

**CITY OF PHOENIX
AVIATION DEPARTMENT**

**2018 ANNUAL
NOISE REPORT**

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This report summarizes annual trends on issues regarding noise exposure from the City of Phoenix’s three airports, Phoenix Sky Harbor International (PHX), Phoenix Deer Valley (DVT), and Phoenix Goodyear (GYR) for calendar year 2018. The report includes information on operational counts, aircraft fleet mix, noise complaints, runway usage, noise abatement procedures, noise monitoring, and general aviation activity.



YEAR AT A GLANCE

FAA Community Workshops

Three community workshops took place in February attended by over 400 people resulting in approximately 1,100 comments.

Step 1 Implementation

Step 1 implementation, returning initial west flow departures back to the pre-Sep. 18, 2014 locations were implemented in steps, 1A -March and 1B - May.

Harris Contract Renewal

The Noise and Operations Management System (NOMS) contract with the Harris Corporation was renewed in August after a competitive RFP process. The 5-year contract includes replacement of all Noise Monitoring Terminals.

FAA Reauthorization

The FAA Reauthorization bill was signed in October. The bill authorized funding for FAA programs and services through FY 2023 and included almost 20 noise provisions.



53,280

Total Noise Complaints



683

Total Households



434,252

PHX Total Operations



99.65%

4DME Compliance

CITY OF PHOENIX VS. FAA



HISTORY

On September 18, 2014, the FAA implemented changes in flight paths to and from Phoenix Sky Harbor International Airport as part of its effort to streamline departures and arrivals increase safety and efficiency using NextGen satellite-based navigation.

Many communities across the country, including Phoenix, have been greatly affected by the flight path changes associated with NextGen implementation. The new routes condensed and lowered flight corridors over thousands of homes, historic districts, natural preserves and parks. Since FAA NextGen implementation in Phoenix, 264,300 comments from 2,289 household have been filed with the City of Phoenix Aviation Department.

On June 1, 2015, the City of Phoenix filed a lawsuit against the FAA over flight path changes. Oral arguments were heard in the U.S. Court of Appeals on March 17, 2017.

On August 29, 2017, the U.S. Court of Appeals ruled in favor of the City of Phoenix and historic neighborhoods' lawsuit against the FAA over flight path changes. This ruling enabled the development of a joint petition between all parties guiding the safe and efficient change of west flow departures with opportunities for the community to give input on other airspace changes they desire.

STEP 1

Public Engagement

In early February 2018 the FAA, in coordination with the City of Phoenix, held three public workshops to implement the first step of the joint petition. The workshops were attended by over 400 people. Also in February, a 16-day comment period was held. The workshops and comment period resulted in approximately 1,100 comments of which 845 were related to the proposed step 1. The FAA released a response to each comment category in late May. To see responses and read further information about the community involvement process, visit: https://www.faa.gov/nextgen/nextgen_near_you/community_involvement/phx/.

Route Changes

Once input received from the community was evaluated by FAA, Step 1 was finalized in two phases, to return the initial west flow departures back to their approximate pre-Sep. 18, 2014 locations, with the FAA's implementation of Step 1A (March 29, 2018) and Step 1B (May 24, 2018).

The first phase, Step 1A, reverted the initial west flow departures with destinations to the north/northeast and west back to their historical location(s).

The second phase, Step 1B, placed the initial west flow departures with destinations towards the south and south/east, back to their historical locations.

The two phases of Step 1 were required to allow for an extended comment period for the Tribal communities in the area of the west flow departures that initially head south, while maintaining the schedule and commitment to the community to find relief as soon as possible in the most impacted areas.



STAFF ANALYSIS

Continued analysis of flight track, community complaints and other associated data has found that Step 1 changes have worked, significantly reducing noise and aircraft overflight impact to areas where overflight from Phoenix had not occurred prior to Sep. 2014.

Although the overall changes have had significant noise and overflight reduction in those impacted areas, staff have continued to receive limited aircraft noise complaints from the Historic Neighborhoods northwest of PHX, along Grand Ave., regarding Missed Approach/ Go-Around (MA/GA) procedures and other infrequent abnormal operations. Staff continues to work with community members to understand the current and future impacts of these changes. Staff have also received numerous comments from households in the Laveen area (51st Ave & Baseline) who moved into their homes between Sep. 18, 2014 and March/May 2018 and were not aware of the lawsuit to return the initial west flow departure routes from PHX back to where they had been for decades prior, and those homeowners who lived in this area prior to Sep. 2014; however, did not recall the aircraft overflight/noise in its 4+ year absence while FAA utilized the changes they made in Sep. 2014.

Staff continues to study flight track data for all Step 1 changes and report findings in the monthly noise reports, which include an analysis of compliance with the informal “43rd Ave gate,” which aircraft departing PHX to the west must pass prior to turning north, south or continuing west, to ensure they are operating in the same areas as they had historically. One known change/impact of the FAA’s new Area Navigation (RNAV) routes is a condensing of flight paths over more finite areas, rather than the previous dispersed tracks over a broader area of land. This is due to the difference in updated technology, utilizing a more sophisticated satellite GPS system, rather than an aged ground based radar system, which required further separation of aircraft due to its less accurate information.

Check out the
monthly noise
reports!

<https://www.skyharbor.com/FlightPaths/UpdatesReports>

Updates/Reports



Noise Reports

The Airport collects aircraft noise monitoring and flight operations data to provide the community with up-to-date information concerning aircraft noise. Following reports provide a summary of the data collected each month, and includes observable trends in operation counts, flight direction, complaints, and noise abatement procedures.

JOINT PETITION “STEP 2”

On Dec. 21, 2018 the FAA announced dates and locations for the Step 2 workshops in accordance with the agreement the agency entered into with the City of Phoenix and certain historic neighborhood associations. Unfortunately, due to the federal government shutdown the workshops were postponed to later in the Spring of 2019 (likely April).

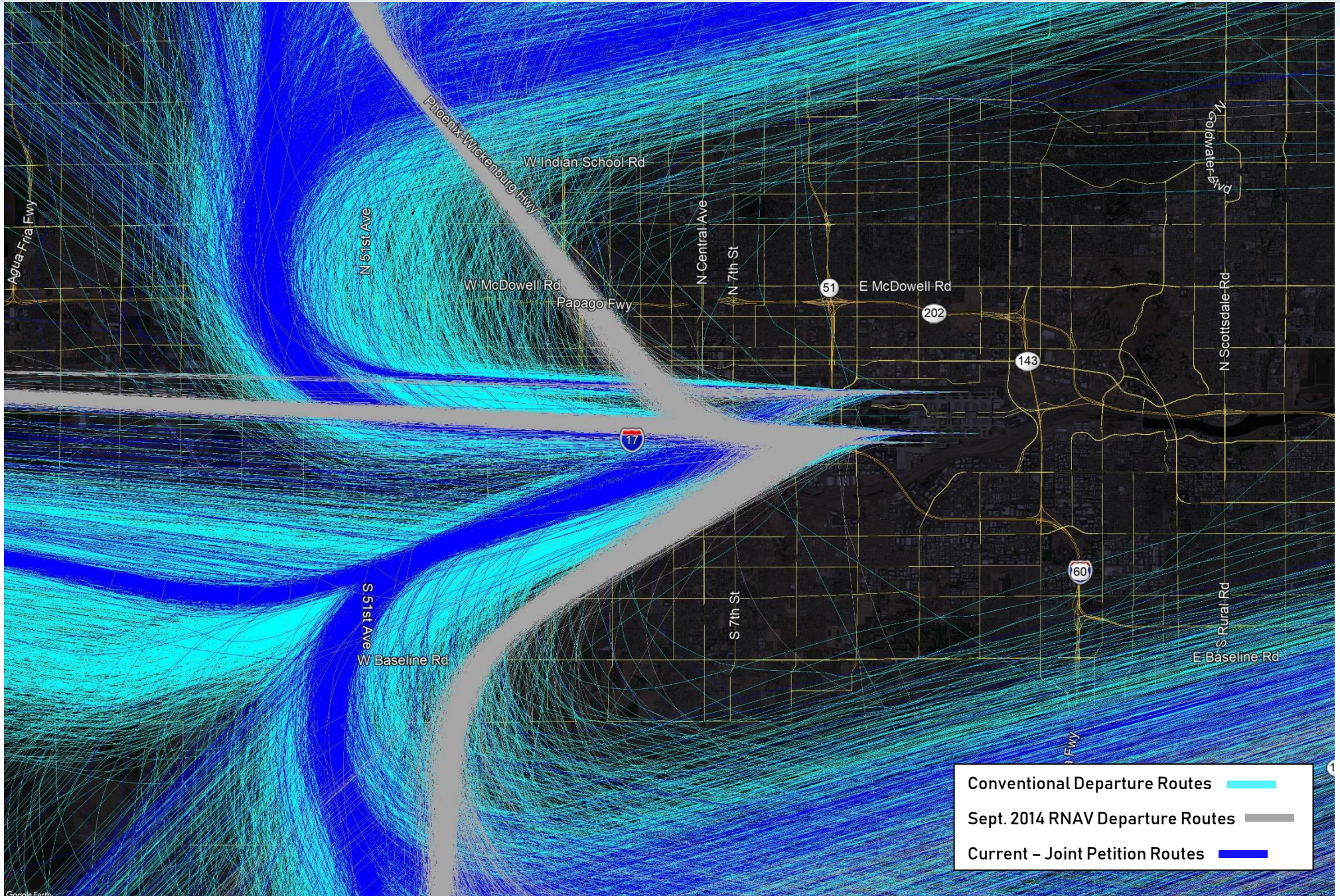
Similar to their Step 1 workshops, FAA will host a variety of stations showing different flightpath maps, information on the process to make additional airspace changes and environmental information related to their Sep. 18, 2014 flight path changes. While Step 1 (completed in May 2018) of the joint petition settlement addressed the most impactful issues (initial west flow departures) from FAA’s 2014 flightpath changes, Step 2 affords FAA the ability to receive and evaluate comments from the community regarding all other changes (east flow departures and all arrivals) and collaborate with the community on potential changes that can be made, ultimately at their (FAA) discretion. Additional information can be found on FAA’s website;

