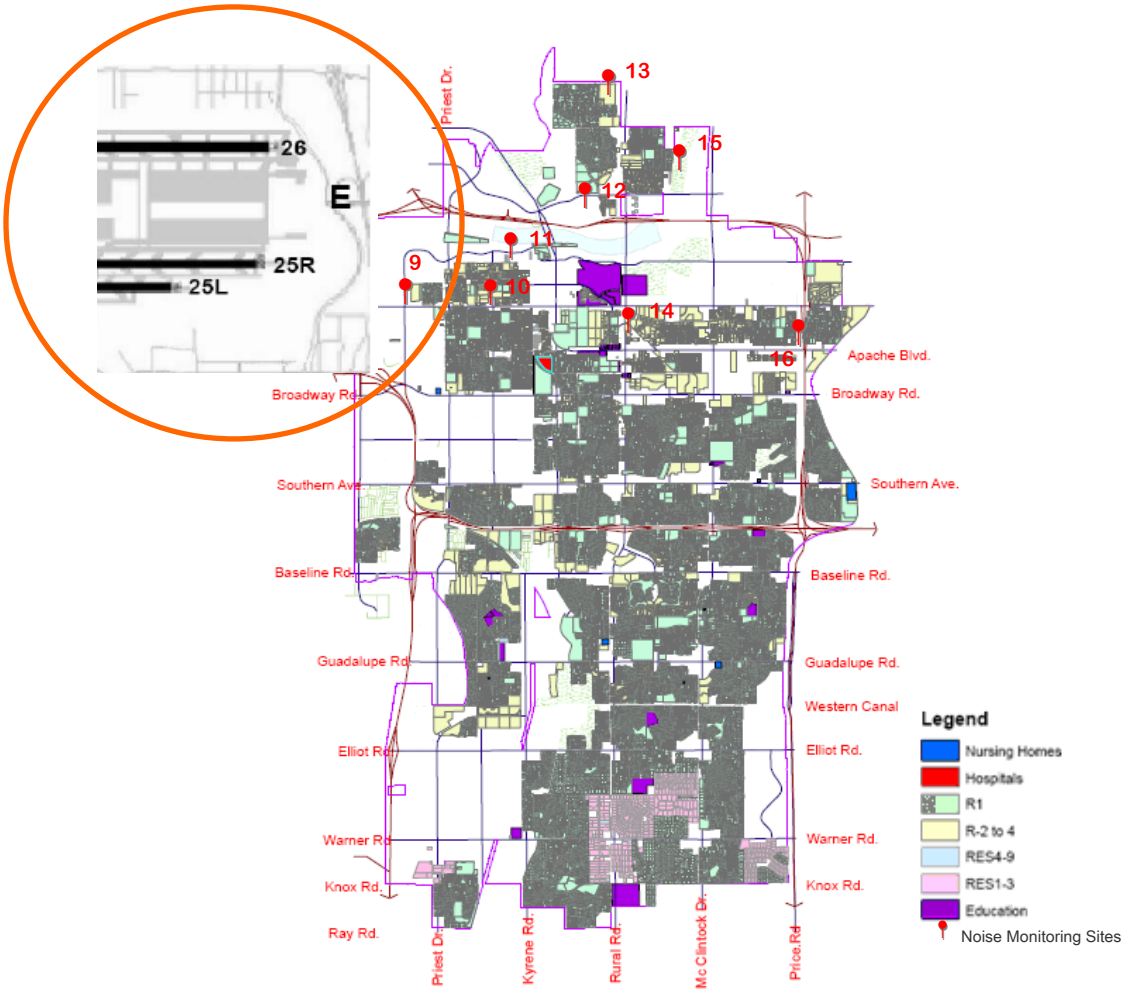
Tempe

2016 3rd Quarter Noise Monitoring Report

PHX East



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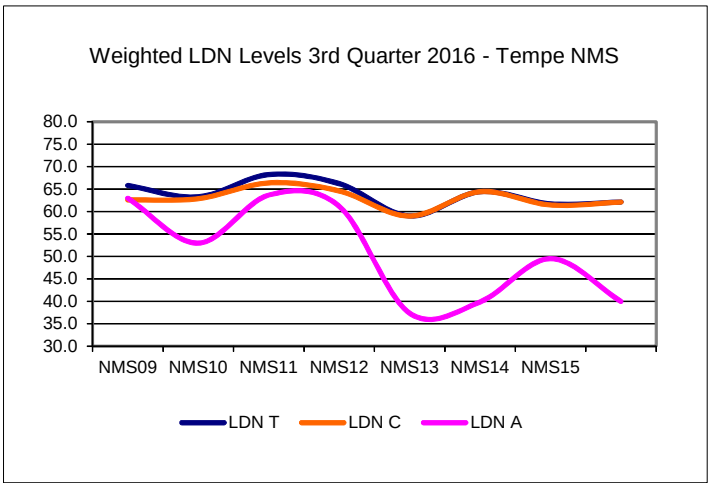
Aviation Noise Monitoring

