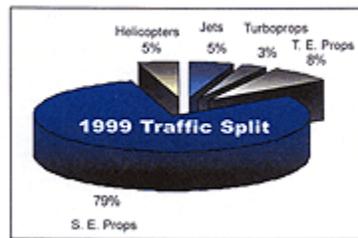


## Republic Airport Noise Contour Update Summary Calendar Year 1999

### 1999 Calendar Year - Total Traffic

A total of 172,256 takeoffs and landings occurred in 1999. This was a 6.6% increase in activity over 1998. Jet traffic increased by nearly 20% while single engine aircraft volume was up 6%. Helicopters increased by nearly 5%. Turbine powered aircraft and twins were down 5% and 1% respectively.

A total of 88% of jet movements took place during the day (7am to 10pm) while nearly 94% of propeller driven aircraft traffic occurred during the day. Over 52% of the total traffic used Runway 1/19 overall. Use of the preferential night runway 1/19 was 54% for both jets and overall traffic.



### 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 the case the FAA's INM Version 6.0. The Day Night Average Sound level departs from a strict average by placing a 10 decibel penalty on all noises during the night period (10pm to 7am) to account for the greater disturbance that normally occurs. The computer models 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.

### 1999 Noise Exposure Map

The [Noise Exposure Map for 1999](#) showing cumulative noise contours from the DNL 65 to the DNL 75 level. The scale of this display is approximately 1 inch equals 1600 feet.

Federal guidelines consider all land uses outside the areas defined to be compatible. For 1999, there was no encroachment of the DNL 65 contour on any residentially developed area around the airport. Total area enclosed within DNL 65 is 1.31 square miles. This is a 14% increase from 1998 and the same as occurred in 1997. The DNL 70 contoured the DNL 75 contour increased to 0.63 and 0.34 square miles. Grid point analysis confirms that these increases should not be noticeable in surrounding residential areas.

These increases were caused by the overall increase in traffic, particularly jet traffic. Among the jet aircraft, older noisier Stage 2 aircraft, primarily Lear 25 series aircraft, increased in activity and had substantially greater activity during the night period than in 1998. These aircraft had very heavy usage of Runway 1/19 which changed the pattern of exposure, substantially increasing the size of the contour north and south while reducing the size of the area centered on Runway 14/32.

### Noise Complaints

Total noise complaints dropped to 624 from 726