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U.S. Department of Transportation (DOT)
1200 New Jersey Avenue SE
Room W12-140
West Building Ground Floor
Washington, DC 20590-0001

Subject: Comments on the FAA's Review of the Civil Aviation Noise Policy

The City of Newport Beach, California (City), appreciates the opportunity to provide our response to the Federal Register notice published on May 1, 2023, Request for Comments on the Federal Aviation Administration's Review of the Civil Aviation Noise Policy, Notice of Public Meeting, Docket Number FAA-2021-0855[1].

The City has previously submitted a response to the request for comments on the Federal Register notice published on March 11, 2021, Overview of FAA Aircraft Noise Policy and Research Efforts: Request for Input on Research Activities to Inform Aircraft Noise Policy, Docket Number FAA-2021-0037[2].

The City is adjacent to Orange County's John Wayne Airport (SNA or the Airport) and as such, nearly all of the Airport's commercial and general aviation jet operations depart directly over a large section of our community, Newport Bay, and the 500-acre Upper Newport Bay Ecological Preserve. For nearly four decades, the City has worked with aviation-focused community groups and the County of Orange, the airport's owner, to address aviation noise concerns.

The City applauds the FAA for soliciting input from the public on the important topic of aviation noise policy. The City has drafted this letter to provide comments on six (6) issues described in the Federal Register notice.

[1] https://www.federalregister.gov/documents/2023/05/01/2023-09113/request-for-comments-on-the-federal-aviation-administrations-review-of-the-civil-aviation-noise
[2] https://www.federalregister.gov/documents/2021/03/11/2021-05056/overview-of-faa-aircraft-noise-policy-and-research-efforts-request-for-input-on-research-activities

The six (6) issues with which the City has specific concerns include:

- Issue #1 – Vehicle Type
- Issue #2 – Operations of Air Vehicles
- Issue #3 – DNL
- Issue #4 – Averaging
- Issue #5 – Decisionmaking Noise Metrics
- Issue #6 – Communication

To assist in FAA's review, the City has provided its response to each of the six (6) issues, as set forth below.

Issue #1 – Vehicle Type

The FAA noise policy should describe and disclose information on all current and future aircraft types. The impacts of aviation noise have evolved over the years, and it is essential for the FAA's noise policy to keep pace with technological advancements and emerging aircraft. By including all relevant aircraft types, such as unmanned aircraft systems (UAS or drones), advanced air mobility, rotorcraft, subsonic fixed wing, supersonic, and commercial space vehicles, the policy can address the full spectrum of noise sources in the aviation sector. When describing this information, it would be beneficial to use noise metrics that accurately capture the characteristics and potential effects of each aircraft type on the community. Noise metrics can include single event noise levels, tonal characteristics, and other novel approaches. It is also crucial to consider both the immediate noise effects and the potential cumulative effects of these aircraft types to provide a comprehensive understanding of their noise footprint.

The FAA should not only use this information for public disclosure, but also as a basis for making informed decisions. For example, empirical data can be used by the FAA to establish evidence-based regulations and policies that effectively manage and mitigate aviation noise from these aircraft types. This approach ensures that decisions are grounded in scientific research and real-world observations. Lastly, the City would like to stress that public disclosure is vital and the FAA should reveal what it is doing with regard to new aircraft types. By sharing information, the FAA can engage with stakeholders and the public, allowing for meaningful discussions and input. This approach enhances trust, facilitates community involvement, and enables a more collaborative and inclusive decision-making process.

Issue #2 – Operations of Air Vehicles

As a community in close vicinity to SNA, the City has a long history of concerns related to aviation noise, particularly with aircraft routes, departure procedures and frequency of flights. Due to frequent aircraft operations, the City experiences consistent fluctuations in noise levels, which can disrupt the quality of life in our community. Additionally, we are concerned about the number of flights during the day and nighttime. We believe that alternative noise metrics can be used, such as Time Above (TA) and Number Above (NA), to help investigate potential noise impacts in the community. These alternative noise metrics allow for comparisons to be performed of different flight routes and frequency of aircraft operations. The use of noise metrics in addressing community concerns provides objective data that can inform decision-making processes and facilitate discussions between the FAA and affected communities. By utilizing alternative noise metrics, the FAA and communities would have more data that could be used to identify

potential areas of improvement, assess the effectiveness of mitigation measures, and work towards finding a balance between aviation activities and community well-being.

