

# Monthly Noise Report December 2017

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For additional information, please visit [skyharbor.com/FlightPaths](http://skyharbor.com/FlightPaths)

# Overview

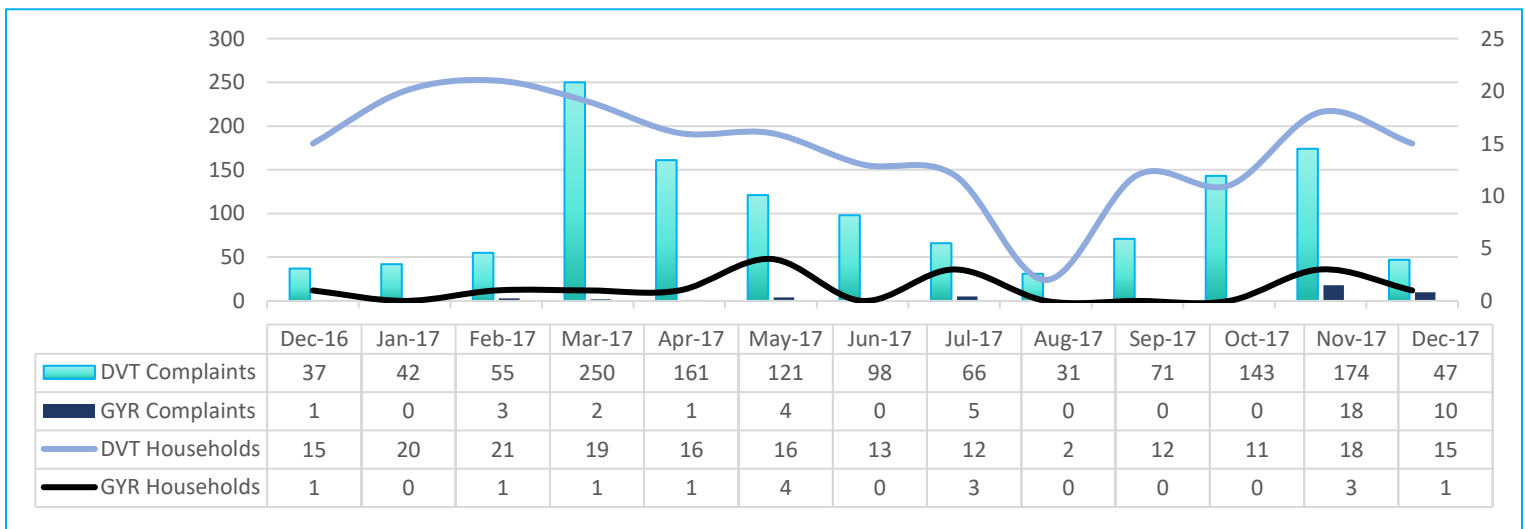
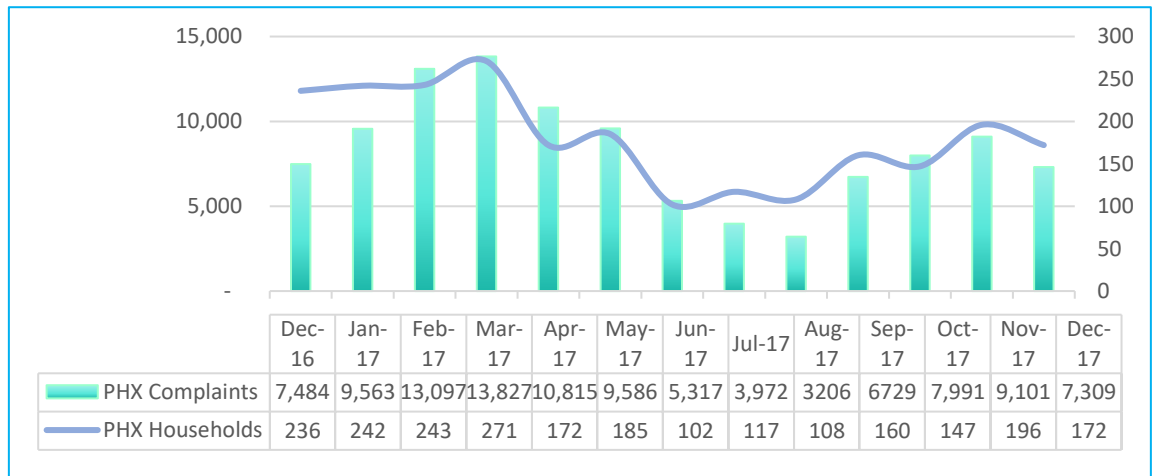
The City of Phoenix Aviation Department operates the Phoenix Airport System which consists of Phoenix Sky Harbor International Airport (PHX), Deer Valley (DVT) and Goodyear (GYR) Airports. The Department serves as the primary liaison between the community, Airlines and the Federal Aviation Administration (FAA) 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 2017

