



**Mary Vigilante,
Synergy Consultants,
Inc.**

Mary Vigilante's History at ASE

- Prepared the first airport-wide greenhouse gas inventory for the Canary Initiative in 2006
- Prepared the climate and air quality analysis for the 2009 Runway Extension EA
- Supported Canary Initiative Climate Action Plan identifying actions that the Airport operator can take
- Prepared the Climate evaluation for the 2018 EA for the Terminal and Airfield project

Canary Initiative

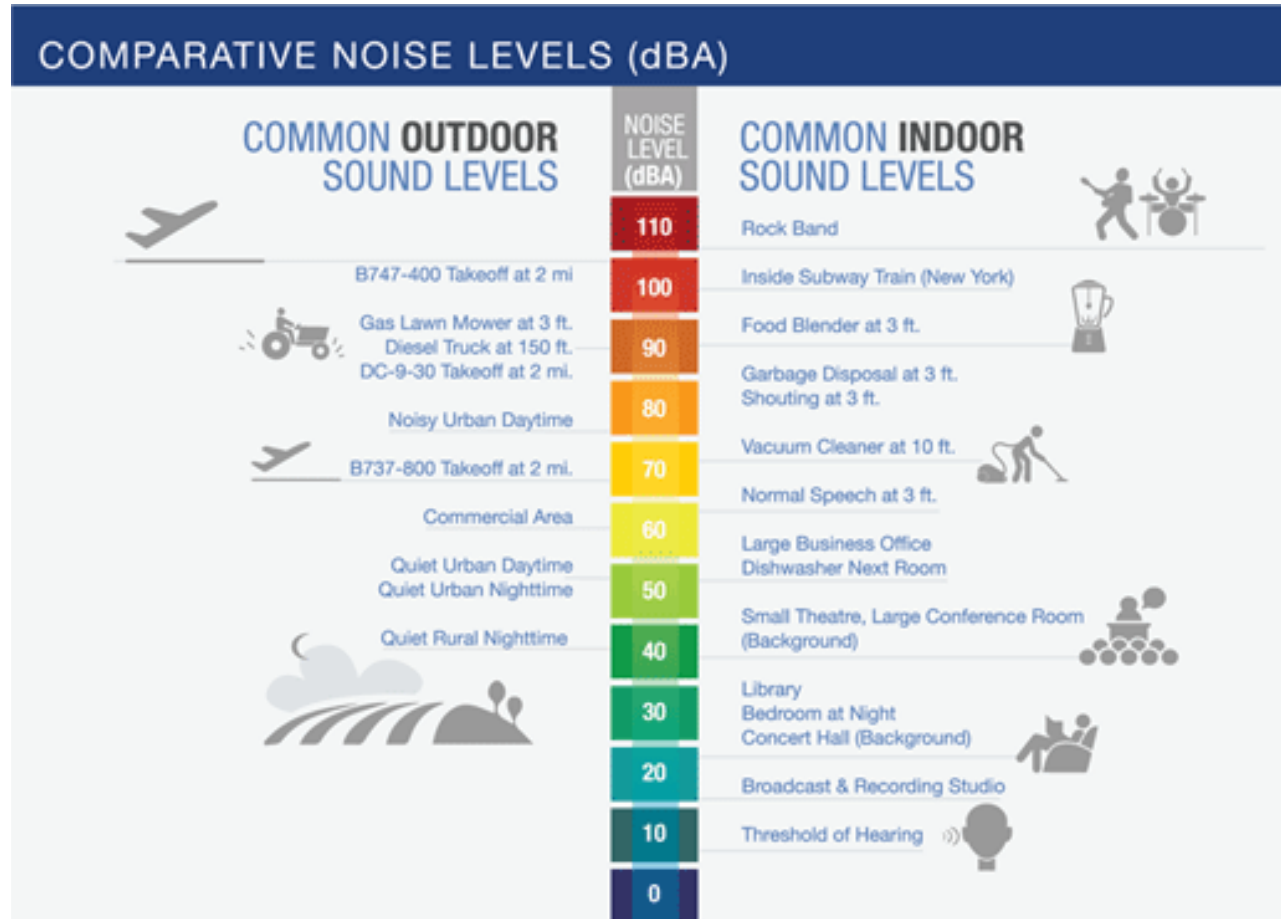
The [Canary Initiative](#) is Aspen's climate action plan which details how the city will promote sustainability and reduce greenhouse gas (GHG) emissions. The following actions were proposed to reduce GHG emissions at ASE:

- LED lighting on airfield
- Encourage airport taxi and shuttles to achieve higher fuel economy
- Support use of electric ground support equipment (GSE) vehicles
- Promote use of aviation biofuels in servicing local aircraft
- Encourage and support new terminal to be net-zero
- Encourage rental cars to have electric vehicle (EV) options
- Provide transit service directly to and from the airport

Emissions Considerations

- Data sets available to examine air emissions from aircraft:
 - Aircraft engine certification data is the best dataset.
 - Important to compare apples to apples
 - Primary regulatory model is Airport Environmental Design Tool (AEDT)
- When focusing on climate change, ***aircraft fuel burn is the best data set.***
- Important international considerations:
 - ICAO is the international standards setting organization
 - Airlines have committed to be carbon neutral growth post 2020 – meaning they can grow, but their emissions won't exceed 2020 levels
 - If carrier exceeds 2020 levels, they must comply with the CORSIA program
 - Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), is the first of its kind for a single industry in response to climate change

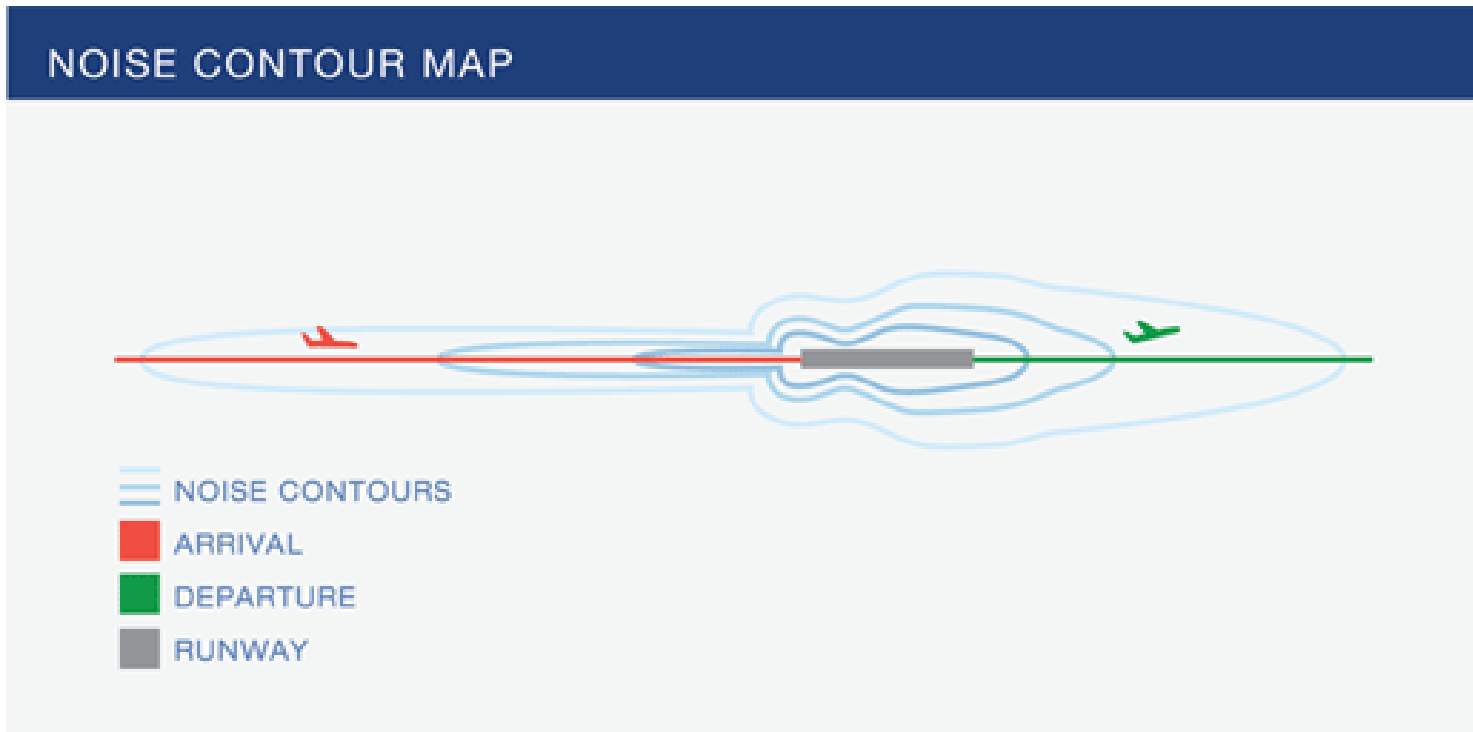
Noise Data - *What does dBA mean?*



Source: FAA – Comparative Noise Levels

Noise Data

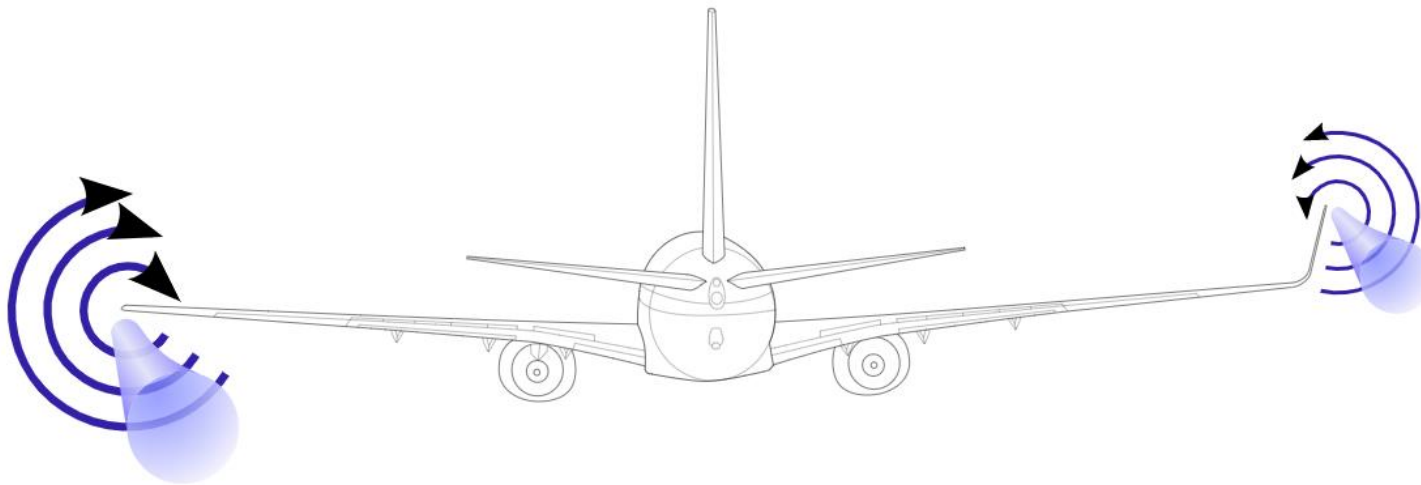
Noise is evaluated on intensity, duration and area impacted



Source: FAA – Noise Contour Map

New Technology

- Increasing efficiency
- Reducing noise



Longer wingspan | Winglets | Geared turbo fan engines

Source: Wikimedia Commons