PHX East Compliance Report

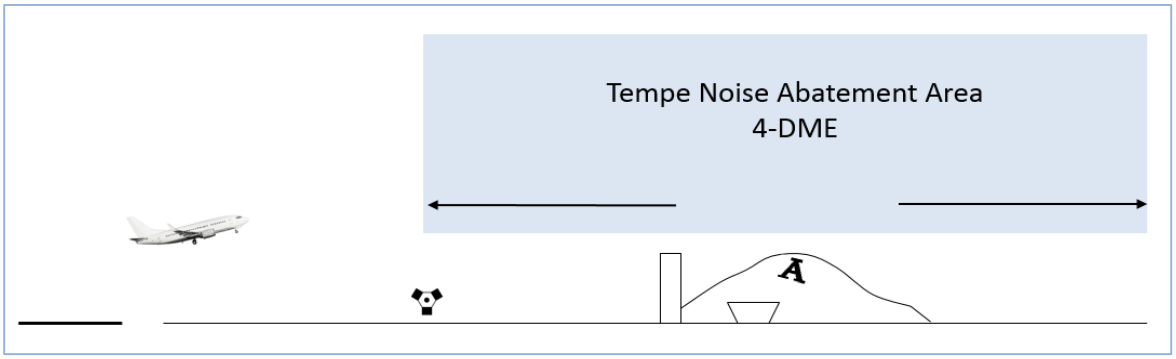
Q2, 2020

Introduction

The City of Tempe is located directly east of Phoenix Sky Harbor International Airport (PHX) which is owned and operated by the City of Phoenix.

This report gives an account of how well PHX operations comply with noise mitigation flight procedures over the City of Tempe. The flight procedures are memorialized in an intergovernmental agreement between the two cities, and the Tempe Aviation Commission (TAVCO) is tracking the implementation of the agreement in quarterly reports followed by an annual summary.

Departure Compliance



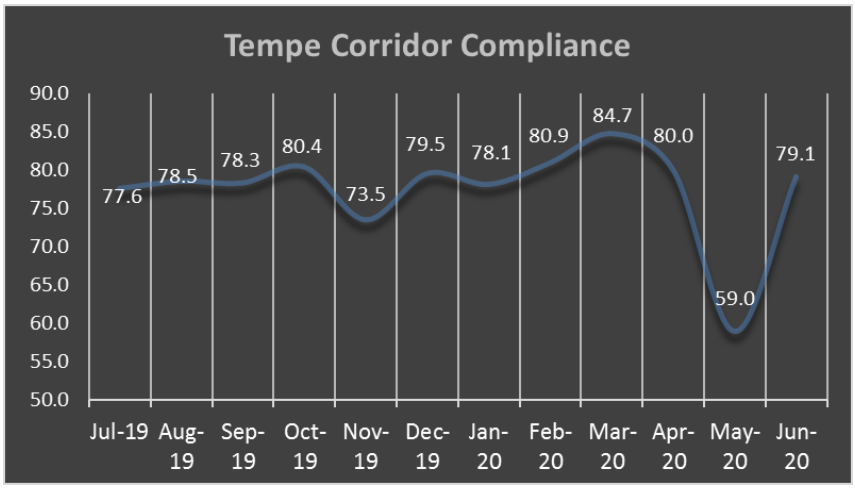
The Tempe and Phoenix Intergovernmental Agreement (IGA) requires jet and large turboprop aircraft to stay on headings east within the Salt River (Rio Salado) riverbed and Tempe Town Lake to a distance of 4DME (Distance Measuring Equipment) before diverging to intercept PHX departure routes.

