
2005 Annual Summary

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Report prepared for TAVCO by the City
of Tempe, 255 East Marigold Lane,
Tempe AZ 85281

Noise

Mitigation Monitoring Summary

Hot Button Issues!



Most compliant airline during 2005:

United Airlines

p. 7



346 complaints on aircraft noise
received by Tempe in 2005 p. 4

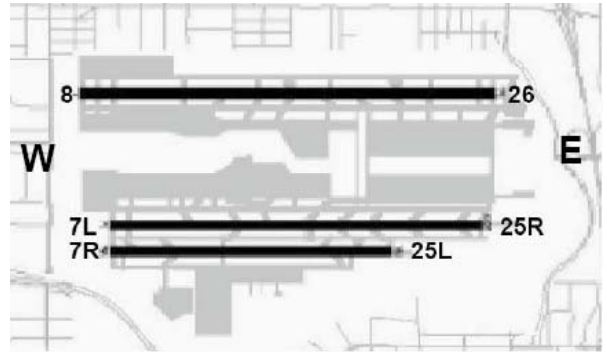


Aircraft noise levels increases in the
border areas for Sky Harbor noise
exposure contour lines, p. 4

1. Introduction

This summary is assembled for the Tempe Aviation Commission (TAVCO) to summarize annual compliance of airline operations at Phoenix Sky Harbor International Airport with noise mitigation flight procedures over the City of Tempe. TAVCO consists of 13 Tempe residents appointed by the Tempe Mayor with approval of the City Council to assist and advice on aviation noise and other issues relating to the Phoenix Sky Harbor International Airport. The City of Tempe is located directly east of the Phoenix Sky Harbor International Airport. The airport has 3 parallel runways and is owned and operated by the City of Phoenix. After the FAA suspended a side step visual approach procedure to Runway 25L, the following flight procedures are implemented to mitigate noise impact from large aircraft over Tempe:

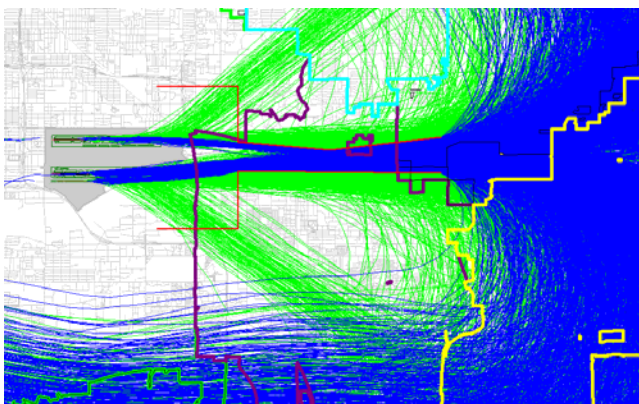
- The 4-DME Standard Instrument Departure Procedure to keep all jet and large turboprop aircraft that depart to the east over the Salt River/Tempe Town Lake area before they make turns towards their route destinations.
- Equalization of all jet and large turboprop aircraft departures east and west during daytime and nighttime hours on an annual basis.