https://www.faa.gov/nextgen/nextgen_near_you/community_involvement/phx/.

A tentative timeline for the workshops and other Step 2 stages can be seen below:

- Spring 2019 (likely April): Public Workshops
- March/April 2019: Comment Collection
- May/June 2019: Comment Responses
- June/July 2019: Step 2 Determination
- November 2020/May2021: Procedure Design Process

SNAPSHOT: ROUTE CHANGES



COMMUNITY OUTREACH & RECOGNITION

LAVEEN HOA MEETING

Staff was invited by Congressman Gallego to attend and present at a Southern Hills Homeowners Association meeting, held on July 26, 2018, at fire station #57 – 1660 West Dobbins Road, Laveen. Staff provided an overview and update of the lawsuit status, what the FAA is doing, information about RNAV technology, the difference between Step 1 and Step 2, tribal communities discussion regarding flight paths, number of households and complaints since the Sep. 18, 2014 routes in the Phoenix valley and specifically in the Southern Hills area, and other community questions. Staff provided handouts which included maps of flight tracks pre-and post Sep. 18, 2014, location of complainant households and other data related to the area.

NEIGHBORHOOD ADVOCACY RECOGNITION

On June 7, five Central Phoenix Historic Districts were named recipients of the 2018 Governor's Heritage Preservation Honor Award presented at the annual Arizona Historic Preservation Conference. The Story Preservation Association, Willo Neighborhood Association, Roosevelt Action Association, Encanto-Palmcroft Historic Preservation Association and Woodland Historic District were the honored recipients alongside former Arizona Attorney General Terry Goddard, whose law firm, Dentons, represented the group in its successful legal action against the FAA. The recognition was due to the legal battle the group fought to reverse the harmful impacts on historic neighborhoods of unannounced flight path changes made in 2014 at Phoenix Sky Harbor International Airport.

The Historic Neighborhoods asserted that the flight path changes compromised the historic character of their neighborhoods, and that the FAA failed to fully consider the impacts on historic properties or do the appropriate assessments required by various federal laws. The results of the lawsuits which ruled in favor of the City of Phoenix and the Historic Neighborhoods are summarized in page 3 of this report.



IFP GATEWAY

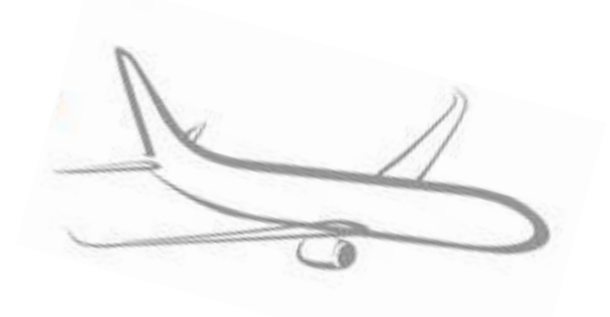
The Instrument Flight Procedures (IFP) Information Gateway is a public website managed by the Federal Aviation Administration (FAA) which provides a source for

- 1) Charts - all published aeronautical charts,
- 2) IFP Production Plan - new flight procedures under development and amendments to active procedures,
- 3) IFP Coordination - new and amended procedures open for public comments, and
- 4) IFP Documents - Navigation Database Review (NDBR) - various source documents associated with flight procedures.

Airport staff monitors the website on a weekly basis, specifically the IFP Production Plan and IFP Coordination tabs, for proposed new procedures and any potential changes or additions to current procedures, which may affect the City of Phoenix's three airports and logs the information on a tracking sheet.

In 2018, staff tracked 32 procedures for PHX, 2 procedures for DVT, and 2 procedures for GYR. City Council and City Management are provided a monthly memo which provides notification of changes made to the website pertaining to the city's three airports and the anticipated impacts.

https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/



NOISE & OPERATIONS MANAGEMENT SYSTEM

The Noise and Operations Management System (NOMS) contract with the Harris Corporation was renewed in August 2018 after a competitive RFP process. Technical city staff and staff from City of Tempe participated on the selection panel. With the renewal, Harris is providing significant updates to the current system including replacement of all Noise Monitoring Terminals and updates to the community PublicVue flight tracker. Harris has been providing NOMS for the Aviation Department for over 22 years and has supported and adapted their work efforts to meet the evolving needs of the community.



FAA NOISE ANNOYANCE SURVEY

FAA conducted a noise annoyance survey in 2017 and informed the public it would share those results in 2018. FAA has yet to share any results of the survey and it remains unclear what impact the survey results will have on Part 150 programming or federal standards for land use compatibility. The agency's 40-year-old aircraft noise policy and dose/response curve are used to estimate community annoyance to aircraft noise and help determine land use compatibility around airports. The current dose/response curve was included in a 1992 report by the Federal Interagency on Noise (FICON). According to the FICON curve, 12.3% of the population will be highly annoyed by aircraft noise at 65 DNL (Day-Night Noise Level), the current threshold of significant noise around airports.

FLIGHTPATH LITIGATION

SOUTHERN CALIFORNIA METROPLEX

Several lawsuits were filed and later consolidated challenging flightpath changes made by the FAA under the Southern California Metroplex plan. The lawsuits included the cities of Newport Beach and Laguna Beach, Culver City, Santa Monica Canyon Civic Association, Benedict Hills Estates Association, Benedict Hills Hometown Association and two individuals.

In January 2018, a settlement was reached between the FAA and the City of Newport Beach. Under the settlement, the FAA agreed to keep flight paths between existing noise monitors for John Wayne Airport and would design and study a curved departure procedure allowing planes to follow the curves of the Upper Newport Bay, avoiding as many residential areas as possible. The FAA also agreed to ensure all future flight path changes would be analyzed under the National Environmental Policy Act. Additionally, protections were secured against excessive “early offshore turns” that, if allowed, would bring some departures closer to Corona del Mar and Newport Coast.

Later in January, Laguna Beach reached a settlement on its lawsuit with the FAA. As part of the settlement, aircraft will be required to cross the coast south of Laguna Beach when departing at an altitude of more than 10,000 feet. The city and FAA also agreed to collaborate on possible changes to the commercial jet approach to John Wayne Airport during Santa Ana winds to lessen noise.

In March 2018, Benedict Hills Estates Association and Benedict Hills Hometown Association settled their lawsuits asking for a dismissal of their petitions for review, which was later granted. In the settlements, the FAA agreed to implement a curved departure from Burbank Airport which should provide noise relief to residents. In November 2018, a three-panel judge issued a memorandum denying the petitions of the remaining four plaintiffs (Culver City, Santa Monica Canyon Civic Association, and two individuals) stating the FAA’s environmental analysis was substantively reasonable and procedurally sound. The ruling is a legal victory for the FAA but has no precedential value as it was issued as an unpublished memorandum.



REAGAN NATIONAL AIRPORT

In March 2017, Georgetown University and six neighborhood associations filed a lawsuit against the FAA challenging the newly implemented flightpaths. The plaintiffs alleged that the FAA violated environmental and historic preservation laws. For 70 years the flights had been on a path up the west side of the Potomac River and in 2015 were changed by the FAA to zigzagging patterns at a lower altitude passing over historic neighborhoods.

In March 2018, the U.S. Court of Appeals for the D.C. Circuit ruled to dismiss the case on grounds that the plaintiffs had filed after the 60-day window allowed by law, and that there were no “reasonable grounds” for missing the deadline.