The City understands that last-mile delivery, using drones (or UASs), is of growing concern across the U.S. The City is also aware of emerging aircraft technologies (e.g., electric vertical take-off and landing) that could have an impact on communities. As a community already subject to aviation noise from nearby SNA, we are concerned with the potential noise impacts that UAS package delivery or other newly emerging technology operations may have on our community. We are also concerned about privacy, security and safety associated with these technologies. Noise metrics can be used to evaluate the noise emissions of UAS and other emerging technologies. Metrics that consider the duration and frequency of operations, as well as the specific sound characteristics, can provide valuable insights. Additionally, metrics that assess noise propagation and the potential for noise concentration in certain areas would be essential to communities. With regard to privacy, it is essential to ensure that emerging aircraft technologies are conducted in designated areas away from residential communities and sensitive facilities. Further, the FAA should prioritize safety and security measures and robust operational guidelines to protect the public from accidents. By establishing clear rules and regulations for UAS and other emerging technologies, the FAA can ensure safe operations while minimizing noise impacts. Regular monitoring, compliance checks, and public reporting of safety records (among other practices) can contribute to building trust and addressing community concerns.

Further, communities like ours will want to have a voice on how and where these types of aircraft operate. Prior to implementation, our community would like to have input on where drones are flying and where vertiports are located. We do not want these vehicles to operate in our community without the necessary notification and public engagement that we would expect from the FAA. We hope that the FAA considers our concerns and strives to implement robust public engagement and outreach prior to considering the use of UAS for package delivery or facilities to support the operation of other emerging technologies (e.g., vertiports) in our neighborhoods.

Lastly, as a community that is regularly subjected to aviation noise, the City expects that communities in the vicinity of commercial space transportation operations would have interests and concerns related to the noise generated during launch and landing activities. These operations can produce significant acoustic disturbances that may impact the quality of life in areas not only close to the launch and landing locations, but at great distances away. Public notice mechanisms can play a crucial role in addressing community concerns. Timely and comprehensive information about upcoming launches, expected noise levels, and schedules can enable communities to prepare, plan and minimize potential disruptions. By providing clear and accessible information through various channels, including online platforms, public meetings and local media, the FAA can ensure that communities are well-informed about commercial space operations and their associated noise impacts.

Issue #3 – DNL

Since the City is in the State of California, we will be responding specifically to the use of Community Noise Equivalent Level (CNEL) to assess aviation noise impacts. When considering additional metrics alongside CNEL, and examining practices at other airports and countries, we can obtain valuable insights into potential improvements to the FAA's noise policy. For example, Heathrow Airport in London measured the magnitude and extent of aircraft noise by using contours that depict Equivalent Continuous

Sound Level (LAeq) over a 16-hour daytime and 8-hour nighttime period[3]. This type of analysis could be investigated for use in the United States to better understand how communities experience noise during different times of the day.

While CNEL provides a cumulative description of noise events over a year, the City believes that there are limitations that warrant the use of other metrics. One key criticism is that it does not adequately capture the impact of individual noise events or variations in noise levels throughout the day. Communities often experience specific noise events that can be disruptive and intrusive, which may not be fully represented by the use of averaging in CNEL. Incorporating other noise metrics can help to obtain a more comprehensive understanding of noise impacts. For example, metrics which focus on specific time periods can provide a more nuanced assessment of noise impacts during sensitive periods when communities expect quieter environments. The adoption of alternative metrics can help address some of the concerns regarding CNEL's limitations. A more detailed picture of noise impacts can be obtained by including metrics that account for peak noise levels, sound characteristics, or specific time frames, among others.

The City encourages the FAA to initiate additional research on the various metrics and calculation methods. Through a collaborative and inclusive process, the FAA can work toward a consensus on the most appropriate set of metrics, potentially including alternatives to or modifications of CNEL, to accurately assess and address aviation noise impacts. The City would welcome the opportunity to engage with the FAA in an open dialogue to assist in making informed decisions that prioritize the well-being of affected communities while maintaining a balance with the needs of the aviation industry.

Issue #4 – Averaging

Similar to CNEL, the City understands that the Average Annual Day (AAD) is commonly used to describe noise impacts. However, the City believes AAD does not capture the noise impact experienced by communities. While the AAD provides a cumulative description of noise events expected over a year, it does not capture the specific details and variations that can occur on a day-to-day basis. Noise impacts can be highly dependent on factors such as time of day, weather conditions, and specific events or activities. Averaging these factors into a representative day may overlook significant noise peaks and variations that communities experience, thus potentially underestimating the true impact on the community.

