September 22, 2023

Polly Trottenberg, Administrator (A)
Federal Aviation Administration
Via: Federal eRulemaking Portal

Subject:	LAX/Community Noise Roundtable Responses to FAA Request for Comments on their Review of the Civil Aviation Noise Policy
Reference:	DOCKET # FAA-2023-0855

Dear FAA Administrator Trottenberg:

The LAX/Community Noise Roundtable was created in September 2000 to provide an interactive forum to address current aircraft noise issues associated with aircraft operations to, from and at Los Angeles International Airport (LAX). Membership of the Roundtable consists of local elected officials and staff, representatives of congressional offices, members of recognized community groups, the FAA, the airlines and LAWA. This forum provides a mechanism to identify and address noise concerns by recommending courses of action to LAWA, the FAA, or other responsible entity that could reduce noise over affected communities.

The Roundtable has successfully assisted with the implementation of many measures that address noise concerns well outside the LAX 65 dB CNEL contours, which is why we have routinely asked for the FAA to consider going beyond the 65 dB CNEL contours and to use single-event noise levels (***Roundtable Work Program Items B2. Evaluate the 60 dB CNEL Noise Contour for Eligibility for Sound Insulation and B4. Review Use of Single Event Noise Metrics***).

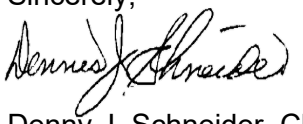
Despite the vast reduction of numbers of people located within the official incompatible land use zones, noise complaints continue to increase, especially outside of the areas identified by the FAA as potentially having incompatible land uses. Public concern corresponds and continues to increase as aircraft traffic demand grows in Southern California, a densely populated airspace of the U.S. and the world. Conclusions from the FAA's groundbreaking Neighborhood Environmental Survey (NES) completed in January 2021 reaffirmed that noise concerns extend well beyond the 65 dB CNEL (DNL) contours.

Since the FAA's implementation of the Southern California Metroplex, the Roundtable has been focused on community concerns from communities further from LAX that are related to the movement and concentration of flight tracks. As a result of the Metroplex, the Roundtable has added community groups to help address these issues. We are pleased that the FAA is conducting a review of the Civil Aviation Noise Policy as it has not been updated since its inception in the 1970s, and has committed to future periodic review updates. As the Noise Policy Review (NPR) results in updated policies, we encourage the FAA to apply the new policies to retroactively identify and modify flight path procedures implemented via the Metroplex to comply with the new policy conclusions.

We also encourage the FAA to address and greatly reduce the time it takes to design and implement new flight procedures that address our constituents' concerns. Our recent experience is that it takes several years and this is simply unacceptable to our communities. Lastly, we suggest that the FAA consider going beyond the 65 dB CNEL contours. For example, Part 150 be expanded to beyond land use compatibility and be applied to all people annoyed by aircraft noise.

Thank you for this incredible opportunity to comment on the FAA's review of the Civil Aviation Noise Policy. The attachment includes our suggestions that correspond to the 11 categories of questions for your consideration.

Sincerely,



Denny J. Schneider, Chair
LAX/Community Noise Roundtable

Attachments: LAX Roundtable Comments in response to Federal Docket Number FAA-2023-0855

LAX/Community Noise Roundtable Comment Letter

Response to Federal docket number FAA-2023-0855

Note: Gray text is used for FAA questions; black text is used for LAX Roundtable Comments.

Notice of public meeting and request for comments review key considerations of its civil aviation noise policy in the context of noise metrics and noise thresholds.

FAA requests comments focus on the issues and questions identified below to be most helpful to them; and that commenters identify the number of each question to which a response is submitted.

1. VEHICLE TYPE

When the FAA published the ANAP (27) in 1976, the impacts of aviation noise were related to commercial jet service at or in the immediate vicinity of airports. What types or elements of current or future air vehicle activity (e.g., unmanned aircraft systems (also known as UAS or drones), advanced air mobility, rotorcraft, subsonic fixed wing, supersonic, or commercial space) should the policy describe and disclose? How should this information be described using noise metrics? Should the FAA use this information to make decisions or for public disclosure only? Please explain your reasoning.