The Phoenix Sky Harbor International Airport (PHX) Noise and Flight Track Monitoring System (NFTMS) has eight fixed Noise Monitoring Sites (NMS) in Tempe located in neighborhoods around the Town Lake/ Rio Salado area. Through an agreement made with the City of Phoenix, the City of Tempe can access noise monitoring data collected by the system and use supporting software that filters the data to indentify the noise energy contributions attributed to aircraft operations over areas where the monitors are located.

A. Weighted Sound Exposure Levels

Average monthly sound exposure levels of aircraft events, are calculated from the Ldn or day-night average sound level also called Day Night Level (DNL) that includes a penalty of 10 dB (A) added for nighttime sound events occurring between 22.00-07.00 hours. This summary also includes a description of noise based on long-term equivalent level (Leq) Average sound levels created by aircraft, DNL or Ldn are a product of detection tools built in to the PHX NFTMS, which separate sound events registered at the monitoring site. The ambient sound events from all sources picked up at a monitoring site other than from aviation is the Ldn C. The sound events the NFTMS attributes to aircraft sound is the Ldn A. Ldn T is an expression of the total sound from all sources including aircraft noise.

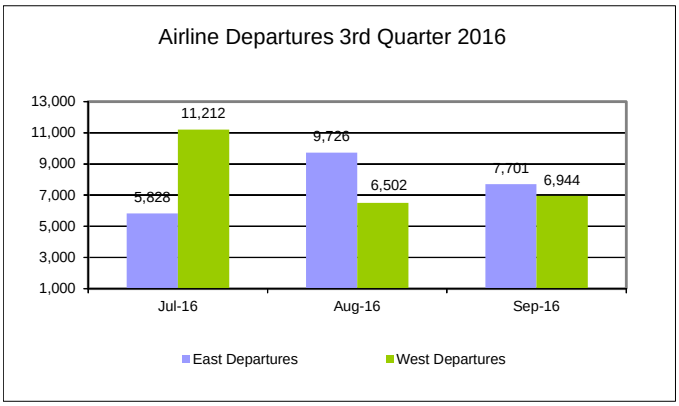


The average noise levels during the third quarter of 2016 were back to typical levels. The site preparation work for the Valor on Eighth project appeared to have contributed to the spike in levels that were registered at NMS 14 during the 2nd quarter.

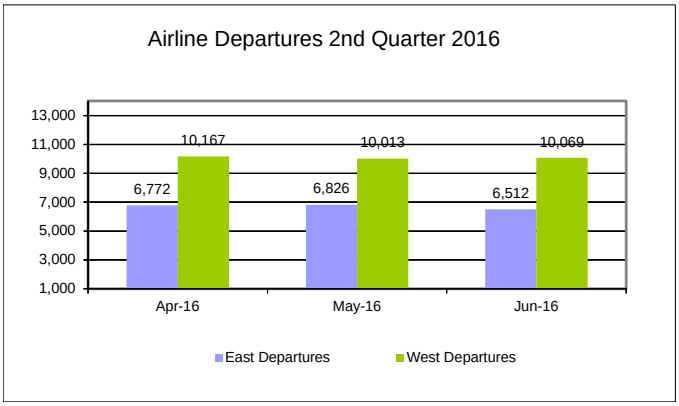
B. East – West Equalization of Noise Burden