In May 2018, the plaintiffs filed a petition seeking a rehearing of the case asserting it was warranted due to the ruling of dismissal being based on a misreading of the facts in the record. The petition was denied by the court in July 2018. In June 2018, the State of Maryland filed a petition with the U.S. Court of Appeals for the D.C. Circuit seeking review of flight path changes stating the FAA had not conducted appropriate environmental review. In August 2018, the U.S. Department of Justice and FAA asked the D.C. Circuit to dismiss the State of Maryland lawsuit asserting the litigation was filed well beyond the 60-day window and there were no reasonable grounds for allowing such a delay.

BALTIMORE-WASHINGTON AIRPORT

FAA flight path changes at Baltimore-Washington Airport (BWI) led to an increase of noise complaints from residents in the area. In 2017, Maryland officials participated in efforts to work with the FAA through their community roundtable process resulting in little progress after over a year of meetings.

In June 2018, the State of Maryland filed an administrative petition with the FAA requesting they conduct a supplemental environmental assessment, review categorical exclusions for certain runways, and continue efforts to adjust flight paths to improve compatibility with neighborhoods.

In July 2018, Howard County, MD filed a similar administrative petition with the FAA seeking noise relief for impacted residents asking the FAA promptly return to pre-NextGen flight paths. In light of the legal and administrative petitions filed, the FAA withdrew participation in roundtable meetings with the BWI community.

In September 2018, the FAA sent a response letter stating, “no formal right exists in the applicable statutes, regulations, or guidance to ‘petition’ the [FAA] Administrator as Maryland has done.”

In November 2018, Maryland Attorney General filed a petition with the D.C. Circuit following inaction by the FAA in response to the administrative petition filed in June.

LEGISLATIVE & POLICY UPDATES

FAA REAUTHORIZATION

The long-awaited FAA Reauthorization bill was signed by Congress on October 3, 2018 and by President Trump on October 5, 2018. The bill authorized funding for FAA programs and services through FY 2023. The bill passed through the House of Representatives on September 26 by a vote of 398 to 23, and through the Senate on October 3 by a vote of 93 to 6. The bill included 14 noise provisions listed under Subtitle D entitled “Airport Noise and Environmental Streaming.”

Some of the provision topics included in the bill were:

- FAA requirements to complete research on alternative noise metrics. (Sec. 173)
- Airport operator requirements to update Noise Exposure Maps. (Sec. 174)
- FAA requirements in addressing community noise concerns. (Sec. 175)
- FAA community involvement requirements in NextGen projects located in Metroplexes. (Sec. 176)
- FAA noise mitigation and safety study requirement. (Sec. 179)

Also included in the bill were legislation to address aviation safety and security measures, drone integration, and airline passenger experience. For a full listing of the bill please visit: <https://www.congress.gov/bill/115th-congress/house-bill/302/text>





ACTING FAA ADMINISTRATOR

In January 2018, Daniel Elwell was named Acting FAA Administrator. In his role, Elwell is responsible for the safety and efficiency of the FAA, oversees more than 47,000 employees, a multi-billion-dollar budget, and the NextGen air traffic control modernization program. Elwell has held various executive positions at the FAA including Deputy Administrator, he has also served in senior roles at Airlines for America and the Aerospace Industries Association. Elwell was a commercial pilot for 16 years with American Airlines earning his pilot wings at Williams Air Force Base in Arizona.



NATIONAL ENVIRONMENTAL POLICY ACT

In June, the White House Council on Environmental Quality (CEQ) announced it would be considering updating its regulations for the procedural provisions of the National Environmental Policy Act (NEPA). CEQ gave the public until July 20 to respond to questions regarding the potential revisions. Aviation Noise staff reviewed potential areas for change, drafted comments about efficiency, clarity, inclusiveness and modernization and submitted them for EPA review.

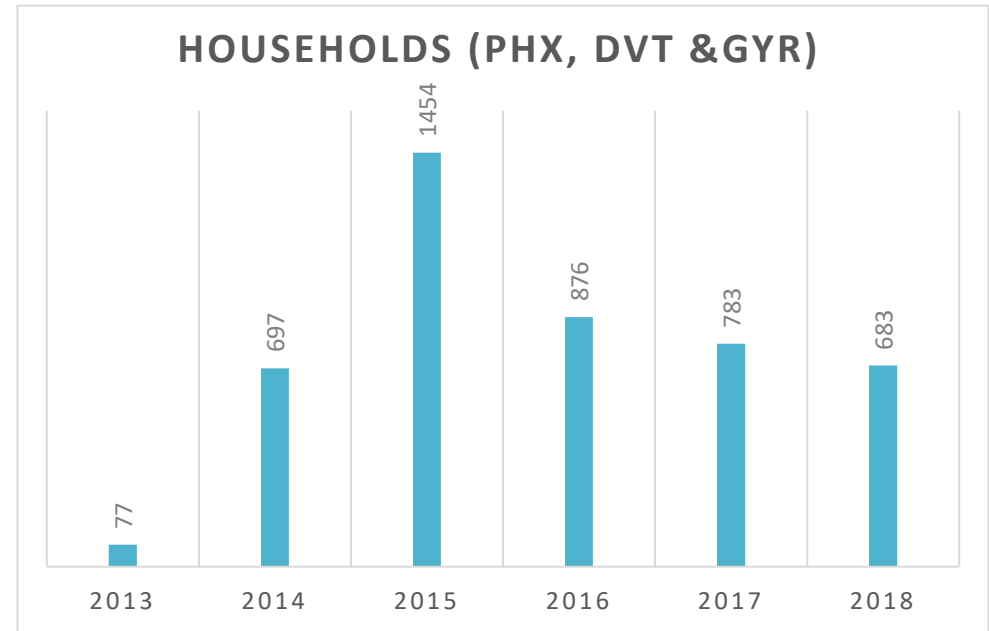
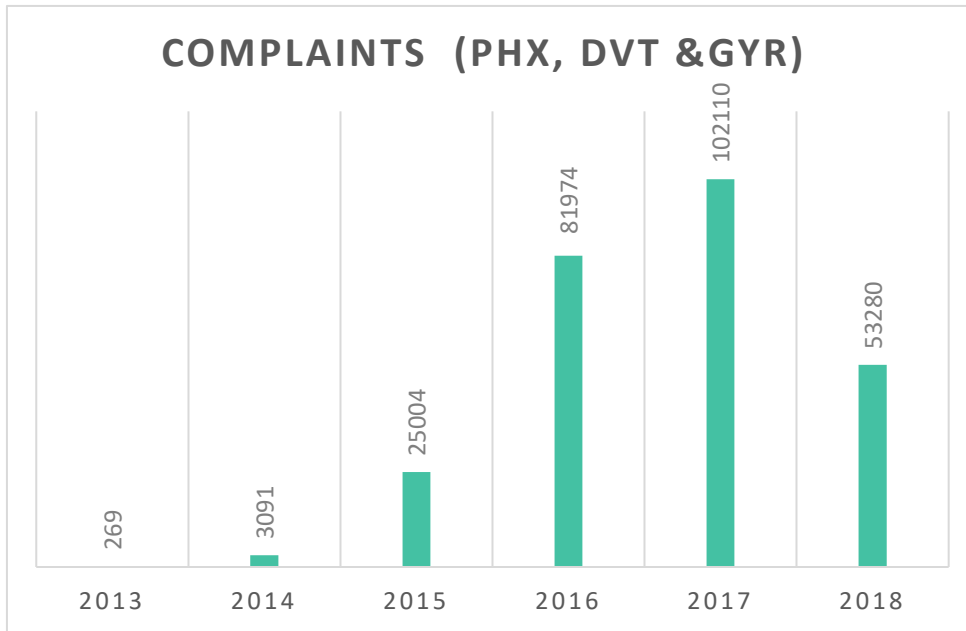


NEXTGEN NOISE EXPOSURE RESEARCH

In July, the Transportation Research Board announced \$400,000 of funding for the Airport Cooperative Research Program (ACRP) project: *Techniques for Modifying NextGen Flight Track Design to Reduce Noise Exposure and Annoyance*. The objective of the study will be to identify techniques for considering both capacity/efficiency and community impacts when modifying NextGen flight tracks.