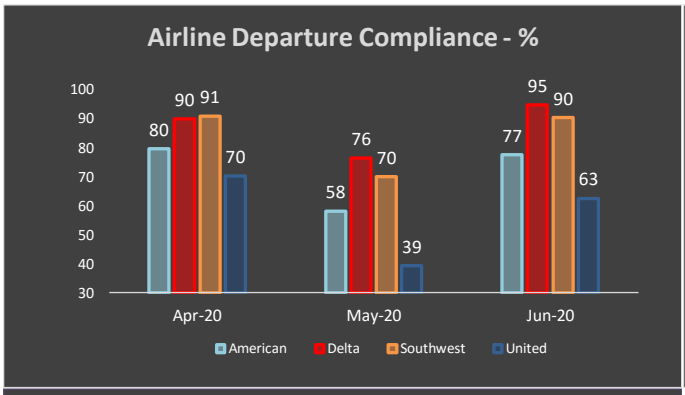
The report uses a different measure than the City of Phoenix to determine jet departure compliance. The airport's official compliance measure is used in PHX Noise Reports published on-line at https://www.skyharbor.com/FlightPaths/PHX-NoiseReports.

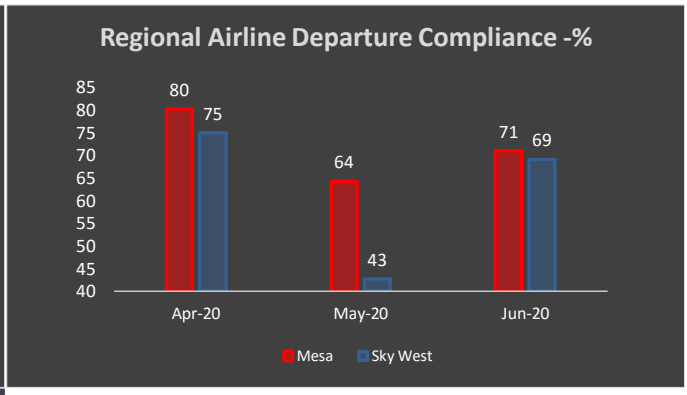
Q2, 2020 Tempe Corridor Compliance

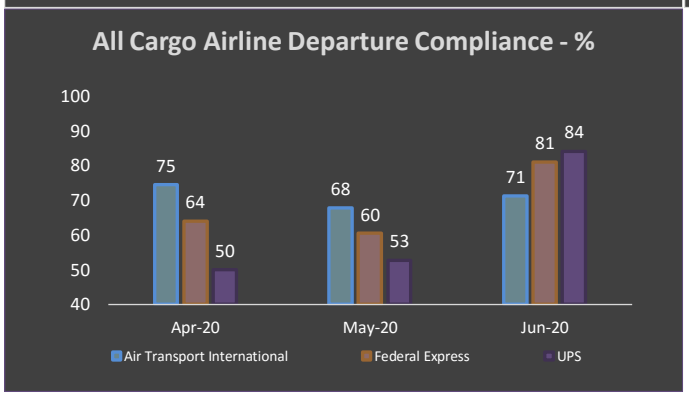
72.7%

When runways are operated in east flow, the large turboprop aircraft are routinely departed on diagonal headings to the northeast and southeast directly after take-off to avoid having the slower turboprops on the same departure headings as the faster jet.

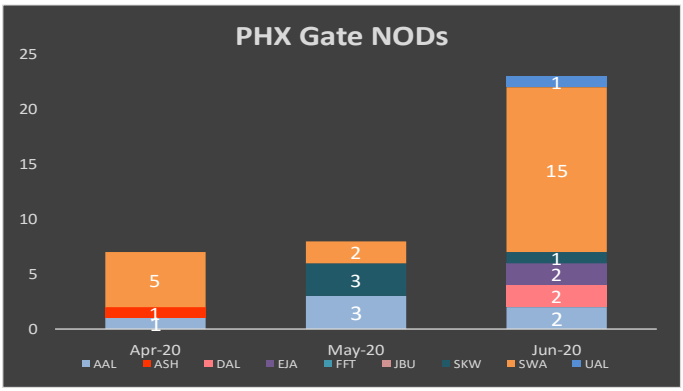








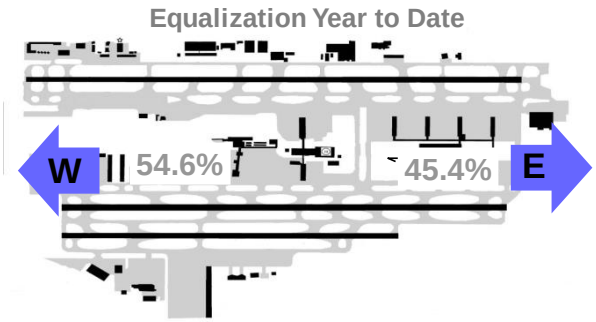
The graphs show corridor compliance rates for some of the larger airlines at PHX.