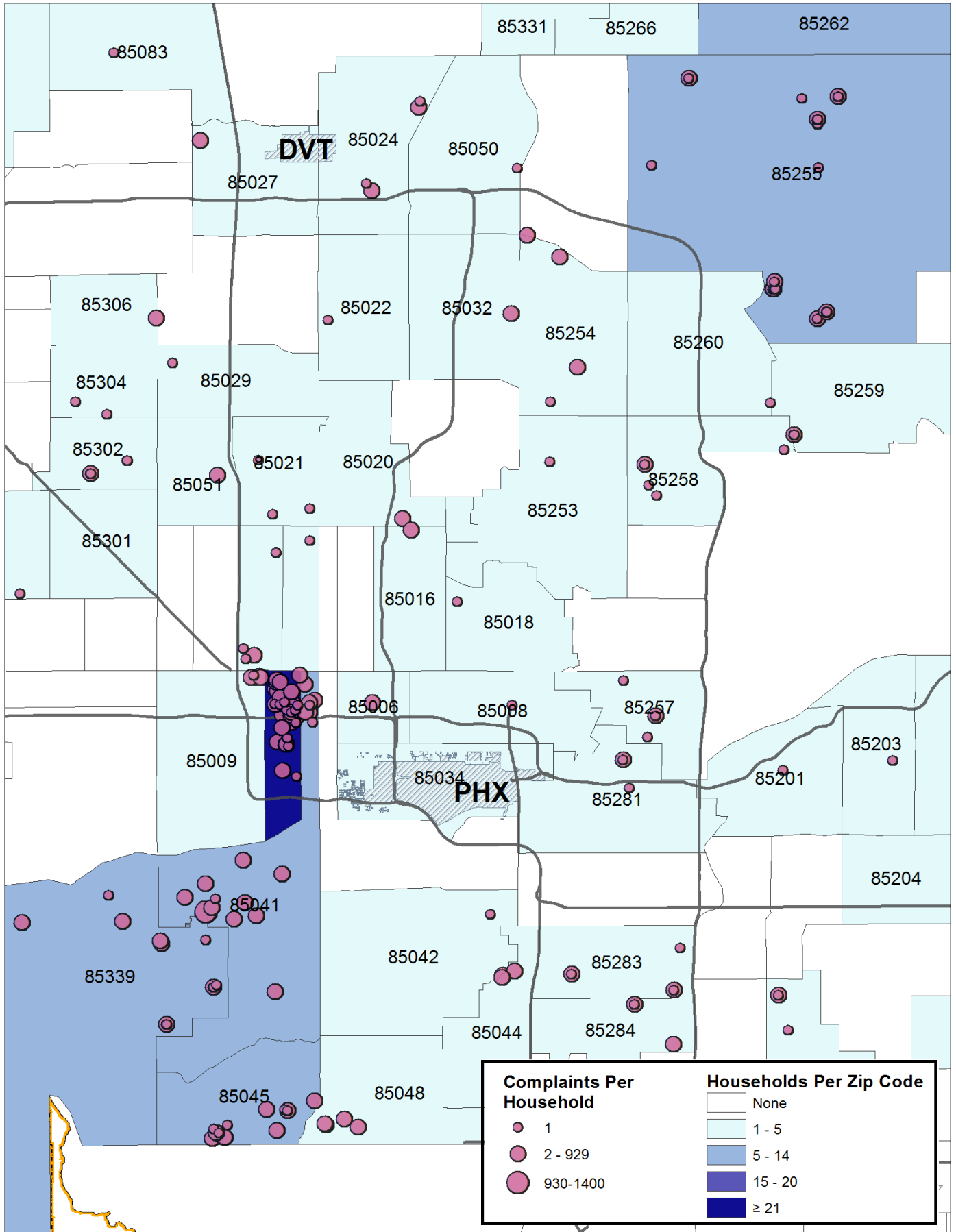
|  |   |  |
|--|---|--|
|  <ul style="list-style-type: none"> <li>■ PHX had 36,823 operations (5.9% more than last month)</li> <li>■ DVT had 29,885 operations (13.8% less than last month)</li> <li>■ GYR had 6,422 operations (29.4% less than last month)</li> </ul> |  <ul style="list-style-type: none"> <li>■ 188 households filed 7,366 complaints for PHX, DVT and GYR Airports</li> <li>■ Staff received and responded to 170 requests for follow-up</li> </ul> |  <ul style="list-style-type: none"> <li>■ “4-DME” compliance rate was 99.51% (PHX)</li> <li>■ “Equalization” rate was 33.47% westerly and 66.53% easterly (PHX)</li> <li>■ “Early Turn” ops were 34 (PHX northwest departures)</li> </ul> |
|--|---|--|