Considering alternative averaging schemes to the AAD can provide a more comprehensive understanding of noise impacts. The advantage of alternative averaging schemes is that they account for temporal variations in noise levels, revealing patterns that are not captured by the AAD. They enable a more accurate representation of noise impacts during sensitive periods and events, ensuring that the policy considers the specific concerns and experiences of affected communities. Alternatives to averaging schemes that consider different timeframes and variations can better capture the noise experienced by communities in noise impact assessments. This, in turn, can lead to more effective noise management strategies and mitigation measures offered to the aviation community.

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[3] https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/local-community/noise/reports-and-statistics/reports/noise-action-plan-contours/LHR_2021_Summer_and_NAP_Contours.pdf

Developing alternatives to the use of AAD requires engagement with stakeholders, including communities and experts, to identify the most appropriate alternative averaging schemes that capture the nuances and variations of noise impacts. This helps to ensure a more transparent and inclusive decision-making process. The City encourages the FAA to explore alternatives to the AAD through a collaborative effort with industry professionals and the public. By considering the concerns of communities and adopting alternative schemes, the FAA can better address the true impact of aviation noise on affected populations.

Issue #5 – Decisionmaking Noise Metrics

The City appreciates the opportunity to respond to issues related to the use of CNEL as its primary decisionmaking metric in California for actions subject to the National Environmental Policy Act (NEPA) and airport noise compatibility planning studies prepared pursuant to 14 Code of Federal Regulations (CFR) Part 150. The City believes that different noise metrics should be used in certain circumstances for decision-making. The use of a single metric may not effectively capture the diverse range of noise impacts experienced in various settings and situations. Alternative noise metrics add clarity when communicating noise exposure and they can aid in decisionmaking, particularly related to proposed flight procedure changes. Metrics such as TA and NA, as well as maximum sound levels, both augment the benefits of CNEL and communicate more effectively to concerned residents who feel an average level is not representative of their experience. Using other metrics sets a more realistic expectation of noise exposure for residents outside published CNEL contours.

The appropriateness of different noise metrics depends on the context and the specific noise-related concerns of communities. For example, when evaluating the impact of flight procedures, metrics that capture the intensity and duration of individual noise events, such as the Sound Exposure Level (SEL), can provide more accurate assessments than CNEL alone. These metrics help address the community's concerns about the disruptive effects of specific noise events, rather than relying solely on an average over a longer time period. Different noise metrics in decisionmaking can help restore community trust because the public often believes that data is averaged in ways that do not accurately reflect community experiences. Further, engaging with communities, involving them in the selection of appropriate metrics, and providing clear explanations of the decision-making process can help rebuild trust and foster a more collaborative approach to noise management.

Issue #6 – Communication

The City appreciates the opportunity to provide insights into how the FAA can enhance noise communication. The City believes that the FAA can improve communication regarding changes in noise exposure by implementing several measures. First, the Community Engagement Officer (CEO) role would be more effective by having these positions report directly to FAA Headquarters instead of going through FAA's Regional Offices. This would help ensure impartiality and independence in assessing and addressing community concerns. The CEOs can serve as a central point of contact for communication and coordination between the FAA and affected communities.

Secondly, the FAA should enhance transparency by providing comprehensive and accessible information to the public. This includes sharing details about environmental reviews, noise exposure changes, and mitigation efforts. This effort should advance internal FAA policies on how it approaches external communication and move its organizational culture toward actively seeking and valuing community input. Further, there must be an avenue beyond roundtables where communities that are not seeking to shift

noise onto others, and can work with the FAA on specific, local noise reduction strategies. To that end, the City seeks an expansion of the duties of the regional ombudsman position to allow problem-solving, solution-seeking conversations with communities and their local airports outside of formal roundtables.

We encourage the FAA to consider our responses related to the six (6) issues that we identified as being especially important to our community. We urge the FAA to accelerate the implementation of additional noise metrics in current rules and regulations to help advance creative noise reduction strategies that take noise sensitive areas into account. We also encourage the FAA to continue coordination and collaboration with noise impacted communities to identify solutions in the mitigation of aircraft noise impacts.

We look forward to the opportunity to continue our collaboration with the FAA on this very important issue to our community.

Sincerely,

Noah Blom
Mayor

cc: Newport Beach City Council