Roundtable Response

The Roundtable recommends the FAA include all aircraft types that may operate in FAA-controlled airspace within the greater LA County to be included in the Civil Aviation Noise Policy. While the Roundtable is focused on aircraft operations at LAX, our communities want all vehicles operating in our neighborhoods to be included in the Noise Policy. Commercial aircraft, as the bulk of air traffic in the sky, warrant continued scoring for noise impacts that combines time of day, frequency, height above ground, aircraft speed, aircraft power settings, and certified noise levels (taking topography and environmental conditions into account). Consider phasing out Stage 3 and 4 aircraft to encourage all aircraft in our skies to meet the current Stage 5 noise standards.

It is incumbent upon the FAA, as the responsible entity, to evaluate, based on regulations, aircraft noise generation itself and from expected operations in the sky, to disclose to the public both by analytical models and some direct measurements to all areas where “impacting” levels are expected. These analyses should also be used when making flight path decisions (or changes) to account for expected aircraft operational levels within a 10-year period.

These conditions must not just be reported to the elected officials who are then asked to “act in the best interest of those impacted” but to the public in understandable ways showing flight activity relative to ground geography.

As helicopter traffic continues to increase in and flight corridors push into and over our communities, the need for more scrutiny and regulations is greater than ever. Perhaps this can be mitigated by setting a minimum altitude for helicopter operations over populated areas and/or NextGen (e.g., GPS) flight corridors to minimize overflight of residential areas especially at night except for critical, life-saving or law envforcement activities.

Planned uses of unmanned vehicles and drones as being floated publicly are described as complementary to commercial aircraft. Regulations to control the potential safety of their flights and interference with commercial (and private conventional aircraft) both in the vicinity of airports and regulated flight tracks need to be established. Since these aircraft types will be flying at lower altitudes, noise, health impacts, and safety are critical, but also privacy needs to be addressed.

Advanced air mobility, rotorcraft, subsonic fixed wing, supersonic, or commercial space should be integrated in the land use zoning of communities and coordinated with local communities. Noise metrics information about these aircraft should be disclosed to the public prior to any FAA decisions so that surprises that communities currently experience are less frequent.

Noise assessments must be more complete and timely; not “after the fact.” The FAA should provide a better mechanism for correcting conditions that take far less time than the current FAA goal of three years (that is seldom met).

Whenever analytical conditions (models or direct measurements) are performed and used to create improvements such as NextGen, the assumptions must be substantiated, verified and publicly stated. An example of this failure is the assumption that air traffic management tool known as the Terminal Sequencing and Spacing (TSAS) is available during the design and implementation of the SoCal Metroplex project in 2017. Reality has shown that TSAS is only now being developed and that for a congested area like Southern California, it will be years before it will be deployable, leaving us with conditions that are difficult, if not impossible, to mitigate.

The FAA should have a policy that uses the same information for decision-making and public disclosure and the public should be at the table prior to decision-making to have input prior to decisions being made. It is much too late to involve the communities during the environmental evaluation.

2. OPERATIONS OF AIR VEHICLES

a. What elements of aircraft operations (e.g., en-route, takeoff, landing) should the noise metric evaluate and disclose? Should the FAA use this information to make decisions or disclose to the public noise impacts? Please explain your reasoning.

Roundtable Response

A one size fits all policy must be changed to account for differing amounts of air congestion. Aircraft operations may have one set of noise metrics calculated for a geographic area but a sub-tier level (e.g., en-route, takeoff, landing) should be evaluated and publicly disclosed for congested skies near high-traffic airports. This relates to areas where changes in approach/departure occur. Not only should FAA consider the operation itself, but also the noise signature of the individual aircraft type and the altitudes at which departures and arrivals normally take place. This analysis might be required to incorporate a variable for altitude, based on data from a variety of airport types, sizes, and limitations on each.

b. What interests or concerns do communities in the vicinity of airports have? How can these concerns be addressed using noise metrics? What noise metrics would address these concerns? Please explain your reasoning.

Roundtable Response
Communities in the vicinity of airports, both within and outside the FAA's currently defined significant noise contours, have the same concerns, i.e., to properly define, segregate and mitigate the impacts of noise created by landing, takeoff, and frequent overflights of aircraft. Communities in the vicinity of airports have ground-based aircraft noise to contend with in addition to aircraft in the sky. Use of APU, run ups, etc. have significant consequences beyond just departure and landing noise. Additionally, airport design of runways and taxiways has serious ramifications. Non-safety vectoring of aircraft off of published procedures and/or noise abatement procedures for efficiency can result in community concern, such as the current lowering of aircraft on the north downwind below the standards in the published procedure.

c. What interests or concerns do overflight communities (28) have? How can these concerns be addressed using noise metrics? What noise metrics would address these concerns? Please explain your reasoning.