2018 DATA SUMMARY

A total of **53,280** complaints regarding aircraft noise around the valley were received in 2018, a 47.8% decrease from the 102,110 complaints in 2017. The number of household submitting complaints decreased by 12.8% from 783 total households in 2017 to 683 in 2018. The decrease in complaints is attributed to the flight paths returning to pre-RNAV routes implemented by the FAA in Sept. 2014. ** Household total may vary from calculations based on sum of the three airports due to certain household submitting complaints for more than one airport.*



Sky Harbor Intl. Airport

- 52,164 Complaints
- 610 Households
- 434,252 Operations

Deer Valley Airport

- 710 Complaints
- 96 Households
- 415,166 Operations

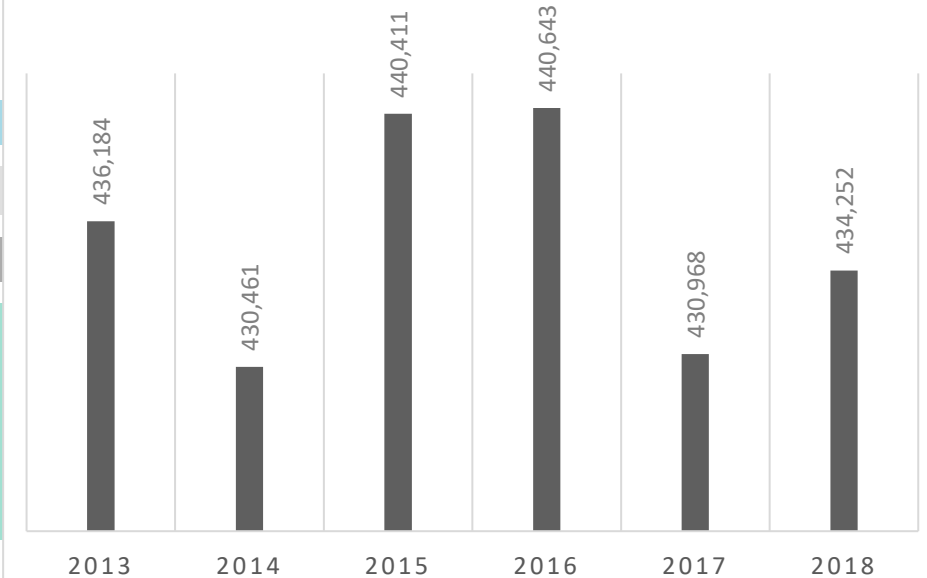
Goodyear Airport

- 412 Complaints
- 7 Households
- 83,223 Operations

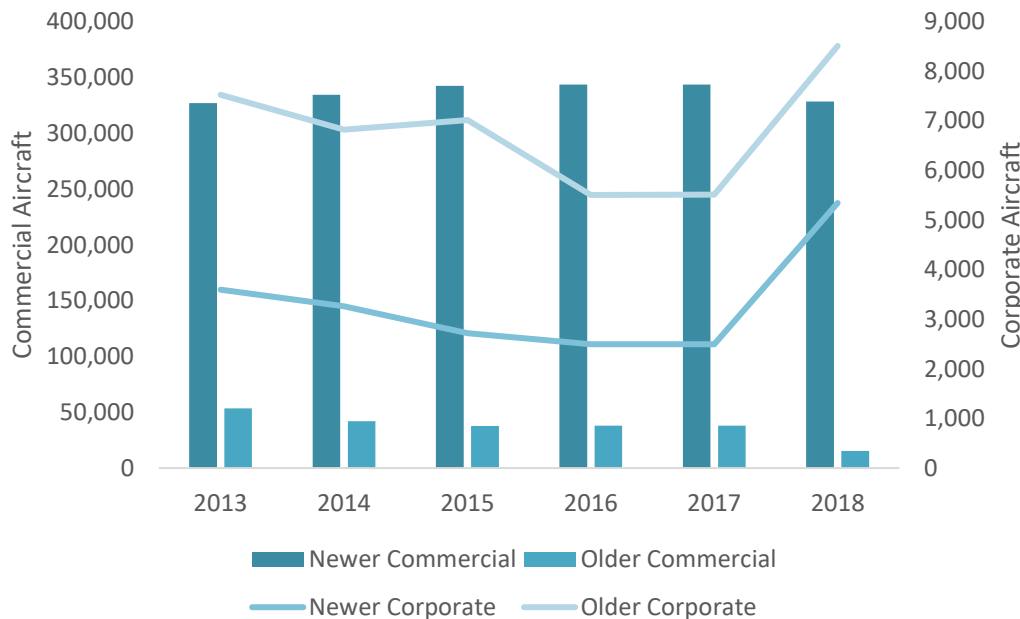
HISTORICAL ANNUAL OPERATIONS & FLEET MIX COMPARISONS

In 2018, aircraft operations increased at Phoenix Sky Harbor International Airport by 0.8%, from 430,968 in 2017 to 434,252 in 2018.

PHX ANNUAL OPERATIONS















Sample Aircraft Type Growth/Decline





In 2018 the commercial service fleet mix saw an increase in operations for Bombardier CRJ700/CRJ900 Boeing 737, and Boeing 747. However, Airbus 320 and Boeing 757 saw a decrease in operations resulting in an overall decrease in newer commercial operations of 15,101 less than 2017. A similar pattern is seen with older commercial operations with an overall operational decrease of 22,571 from 2017. Newer corporate operations more than doubled in operations in 2018 largely due to a significant increase in Embraer 135 and Lear 145 operations as well as a smaller increase in Citations 680, Citations 870, Embraer 145, and PRM1. Older corporate operations also increased from 2017 with an added 2,998 operations in 2018. This was largely due to an increase in Citations 560 and C500 Series.

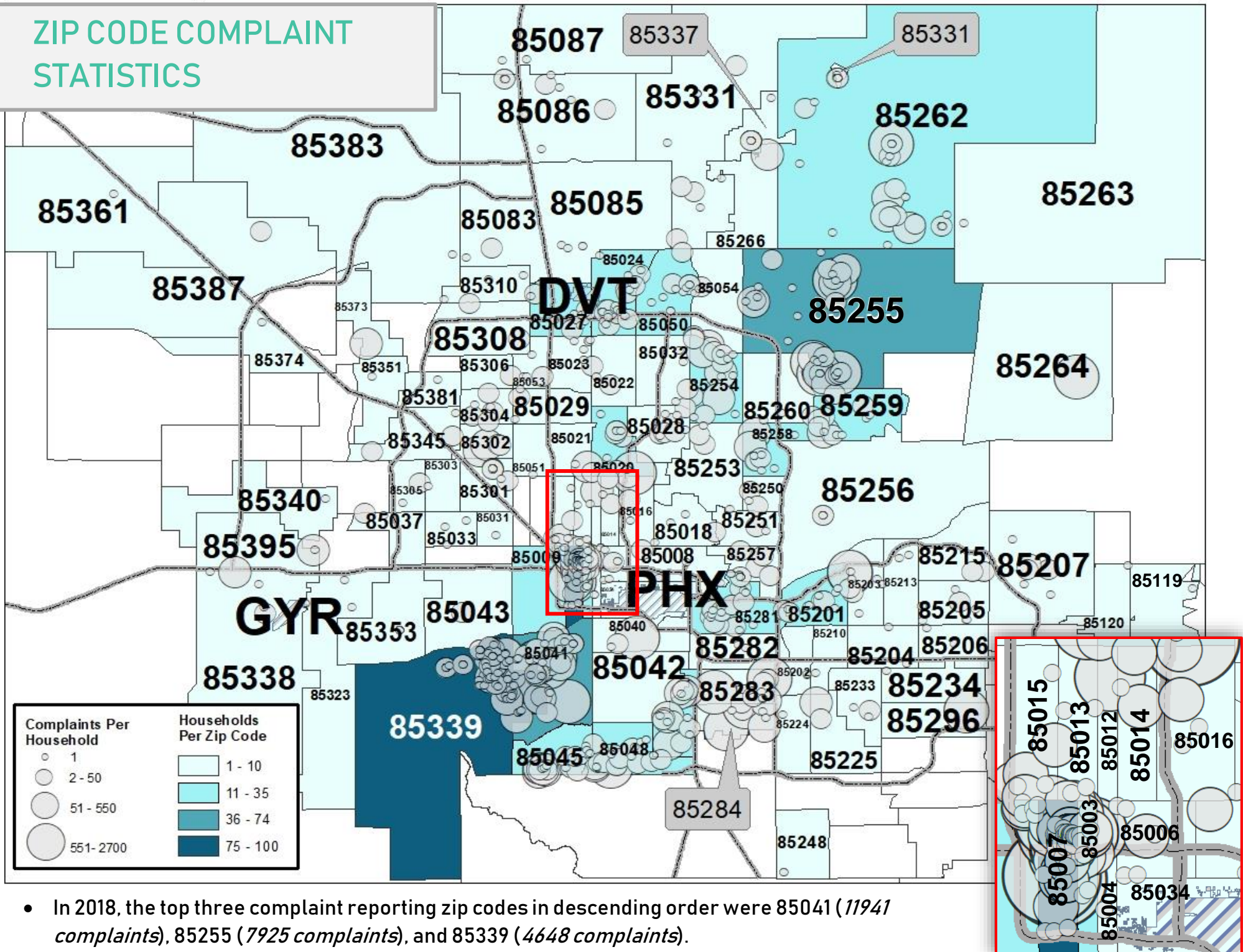
COMPLAINTS BY PHX JURISDICTION

Noise complaints in the Valley decreased dramatically from 102,110 in 2017 to 53,280 in 2018. The decrease in submitted complaints is attributed to the return to pre-RNAV flight paths which were implemented by the FAA in Sept. 2014.