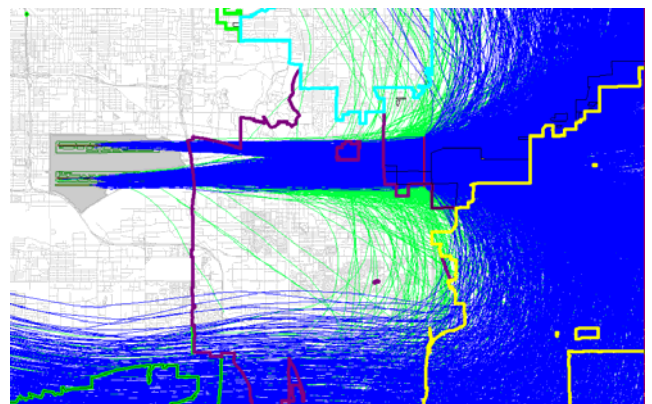
2. Departure Compliance

Compliance Rates

After the cities of Tempe and Phoenix entered into an intergovernmental agreement in 1994 on noise mitigation flight procedures, a measure was developed to identify how large aircraft complied with the 4-DME departure procedure to the east. The City of Phoenix implemented a “4-DME gate” to identify aircraft that violate the procedure. This is an imaginary line used as a filter in the Noise and Flight Track Monitoring System for the Phoenix Sky Harbor International Airport. TAVCO developed a “Corridor”, which was based on Standard Instrument Departure procedures that were in use when the intergovernmental agreement with the City of Phoenix was made.

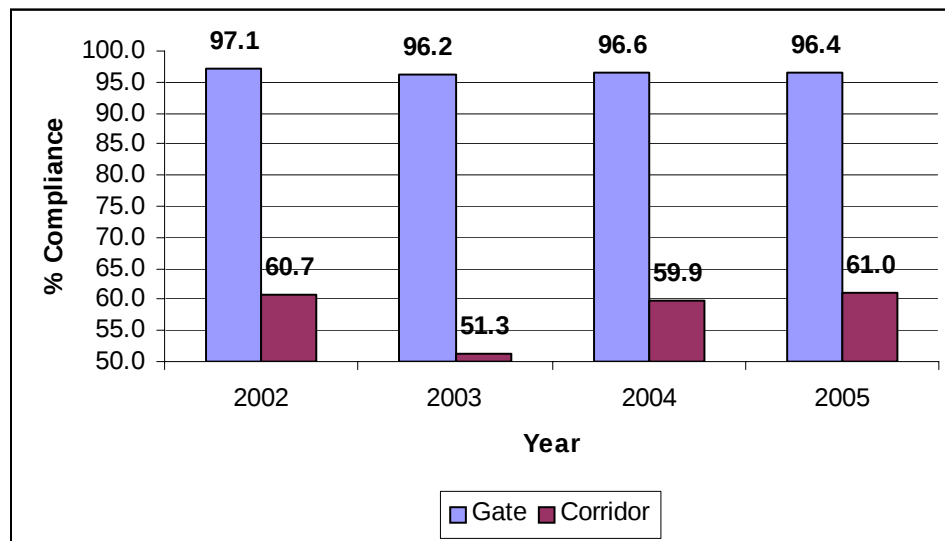


Flight tracks over a month period inside the Tempe Corridor depicted as blue tracks.



Flight tracks over the same period inside the Phoenix Gate depicted as blue tracks.

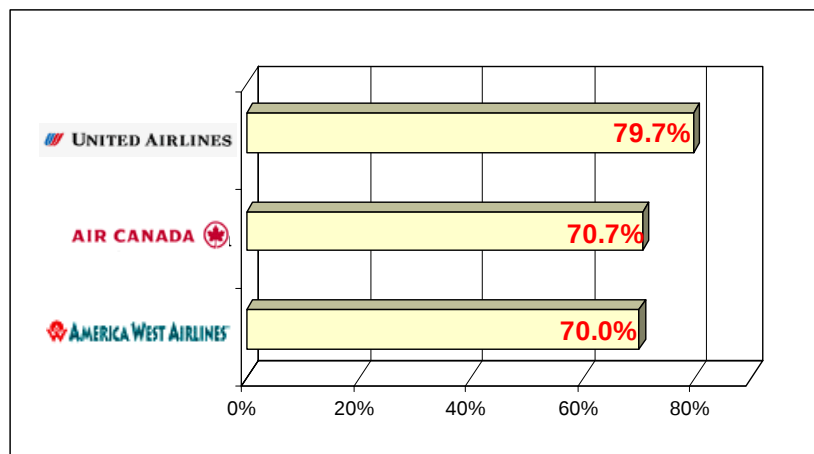
Large turboprop aircraft are not included in the depiction showing compliance with the 4-DME gate. These aircraft are routinely routed outside the 4-DME gate on approximate departure angles of 120° towards the southeast and 60° towards the northeast.



