# WHE WMF FEF <br> (4) City of Phoenix Aviation Department 

## Monthly Noise Report

## December 2015

## Contents

Page 2 - Introduction/Summary
Page 3 - Noise Complaints
Page 4 - Airport Operation Totals \& Noise Monitoring Sites
Page 5 - Fly Friendly Procedures
Page 7 - "Early Turns" Grand Avenue

## Introduction/Summary

The City of Phoenix Aviation Department Airspace and Noise Section collects aircraft noise monitoring and flight operations data to provide the community with up-to-date information concerning aircraft noise exposure. Additionally, staff receive and address noise concerns from residents through either the noise hotline (844-244-7430) or the electronic complaint form available on the Phoenix Sky Harbor International Airport (PHX) webpage: https://www.skyharbor.com/FlightPaths/FileAConcernContactUs

The following report provides a summary of the data collected for the preceding month. Each component of the report is intended to show observable trends in operation counts, flight direction, complaints, and adherence to noise abatement procedures.

## Summary:

-The Airspace and Noise Section received 1,969 complaints from 165 households in November 2015.
-PHX had 38,152 operations in December 2015. This is a 6.8\% increase from November 2015. Phoenix Deer Valley Airport (DVT) had 29,480 operations in December 2015. This is a 6.3\% decrease from November 2015. Phoenix Goodyear Airport (GYR) had 9,351 operations in December 2015. This is a 8.0\% increase from November 2015.
-The 4 DME Compliance Rate for December 2015 was 99.11\%.
-PHX operated 49.00\% westerly and 51.00\% easterly in the month of December 2015.

## December 2015 Noise Complaints

Complaints: Many factors contribute to the amount of complaints received each month and by how many people. Complaint totals are rarely consistent due to factors ranging from one unusual flight event that generates multiple complaints from a large group of people, a bad weather day or change in the weather, or a new homeowner that did not notice the flight paths before they purchased their home.

Complaint Statistics

|  | Dec-14 |  | Dec-15 |  |  |
| :---: | :---: | :---: | :--- | :---: | :---: |
|  | Households | Complaints |  |  | Households |
|  | PHX- Sky Harbor | 291 | 1,307 |  | 152 |
| DVT- Deer Valley | 3 | 8 |  | 12 | 606 |
| GYR- Goodyear | 0 | 0 |  | 1 | 60 |
| Totals | 294 | 1,315 |  | 165 | 1,969 |




## Airport Operations

Aircraft operations generally fluctuate due to seasonal and passenger demand. The graphic below depicts operation totals at Phoenix Sky Harbor International Airport (PHX), Phoenix Deer Valley Airport (DVT) and Phoenix Goodyear Airport (GYR). Examples of peak travel times are spring break, major sporting events, the end of the school year and winter holidays.


## Noise Monitoring Sites

Noise Monitors: PHX has 20 noise monitors in the communities surrounding the Airport. These are located underneath the arrival and departure paths and in areas close to the Airport's noise contours. The monitors record aircraft noise events on a continual basis which then are compared with actual flight data from the FAA. Staff can then tie noise complaints to aircraft operations and any noise events correlated with those flights. Staff also monitors changes in monthly and annual noise readings at each location.


Note: Noise Monitoring Sites with an "N/A" did not provide usable data for the preceding month due to maintenance or operational testing, or non-aircraft noise events around the site.

## Fly Friendly Procedures

4 DME: The 4 DME (Distance Measuring Equipment) departure procedure directs jet aircraft departing to the east to travel generally along the Salt River for approximately 5 miles from the airport before turning. In the event that an aircraft deviates from the 4 DME departure procedure, Airspace and Noise Section staff will contact the carrier to determine the reason for the deviation and encourage future compliance.