Roundtable Response
Overflight communities as far as 40 miles from LAX have regularly experienced substantial noise impacts despite being far removed from any area within the 65 CNEL contour. Noise is necessarily present under the landing and departure routes, but so many other communities are currently affected in areas that feed these operations. One way to address these communities using noise metrics could be to specify a noise threshold based on heights above the ground (i.e., one value for a specific distance from an airport where aircraft are at 2000' or less, and another for within 2000' to 4000', and another for 4000' to 8000'). The "primary" metric could remain CNEL at some gradient values, but additional criteria to account for the number of aircraft, time of day, topographical conditions, etc. must also be applied.

d. What interests or concerns do communities in the vicinity of commercial space transportation operations have? How can these concerns be addressed using noise metrics? What noise metrics would address these concerns? Please explain your reasoning.

Roundtable Response
The LAX Roundtable has no experience with commercial space transportation operations.

e. What interests or concerns do communities in the vicinity of UAS (drone) package delivery or other newly emerging technology operations have? How can these concerns be addressed using noise metrics? What noise metrics would address these concerns? Please explain your reasoning.

Roundtable Response
Almost every urban community will ultimately include UAS (drone) package delivery or other emerging technologies in transport which will operate at altitudes of 1500' and below. In addition to noise annoyances and health issues, this will impact privacy and cause new potential safety issues. Additionally, if aircraft have to fly through these zones there can be other safety issues. We don't have any details about noise levels of these items at this time, but based on frequency, time of day, etc. they can be some new kinds of annoyances.

It is imperative that State and local governments have control and discretion over the use of UAS/AAM within their jurisdictions. Every city, within every state, is vastly different in terrain,

population, airspace congestion, tolerance, needs, and the like. A one size fits all rule would not be feasible in this regard.

Before granting UAS/AAM usage approvals, the FAA shall conduct transparent and extensive community engagement with structured bodies such as Roundtables in respect to the design of any new routes to be considered for UAS/AAM deployment, as well as use of existing VFR or other airspace routes; AND all routes must be published with defined paths (whether based on waypoints, VORS, visual or other guides), which shall include creating structure and more defined paths for existing VFR routes in Metroplex cities considering the addition of more aircraft operations pose potential safety and noise issues for residents.

3. DNL

What views or comments do you have about the FAA's core decisionmaking metric, DNL? How would these views regarding DNL be resolved if the FAA employed another noise metric (either in addition to, or to replace DNL) or if the FAA calculated DNL differently? Please explain your reasoning.

Roundtable Response

FAA does not need to look farther than the GAO Study to find cogent, and still accurate analyses. Specifically, GAO finds that" because the DNL metric is intended to combine the effects of individual aviation noise components into a single metric, it does not provide a clear picture of expected changes in noise." The DNL metric can "mask large swings in daily flight operations and associated noise." In other words, what the public hears is the noise of individual aircraft at varying altitudes, not their "average" over 24 hours. The communities want the use of Single-Event Noise Exposure Level (SENEL) – See LAX Roundtable Work Program Item ***B4. Review Use of Single Event Noise Metrics.*** Consequently, the salient metrics are SEL/SENEL and time above, both of which should be used at minimum as supplemental to the averaging metric, DNL.

Single event noise exposure level, in decibels, should be utilized for ALL aircraft flyovers, measured over the time interval between the initial and final times for which the noise level of a single event exceeds a predetermined threshold noise level. DNL/CNEL is a 24-hour average and as such a small number of events can be "averaged" into no consequence by a CNEL rating at night even if it wakes people and causes sleep deprivation every hour of the night. DNL is outdated and the FAA should look into noise comments that were submitted to the FAA within the last 7 years. DNL metric is limited and produces narrow contours. Supplemental metrics are needed to account for the timing, noise level, and duration of any single event which can have a significant impact. Even with the weighting of CNEL for evening and nighttime events, the true impacts are not reflected.

