



ASPEN/PITKIN COUNTY AIRPORT

Mead
& Hunt



Fly with Integrity Program Development

March 2025

NOISE MONITORING & CONSULTATIVE ENVIRONMENTAL SERVICES

A stylized, dark blue graphic of a hand holding a torch, positioned in the background. The hand is on the left, with fingers curled around the handle of the torch. The torch's flame is a large, teardrop shape pointing upwards and to the right. The entire graphic is rendered in a dark blue color, matching the background, with subtle gradients and outlines to give it a three-dimensional appearance.

Noise 101

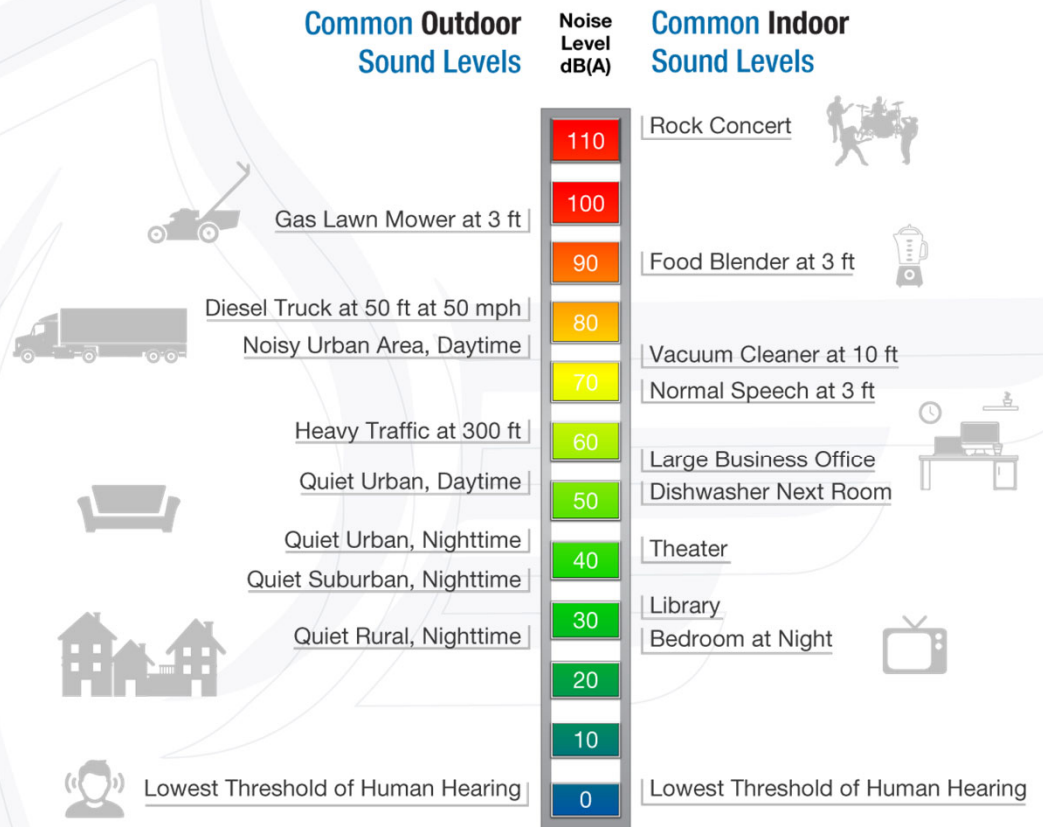
Decibels

→ A-weighted decibels (dBA)

- ▶ How the human ear hears sound (depending on frequency)