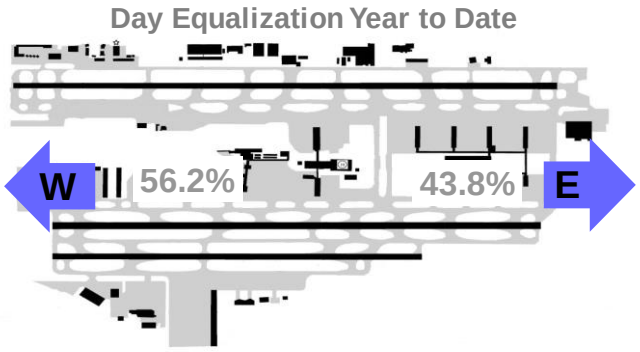
Airlines with jet departures to the east that fail to pass through the PHX Gate receives e-mail Notices of Deviations (NODs) from the City of Phoenix.

The gate is set up in the PHX Airport Noise & Operations Monitoring System (ANOMS) at 4-DME just west of the SR-202 and SR-101 interchange. It is 1.05 miles wide and runs parallel to the SR-101.

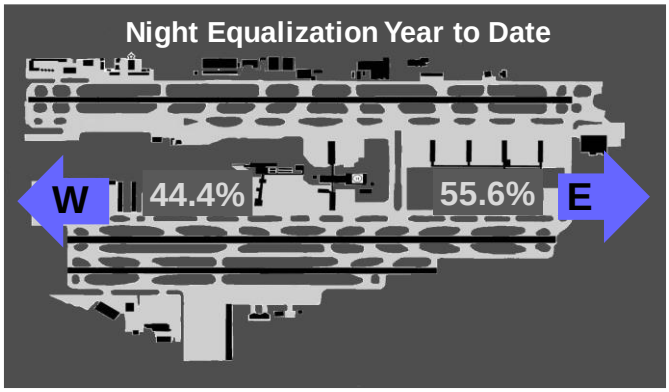
Departure Equalization



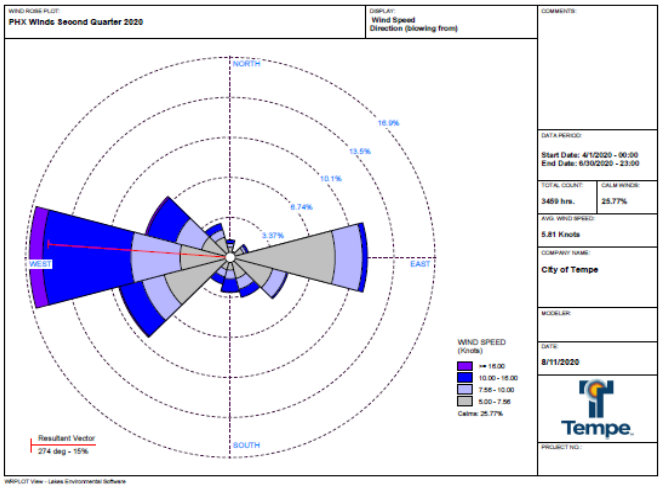
The IGA calls for an even split of the noise burden from departing jet and large turboprop aircraft east and west of PHX parallel runways during daytime and nighttime hours. The FAA is expected to compensate for periodic changes in flight patterns as weather and air traffic allows to accomplish equalization over a twelve-month period.