DNL could perhaps play a role in assessing land use compatibility for communities close to the airport, but only if DNL is set lower at 55 DNL as recommended by the EPA in 1974 and additional metrics are incorporated. This lowered threshold with additional metrics could be used to qualify for the Residential Sound Insulation Program. Even though DNL incorporates a "night penalty" of 10 dB, that is not sufficient compensation for the effects of nighttime noise. For example, it may take only one or two loud airplanes in the middle of the night causing awakenings to necessitate increased residential noise insulation to protect the health of residents.

4. AVERAGING

DNL provides a cumulative description of the noise events expected to occur over the course of an entire year averaged into a representative day, described as an Average Annual Day (AAD).

a. Do you believe an AAD is an appropriate way to describe noise impacts? Please explain why or why not.

Roundtable Response

While AAD provides a cumulative description of noise events experienced over the period of a year, it fails to capture the specific events and variations that occur on a daily basis. Noise impacts are heavily dependent on time of day, weather conditions, and specific conditions. Averaging these factors into a representative day may overlook significant noise peaks and variations. Any time you average, the number is lowered. DNL averaging provides a cumulative description of the noise events expected to occur over the course of an entire year. By its definition this value cannot represent a worst-case period if conditions change from one part of the year to another. A variability factor is needed to evaluate the trueness of an AAD. There can be quite a variance in types and numbers of aircraft from one month to another just as there are varied distributions of arrivals and departures within any day. Averaging diminishes impacts and the Roundtable suggests the use of single event noise metrics, such as SENEL – See Work Program Item ***B4. Review Use of Single Event Noise Metrics.***

b. If not, what alternative averaging schemes to AAD should be considered and why? What information would the use of an alternative averaging scheme capture that AAD does not?

Roundtable Response

The AAD should be modified to represent a worst-case condition and less of an average. In addition to the averaging of noise over an annual-average day, the FAA should also not average the weather because it is the discrete weather conditions that can alter noise levels by as much as 20 dB over the average weather conditions, such as downwind vs. upwind and during temperature inversions that result in noise that would continue going up into the atmosphere is being bounced back down to the ground.

If an “average” were appropriate, which it is not, the “average” should be calculated only over the period during which aircraft operations and their noise is most impactful. In other words, the DNL metric’s 24-hour average purposefully dilutes the impact of noise by spreading the calculation into the night hours when aircraft operations at most airports are diminished. In short, even if an average is used, it should reflect the hours during which aircraft operations are likely to collectively produce calculable noise impacts.

5. Decision-making Noise Metrics

The FAA currently uses DNL as its primary decisionmaking metric for actions subject to NEPA and airport noise compatibility planning studies prepared pursuant to 14 CFR part 150.

a. Should different noise metrics be used in different circumstances for decisionmaking?

Roundtable Response

Yes. As GAO concluded, the DNL metric is manifestly misleading in its calculation of aircraft noise impacts because it is based on a 24-hour average which incorporates the relatively lightly traveled night hours, and that masks the actual impact of both numbers of aircraft overflights and individual noise signatures. The FAA should consider many different metrics to determine the noise experiences in various communities in the region and not just those adjacent to the airports within the DNL/CNEL metric. DNL/CNEL alone has been demonstrated to be inadequate and must be changed. "Averaging" necessarily hides maximum impacts. In addition, many communities are concerned with the frequency/repetition of aircraft flights, and noise metrics need to consider the number and frequency of flights over a particular duration that is much less than 24 hours. Ambient noise, the noise in communities in the absence of aircraft noise, must be assessed knowing it can change significantly in one place or one time from another; and be used to assess the effect of aircraft noise on a particular community based on its ambient noise level and the difference between the ambient and aircraft noise regardless of the noise metric being used.

The Roundtable has for decades supported the ideal of not shifting noise from aircraft operations from one neighborhood to another, which occurred in several neighborhoods after the implementation of the Metroplex in Southern California. We believe the FAA has adopted such policy as well but has failed to implement the policy as a decision-making vehicle. We strongly suggest that shifting of noise become a primary tool in NEPA and Part 150 analyses, particularly in decision making that results from such studies.

b. If the answer to Question 5.a. is "yes," please identify: the metric, the information it provides that DNL does not, and explain when and how it should be employed by the FAA in its system (e.g., should the FAA use a noise metric other than DNL to evaluate noise exposure in quiet settings, such as national parks, national wildlife and waterfowl refuges, etc.)? Should this metric be used when the FAA is making decisions that affect noise in these settings? Should this metric be used alone or in combination with another metric?