CITY	2013		2014		2015		2016		2017		2018	
												
Anthem	-	-	-	-	-	-	2	2	4	5	4	6
Apache Junction	-	-	-	-	2	3	-	-	-	-	2	2
Avondale	-	-	-	-	-	-	2	43	1	14	3	5
Carefree	-	-	-	-	2	2	2	123	1	441	2	50
Cave Creek	-	-	3	3	34	473	14	322	10	134	8	52
Chandler	-	-	6	8	6	29	2	2	6	185	4	131
Fort McDowell	-	-	-	-	2	43	2	4,726	1	3,336	1	2,232
Fountain Hills	-	-	-	-	3	6	2	3	-	-	-	-
Gilbert	1	3	-	-	5	7	4	11	5	452	4	588
Glendale	-	-	11	27	56	432	26	2,269	24	1,309	23	584
Gold Canyon	-	-	-	-	-	-	2	2	-	-	-	-
Goodyear	-	-	1	1	3	3	7	12	6	104	6	460
Heber	-	-	-	-	-	-	-	-	1	3	-	-
Litchfield Park	-	-	-	-	-	-	-	-	-	-	1	1
Mesa	13	158	25	146	60	1,304	13	715	30	749	39	1,946
New River	-	-	1	1	4	38	4	14	1	1	1	1
Out of State	-	-	2	2	1	1	-	-	-	-	2	2
Paradise Valley	-	-	1	1	10	42	7	99	6	46	4	18
Peoria	1	4	-	-	15	21	5	12	2	2	4	5
Phoenix	16	22	545	2,522	1,025	11,889	550	57,893	465	81,139	424	28,410
Queen Creek	-	-	-	-	25	37	1	3	-	-	-	-
Rio Verde	-	-	-	-	-	-	1	1	1	1	1	1
Scottsdale	3	7	37	261	262	9,370	121	16,842	120	12,725	105	11,584
Sun City	-	-	-	-	4	4	2	11	1	1	2	85
Sun City West	-	-	2	3	1	2	1	1	-	-	-	-
Surprise	-	-	1	1	1	1	-	2	1	2	1	2
Tempe	10	26	22	29	70	533	79	1,158	60	1,460	41	7,108
Tolleson	-	-	-	-	3	3	-	-	1	1	1	7
Wittmann	-	-	-	-	-	-	1	1	-	-	-	-
Totals:	44	220	657	3,005	1,594	24,243	847	84,264	747	102,110	683	53,280

 = Households  = Complaints

ZIP CODE COMPLAINT STATISTICS



- In 2018, the top three complaint reporting zip codes in descending order were 85041 (11941 complaints), 85255 (7925 complaints), and 85339 (4648 complaints).
- A total of 95 zip codes submitted complaints.

NOISE ABATEMENT PROCEDURES

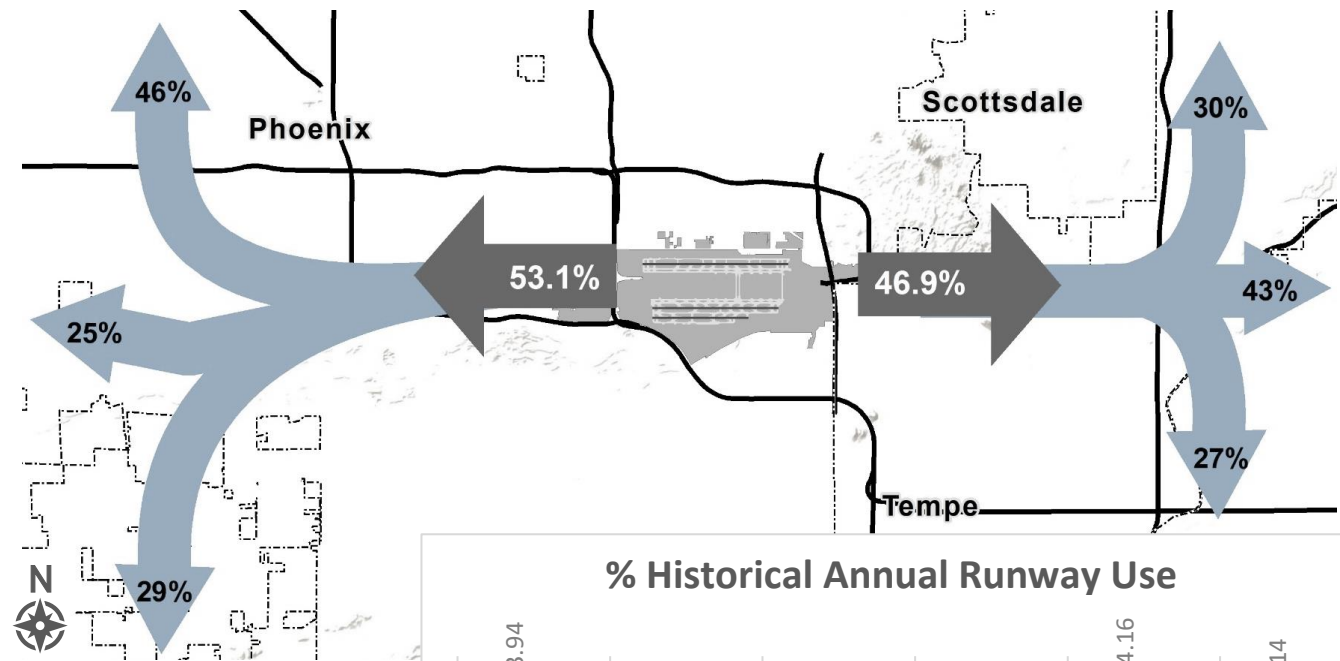
Many noise abatement and mitigation efforts have been implemented in order to decrease residents' exposure to noise. Some residents exposed to noise from aircraft operations have suggested that the City of Phoenix limit flight operation hours (or impose a curfew) to help solve this issue. Unfortunately, because of *The Airport Noise and Capacity Act of 1990* (ANCA), there are limitations to the types of restrictions publicly-funded airports are allowed to impose. The City of Phoenix placing a restriction on which hours aircraft can operate by enforcing a curfew would be a violation of this rule. All three of the City of Phoenix's airports are publicly-funded, and would not be able to impose a curfew/other restrictions.

EQUALIZATION

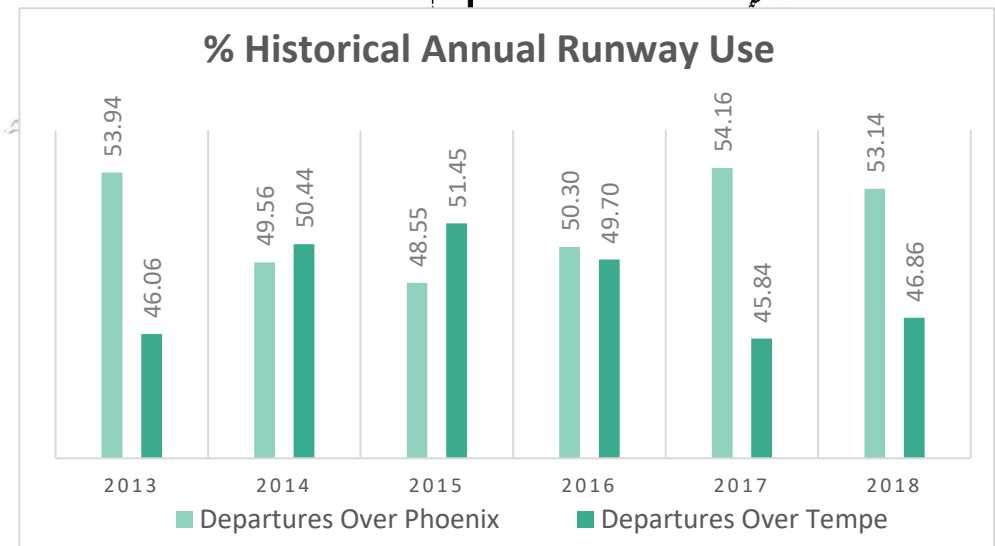
Phoenix Sky Harbor International Airport has a goal to equalize the amount of aircraft departures between the east and west over an *annualized* period.

Equalization is based on the overall count of aircraft operations (not the amount of hours, days or weeks) in each departure direction.

Runway equalization helps to even the distribution of noise exposure in surrounding communities.



In 2018, PHX operated in west flow 53.1% of the year and 46.9% in east flow.