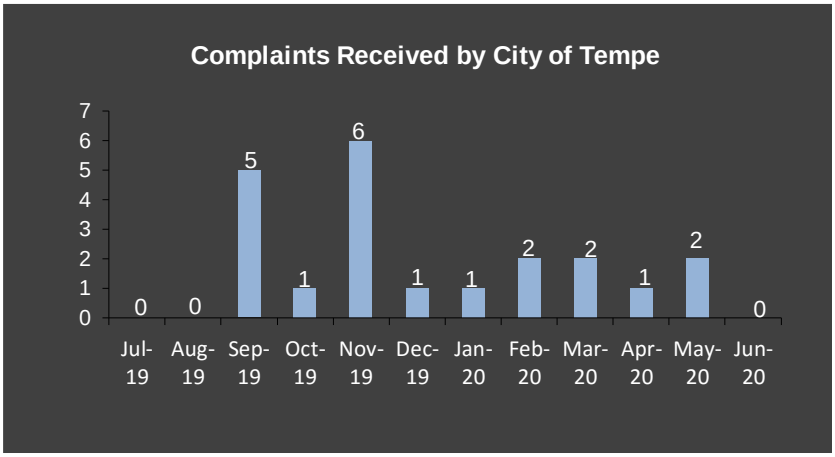
Day = 7:00 a.m. to 10:00 p.m.



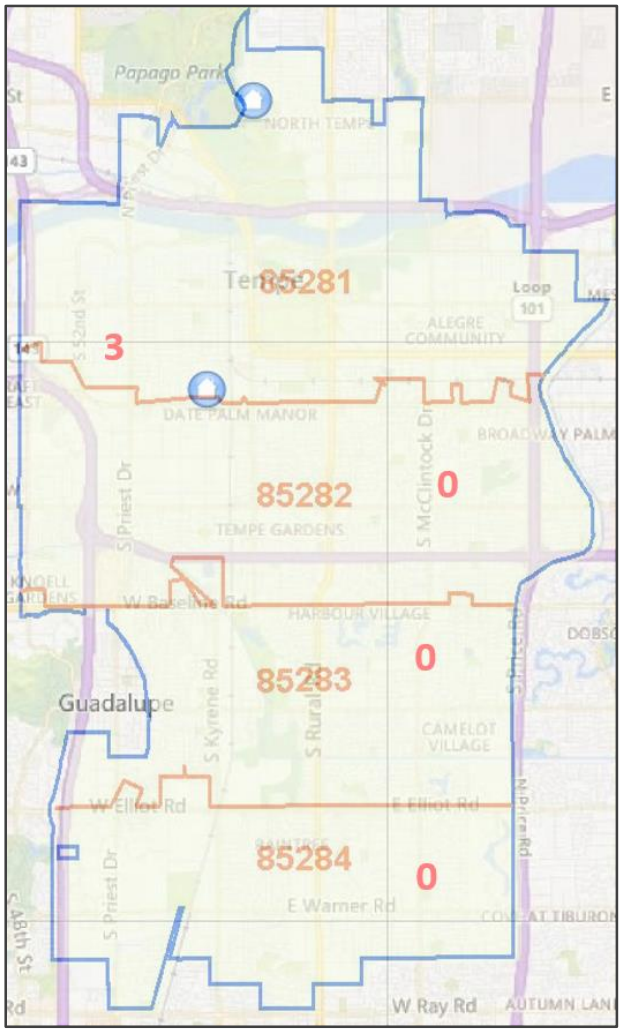
The average wind speeds during the quarter was 6.46 knots. The majority of the winds were blowing from the west.