Roundtable Response

All the metrics the FAA mentioned at the July Roundtable meeting (Number Above and Time Above) and others should be considered. The metrics should consider terrain and the effect of communities at the tops of hills and in the canyons as the greater Los Angeles area has a large variation of terrain, vegetation, and wildlife. Quiet settings, such as national parks, national wildlife, and waterfowl refuges, etc. have different noise exposures and need additional protections. Studies have shown that ambient conditions can affect how we (and wildlife) react to the noise. Some community members have stated that an aircraft noise level between 5 and 10 dB higher than the ambient noise is of high annoyance.

As an example, the number of noise events above a particular threshold (Nxx or NAxx) can be used in conjunction with DNL (CNEL) to assess effects of aircraft operations, such as awakenings. The NA metric, by definition has a noise threshold, and then the FAA could set a maximum number allowable of such noise events to reduce and/or eliminate people people awakened from aircraft operations. For example, the N70 metric may be found to predict awakenings with windows closed and can be used in conjunction with the DNL (CNEL) metric to extend the reach of sound insulation that provides the noise reduction needed to adequately address awakenings, which has been shown in research to result in negative health effects, such as increased cardiovascular disease.

c. If the metric should be used in combination with another metric, please describe how they should be used together for decisionmaking.

Roundtable Response

As stated in other answers, a combination of noise metrics is required to get a better, more complete picture for decision making purposes over communities close to and far from airports. It would be beneficial to use noise metrics that accurately capture the characteristics and potential effects of each aircraft type. It is also crucial to consider the immediate noise impacts and the cumulative effects of these aircraft types. FAA should not only use this information for public disclosure purposes, but also as a basis for making informed decisions. For example, empirical data can be used by FAA to establish evidence-based regulations and policies that effectively manage and mitigate noise from scrutinized aircraft types. This approach guarantees that decisions are grounded in scientific research and empirical observation. See the above example of using N70 and sound insulation to address awakenings.

d. If the answer to Question 5.a is “no,” should DNL remain the core decisionmaking metric or should another metric be substituted in all circumstances?

Roundtable Response

N/A

e. How would the use of the metrics that you recommend support better agency decisionmaking? Please explain and illustrate with specific examples how the use of the recommended metric(s) would benefit agency decisionmaking.

Roundtable Response

The SFO Roundtable believes that if other metrics were used to determine the potential for negative public reaction to changes resulting from the FAA’s implementation of the Southern California Metroples, such as the number of noise events under the concentrated flight tracks (e.g., north downwind arrival into LAX), the FAA, LAWA, the Roundtable and the public would have been better prepared to respond during the environmental process; and perhaps the FAA would have tried to eliminate such opportunity of negative public reaction through better designs prior to the environmental process.

6. COMMUNICATION

a. Please identify whether and how the FAA can improve communication regarding changes in noise exposure (e.g., what information FAA communicates, where and with whom FAA communicates, what information methods FAA uses to communicate and the venues at which FAA shares this information). Please explain your reasoning.

Roundtable Response

Public notification of noise changes and evaluation methods must be explained in easy-to-understand language to the public instead of primarily public officials. The Roundtable suggests that the FAA learn from the lack of communication with the communities in which changes to the SoCal Metroplex would be noticed. It is the opinion of the Roundtable that the community should be brought into the process during the early design stage rather than waiting until the designs are completed and ready to implement. The Roundtable would have

welcomed the opportunity to review draft designs to inform the FAA of potential issues with the designs to provide the air route designers opportunities to correct the issues, which we have done recently with the FAA and their proposed new aircraft procedures.

The FAA evaluation per NEPA is to identify potential impacts, not to preclude them. The current 65 dB single value of CNEL used to indicate "impact" has been shown to be inadequate on several levels by the Neighborhood Environmental Study (NES). FAA has, to date, been spectacularly unsuccessful in communicating to the public changes in noise exposure from, for example, its NEXTGEN projects, partially because of FAA's reluctance to utilize the National Environmental Policy Act ("NEPA) process, and, instead, rely on the Categorical Exclusion that exempts it from disclosing the impacts of its decisions. In short, part of its problem with communication could be conclusively solved by the full and proper use of NEPA as a vehicle for disclosure.

