

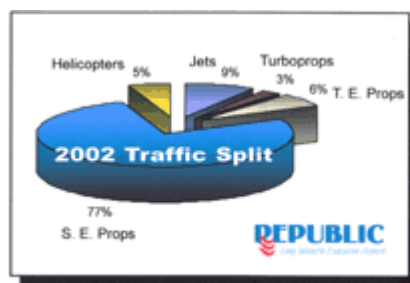
## Republic Airport Noise Contour Update Summary Calendar Year 2002

### 2002 Calendar Year - Total Traffic

A total of 169,638 takeoffs and landings occurred in 2002. This was an 8.53% increase in activity over 2001. Jet traffic increased by 30%. All other categories increased except for twin engine props that were down by 1.5%. Turboprops were up by 6.7%, single engine up by 27%, and helicopters up over 6%. These increases represent a rebound from 2001 levels that were driven down by national security measures.

A total of 88.5% of jet movements took place during the day (7 AM to 10 PM) while nearly 96% of propeller driven aircraft traffic occurred during the day.

Over 57% of total traffic used Runway 1/19 overall, rising to a 61% during the night period.



### Day Night Average Sound Level

Noise levels around airports are customarily defined by the annual average noise levels. These are normally calculated with the use of a computer model, in this case the FAA's INM Version 6.1. The Day Night Average Sound level departs from a strict average by placing a 10 decibel penalty on all noise events during the night period (10 PM to 7 am) to account for the greater disturbance that normally occurs. The computer model calculates a series of nested contours, which are displayed in this case on an [aerial photograph](#) of the airport and vicinity. The key criterion is the placement of the DNL 65 level contour.

### 2002 Noise Exposure Map

The Airport monitors noise levels annually to determine the effectiveness of noise abatement measures. On the reverse of this sheet, the [Noise Exposure Map for 2002](#) shows cumulative noise contours from the DNL 65 to the DNL 75 level. The scale of this display is approximately 1 inch, which equals 1,600 feet.

Federal guidelines consider all land uses outside the areas defined to be compatible. For 2002, there was no encroachment of the DNL 65 contour on any residentially developed area around the airport.

Total area enclosed within DNL 65 was 1.20 square miles. This is a 5% increase from the 2001 calculated area of 1.14 square miles. The DNL 70 contour and the DNL 75 contour increased to 0.61 and 0.34 square miles. Grid point analysis of a point one mile from each runway end showed increases at three out of four points. The highest level found was at the north point, which was unchanged from 2001 at 64.5 DNL. Increases at all other points were less than 1 dB.

These increases were the result of increasing traffic, rebounding from depressed levels in 2001 due to national security measures. Changes in the INM relating to the Stage 2 Gulfstream series aircraft and

noise abatement profile assumptions for the Lear 25 series aircraft continued to moderate the cumulative noise levels plotted.

### **Noise Complaints**

Total noise complaints decreased to 1,322 from 1,449, an almost 9% reduction. The distribution of complaints changed from the historical pattern with a greater percentage from areas north, 29% of the total in 2002 up from 12% in 2001, primarily due to concerns from a single family about changes traffic routing. Complaints from areas to the southeast and south were reduced as were complaints from the northwest, down from 77% in 2001 to 65% in 2002. A monthly comparison showed noise complaints above the 2001 levels in February, April, September and October and down for all the remaining months in comparison to 2001.