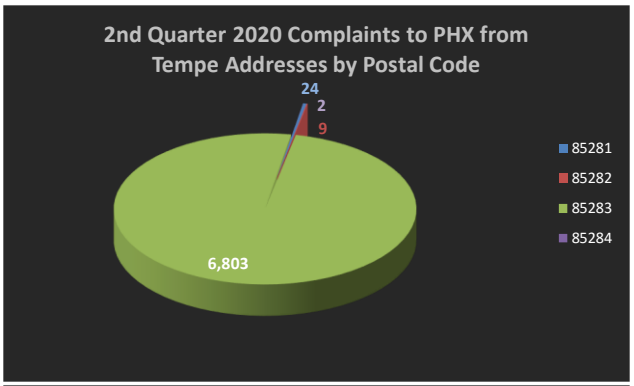


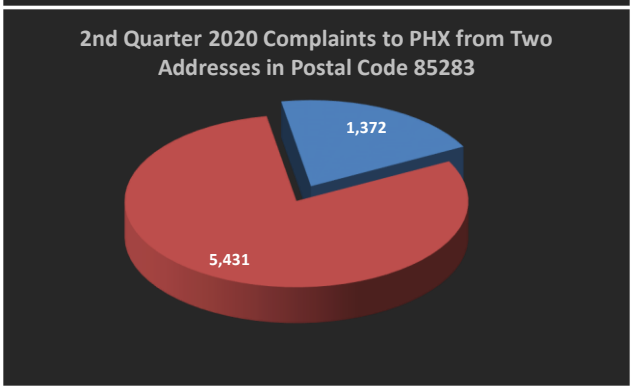
Tempe Citizens' Noise Complaints



Complaints are recorded as the number of phone calls, voicemails, and electronic messages received from residents calling in or using the Tempe 311 web complaint option.







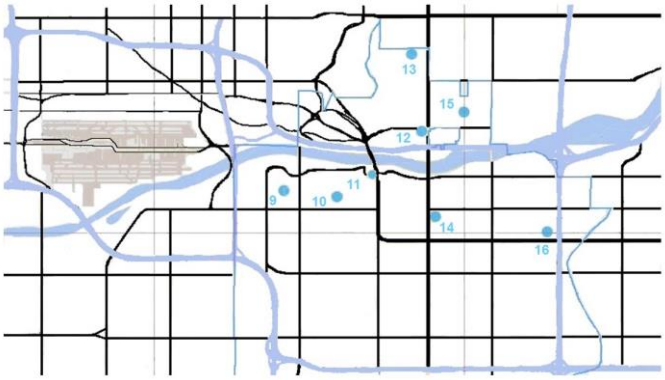
Complaints can be submitted through the Tempe web site.

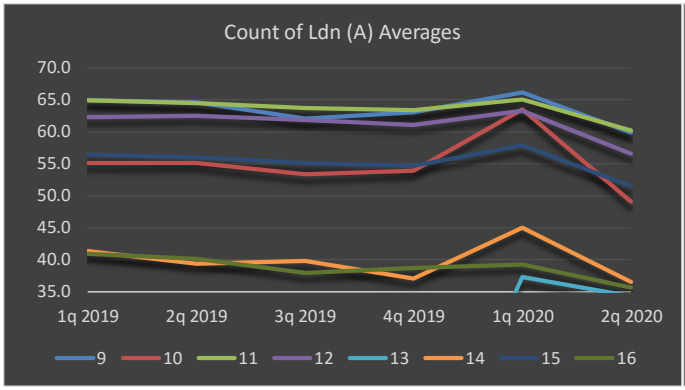
Submit Service Request

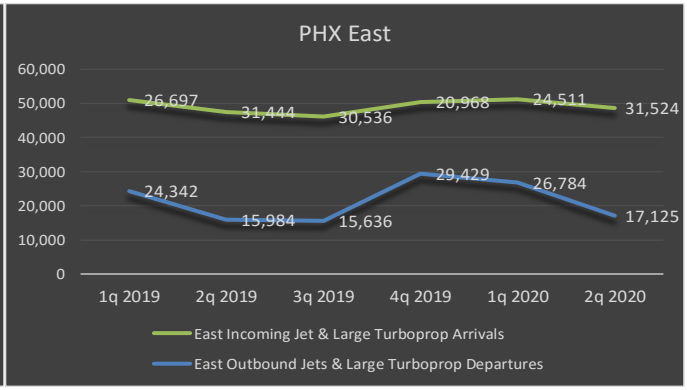
A city smart phone app is available for download with the option to report disturbing flights.