## Noise Complaints

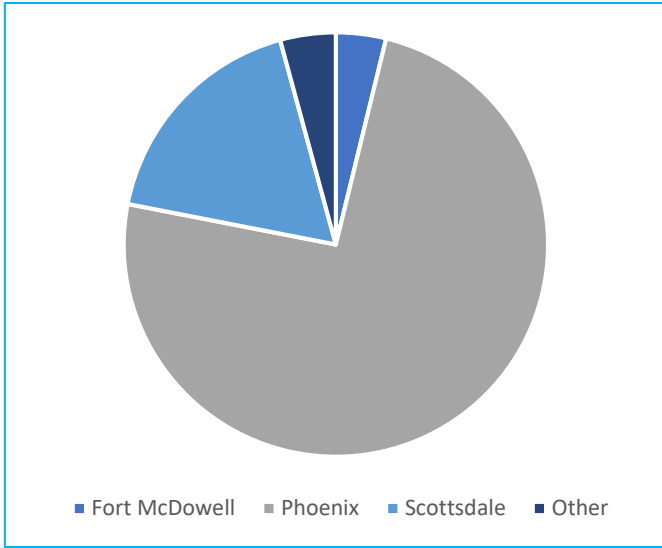
Many factors contribute to the number of complaints received each month and by how many people (households) including irregular operations, weather, seasonal demand changes, or new residents moving into an area impacted by aircraft operations.