→ Decibels are logarithmic

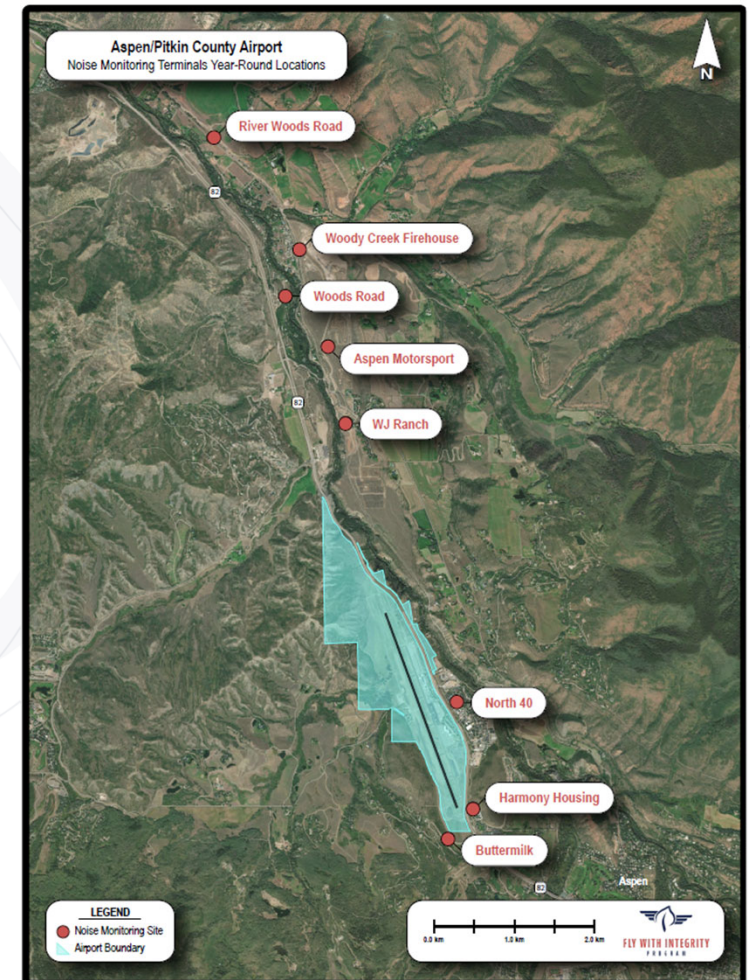
- ▶ An increase of 10 dB is twice as loud
- ▶ A decrease of 10 dB is half as loud



An increase of 3dBA is barely perceptible to the human ear.

How is Noise Evaluated

- ✈ **Evaluated using computer models and real-time measurements**
- ✈ **Noise monitors at ASE**
 - ▶ Eight Noise Monitoring Terminals
 - ▶ A-weighted noise levels measured 24 hours per-day
- ✈ **Types of noise metrics**
 - ▶ Single-Event Metrics
 - ▶ Cumulative Metrics



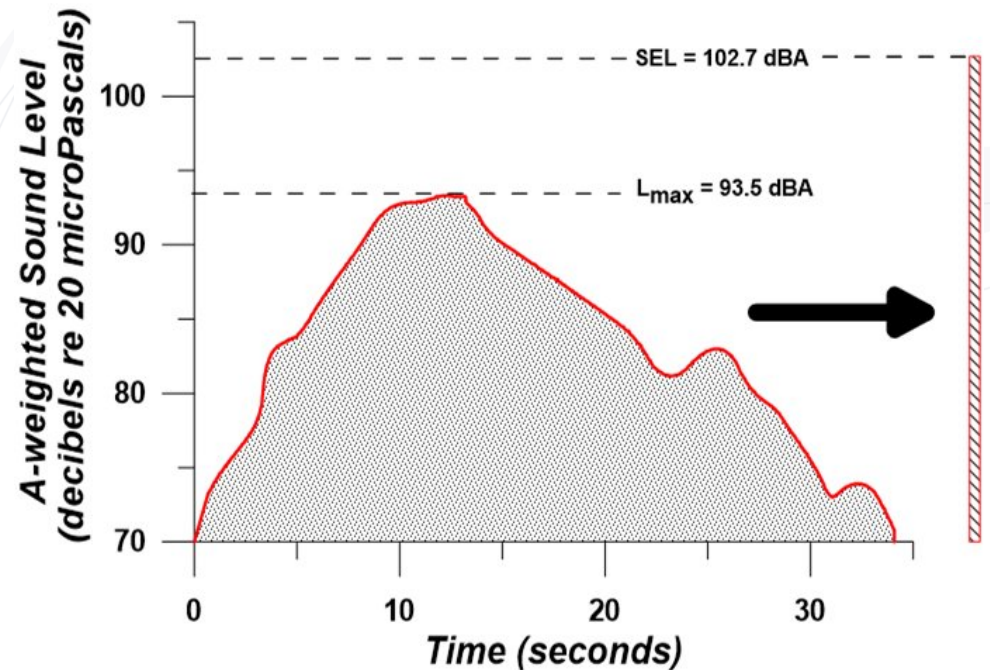
Single Event Noise Metrics

✈ **LMAX** (Loudest sound generated, what people *hear*)

- ▶ Noise associated with a single aircraft overflight
- ▶ What people hear

✈ **SEL** (Sounds Exposure Level - noise event summed into one second)

- ▶ Represents both the loudness and duration of a noise event



Cumulative Noise Metrics

✈ **DNL** (Day Night Average Sound Level)

- ▶ 24-hour average noise level with nighttime penalty
- ▶ FAA defines DNL 65 dB as the threshold for residential land use compatibility

✈ **LEQ** (Equivalent Sound Level)

- ▶ Noise level averaged for a specified period of time
- ▶ LEQ16 can be used to represent the hours of operation at ASE from 7 a.m. to 11 p.m.
- ▶ FAA does not use LEQ for land use decisions