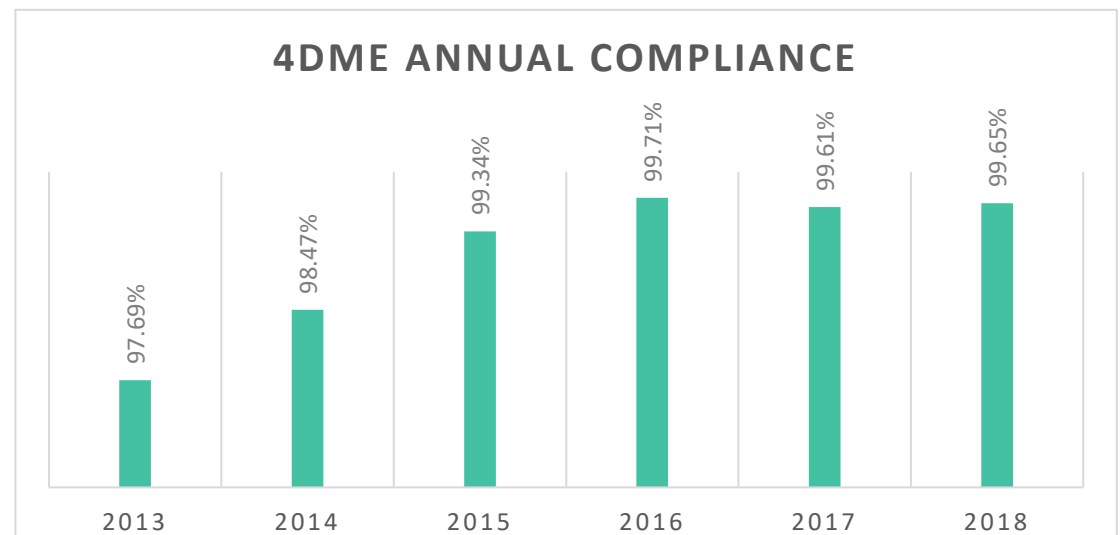
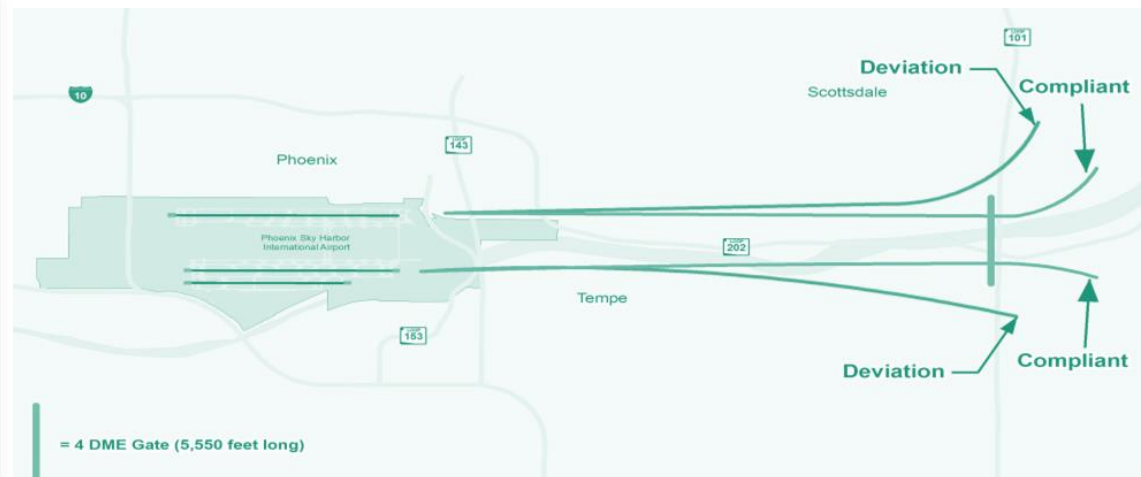


2018 4 DME DEPARTURE COMPLIANCE

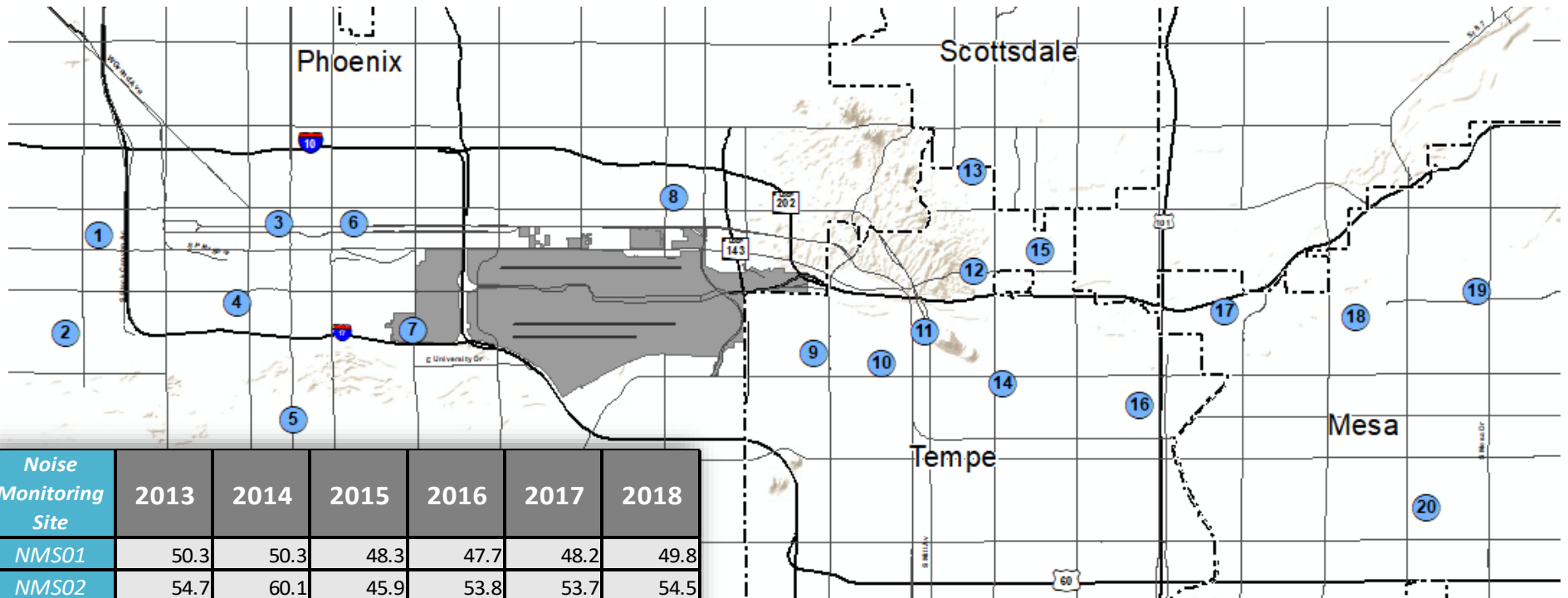
All jet aircraft departing from PHX to the east are directed to fly generally along the Salt River for 6 miles before conducting their turns. This procedure is designed to keep aircraft over the Salt River area and minimize noise exposure to residential areas. Staff monitors compliance with this procedure and communicates with aircraft operators and Tempe when procedures are not followed.

Since 2011 the rate of compliance with the 4 DME procedure has fluctuated, but has not fallen below 97.08% compliance. In 2018, compliance with the 4 DME procedure was at 99.65%.

FLIGHT	Airline Name	COUNT	MISSED	% COMPLIANT
AAL	American Airlines	28,183	40	99.86%
SWA	Southwest Airlines	27,675	59	99.79%
ASH	Mesa Airlines	9,410	19	99.80%
UAL	United Airlines	4,272	7	99.84%
SKW	SkyWest Airlines	4,250	8	99.81%
DAL	Delta Airlines	4,058	6	99.85%
GA	General Aviation	1,703	120	92.95%
ASA	Alaska Airlines	1,288	0	100.00%
FFT	Frontier Airlines	1,286	5	99.61%
UPS	UPS Airlines	1,012	5	99.51%
FDX	FedEx	1,008	2	99.80%
WJA	WestJet Airlines	705	0	100.00%
GTI	Atlas Air	392	0	100.00%
HAL	Hawaiian Airlines	309	0	100.00%
NKS	Spirit Airlines	278	5	98.20%
SCX	Sun Country Airlines	267	1	99.63%
KFS	Kalitta Charters	235	2	99.15%
ROU	Air Canada Rouge	234	0	100.00%
JBU	JetBlue Airways	228	4	98.25%
EJA	NetJets	190	15	92.11%
UNK	Unkown	99	3	96.97%
BAW	British Airways	78	0	100.00%
JZA	Air Canada Jazz	78	0	100.00%
TOTAL		87,238	301	99.65%



2017 NOISE MONITORING SITE MEASUREMENTS



Noise Monitoring Site	2013	2014	2015	2016	2017	2018
NMS01	50.3	50.3	48.3	47.7	48.2	49.8
NMS02	54.7	60.1	45.9	53.8	53.7	54.5
NMS03	53.2	53.6	54.3	55.4	55.5	53.6
NMS04	59	58.6	58.6	59	58.8	59.7
NMS05	53.8	54.7	55.9	57.2	57.4	54.6
NMS06	37.3	47	47.8	46.1	45.7	46.9
NMS07	66.7	67.4	66.9	67.9	67.9	68.1
NMS08	44.6	47	44.3	38.4	39.7	40.4
NMS09	63	62	62.3	62.3	63.1	63.7
NMS10	53.4	54.1	55.5	53.7	53.8	54.4
NMS11	61.3	63.1	63.5	63.8	63.8	64.4
NMS12	60.4	61.5	60.2	61.2	62.3	61.5
NMS13	40.2	38.5	38.1	38.5	37.9	37.1
NMS14	44.2	40.4	42.9	41.4	*	40.6
NMS15	55.4	54.9	55	53.8	55.5	55.1
NMS16	41.7	40.5	42	42.9	41.1	40.4
NMS17	*	*	*	*	49	49.6
NMS18	48.3	48.1	48.3	49	48.9	49.4
NMS19	46	45.8	46.1	46.4	47.2	46.4
NMS20	43.4	45.3	45.4	44.2	45.1	45.6

There are 20 Noise Monitoring Terminals (NMT) in the vicinity of Phoenix Sky Harbor International Airport. The NMTs are able to determine exactly how loud aircraft operations are at a particular location.