Most of the public is unaware of the technical detail and jargon of noise impacts, however, they are quite able to determine when a change has negatively impacted them. The majority of FAA's effort to deploy flight track controls is conducted with the airlines and with its varied FAA divisions with nominal efforts to deal with the public and airports. Although the Roundtable is one mechanism for discussion, much more of the discussion is with other parties other than the public about safety and efficiencies.

The FAA information promulgated to the public should be in non-technical terms that the public can comprehend and equate to their known environment. As a general policy, the FAA should have a series of simplified, web-based tutorials about the noise that includes:

A. What change in noise is considered acceptable to the FAA and will not be changed to accommodate public outcry.
B. How are the noise impacts calculated?
C. Simplified schedule of how/when changes and procedures are created or changed.
D. Presentations to tell people in advance what to expect in terms of numbers of aircraft by time of day, altitude, and types of aircraft. Furthermore, what increases/changes is forecast within 10 years.
E. Projected flight tracks with geographics information so that people can know what to expect for their home/work areas.

Help the public to provide a way to simplify noise complaints resulting in some action by the FAA to take action to mitigate impacts! Set public expectations by stating how noise complaints will be handled and what will likely occur and not occur because of the lodging of the complaints…should the public expect changes to occur because of the filing of the complaint? Once this data is regularly available and public comments are collected, the FAA should respond to them with summarized categorization and show what actions they have in process to address and reduce the impacts of the complaint topics.

b. Should the FAA consider revisions to its policy on the use of supplemental noise metrics in the FAA's NEPA procedures? Please explain how this policy should be modified to improve FAA communication of noise changes when the FAA is making decisions that affect noise. Please explain your reasoning.

Roundtable Response

The FAA should, at a minimum, supplement its DNL or CNEL with other metrics as appropriate in evaluating noise impacts. Disclosure under NEPA should be even more in depth, including the use of supplemental noise metrics as it is in the NEPA process that disclosure becomes more than merely voluntary, but is transformed into a legal requirement. Note also that, because FAA has solicited and received extensive responses to its noise policy regarding calculation and communication of noise exposure impacts, its failure to perform the analysis requested, even if only for disclosure purposes and not for decision-making, in a future NEPA analysis regarding changes to aircraft operations may be regarded as a failure to disclose important environmental impacts as required by NEPA. For that reason alone, FAA should revise its policy on the use of "supplemental metrics in FAA's NEPA procedures."

The FAA should not just consider revisions to its policy on the use of supplemental noise metrics in the FAA's NEPA procedures but implement them ASAP. For example, the FAA has stated that it is a minimum three-year cycle for even the simplest change in flight procedures. The reality has become far more than that!

c. What information about the change in noise resulting from civil aviation operations (e.g., UAS or drones, helicopters, fixed wing aircraft, rockets/commercial space transportation vehicles, and new entrant technologies) should the noise metric communicate to the public? Please explain your reasoning.

Noise metrics should be available on a website showing the number of flights over geographic locations controlled by instrument ops (or using visual over the same tracks) for all flight tracks over one per day for regular public review. Civil aviation operations (e.g., UAS or drones, helicopters, fixed wing aircraft, rockets/commercial space transportation vehicles, and new entrant technologies) should also be shown on the same geographic visual tracking so that people can see what is going over them.

Roundtable Response

No response provided.

d. Please explain how the public will benefit if the FAA implements your proposal in response to

Questions 6.a and 6.b.

Roundtable Response

If one of the purposes of the analysis is to develop "potential improvements to how FAA analyzes, explains, and presents changes in exposure to civil aviation noise," then a broader utilization of mechanisms to analyze and disclose the variables that are part of the analysis is per se critical to public understanding of FAA's calculations which is critical to allow members of the public to make better decisions about where to live and work.

7. NEPA and Land Use Threshold Established Using DNL or for Another Cumulative Noise Metric

The FAA has several noise thresholds that are informed by a dose-response curve (Schultz Curve (29)), which historically provided a useful method for representing the community

response to aircraft noise. Two of the noise thresholds informed by the Schultz Curve are the FAA's significant noise impact threshold for actions being reviewed under the National Environmental Policy Act and the land use compatibility standards established in 14 CFR part 150, Appendix A. Both of these rely on the cumulative noise metric DNL and are referred to collectively in this question and questions 8–10 as "the FAA noise thresholds." On January 11, 2021, the FAA published the results of the Neighborhood Environmental Survey, (30) a nationally representative dataset on community annoyance in response to aircraft noise. The Neighborhood Environmental Survey results show higher percentage of people who self-identify as "highly annoyed" by aircraft noise across all DNL levels studied in comparison to the Schultz Curve.

a. How should the FAA consider this information (i.e., the Schultz Curve and Neighborhood Environmental Survey findings) when deciding whether to retain or modify the FAA noise 31) established using the DNL metric or to establish new FAA noise thresholds using other cumulative noise metrics? Please explain your reasoning.

