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Save Coldwater Canyon
Studio City, CA 91604

Subject: Review of Aircraft Noise Technical Report

Ref: ATAC Corporation, "Environmental Assessment for the Southern California Metroplex Project, Aircraft Noise Technical Report", August 2016

Dear Board Members,

This letter presents our review of the reference document reporting noise impact throughout the Southern California (SoCal) Metroplex Project according to Federal Aviation Administration (FAA) criteria. We found the results of this document failing to meet the FAA noise assessment criteria, and to intentionally obscure the results. **The main shortcomings of the report are:**

- **Failure to use the current FAA mandated noise exposure model,**
- **Use of understated growth in volume of flights,**
- **Intentionally scrambling noise modeling results,**
- **Failure to model flight tracks over the Santa Monica Mountains area, and**
- **Failure to apply proper methods for planning and assessing instrument flight procedures.**

The SoCal Metroplex area encompasses 21 airports extending north to Santa Barbara, south to the Mexican border, east to Thermal and west to the Pacific Ocean. Our assessment of the report focuses on the Santa Monica Mountains area impacted primarily by Hollywood Burbank Airport (BUR) flights. The applicable criteria are from FAA Order 1050.1 summarized in the following table.

DNL Noise Exposure Level	DNL Increase with Proposed Action	AC DNL Change Consideration
DNL 65 dB and higher	DNL 1.5 dB or higher	Exceeds Threshold of Significance
DNL 60 dB to 65 dB	DNL 3.0 dB or higher	Info Disclosed Evaluating Actions
DNL 45 dB to 60 dB	DNL 5.0 dB or higher	Info Disclosed Evaluating Actions

Aircraft noise assessment is accomplished according to EPA standards (adopted by the FAA) principally by computer modeling rather than by measurement because 1) standards assess aircraft noise exposure over a considerable time (typically a year), and 2) noise should be assessed throughout a study area, not solely at a single position. This modeling uses measured noise emission and flight track data to compute the cumulative noise exposure (measured in DNL or CNEL) at individual grid points on the ground below. **Only the direct sound propagation from aircraft to ground location is computed.**

The purpose of the modeling was to determine the increase in noise exposure throughout the Metroplex from realignment of air traffic with the implementation of NextGen, and assess the noise increase results with respect to the FAA Order 1050 criteria. The Report states computing the day-night average sound level (DNL) values at 175,488 grid points from 1,242,614 flight tracks to and from 21 airports throughout southern California. **Aircraft types and volume of aircraft activity were taken from records for YR 2013, while forecast values were used for all 2016 and 2021 assessments. The forecasts do not accurately assess the large increase air traffic for BUR.** The assessment was done for five cases:

- YR 2013 flight operations
- YR 2016 flight operations with no operational changes
- YR 2016 flight operations with planned NextGen operational changes
- YR 2021 flight operations with no operational changes
- YR 2021 flight operations with planned NextGen operational changes

While values are given for all five cases, only the ‘no changes versus NextGen changes’ cases were computed for 2016 and 2021. **The report should assess the increases from YR 2013, but fails to do so.**

On August 31, 2016, the FAA signed a “Finding of No Significant Impact (FONSI)” and “Record of Decision (ROD)” for the Southern California (SoCal) Metroplex projectⁱ based on the Ref. ATAC report. Specifically, the report never found a single exceedance for the Order 1050.1 criteria in any of the 175,488 grid points.

The results of this assessment are presented on 652 pages of tables, each containing DNL results for the five cases. Specifically, the data tabulated are: Grid Point Location ID, Latitude, Longitude, YR 2013 existing DNL, forecast YR 2016 no-action DNL, forecast YR 2016 proposed-action DNL, forecast YR 2021 no-action DNL, forecast YR 2021 proposed-action DNL, and the DNL change between the no-action and proposed action DNL values for 2016 and 2021. **This data file, comprised of almost half a million data elements, has been intentionally scrambled in random order making it virtually impossible to identify the computed results in any geographical location.** This is analogous to printing an LA County telephone book in random order, not sorted by name, address, or phone number. An electronically formatted copy of the data is required to perform an adequate analysis and identify the locations of the thousands or computed DNL values. However, several observations are worth noting.