The annual average compliance rates are based on monthly numbers from the TAVCO Noise Mitigation Monitoring Reports. The November and December 2005 reports do not include any exclusions of aircraft deviations due to weather that was done for previous months and years due to missing information normally provided by the Phoenix Aviation Department. 96.4% of the jets complied with the Phoenix 4-DME gate. Including large turboprops 61% complied with the Tempe corridor in 2005.

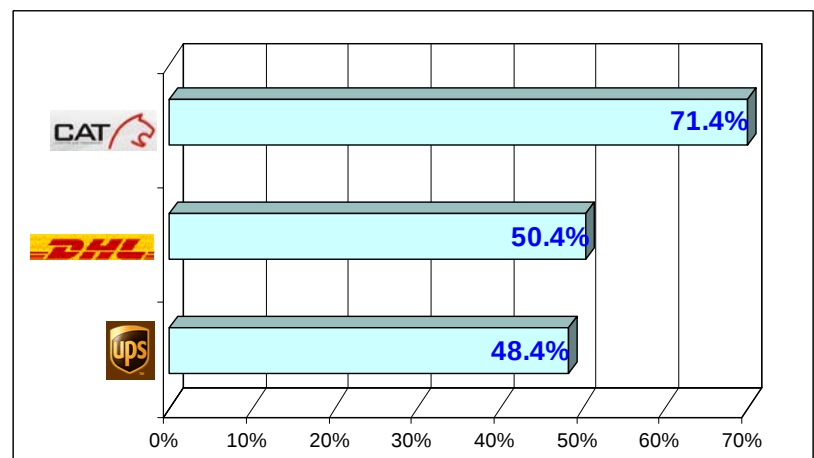
Top Airlines

Among the larger carriers United had on average best compliance with the Tempe Corridor during 2005.



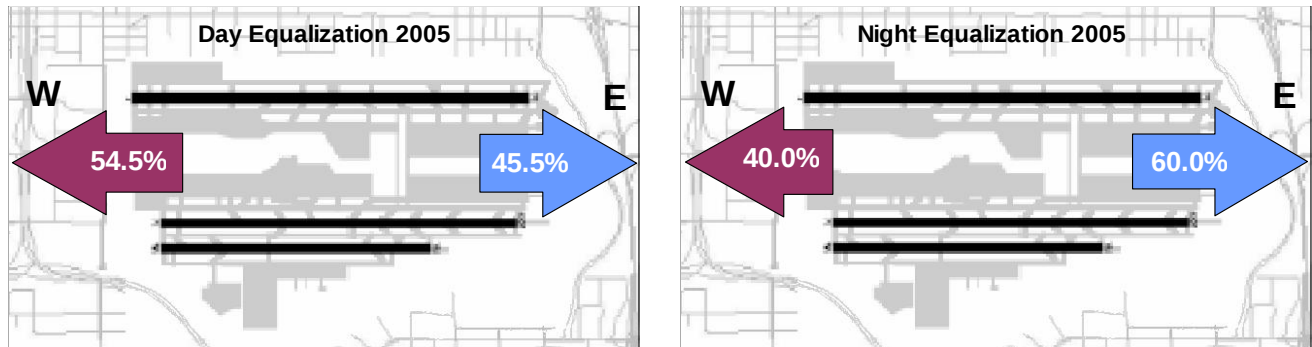
Top All Cargo Carriers

Among the larger all cargo carriers Custom Air Transport had on average best compliance with the Tempe Corridor during 2005.



