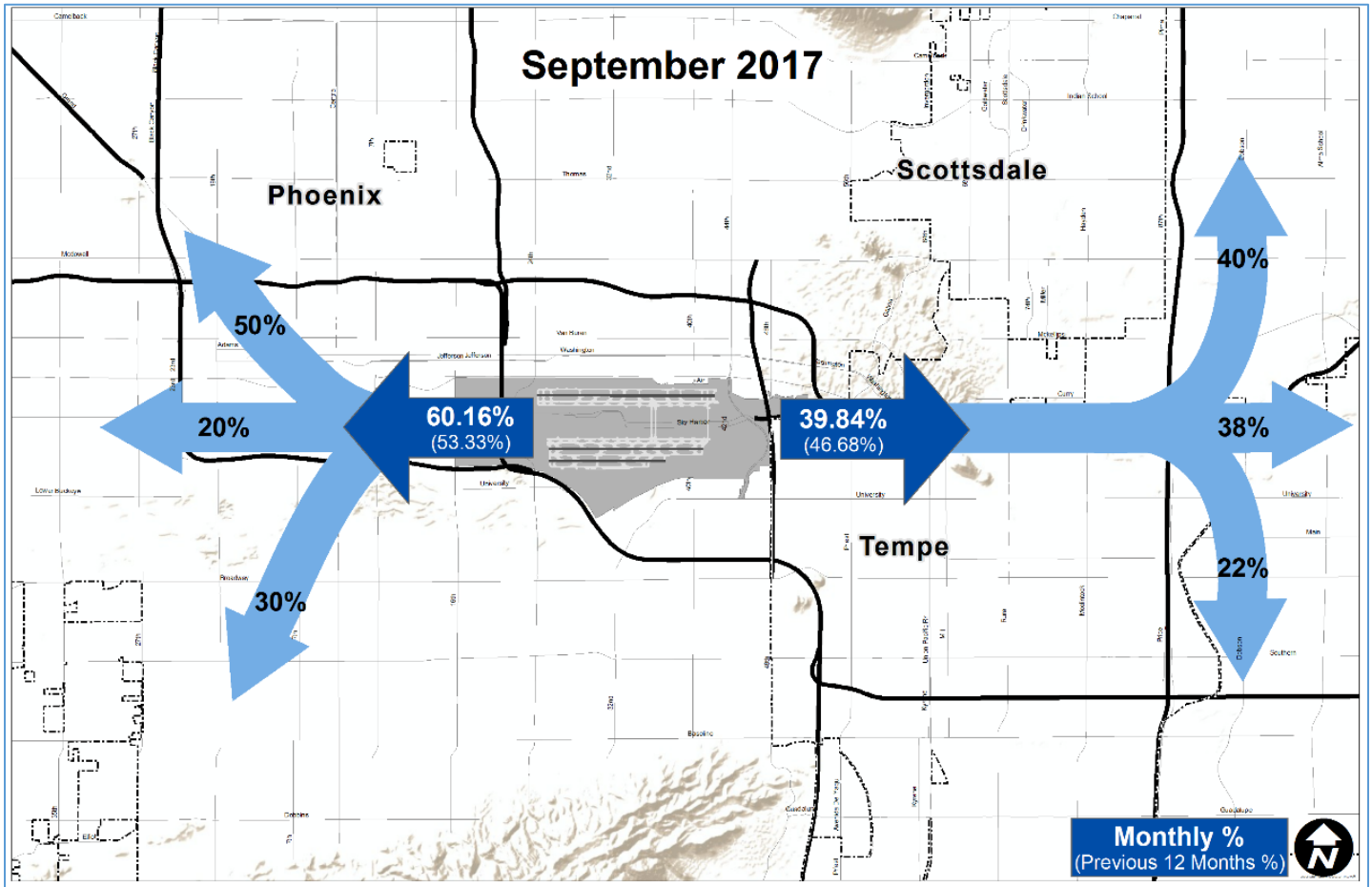


Operator	Dev.	Dep.	% Compliant
Southwest Airlines	4	1,777	99.77%
American Airlines	5	1,668	99.70%
Mesa Airlines	0	488	100.00%
SkyWest Airlines	1	312	99.68%
United Airlines	0	264	100.00%
Delta Airlines	0	234	100.00%
Non-Airlines	8	106	92.45%
Frontier Airlines	0	92	100.00%
FedEx	0	86	100.00%