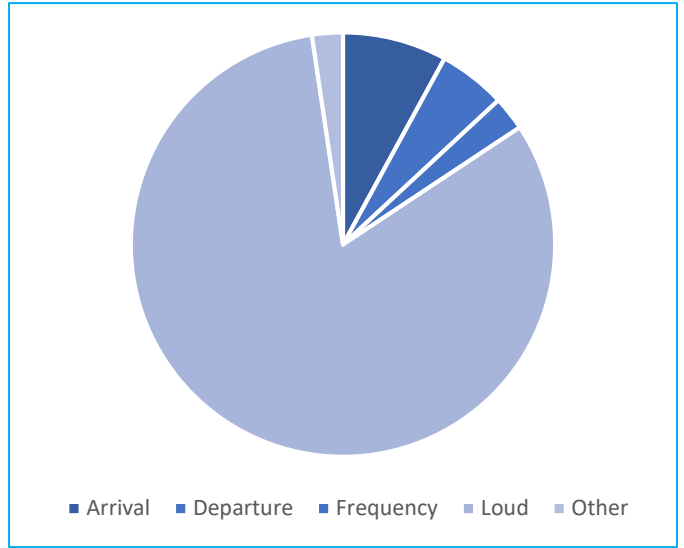
# December Complaints by Zip Code



Noise Complaints – By City

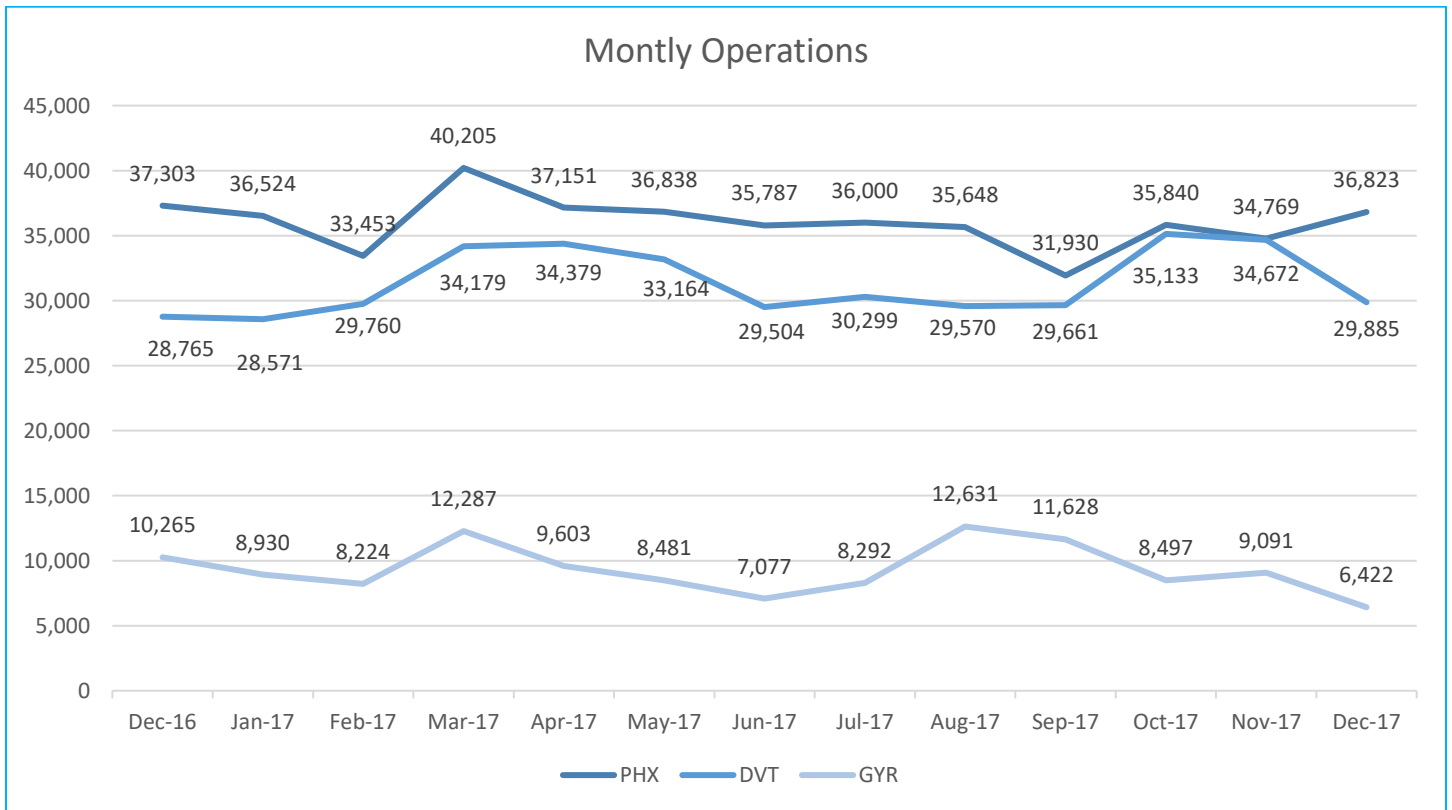


Noise Complaints – By Type



## Operations

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

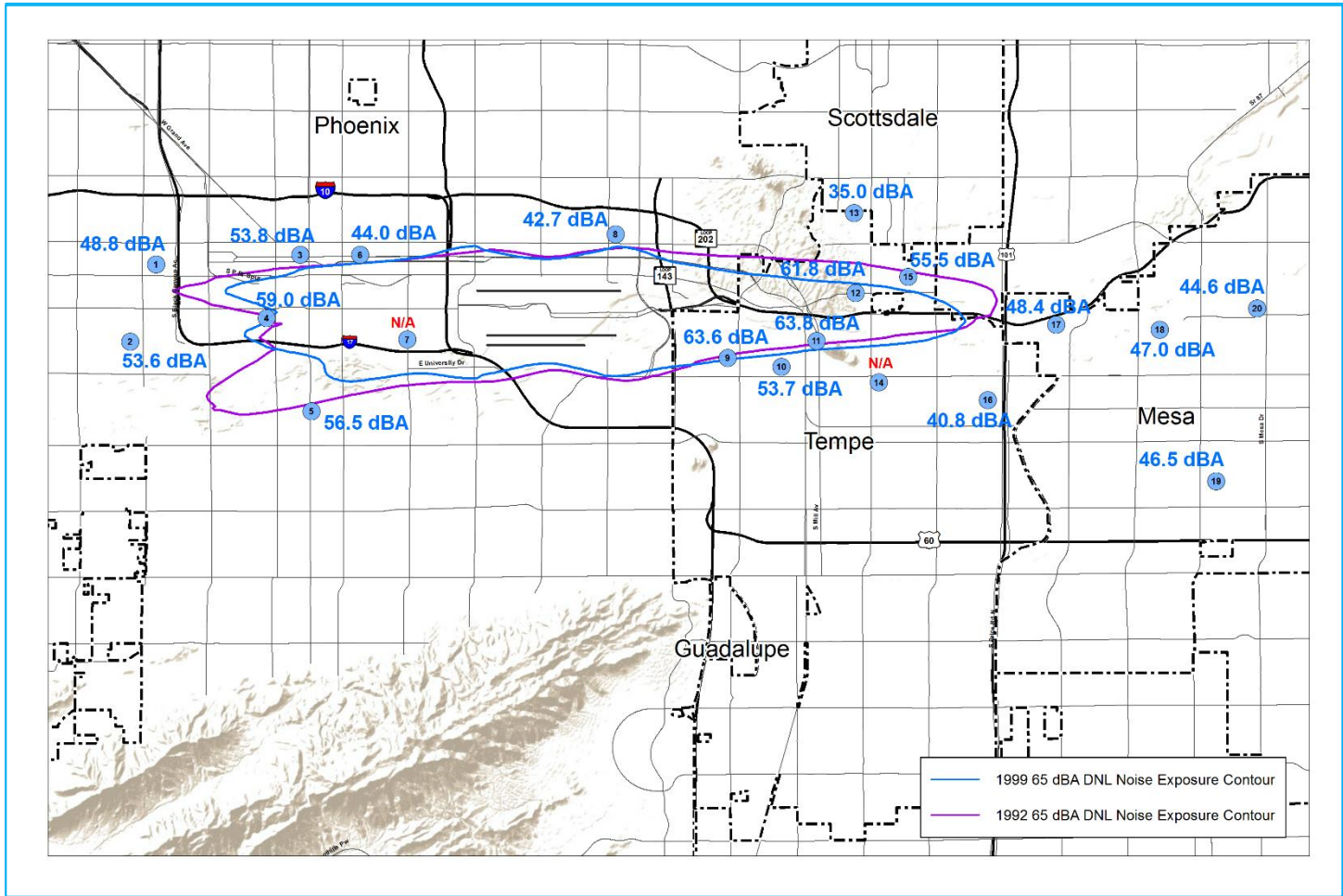


# Noise Monitoring Sites

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                 | 48.8 | -1.3                       | NMS11                 | 63.8 | 0.6                        |
| NMS02                 | 53.6 | 0.2                        | NMS12                 | 61.8 | 0.5                        |
| NMS03                 | 53.8 | 1.4                        | NMS13                 | 35   | 3.2                        |
| NMS04                 | 59   | 0.4                        | NMS14                 | NA   | N/A                        |
| NMS05                 | 56.5 | 0.8                        | NMS15                 | 55.5 | 1.7                        |
| NMS06                 | 44   | 1.4                        | NMS16                 | 40.8 | -0.2                       |
| NMS07                 | NA   | N/A                        | NMS17                 | 48.4 | 2.6                        |
| NMS08                 | 42.7 | -0.4                       | NMS18                 | 47   | 2.8                        |
| NMS09                 | 63.6 | 0.1                        | NMS19                 | 46.5 | 0.9                        |
| NMS10                 | 53.7 | 0.9                        | NMS20                 | 44.6 | 0.5                        |