Available on the App Store | GET IT ON Google Play

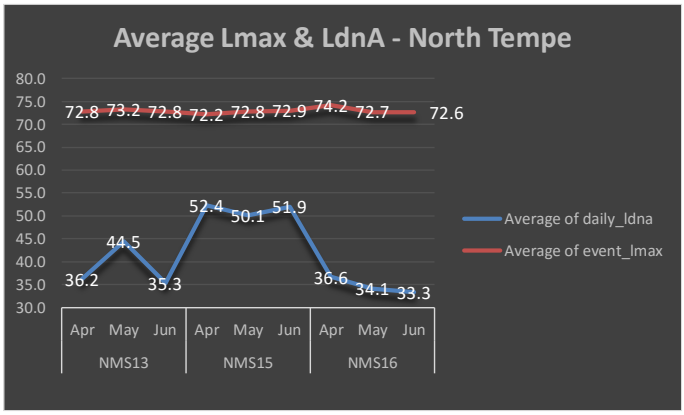
North Tempe Noise Exposure

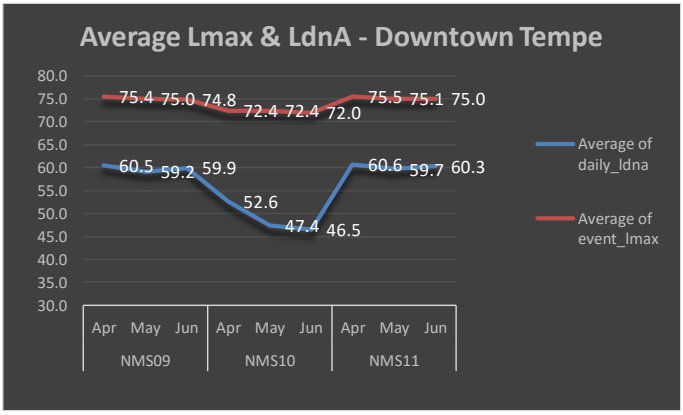




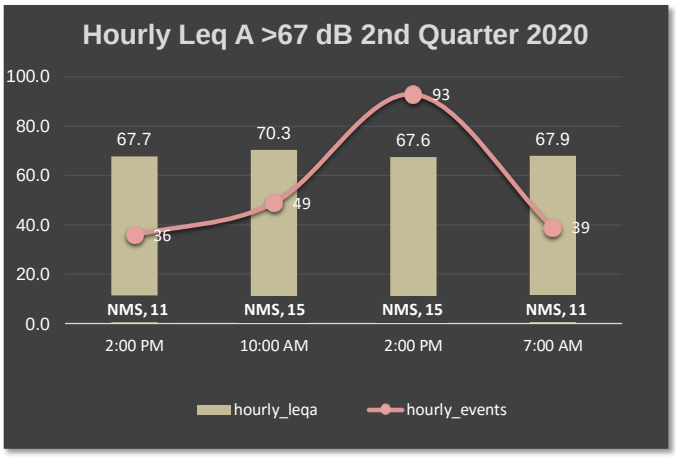


Aircraft sound exposure are registered by twenty fixed PHX ANOMS noise monitors of which eight are located in North Tempe. Average equivalent sound level (Ldn) or Day Night Level (DNL) is the metrics used to determine exposure over time and is calculated over a 24-hour period with a penalty of 10 dB added for sound events occurring between 10.00 p.m. to 07.00 a.m.





Lmax is the maximum A-weighted sound level, dB (A) squared registered during a sound event. "A-weighted" means the sound is measured at frequencies that reflect the sensitivity ranges of the human ear.



Long-term equivalent level (Leq) is the total sound energy measured over a stated period. These are the hours of the day the equivalent levels were calculated to be above 67dB. A high number of ≥76 dB Single Event Level (SEL) noise were registered at monitor 15 on Weber Road during the 10:00 a.m. hour and 2:00 p.m. hour on May 8th and June 8th, 2020 when arriving jets were on approach to land on the north runway (Runway 26).