Roundtable Response

On January 11, 2021, the Neighborhood Environmental Survey (NES) showed that the Schultz Curve is inadequate as it underrepresents the number of people that is highly annoyed. Actions under review pertaining to the National Environmental Policy Act and the land use compatibility standards established in 14 CFR part 150, Appendix A should have some other criteria that are dose and individual event related as well.

The Schultz Curve and Neighborhood Environmental Survey findings are useful but so much more has been found to show health impacts from noise as well so that this must also be included. FAA's own analysis, as well as that of the GAO Study, demonstrates that the Schultz Curve should be discarded as the primary basis for the determination of aircraft noise significance. Further, whenever there are tradeoffs related to the amount of noise and cost-related analyses such as that for a Part 161 limitation on aircraft operations are considered, the health impacts and other negative impacts on people should be included into the equation of what is acceptable – right after safety, but on equal footing as efficiency.

b. Should the FAA consider other or additional information when deciding whether to retain or modify the FAA noise thresholds that were established using the DNL metric or to establish new FAA noise thresholds using other cumulative noise metrics? Please describe the reason for the recommendation and identify the data, information, or evidence that supports the recommendation.

Roundtable Response

Additional consideration on non-noise impacts, such as cancer, have been studied, but most often it's statistical information instead of causal research presented. These studies, too, should be aggressively reviewed as a basis for single event and dose-response metrics. Use the data and analysis in the GAO Study when deciding whether to retain or modify current FAA noise thresholds. The Roundtable has long supported the use of a threshold below 65 DNL/CNEL – see LAX Roundtable Work Program Item ***B2. Evaluate the 60 dB CNEL Noise Contour for Eligibility for Sound Insulation.*** The FAA should consider going well beyond the 65 DNL contour in this policy review.

c. How should research findings on auditory or non-auditory effects (e.g., speech interference, sleep disturbance, cardiovascular health effects) of noise exposure caused by

civil aircraft and vehicles be considered by the FAA when it decides whether to retain or modify the FAA noise thresholds (32) that were established using the DNL metric? How should the FAA consider this same research when deciding whether to establish new FAA noise thresholds using other cumulative noise metrics? Please explain your response.

Roundtable Response

Research findings have expanded substantially to address auditory and non-auditory effects (e.g., speech interference, sleep disturbance, and cardiovascular health effects) of noise exposure caused by civil aircraft and emerging vehicles. The CNEL has shown itself useful, but again the same dose and single event data needs to supplement the current standard.

d. In examining whether to change its metrics and thresholds for noise, the FAA needs reliable information to support any changes. One type of information that the FAA can rely on is epidemiological evidence. This means the study (scientific, systematic, and data-driven) of the distribution (frequency, pattern) and determinants (causes, risk factors) of health-related states and events (not just diseases) in specified populations (neighborhood, school, city, state, country, global). What amount of epidemiological evidence is sufficient to provide the FAA with a sound basis for establishing or modifying the FAA noise thresholds (33) either using the DNL metric or another cumulative noise metric? Please explain your response.

Roundtable Response

FAA demands that the public provide epidemiological evidence of the health impacts of aircraft noise. This is a job the FAA should have done for itself long ago and should not now demand the affected public provide the same evidence that is now, and has always been, available to FAA. One type of information that the FAA can rely on is epidemiological evidence as presented at the annual UC Davis Aviation Noise and Emissions Symposium. Presentations included studies (scientific, systematic, and data-driven) of the distribution (frequency, pattern) and determinants (causes, risk factors) of health-related states and events (not just diseases) in specified populations (neighborhood, school, city, state, country, global).

e. Should the FAA consider using factors other than annoyance to establish FAA noise thresholds (34) using the DNL metric or other cumulative noise metrics? What revisions to existing FAA noise thresholds or new noise thresholds do you recommend be established and why? Please explain your response.