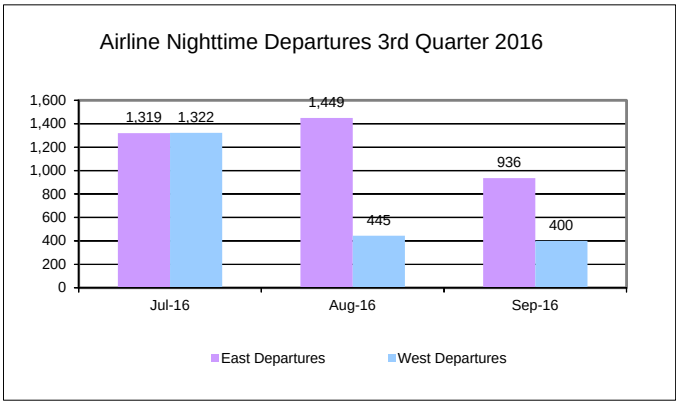
The airport Air Traffic Control Tower is directing large carrier departure traffic with the goal of accomplishing a 50/50 annualized east west split. A procedure for noise mitigation over Tempe delay air carrier turns away from the Salt River to the airspace over the Highway 202/ 101 intersection.

Departure flow east and west are determined over the year by daily and seasonal changes in wind directions, and the cities of Tempe and Phoenix have agreed that airport should attempt to distribute the noise burden from departing large commercial aircraft equally east and west on an annual basis including both day-and nighttime operations.

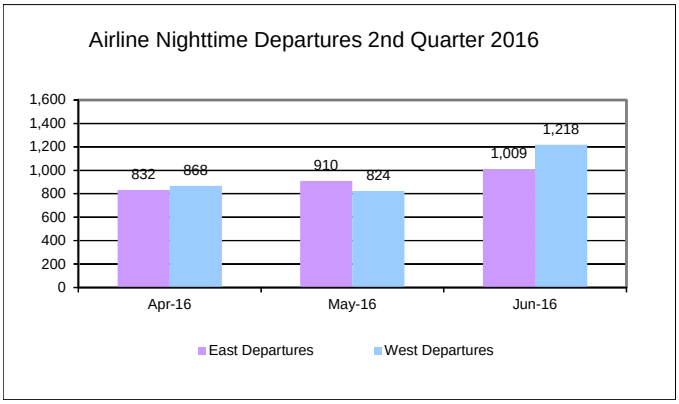


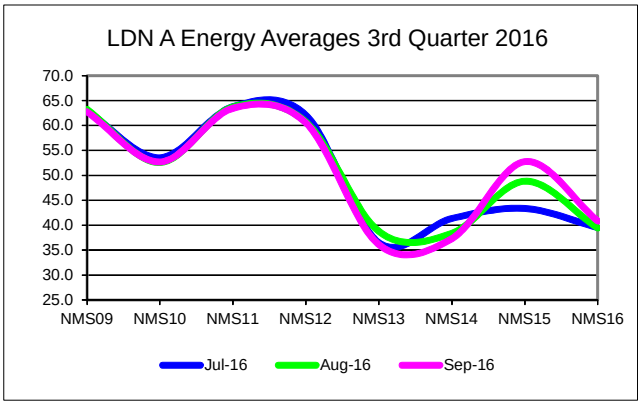
The flow of air carrier and corporate jet departures went predominantly west during the second quarter of 2016. The changes in departure flows are seasonal, and it changed in the third quarter with a total increase in departures to the east by 7.3%. Departures to the west decreased by 10.2% compared to the previous quarter.



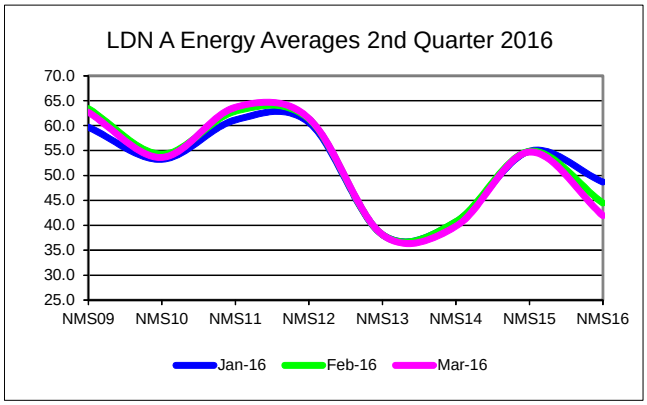


Night time departures occurring between 10:00 p.m. to 7:00 a.m. towards the east increased by 17.3 % compared to the second quarter of 2016.



