For distribution to CHBI Community Members.

The FAA has recently released the findings of its "Neighborhood Environmental Survey." This survey was administered in communities around 20 unnamed U.S. airports, to help determine if the agency needs to update its aviation noise policy. The survey received over 10,000 mail responses, making it the single largest survey of its kind undertaken at one time. The FAA is inviting public comment on the scope and applicability of these research initiatives to address aircraft noise, which is due on or before **March 15, 2021**. This is a significant announcement and an opportunity for communities impacted by aviation noise to provide direct input regarding needed changes to protect neighborhoods from aircraft noise. The notice can be found here: https://www.federalregister.gov/documents/2021/01/13/2021-00564/overview-of-faa-aircraft-noise-policy-and-research-efforts-request-for-input-on-research-activities.

The notice indicates that "FAA will not make any determinations based on the findings of these research programs for the FAA's noise policies, including any potential revised use of the Day-Night Average Sound Level (DNL)[1] noise metric, until it has carefully considered public and other stakeholder input along with any additional research needed to improve the understanding of the effects of aircraft noise exposure on communities."

Background and Standard for Noise Evaluation in California.

To date, federal standards for evaluating aviation noise impacts have emphasized and largely been limited to, a noise level indicator that evaluates *average* noise levels over a 24-hour period. This noise indicator, referred to as DNL, or the similar metric of community noise exposure level (CNEL[2]) used in California legislation, to evaluate noise is misleading and inaccurate. This is a good opportunity to request that the FAA consider single-event noise (SEL) and come away from the limited 65 CNEL metric they currently use to evaluate noise impacts.

The standard for evaluation of noise impacts in California is to evaluate not only noise over the course of a 24-hour period, but also single-event noise because that is how humans experience noise. In *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners*, the court held that a lead agency "cannot simply ignore the CEQA standard of significance for assessing noise [and] the credible expert opinion calling for further evaluation of the impact of single event noise." (2001) 91 Cal.App.4th 1344, 1382. *King & Gardiner Farms, LLC v. Cty. of Kern* (2020) 45 Cal.App.5th 814, 894, as modified on denial of reh'g (Mar. 20, 2020) (holding that the agency failed to consider the magnitude of the increase in noise, and thus to "accurately describe[] how changes in noise levels affect human beings."). A description of how noise affects a community without meaningful quantitative and qualitative analysis of "the community reaction to aircraft noise, including sleep disturbance" renders an EIR inadequate. *Berkeley Keep Jets Over the Bay Com.*, 91 Cal.App.4th at 1380-81. The court in *Berkeley Keep Jets Over the Bay Committee* expressly referred to single-event noise analysis as an appropriate method for measuring disturbance. *Id.*

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[1] DNL is the average noise level over a 24-hour period. The noise level measurements between the hours of 10pm and 7am are artificially increased by 10 decibels.

[2] CNEL is equivalent to the DNL with the addition of an evening period from 7 PM to 10 PM when noise level measurements are boosted 5 dB to account for the approximate decrease in background community noise by 5 dB during this period.

Suggested Comments to FAA (feel free to copy and paste the three paragraphs below as your comments**).**

FAA Should Require the SEL Noise Metric for Noise Impact Studies.

CNEL averages noise events over a 24-hour period. Although CNEL provides one way to measure noise, when it is used as the *only* measure of noise, CNEL does not provide a true or complete picture of what individuals will actually hear as a result of changes in the noise environment. People hear individual noise events; they do not hear noise *averaged* over a twenty four–hour period. Aviation noise events, particularly in communities in close proximity to airports are unrelenting and extraordinarily disruptive. All aspects of single-event noise impacts from a given Project, including noise shift related to changes in flight tracks, should therefore be analyzed for single event noise impacts.

The FAA has established a CNEL of less than 65 dBA as being "normally acceptable" with residential land uses, despite research and public testimony that a CNEL threshold of 65 dBA is not sufficient to protect the public's health and welfare. However, intermittent and impulsive noises, such as aircraft overflights, have been found to be more disturbing to sleep than continuous noise sources. Thus, people exposed to a CNEL of lower than 65 dBA may be significantly disturbed by aircraft noise, sometimes for many hours a day. The FAA's own survey demonstrates this point. Results of the FAA's survey indicate that two thirds of people living within the 65 DNL contour are highly annoyed by aircraft noise. In addition, relative changes in single-event noise levels have been found to be predictive of sleep disturbance in residents neighboring airports. Yet, people exposed to noise, particularly those who would be newly exposed to aircraft noise due to new flight operations or temporary construction-related aircraft noise increases, should not be ignored in analysis of aircraft noise simply because noise levels in their communities fall below a CNEL of 65 dBA.

Moreover, evaluations assessing the health effects of aircraft noise should analyze impacts of noise on speech communication, sleep disturbance, learning effects, and work performance effects. Such noise impacts can lead to serious physiological and psychological health effects. Ample studies and reports exist documenting the health impact of aircraft noise. Such an analysis must focus on the SEL noise levels, which are unrelenting and extraordinarily disruptive.

Submitting Your Comments

Below are the subject areas on which the FAA is seeking input. They are described in more detail in the link above. Please organize/categorize your comments on the basis of the following outline, for example "1. Sleep Disturbance," or "2. Supplemental Noise Metrics."

1. Effects of Aircraft Noise on Individuals and Communities:
• Speech Interference and Children's Learning;
• Neighborhood Environmental Survey;
• Health and Human Impacts Research;
• Impacts to Cardiovascular Health;
• Sleep Disturbance; and
• Economic Impacts
2. Noise Modeling, Noise Metrics, and Environmental Data Visualization
• Aviation Environmental Design Tool;
• Noise Screening;
• Environmental Data Visualization; and
• Supplemental Noise Metrics
3. Reduction, Abatement, and Mitigation of Aviation Noise
• Aircraft Source Noise Reduction;

• Noise Abatement;
• Noise Mitigation Research; and
• Aircraft Noise Policy Background

Addresses: Send comments identified by **docket number FAA–2021–0037** using any of the following methods:

• **Federal eRulemaking Portal:** Go to https://www.federalregister.gov/documents/2021/01/13/2021-00564/overview-of-faa-aircraft-noise-policy-and-research-efforts-request-for-input-on-research-activities#open-comment .
• **Mail:** Send comments to Docket Operations, M–30; U.S. Department of Transportation, 1200 New Jersey Avenue SE, Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.
• **Fax**: Fax comments to Docket Operations at (202) 493–2251.

For Further Information Contact: Mr. Donald Scata, Office of Environment and Energy (AEE–100), Federal Aviation Administration, 800 Independence Ave. SW, Washington, DC 20591. Telephone: (202) 267–0606. Email address: NoiseResearchFRN@faa.gov.