December 20154 DME compliance rate: 99.11\%

| December 20154 DME Deviations |  |  |  |
| :---: | :---: | :---: | :---: |
| Operators with 75 or more jet flights to the east shown |  |  |  |
| Airline Name | Deviations | Total <br> Departures <br> to the East | $\%$ <br> Compliance |
| American Airlines | 11 | 2,853 | 99.61 |
| Southwest Airlines | 22 | 2,459 | 99.11 |
| Mesa Airlines | 1 | 852 | 99.88 |
| SkyWest Airlines | 4 | 665 | 99.40 |
| Delta Airlines | 1 | 407 | 99.75 |
| United Airlines | 0 | 319 | 100.00 |
| FedEx Airlines | 1 | 178 | 99.44 |
| General Aviation | 18 | 155 | 88.39 |
| UPs Airlines | 1 | 129 | 99.22 |
| Alaska Airlines | 0 | 116 | 100.00 |



## Fly Friendly Procedures Continued

Equalization: Phoenix Sky Harbor International Airport has a goal to equalize the amount of aircraft departures between the east and west over an annualized period. Because aircraft need to fly into the wind for added lift, there are times when weather can cause longer periods of flow in one direction versus the other.



## "Early Turns" - Grand Avenue Month of December 2015

While a formal turning "gate" does not exist for RNAV northwest departures, the City has informally established a gate for monitoring purposes; generally depicted by the yellow line on the map below. Staff monitors the amount of jet aircraft that turn back to due north or east before going past the informal gate and publishes that data so that the community has a sense of aircraft flight paths that deviate from the RNAV corridor; which is consistent with the November 14, 2014 FAA instruction to PHX air traffic controllers to not issue early turns to aircraft unless doing so for safety purposes. Staff continues to work with the FAA on defining Northwest route "early turn" criteria so it is representative of FAA and reflective of community issues.


| "Early Turns" - Grand Avenue 2015 |  |
| :---: | :---: |
| Counts derived from subjective analysis and subject to change |  |
| Month | Counts |
| January | 71 |
| February | 40 |
| March | 69 |
| April | 71 |
| May | 154 |
| June | 85 |
| July | 115 |
| August | 45 |
| September | 65 |
| October | 84 |
| November | 40 |
| December | 45 |
| Year To Date | 884 |

# "Early Turns" - Grand Avenue Month of December 2015 Continued December 1-15 "Early Turns" FAA Info Table 

| \# | Operation Time | Type | Flight | $\begin{aligned} & \text { AC } \\ & \text { Type } \end{aligned}$ | RWY | Destination | FAA Info. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{gathered} \text { 2015-12-14 } \\ 12: 12: 13 \end{gathered}$ | Commercial | AAL1803 | A321 | 25R | PHL | On route as filed until TWSND |
| 2 | $\begin{gathered} \text { 2015-12-11 } \\ \text { 10:53:19 } \end{gathered}$ | Commercial | EJA268 | F2TH | 25L | OGD | FAA turned the aircraft |
| 3 | $\begin{gathered} 2015-12-14 \\ 16: 40: 32 \end{gathered}$ | Privately Registered | N21NV | LJ60 | 25L | LAS | On route as filed until TWSND |
| 4 | $\begin{gathered} \text { 2015-12-15 } \\ 15: 51: 02 \end{gathered}$ | Privately Registered | N773HA | C650 | 25L | BJC | On route as filed until TWSND |
| 5 | $\begin{gathered} \text { 2015-12-12 } \\ 14: 23: 24 \end{gathered}$ | Commercial | SKW4494 | CRJ9 | 25R | SLC | Pilot requested vectors to avoid weather |
| 6 | $\begin{gathered} \text { 2015-12-02 } \\ \text { 19:21:14 } \end{gathered}$ | Commercial | SWA1593 | B737 | 25R | MDW | On route as filed until TWSND |
| 7 | $\begin{gathered} \text { 2015-12-11 } \\ \text { 18:25:57 } \end{gathered}$ | Commercial | SWA1695 | B737 | 25R | SLC | FAA turned the aircraft for traffic |
| 8 | $\begin{gathered} 2015-12-14 \\ 20: 43: 22 \end{gathered}$ | Commercial | SWA2484 | B733 | 25R | MKE | On route as filed until TWSND |
| 9 | $\begin{gathered} \text { 2015-12-01 } \\ \text { 19:43:22 } \end{gathered}$ | Commercial | SWA2694 | B737 | 25R | ABQ | On route as filed until TWSND |
| 10 | $\begin{gathered} \text { 2015-12-02 } \\ 20: 19: 24 \end{gathered}$ | Commercial | SWA287 | B737 | 25R | MSP | On route as filed until TWSND |
| 11 | $\begin{gathered} \text { 2015-12-07 } \\ 22: 48: 52 \end{gathered}$ | Commercial | SWA3206 | B733 | 25R | ABQ | On route as filed until TWSND |
| 12 | $\begin{gathered} \text { 2015-12-15 } \\ 23: 26: 28 \end{gathered}$ | Commercial | SWA3206 | B737 | 25R | ABQ | FAA turned the aircraft |
| 13 | $\begin{gathered} \text { 2015-12-02 } \\ 19: 31: 13 \end{gathered}$ | Commercial | SWA438 | B737 | 25R | CMH | On route as filed until TWSND |
| 14 | $\begin{gathered} 2015-12-07 \\ 19: 16: 04 \end{gathered}$ | Commercial | SWA438 | B737 | 25R | CMH | On route as filed until TWSND |
| 15 | $\begin{gathered} \text { 2015-12-09 } \\ \text { 19:15:24 } \end{gathered}$ | Commercial | SWA438 | B737 | 25R | CMH | On route as filed until TWSND |
| 16 | $\begin{gathered} 2015-12-14 \\ 20: 50: 29 \end{gathered}$ | Commercial | UPS857 | MD11 | 25R | SDF | On route as filed until TWSND |