3. East/West Departure Split

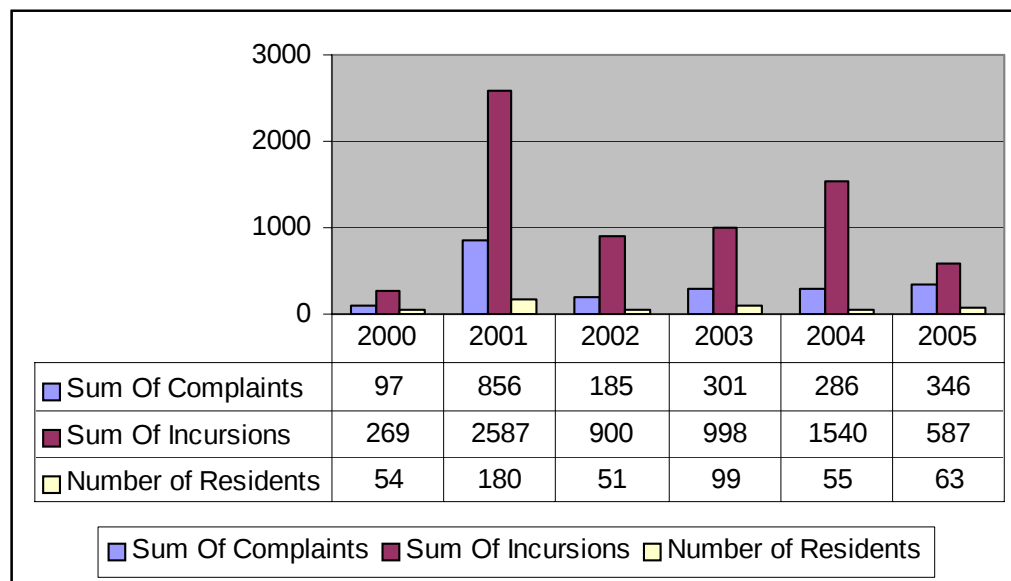
The split in all jet and large turboprop aircraft departures to the east and west of the Phoenix Sky Harbor International Airport is generally not as favorable for Tempe during the nighttime hours compared to daytime hours. As of December 31, 2005, 60.0% of all nighttime and 45.5% of all daytime departures by jet and large turboprop aircraft have gone towards the east since January 1, 2005.



Day and nighttime departures are generated by a query covering day + evening hours and nighttime hours. Day = 7: 00 a.m. to 9:59:59 p.m. local time and Night = 9:59:59 p.m. to 7:00 a.m.

