



HCCA

Howard County Citizens Association

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The Voice Of The People of Howard County

Howard County Citizens Association
HCCA, Inc, P.O. Box 89, Ellicott City MD 21041

Subject: Federal Aviation Administration: Civil Aviation Noise Policy Response

Federal Register Number 2023-09113 Docket Number FAA-2023-0855

Date: 7/15/2023

This is a response to the Civil Aviation Noise Policy FAA docket survey. The Howard County Citizens Association has been a local advocacy group for residents of Howard County since 1961. We listen to the concerns from our active listserv of over 400 members. Since 2017 with implementation of PBN (GPS) navigation and the NextGen model to manage air traffic our organization has heard from many areas in the county west of BWI that had few complaints in the past. The noise complaints since 2017 have grown exponentially. We welcome the FAA willingness to reach out and review responses from community groups and individual citizens related to the matter of airplane noise and how concentrated over flights have impacted citizens around hub airports such as Thurgood Marshal Baltimore Washington International airport. We hope these efforts will lead to changes in sound gathering and recording technics and adjust the Part 150 process for localities to manage how much and where airplane noise impacts our residents, now and in the future. Please review the attached PDF of our comments to the Survey

Regards

Responses to the survey are submitted on the behalf of,

Stu Kohn, President, and board members of HCCA

HCCA comment and responses are in blue text.

Question 3. *DNL*. What views or comments do you have about the FAA's core decision-making 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.

A key finding of The DC Metroplex BWI Community Round Table is that there are not enough ground base noise sensors deployed to give a proper representation of the amount of noise experienced by areas around the airport since the implementation of the new PBN procedures. The DCBWIRT, Maryland Aviation Administration and with local County support engaged with Vianair Corporation to create a virtual model of noise meters across Howard and Anne Arundel Counties. This study was for arrivals (STARS) and departures (SIDS) for the month of March 2022. The results of the noise decibel profile for the area showed a broader area further from the airport

(Question 3 cont.)

impacted by 50 dB and higher. These findings bolstered the increased complaint calls and the locations related to the NextGen PBN flight procedures. Virtual meters should be added to the core source of data when calculating the DNL or any data source that will be used to access noise on the population and the Shultz Curve. Link to Vianair report [PowerPoint Presentation \(marylandaviation.com\)](#)

The current 24-hour calculation of DNL to create the Day \Night average has the possibility to reduce the average decibel level that is being heard by residents during the day operations of a hub airport. Day time operations between 7:00 am to 10:00 pm have more traffic than nighttime flights. Even with the weighted decibel increase for nighttime flights the impact of increased day time over flights is not accurately accounted for. The DNL should be divided into day and night 12-hour shifts to measure the peak and duration of decibel recordings. This can be accomplished with a combination of Equivalent Sound Level and Time Above. Time Above will consider the amount of time the sound event is taking place and impacting people. Adding this factor to ESL will give a view not just of how loud but how long an area is affected by noise.

Question 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.

The AAD further dilutes the decibel recordings because this averages DNL recordings from different seasons and decibel recordings that can be affected with atmospheric changes in summer and winter. See link to 3rd party discussion of weather and noise [How Weather Affects an Outdoor Noise Study | ABD Engineering & Design](#).

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?

Using the matrix ESL with TA to calculate day and night airplane noise, another scheme can be added to use the separate ESL\TA recordings for winter and summer. This will provide the actual range of decibel impact related to the established sound contour threshold throughout the year. Maximum decibel recordings should be used to establish the sound contour for the airport part 160 review.

Question 5. E *Decisionmaking 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.

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.

The DNL\AAD should be replaced with a new metric that combines ESL\TA with separate day-night recordings to calculate decibel readings in a 15 nautical mile radius from the airport. This metric would provide a more accurate record of the amount of noise experienced by areas affected by departures and arrivals. Areas around the airport with frequent over flights are not being considered currently because of the 65db threshold. The NES survey that reports annoyance at a lower decibel threshold are adversely affected. MAA -DCBWIRT presentation on the current ANZI with the 65db shows on page 9 that many complaints have been reported far from the airport since

(Question 5 E cont.)

the Nextgen PBN procedures were implemented. If complaint surveys were part of the 150 process in the future flight change could be introduced to reduce the effects of concentrated over flights.

Question 7. A , *NEPA and Land Use Noise Thresholds 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 thresholds ⁽³¹⁾ established using the DNL metric or to establish new FAA noise thresholds using other cumulative noise metrics? Please explain your reasoning.

The FAA should use existing and additional ground sound monitors with virtual monitors to determine the decibel readings for areas around the airport to apply the Schultz Curve with a ESL\TA calculation for DNL and combine that with the NES findings to assess what the critical decibel threshold should be around airports. The annoyance survey is key to understanding how the new PBN procedures have changed how the concentration of over flights has affected communities. Considering the NES survey findings using the example from Boston Logan airport are showing annoyance at 50 to 55 decibels many miles from the airport. PART 150 and NEPA should be adjusted to factor in this range of 50 to 55 decibels to be the critical threshold. This would ensure future appropriate land use zoning and existing neighborhood support for sound mitigation and propose flight path changes for areas that are now impacted by repeated over flights.

Question 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.

New noise thresholds of 50 to 55db should be implemented to further protect communities around airports. The metrics suggested can be used but should also include the NES, health and economic models that reflect the potential harm in areas affected by the lower threshold, Studies and noise complaint reports reflect that there is annoyance and this will affect people's health and economic value of residential homes that are now adversely effected by concentrated over flights that were not considered impacted in the past following the current part 150 and ANZI using the current 64db threshold.