# "Early Turns" - Grand Avenue Month of December 2015 Continued December 16-30 "Early Turns" FAA Info Table 

| \# | Operation Time | Type | ACID | AC Type | RWY | Destination | FAA Info. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{gathered} 2016-01-01 \\ 00: 21: 16 \end{gathered}$ | Commercial | AAL2020 | A321 | 26 | CLT | No Early Turn Given |
| 2 | $\begin{gathered} \text { 2015-12-31 } \\ 01: 12: 09 \end{gathered}$ | Commercial | AAL2092 | A319 | 25R | IND | No Early Turn Given |
| 3 | $\begin{gathered} \text { 2015-12-20 } \\ 01: 43: 41 \end{gathered}$ | Commercial | AAL415 | A321 | 25R | ORD | No Early Turn Given |
| 4 | $\begin{gathered} \text { 2015-12-26 } \\ 01: 40: 30 \end{gathered}$ | Commercial | AAL415 | A321 | 26 | ORD | No Early Turn Given |
| 5 | $\begin{gathered} 2015-12-30 \\ 01: 56: 49 \end{gathered}$ | Commercial | AAL415 | A321 | 25R | ORD | No Early Turn Given |
| 6 | $\begin{gathered} 2015-12-26 \\ 00: 39: 38 \end{gathered}$ | Commercial | AAL420 | A319 | 25R | CLE | No Early Turn Given |
| 7 | $\begin{gathered} 2016-01-01 \\ 00: 35: 32 \end{gathered}$ | Commercial | AAL420 | A319 | 26 | CLE | No Early Turn Given |
| 8 | $\begin{gathered} \text { 2015-12-30 } \\ 02: 07: 50 \end{gathered}$ | Commercial | AAL453 | A321 | 25R | BWI | No Early Turn Given |
| 9 | $\begin{gathered} \text { 2015-12-30 } \\ 01: 12: 17 \end{gathered}$ | Commercial | AAL466 | A319 | 25R | DTW | No Early Turn Given |
| 10 | $\begin{gathered} \text { 2015-12-17 } \\ \text { 16:08:06 } \end{gathered}$ | Commercial | AAL498 | A320 | 25R | DCA | No Early Turn Given |
| 11 | $\begin{gathered} \text { 2015-12-20 } \\ \text { 23:49:58 } \end{gathered}$ | Commercial | AAL581 | A319 | 25R | RNO | Flew Directly Over TWNSD |
| 12 | $\begin{gathered} \text { 2015-12-30 } \\ 01: 15: 00 \end{gathered}$ | Commercial | AAL626 | A320 | 25R | BOS | No Early Turn Given |
| 13 | $\begin{gathered} 2015-12-17 \\ 16: 25: 03 \end{gathered}$ | Commercial | ASH5592 | CRJ9 | 25R | ABQ | No Early Turn Given |
| 14 | $\begin{gathered} 2015-12-17 \\ 15: 31: 39 \end{gathered}$ | Commercial | ASH5600 | CRJ2 | 25R | DRO | Classic Departures |
| 15 | $\begin{gathered} \text { 2015-12-31 } \\ 01: 02: 56 \end{gathered}$ | Commercial | ASH5850 | CRJ9 | 25R | ABQ | No Early Turn Given |