Aircraft noise is typically reported in A-weighted decibels (LdnA). Figures in the adjacent table are presented in LdnA, as an average reading from each station over the corresponding year. It is important to note that a change in 3 decibels is commonly recognized as the smallest increase in noise exposure that is audible to the human ear.

TOOLS AND RESOURCES

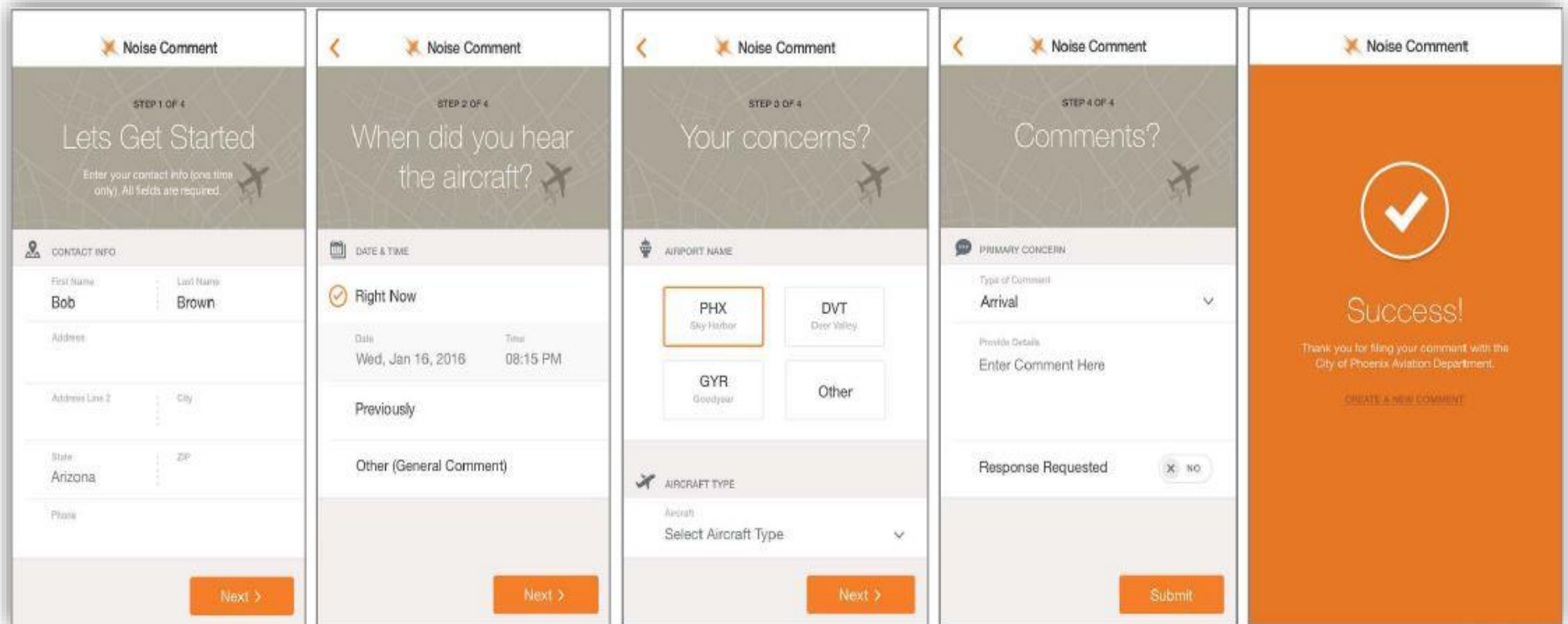
Currently there are four ways community members can submit noise complaints (via Online Web form, Hotline, PublicVue Flight Tracker or Smartphone App).

Flight Path Website

Skyharbor.com/flightpaths offers updates, flight tracking and numerous options for reporting noise concerns. The Aviation department continues to distribute updates to community members and can receive updates on the flight path issue. The direct email list provides updates to subscribers on new developments in the effort to bring relief to the community. There are currently **182** subscribers receiving flight path updates.

Smartphone Noise Complaint App

A noise complaint app for smartphones was launched in 2016 to make submitting noise complaints easier. The mobile app allows community members to submit complaints in four simple steps.. In 2018 **47,419** complaints were submitted using the mobile app accounting for 89% of all submissions.



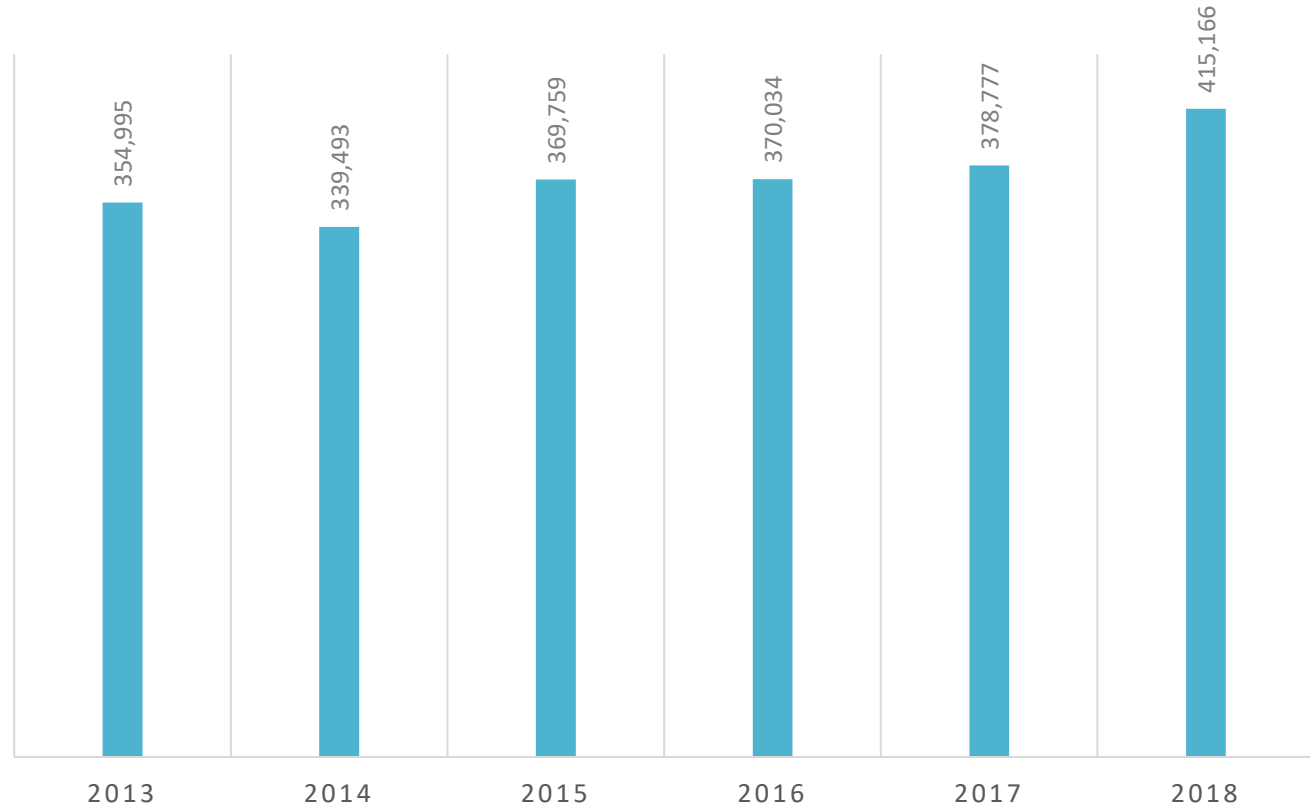
DEER VALLEY & GOODYEAR AIRPORTS ANNUAL OPERATIONS

DEER VALLEY

Operations at Phoenix Deer Valley Airport have continued to increase. The 2018 operation count of 415,166 was an 9.6% increase over the 378,777 count from 2017.

The highest monthly operations were observed in March with 38,534 and November with 38,304.