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

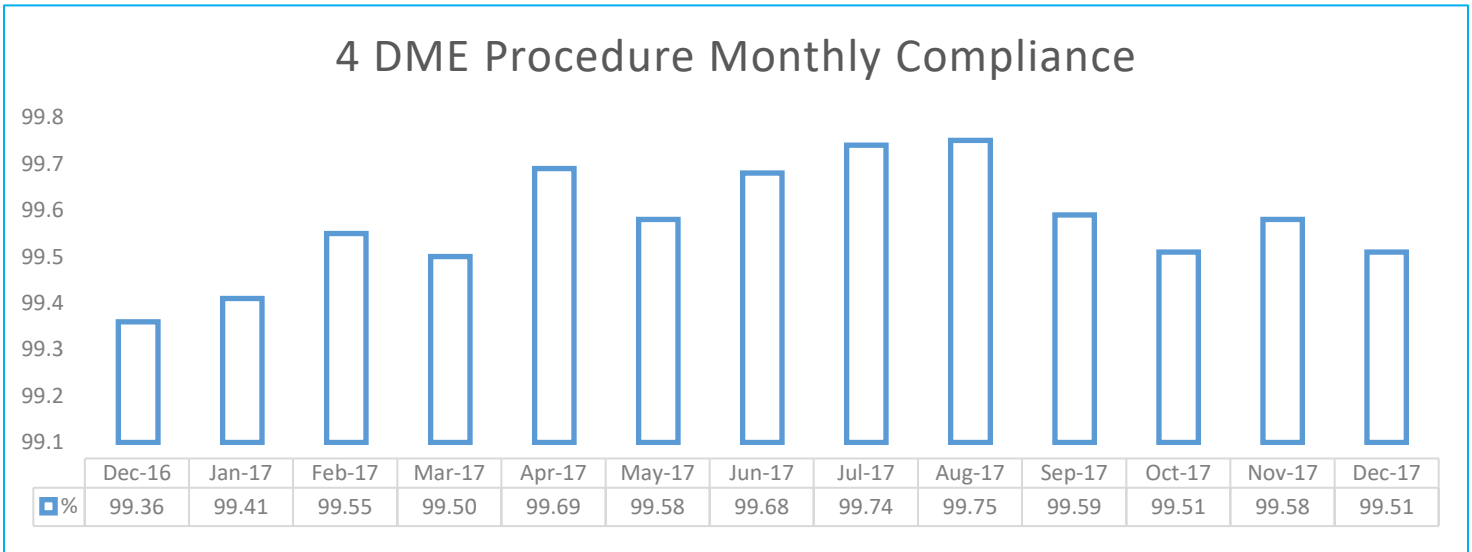


## Noise Mitigation Procedures

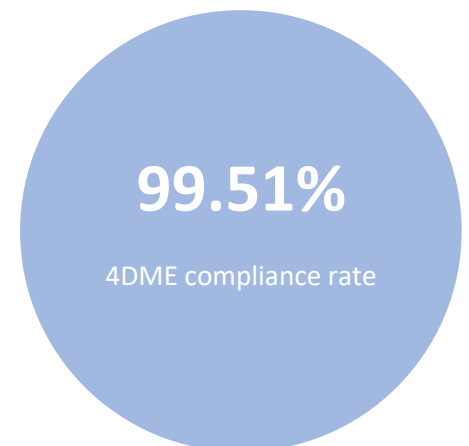
Working with the community, the FAA has implemented a variety of noise reduction measures. While some procedures may not be used at all times because of wind, weather, and other operational considerations; the Aviation Department encourages maximum use to the extent possible by monitoring and reporting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