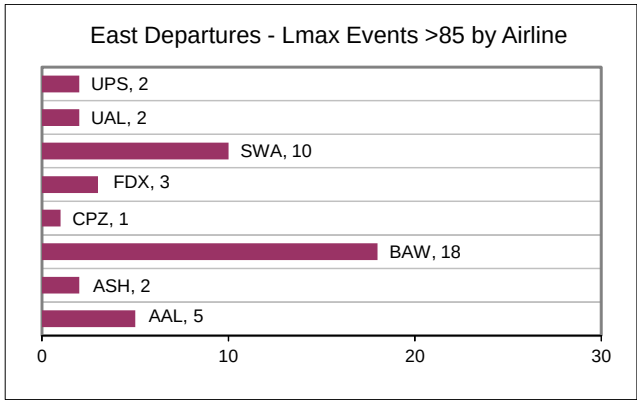


The day-night average noise levels registered at the noise monitoring sites in Tempe close to the Salt River and Tempe Town Lake areas reached higher average values. The month of July had a low number of departures going east.



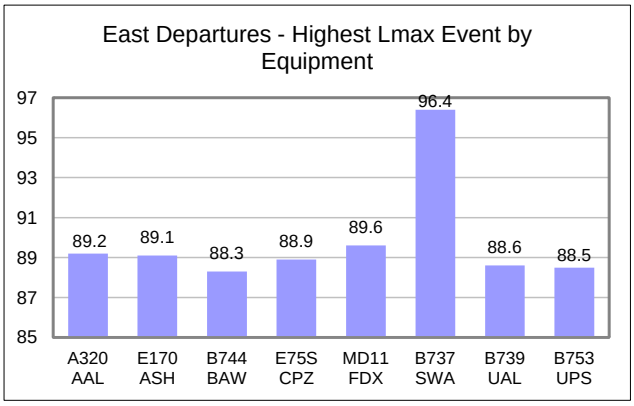
C. Registered Maximum Sound Energy Levels

The number of higher sound energy level events attributed to airline operations varies each month, which influences monthly Ldn average levels. Lmax is the maximum A- weighted sound level, dB (A) registered during a particular sound event. A-weighted means the sound is measured at frequencies that reflect the sensitivity ranges of the human ear.

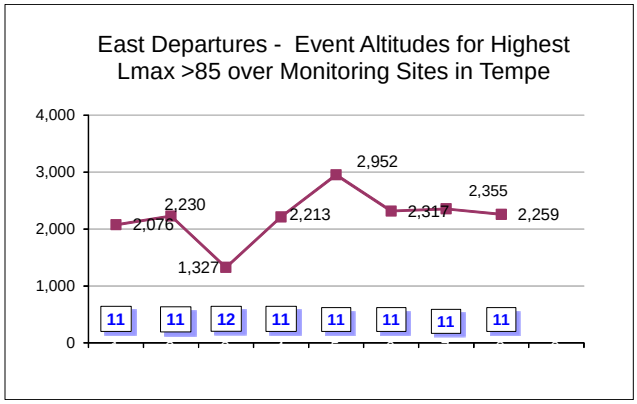


Fewer events occurred where aircraft noise reached or exceeded Lmax 85dB compared to the second quarter of 2016.

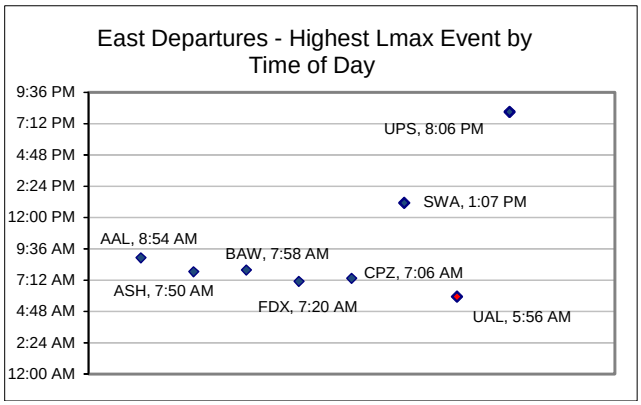
UPS: UPS
UAL: United Airlines
SWA: Southwest Airlines
FDX: FedEx Airlines
CPZ: Compass Airlines
BAW: British Airways
ASH: Mesa Airlines
AAL: American Airlines



The highest event registered during the third quarter reached Lmax 94.8 dB, and was created by a Southwest Boeing 737.



The British Airways Boeing 747 was at a low altitude compared to other aircraft creating noise events above 85 dB (Lmax).



Information about the NFTMS and the City of Tempe agreement with the City of Tempe are available at www.tempe.gov/aircraftnoise.