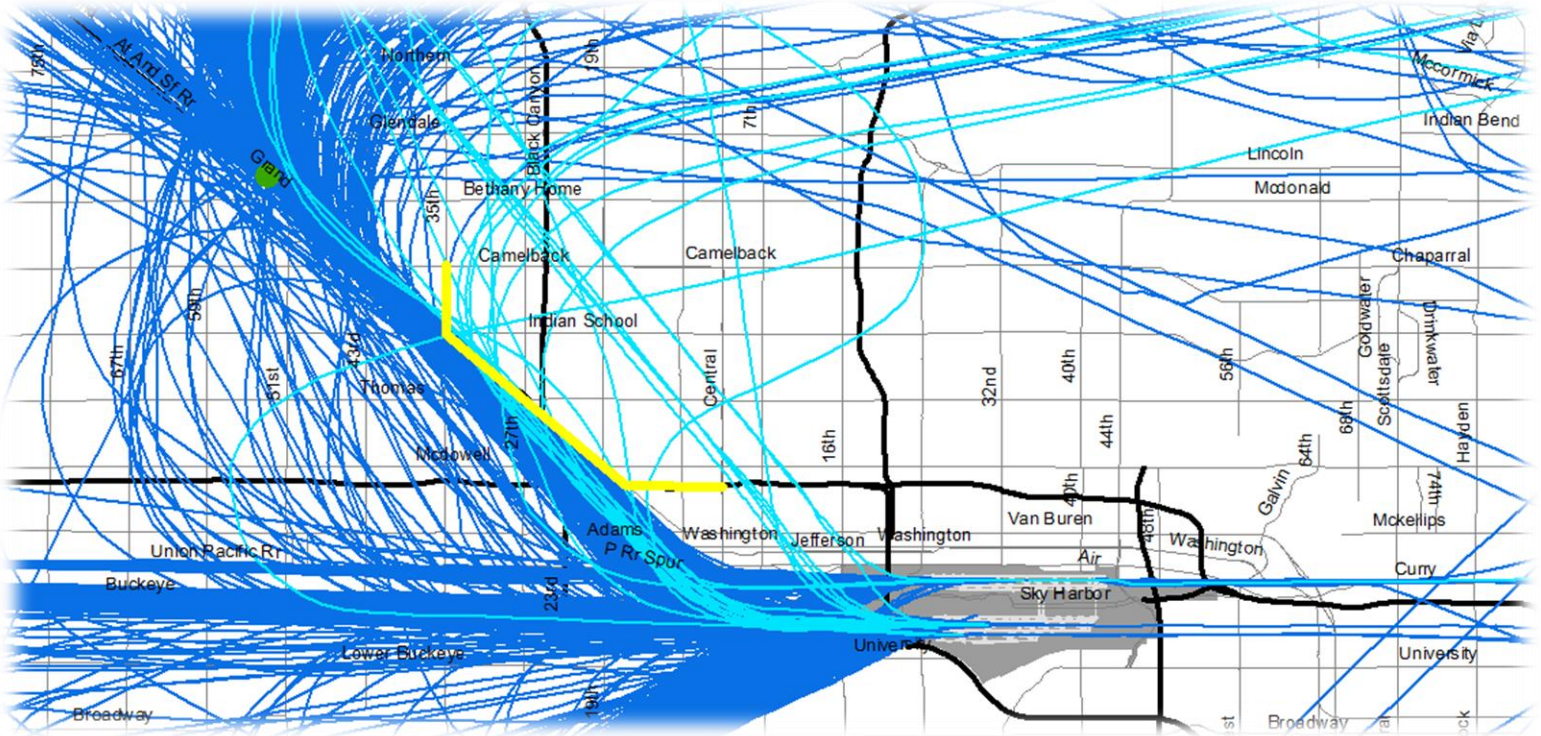
## Equalization

The equalization policy for departures ensures that averaged over a calendar year, departures are 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 the summer and to the east in the winter due to the prevailing winds during those seasons.



## Grand Ave “Gate”

Shortly after the FAA implemented area navigation (RNAV) procedures at PHX in 2014, a “gate” was established for northwest departures to reduce noise impact to Phoenix historic neighborhoods; the gate reduces the number of operations that “early turn” prior to Grand Avenue or “early turn” back over the community before reaching Camelback Road (as illustrated on the map below).



## Conclusion

Monitoring community noise impacts and advocating for continuous improvement through noise mitigation and abatement is a team effort; the Aviation Department relies on the valued feedback and time of community members in communicating ongoing concerns and new issues. The Aviation Department strives to facilitate compliance, awareness and positive change with regulators (FAA) and operators (airlines) so that our community may enjoy all of the benefits of a world-class Airport System with the absolute minimum of impacts to any household or place where the effect of aircraft operations is not beneficial. 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.

[skyharbor.com/FlightPaths](http://skyharbor.com/FlightPaths)

“24/7 Noise Hotline” 844-244-743