# "Early Turns" - Grand Avenue Month of December 2015 Continued December 16-30 "Early Turns" FAA Info Table 

| 16 | $\begin{gathered} 2015-12-20 \\ 01: 53: 03 \end{gathered}$ | Commercial | DAL1272 | MD90 | 26 | MSP | No Early Turn Given |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | $\begin{gathered} \text { 2015-12-26 } \\ 00: 01: 21 \end{gathered}$ | Commercial | DAL2224 | B738 | 26 | DTW | No Early Turn Given |
| 18 | $\begin{gathered} \text { 2015-12-20 } \\ 00: 16: 36 \end{gathered}$ | Commercial | JBU136 | A320 | 25R | JFK | No Early Turn Given |
| 19 | $\begin{gathered} \text { 2015-12-26 } \\ 00: 28: 42 \end{gathered}$ | Commercial | JBU136 | A320 | 26 | JFK | No Early Turn Given |
| 20 | $\begin{gathered} \text { 2015-12-20 } \\ \text { 12:33:51 } \end{gathered}$ | Privatly Registered | N560DW | C56X | 25L | UNK | Classic Departures |
| 21 | $\begin{gathered} \text { 2015-12-25 } \\ \text { 18:59:17 } \end{gathered}$ | Commercial | SCM75 | C550 | 25L | BUR | Flew Directly Over TWNSD |
| 22 | $\begin{gathered} \text { 2015-12-31 } \\ \text { 16:23:39 } \end{gathered}$ | Commercial | SKW2960 | CRJ2 | 26 | FLG | Flew Directly Over TWNSD |
| 23 | $\begin{gathered} \text { 2015-12-16 } \\ 21: 09: 27 \end{gathered}$ | Commercial | SKW2974 | CRJ2 | 26 | MRY | Flew Directly Over TWNSD |
| 24 | $\begin{gathered} \text { 2015-12-21 } \\ 20: 47: 48 \end{gathered}$ | Commercial | SWA1593 | B737 | 25R | MDW | No Early Turn Given |
| 25 | $\begin{gathered} \text { 2015-12-21 } \\ \text { 20:50:36 } \end{gathered}$ | Commercial | SWA287 | B737 | 25R | MSP | No Early Turn Given |
| 26 | $\begin{gathered} 2015-12-24 \\ 19: 32: 39 \end{gathered}$ | Commercial | SWA3083 | B737 | 25R | OMA | Early Turn |
| 27 | $\begin{gathered} \text { 2015-12-30 } \\ 01: 23: 24 \end{gathered}$ | Commercial | SWA3206 | B737 | 25R | ABQ | No Early Turn Given |
| 28 | $\begin{gathered} \text { 2015-12-31 } \\ 23: 28: 50 \end{gathered}$ | Commercial | UPS803 | B763 | 25L | SDF | Early Turn |
| 29 | $\begin{gathered} \text { 2015-12-21 } \\ 21: 51: 30 \end{gathered}$ | Commercial | UPS804 | B752 | 25L | RFD | No Early Turn Given |