- The Environmental Assessment for compliance with the FAA Order only assesses the DNL noise exposure increases for the ‘no-project’ versus ‘project’ alternatives for the 2016 and 2021 years. **This assessment should have also addressed the increases for 2016 and 2021 with respect to the 2013 baseline.**
- The noise modeling computer program used by ATAC is “Noise Integrated Routing System” (NIRS). **ATAC employed an obsolete noise modeling program in their assessment.** The “Aviation Environmental Design Tool” (AEDT) was established as the FAA standard noise modeling program in YR 2012 (with Version 2b in YR 2014) and should have been used for this YR 2016 assessment.
- It appears that **the modeling reflects altitude information provided by the air traffic procedure design, rather than following a standard procedure profile, as is ordinarily done in aviation noise studies.** This assumes that aircraft continue climbing to higher altitudes rather than holding at lower altitudes if directed by air traffic control (ATC).
- **The model assumes a newer fleet for 2016 and 2021, retiring older noisier aircraft and replacing them with newer and quieter ones. This is highly speculative, and greatly biases the data by**

allowing small noise level improvements to offset substantial increases in traffic volume. That is, a 3-dB decrease in noise emissions computes the same DNL contribution when doubling the number of flights.

FAA Order 8260, “United States Standard for Terminal Instrument Procedures” (TERPS) requires a comprehensive environmental assessment. This is to include an air quality assessment (a modeling feature of the AEDT), effects on water resources and wildlife habitat, and other factors particular to the impact areas. The ATAC report is a cursory noise assessment employing dubious source information, using an obsolete noise model.

It is true that residents are more sensitive to aircraft noise in quiet areas such as the Santa Monica Mountains. The primary reason is the low-level background noise environment. Noise annoyance by intrusive events, such as aircraft flyovers, is closely related to the “signal-to-noise” ratio; that is the level of the intrusive noise relative to the background (or ambient) noise. The FAA only assesses the CNEL/DNL noise contribution from aircraft activity and ignores the effects of low ambient noise levels. However, it is well understood that noise intrusion into quiet areas creates a greater noise impact.

To make a fair assessment of the noise impact over the Santa Monica mountains, it is necessary to use supplemental noise metrics. The DNL or CNEL metrics enable FAA prediction of no significant noise impact with substantial increases in aircraft activity offset by minor reductions in individual aircraft noise levels. Further, these noise level reductions are predictions of future technology, not yet extant. **Supplemental metrics have been applied to aircraft noise studies over the past twenty years**, starting with the Department of Defense Noise Working Group Technical Bulletin, “Using Supplemental Noise Metrics and Analysis Tools”, December 2009. **The noise consultants, HMMH, who chair the Burbank Airport Roundtable and other Roundtables are strong proponents of supplemental metrics. Two metrics most appropriate for the Santa Monica Hills area are “Time-Above (TA)” a specified sound level, and “Number of Events (NA)” a specified level.**

The community has documented many low-level flights over the mountain areas using flight track, airline, and altitude information from Flight Aware. This, when compared with their own ambient noise measurements of 30 dB – 40 dB, strongly suggest that the FAA Order 1050.1 criteria are exceeded. This is from aircraft activity never modeled or reported in the ATAC study.

Following are future actions for your consideration:

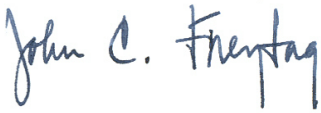
- Request an electronic copy of the ATAC Technical Report with data files in Excel readable format, and a copy of the input file to the NIRS noise modeling.
- Compute the DNL noise increases between 2013 and 2016, and 2013 and 2021 in Santa Monica Mountain areas.
- Provide technical input to legal counsel on the issue of environmental noise assessment.
- Provide additional service as you may recommend.
- Review the last FAR Part 150 noise compatibility report for Burbank Airport.
- Review reports from the Southern San Fernando Valley Airplane Noise Task Force and/or represent the Santa Monica mountains community on the Task Force.

The ATAC report suggests another case of strong FAA bias for the aircraft manufacturers and airlines over the resident concerns for quality of life and safety.

The FAA clearly regards the public as their enemy by making it impossible to identify their noise predictions at any particular location, and making the absurd, sweeping conclusion that there is no aircraft noise impact at any location in Southern California. We strongly support the bills by our legislators to mandate the FAA to fairly address aircraft noise.

This completes my preliminary review of Aircraft Noise Over the Santa Monica Mountains. Please contact me with questions or comments.

Very truly yours,



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http://metroplexenvironmental.com/socal_metroplex/socal_media_library.html