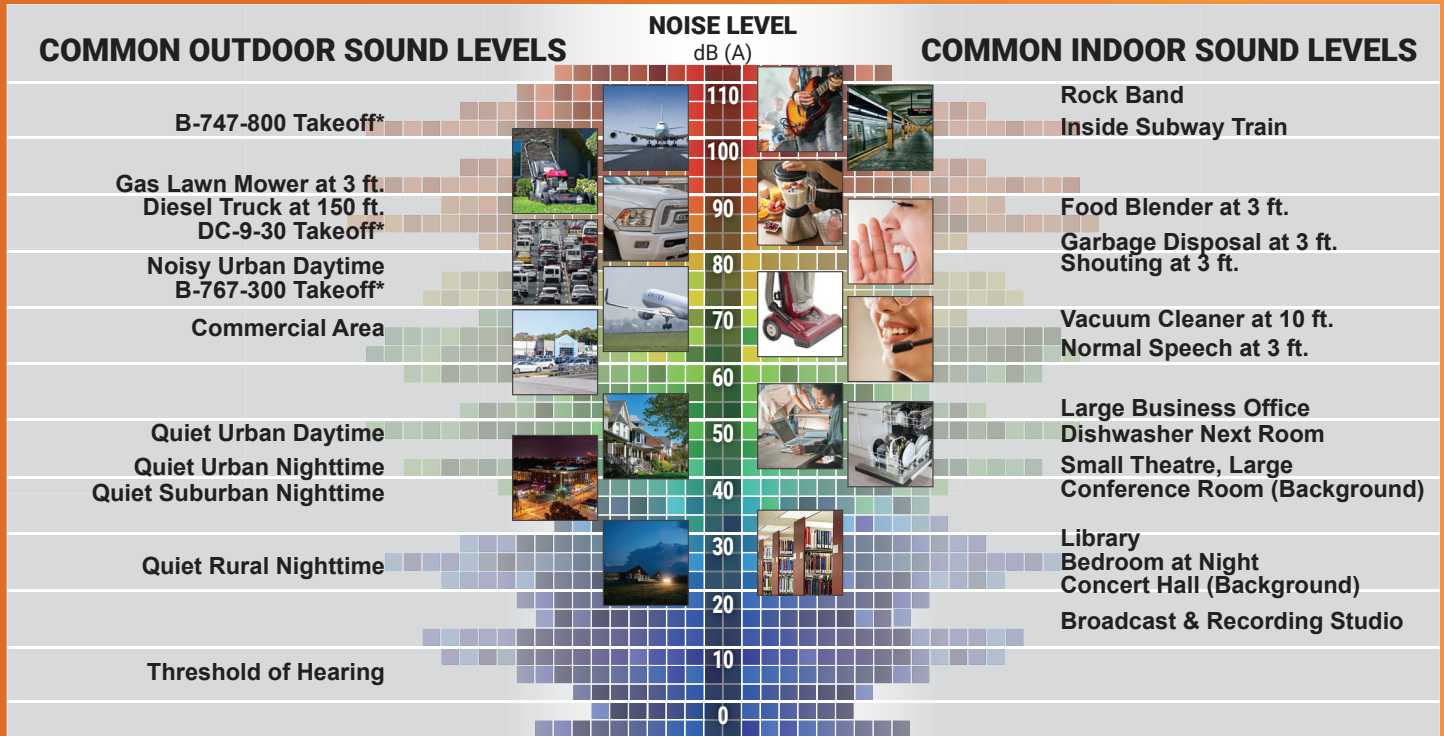


# Different Types of Noise

## Comparative Sound Levels (DBA)

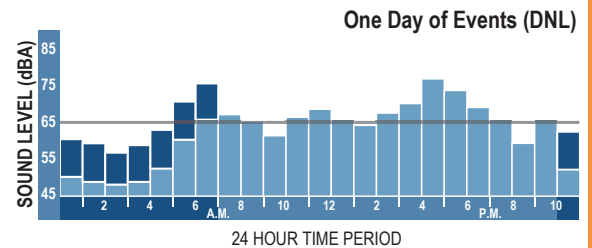


## DNL Noise Metric

The day-night average sound level (DNL) noise metric is used to reflect a person's cumulative exposure to sound over a 24-hour period, expressed as the noise level for the average day of the year. DNL is the standard noise metric used for all FAA studies of aviation noise exposure in communities surrounding airports.

### DNL DAY-NIGHT AVERAGE SOUND LEVEL

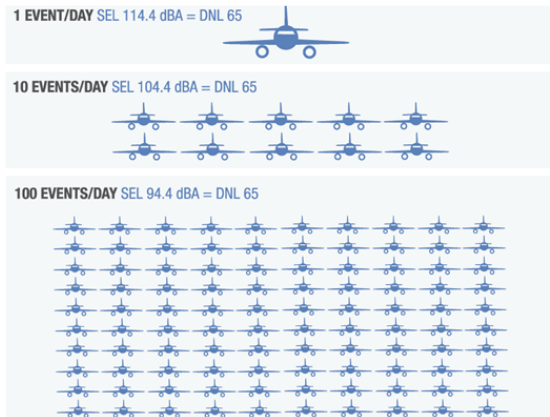
— DNL  
■ 10-dB Nighttime Penalty  
■ Hourly LEQ



## Calculating DNL

Because DNL takes into account both the amount of noise from each aircraft operation as well as the total number of operations flying throughout the day, there are many ways in which aircraft noise can add up to a specific DNL. Small numbers of relatively loud operations can result in the same DNL as large numbers of relatively quiet operations. Nighttime (10 pm - 6:59 am) operations are calculated with a 10 dB penalty.

### Equivalent Operations for DNL = 65



Chicago Rockford International Airport

## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Prepared for  
Greater Rockford Airport Authority