



# Environmental Impact Statement for Special Use Airspace Optimization Project at Holloman Air Force Base, New Mexico



## Noise

### What is noise?

When aircraft fly overhead, especially at low altitudes, many people consider it annoying and refer to what they hear as noise. This noise can interrupt an activity, disturb the peace and quiet, interfere with communication, or disrupt sleep.

The Draft EIS analyzes subsonic noise and supersonic noise. Each of these are reported in different noise “metrics” in the EIS.

#### Subsonic Noise

- Conventional noise generated by aircraft’s engines and airframe.
- Most familiar form of aircraft noise.
- Reported as Day-Night Average Sound Level or DNL.
- Cumulative metric based on average daily aircraft operations.
- U.S. Environmental Protection Agency recommends a threshold of 55 DNL to protect public health and welfare.
- Exposure above 65 DNL is generally considered incompatible with residential, public use, recreational, and entertainment areas.

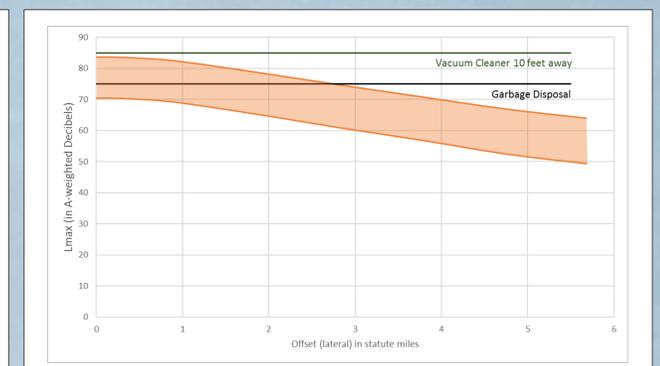
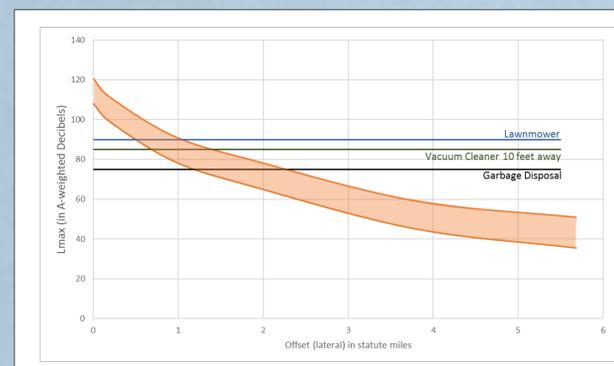
#### Supersonic Noise

- Noise generated when an aircraft travels faster than the speed of sound (supersonic speed).
- Reported as C-weighted Day-Night Average Sound Level or CDNL.
- Cumulative metric based on average daily aircraft operations.
- U.S. Army Public Health Command recommends a threshold of 62 CDNL for noise sensitive land uses.



### How loud will the aircraft be?

The cumulative metrics reported for subsonic noise (DNL) don’t provide information on the “loudness” of an aircraft flying in the vicinity of an observer. To characterize the “loudness” that could be experienced by an observer, two scenarios were modeled. The potential noise of the aircraft was then compared to common noise sources to provide a frame of reference.



#### Single Event Scenario 1 – 500 feet AGL

- Less than 10% of the proposed operations would be at this level. Given the large area where the aircraft would fly, this would be a rare experience for any observer.
- FAA altitude restrictions prevent this scenario over cities or towns, Wilderness Areas, or National Parks (aircraft flying over these areas cannot fly below 2,000 feet AGL).
- The “loudness” for an observer directly beneath the flight would be louder than that of a lawnmower (110 – 120 dB).
- The “loudness” reduces significantly the further the observer is from the aircraft.

#### Single Event Scenario 2 – 10,000 feet AGL

- Approximately 80% of the proposed operations would be above 10,000 feet.
- The “loudness” for an observer directly beneath the flight would be similar to that of a vacuum cleaner or garbage disposal (70 – 85 dB).



For more information, please visit the project website at: [www.HollomanAFBAirspaceEIS.com](http://www.HollomanAFBAirspaceEIS.com)