Roundtable Response

In asking this question, and relying on its definition of “annoyance”, FAA dramatically understates the physical and emotional impacts of aircraft noise. Moreover, depending on the true definition of “annoyance” (i.e., irritation, damage, other), FAA’s own Neighborhood Environmental Survey provides at least a partial answer where it finds that more than one-half the affected population is “highly annoyed” at 60 dB DNL. First, before attempting to understand how aviation noise correlates with “annoyance,” FAA should more specifically define the dependent variable, annoyance. It should determine if that variable adequately reflects response to noise impacts, or if there is another such as SEL or Time Above that can be accurately incorporated such that the public response to noise is better understood. Only then can FAA look at the various variables that contribute to the “dose-response” relationship to determine which affects public perception.

Another long-term impact of noise comes from aircraft related that is not aircraft caused. Elements such as ground traffic on highways caused by air and cargo operations can cause severe noise that, to date, is not even regulated. This is another whole area that should be addressed in the future.

8. FAA Noise Thresholds Using Single-Event or Operational Metrics

As the FAA learned from the results of the NES, people are bothered by individual aircraft noise events, but their sense of annoyance increases with the number of those noise events. Should the FAA consider employing new FAA noise thresholds (35) using single-event or operational metrics? If the answer is "yes," which metrics should be used to establish the FAA noise thresholds? What should be the relevant noise exposure level for the new noise thresholds you propose? Please explain your reasoning. If the answer is "no," please explain your reasoning.

Roundtable Response

Single-event or operational metrics, such as the number of events above a noise threshold (Nxx or NAxx) will be a good addition to create a more representative combination set of metrics than the one CNEL value.

9. FAA Noise Thresholds for Low-Frequency Event

Should the FAA establish noise thresholds (36) for low-frequency events, such as those associated with the launch and reentry of commercial space transportation vehicles authorized by the FAA Office of Commercial Space Transportation? If the answer is "yes," which metrics should be used to establish the noise thresholds? What should be the relevant noise exposure level for the new noise thresholds you propose? Please explain your reasoning. If the answer is "no," please explain your reasoning.

Roundtable Response

Residents near LAX experience ground noise from aircraft operations, such APU usage, taxiing, start-of-takeoff roll on departure, and thrust reverse on arrival. These communities have long reported that "A-weighted" noise metrics are insufficient to describe these low-frequency noise events which relentlessly impact residents' sleep and health. The FAA should consider using an appropriate noise metric and C-weighting in the analysis of ground-based noise.

10. Miscellaneous

What other issues or topics should the FAA consider in this review regarding noise metrics, the method of calculating them, the establishment of noise thresholds, (37) or FAA's method of communicating the change in noise exposure? Please explain your response.

Roundtable Response

Noise policy should also address what impacts change and conditions degrade as the number of aircraft operations continues to increase and change (i.e., from spoke and hub to point to point).

Sadly, policy should include a review of previously caused problems based on old policy assumptions. On this basis, there should be a review of the major SIDs, STARS, and RNAVs to determine if changes are needed because of substantial increases in usage.

The FAA should review the comments they have received from the communities throughout the country on the FAA Noise Portal https://noise.faa.gov/noise/pages/noise.html.

Unless the airports/communities have the power to put a cap on operations, which is currently not allowed because of the Airport Noise and Capacity Act of 1990 (ANCA), the Roundtable is concerned that, regardless of the changes in metrics and threshold, that the real impacts of an uncapped system will not be addressed.

11. Literature Review

In this review, the FAA will examine the body of scientific and economic literature to understand how aviation noise correlates with annoyance as well as environmental, economic, and health impacts. The FAA also will evaluate whether any of these impacts are statistically significant and the metrics that may be best suited to disclose these impacts. A bibliography of this body of research is available for review in the Background Materials tab in the Docket and as Appendix 1 to the FAA framing paper entitled, The Foundational Elements of the Federal Aviation Administration Civil Aircraft Noise Policy: The Noise Measurement System, its Component Noise Metrics, and Noise Thresholds. This framing paper is available at: https://www.faa.gov/noisepolicyreview/NPR-framing. Please identify any studies or data regarding civil aviation noise not already identified by the FAA in the bibliography that you believe the FAA should evaluate. Please explain the relevance and significance of the study or evidence and how it should inform FAA decisions regarding the policy.

Roundtable Response
No response provided.