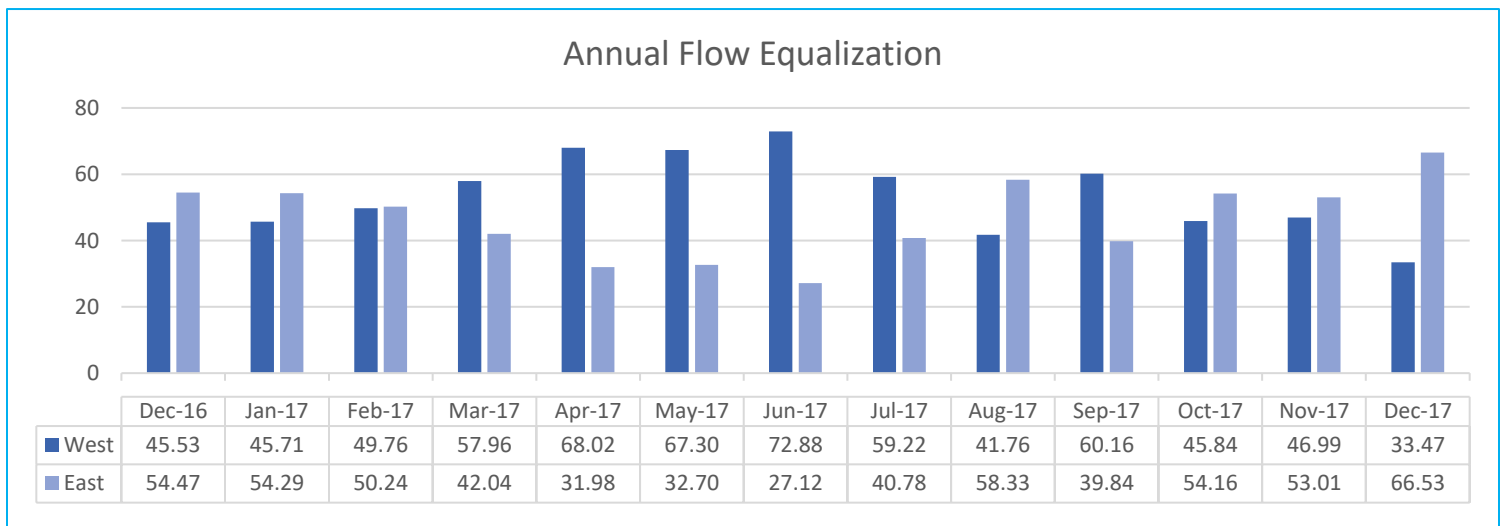
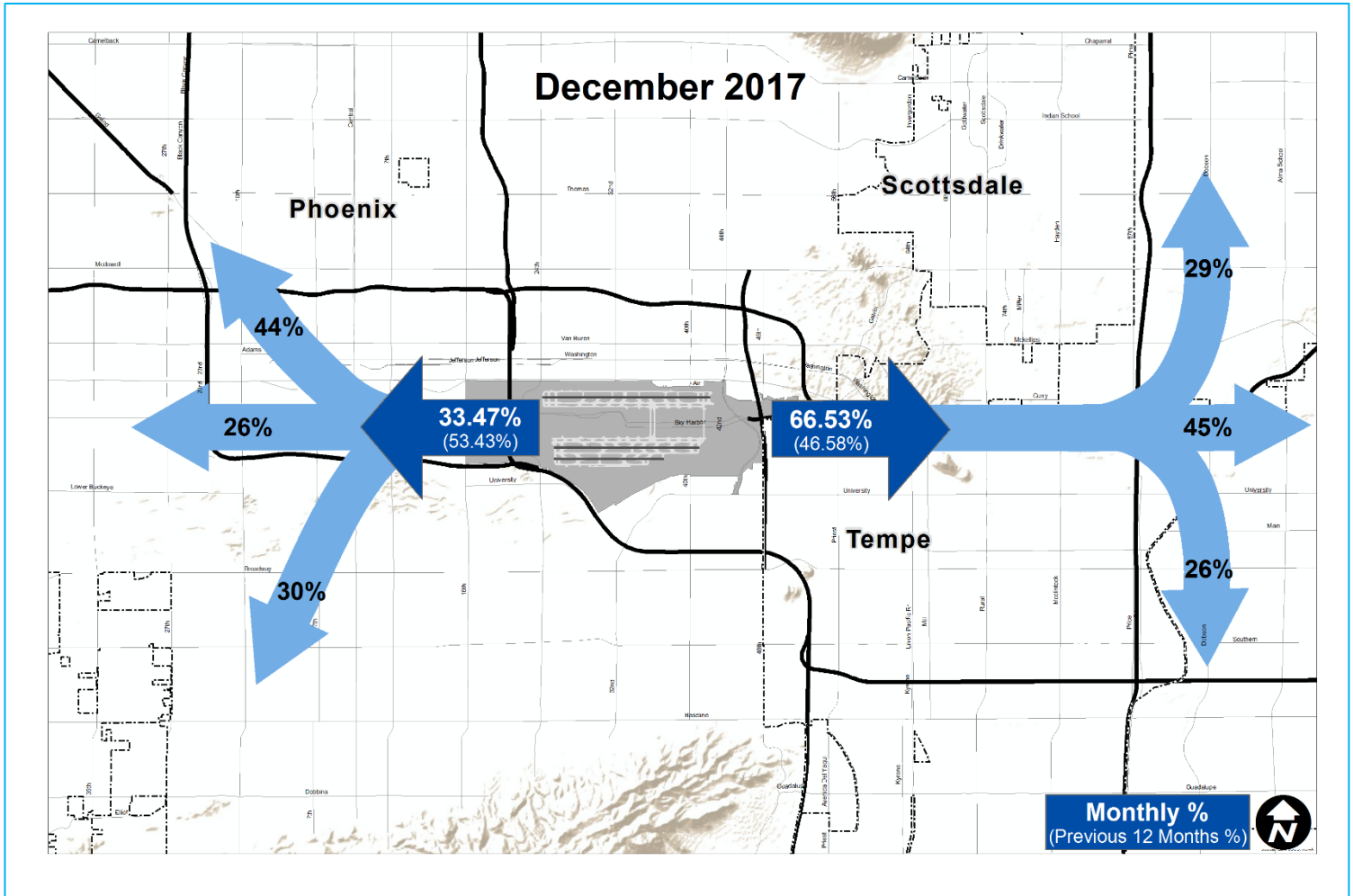