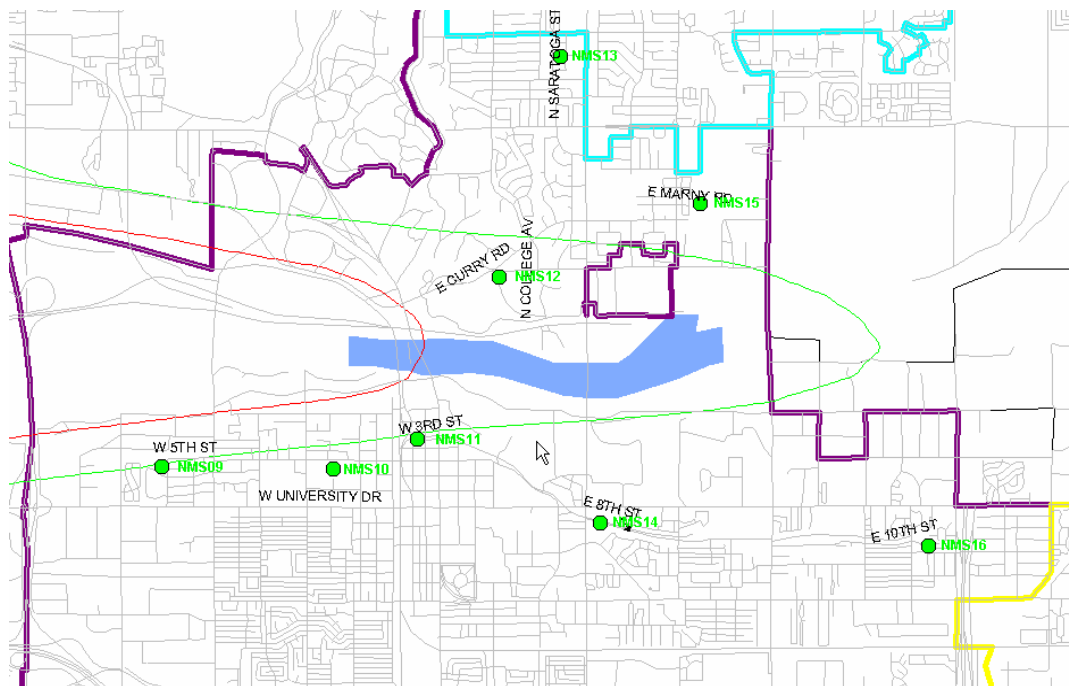
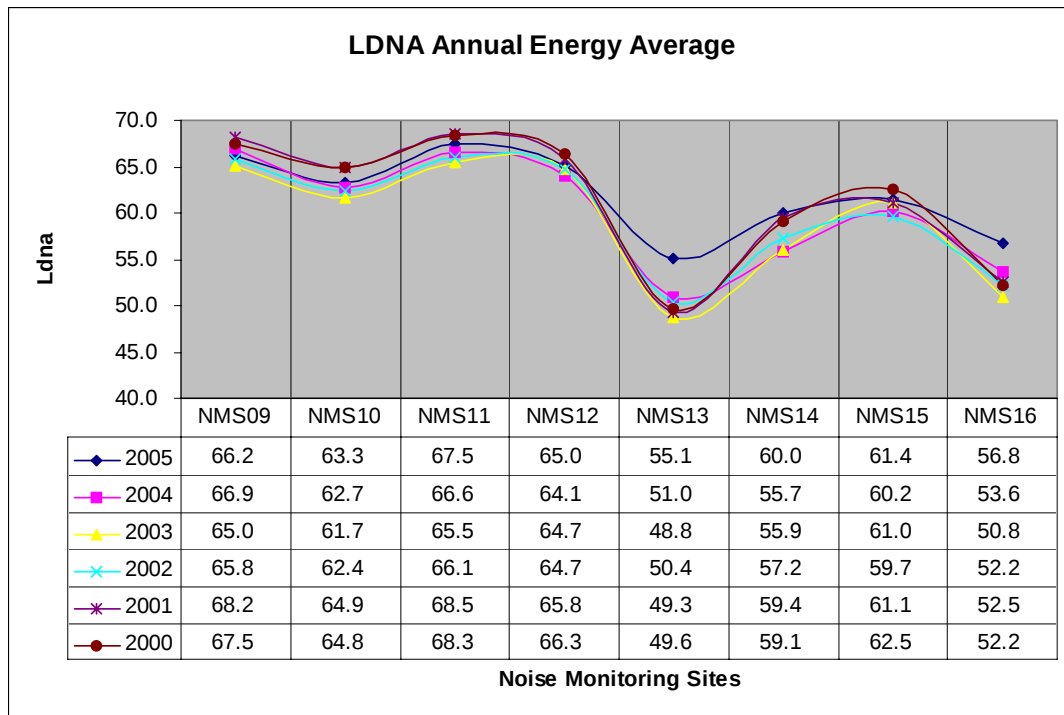
4. Complaints

The City of Tempe started registering aircraft noise complaints from Tempe residents in October 2000 after the opening of the third runway at Phoenix Sky Harbor International Airport. The number of complaints each year has been around 300 after 2002. In 2005 the City of Tempe received 346 complaints from 63 residents. The number of identified flights reported in complaints varies. 587 flights were identified as annoying or off course from the general flight paths over Tempe.



5. Averaged Noise Levels

Annual A- weighted measurement of Day Night Level (Ld_{na}) registered by the Noise and Flight Track System show increases in average levels from last year at most monitors in Tempe, particularly at monitoring sites in Tempe located outside the 65 DNL noise contour lines for the Phoenix Sky Harbor International Airport.



The 1999 65 DNL noise contour is the green line. The 70 DNL is depicted in red.