PHOENIX DEER VALLEY AIRPORT ANNUAL OPERATIONS



Phoenix Deer Valley Airport 2018 Monthly Operations

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
DVT	33,956	33,233	38,534	36,456	34,290	31,049	29,060	33,434	34,676	34,975	38,304	37,199	415,166

GOODYEAR

Operations at Phoenix Deer Valley Airport decreased by 25% from 111,163 operations in 2017 to 83,223 in 2018.

The highest monthly operations were observed in August with 7,980 and September with 7,635.

PHOENIX GOODYEAR AIRPORT ANNUAL OPERATIONS

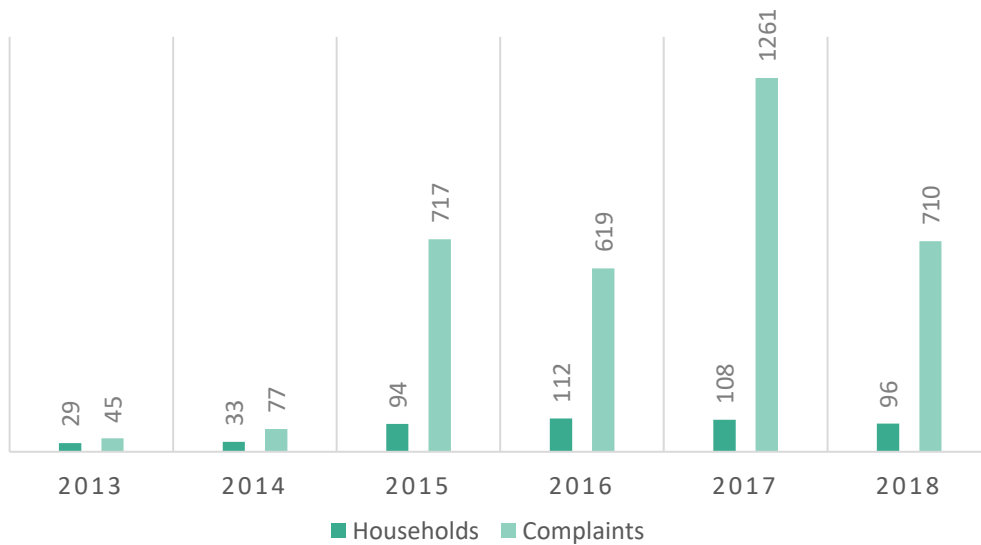


Phoenix Goodyear Airport 2018 Monthly Operations

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
GYR	6,224	6,049	7,246	6,865	7,239	6,942	6,067	7,980	7,635	7,400	7,482	6,094	83,223

DEER VALLEY & GOODYEAR ANNUAL NOISE COMPLAINTS

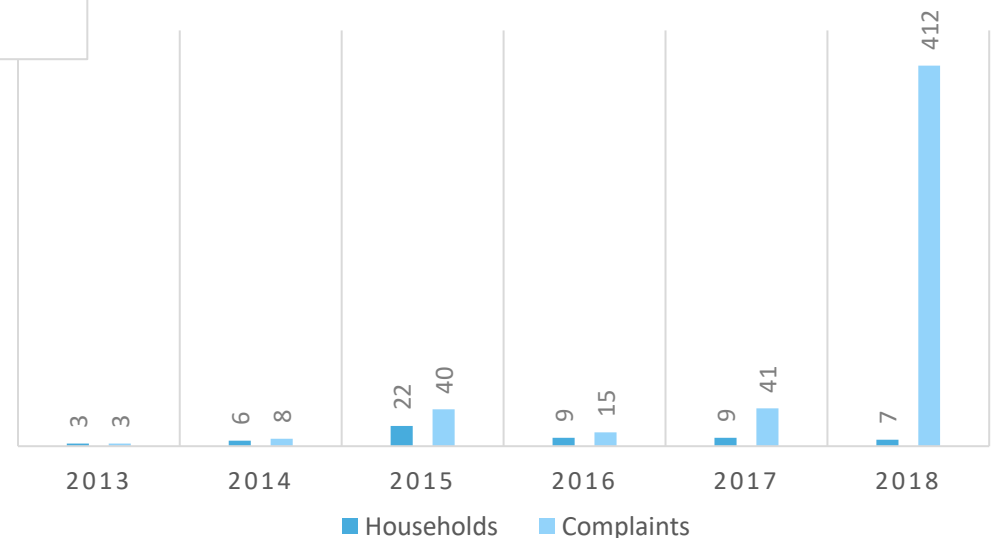
PHOENIX DEER VALLEY AIRPORT ANNUAL NOISE COMPLAINTS



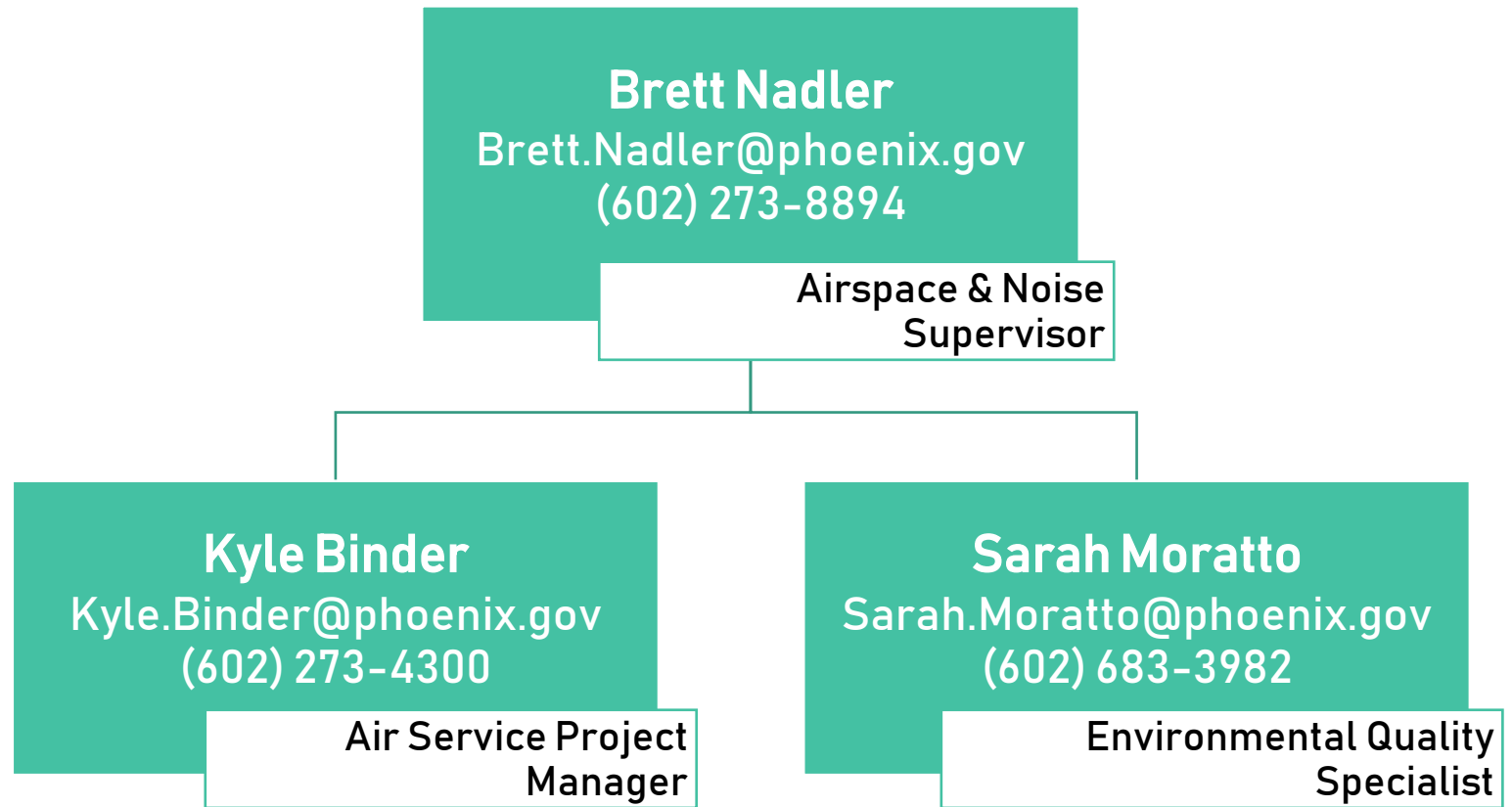
In 2018, Deer Valley saw a decrease in both noise complaints and households registering complaints. The number of complaints was down 43.7% while households decreased by 11%.

In 2018, Goodyear saw a large increase in noise complaints while households registering complaints decreased slightly. The dramatic increase in complaints from 41 in 2017 to 412 in 2018 was likely due to a single household utilizing the mobile app.

PHOENIX GOODYEAR AIRPORT ANNUAL NOISE COMPLAINTS



CONTACT US



Complaint Hotline
(844) 244-7430



Complaint Webform

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



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