| Operator                  | Dev. | Dep.  | % Compliant |
|---------------------------|------|-------|-------------|
| American Airlines         | 7    | 3,410 | 99.79%      |
| Southwest Airlines        | 7    | 3,212 | 99.78%      |
| Mesa Airlines             | 1    | 999   | 99.90%      |
| SkyWest Airlines          | 2    | 585   | 99.66%      |
| United Airlines           | 4    | 507   | 99.21%      |
| Delta Airlines            | 1    | 440   | 92.77%      |
| UPS Airlines              | 4    | 191   | 97.91%      |
| Frontier Airlines         | 0    | 187   | 100.00%     |
| Non-Airline               | 17   | 184   | 90.76%      |
| WestJet Airlines          | 0    | 153   | 100.00%     |
| Alaska Airlines           | 1    | 147   | 99.32%      |
| FedEx Airlines            | 0    | 147   | 100.00%     |
| Air Trans. Intl. Airlines | 0    | 106   | 100.00%     |



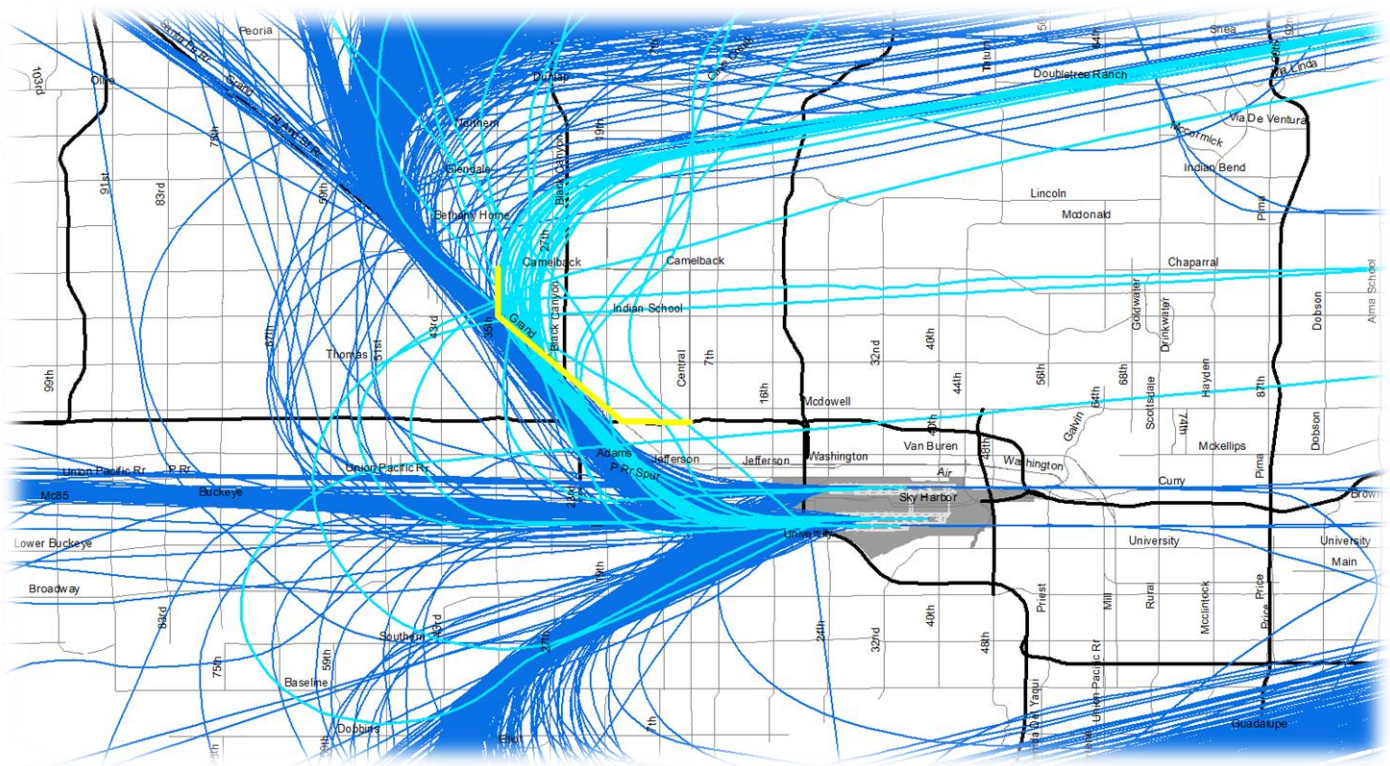
## Equalization

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 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

