Congress of the United States

Washington, D.C. 20515

September 23, 2020

Steve Dickson, Administrator
U.S. Department of Transportation
Federal Aviation Administration
Office of the Administrator
800 Independence Avenue, S.W.
Washington, DC 20591

Dear Administrator Dickson:

As Members of the U.S. House of Representatives, we write to express deep concern regarding the Federal Aviation Administration's Report to Congress dated April 14, 2020, on its findings pursuant to Sections 188 and 173 of the FAA Reauthorization Act of 2018 (P.L. 115-254). After conducting a detailed review of the FAA's report, we find it wholly inadequate, failing to meet the mandate in the law.

As you know, Section 188 of the FAA Reauthorization Act of 2018 mandated the FAA to "evaluate alternative metrics to the current average day-night level standard, such as the use of actual noise sampling and other methods, to address community airplane noise concerns." Further, the law directed the FAA to provide Congress with a detailed report on its findings. On April 14, 2020, the FAA released the report, and in addition to reporting on Section 188, the FAA also used this report to address Section 173, which states: "Not later than 1 year after the date of enactment of this Act, the Administrator of the Federal Aviation Administration shall complete the ongoing evaluation of alternative metrics to the current Day Night Level (DNL) 65 standard." It is our assessment that this report entirely fails to seriously analyze and consider alternative metrics to the DNL 65 standard.

First and foremost, the report fails to evaluate well-respected and widely used alternatives, including: the Cumulative Noise Equivalency Level ("CNEL") metric, which California uses to evaluate aircraft and other noise exposures[1]; the ISO 1996-1:2016 ("Acoustics – Description measurement and assessment of environmental noise"), an international standard specifically adopted to identify community noise concerns in general, but airplane noise in particular[2]; and the European alternative to the DNL metric, known as the DENL, or the day-evening-night level metric. The latter noise metric disaggregates evening and night noise levels

[1] Lichman, Barbara. "FAA Sidesteps Congressional Mandate to Evaluate Alternative Noise Metrics." Aviation & Airport, 10 June 2020, www.aviationairportdevelopmentlaw.com/2020/06/articles/federal-aviation-administration-faa/faa-sidesteps-congressional-mandate-to-evaluate-alternative-noise-metrics/.
[2] Taber, Steven. "FAA's Report On Alternatives to the DNL Noise Metric Is Tone Deaf." LinkedIn, 4 May 2020, www.linkedin.com/pulse/faas-report-alternatives-dnl-noise-metric-tone-deaf-steven-taber.

to address the fact that communities experience noise events differently during the day, the evening and the nighttime sleeping hours. A credible evaluation of alternative noise metrics and the 65 DNL standard would have addressed the correlation between each metric and the known noise impact on communities in a NextGen environment, similar to a comparison done in an FAA-funded 2011 report on replacement metric research.[3] However, in lieu of providing a thorough evaluation, the report merely describes DNL and a number of alternative metrics, while offering an incomplete and at times inaccurate comparison of DNL to those alternatives.

Furthermore, there are glaring absences in the FAA's assessment that render it incomplete. For example, the report fails to analyze complaint data despite the fact that the FAA itself utilized complaint data as a lawful alternative metric in its 2013 federal court case against Helicopter Association International, Inc.[4] Failing to mention any role for complaint data would appear in contrast to FAA's Noise Complaint Initiative begun in the last 12 months, allowing direct reporting of noise events to FAA. The report also lacks the scientific nuance the agency demonstrated in 2019, when the FAA funded a research project at MIT to evaluate metrics and assess the impact of frequent overflights; that study concluded that the Number-Above (NA) metric provided an effective correlation to aircraft noise impacts on the public,[5] but is scarcely mentioned in this report. Even commonly used metrics are overlooked, such as the metrics for construction noise and the concept of sones. Construction noise metrics are regularly employed across the United States and capture greater noise nuance than the DNL standard. Sones represent the perception of loudness and help capture aviation noise annoyance. In our estimation, the FAA report merely stands by the agency's existing DNL metric and enumerates existing methodology with no regard to the value of improved and updated alternatives.

As a result, the FAA is effectively treating supplemental noise metrics as an asterisk to noise measurement rather than a comprehensive toolbox from which to address noise impacts. The FAA relegates supplementary metrics to an ancillary role by asserting that, "No single noise metric can cover all situations,"[6] and that while the "DNL metric is FAA's decision-making metric, other supplementary metrics can be used to support further disclosure and aid in the public understanding of community noise effects."[7] Nowhere in the report do we find clear guidance on how and when supplemental noise metrics could be used in flight procedure design decisions or to alleviate existing noise – even as the public health impact of noise continues to spread. U.S. standards to protect human health from airplane noise are not only glaringly ineffective, they also trail Western Europe's. In its 2018 Noise Guidelines for European

[3] Mestre, V., Schomer, P., Fidell, S., & Berry, B. (2011, June 14). Technical Support for Day/Night Average Sound Level (DNL) Replacement Metric Research. Retrieved September 16, 2020, from https://www.faa.gov/about/office_org/headquarters_offices/apl/research/science_integrated_modeling/noise_impacts/media/6-14-2011_FinalReport_MetricsMestre_etal_061411_part1.pdf

[4] Rogers, J. A. (2013, July 12). Helicopter Ass'n Int'l, Inc. v. Fed. Aviation Admin. Retrieved September 15, 2020, from https://www.casemine.com/judgement/us/5914f903add7b0493499f81d

[5] Yu, A. Y., & Hansman, R. (2019, May). Aircraft Noise Modeling of Dispersed Flight Tracks and Metrics for Assessing Impacts. Retrieved September 16, 2020, from file:///C:/Users/kkaiser/Downloads/ICAT-2019-07_Yu_Aircraft%20Noise.pdf

[6] Federal Aviation Administration. Report to Congress, FAA Reauthorization Act of 2018 (Pub. L. 115-254), Section 188 and Sec 173. 14 Apr. 2020, www.faa.gov/about/plans_reports/congress/media/Day-Night_Average_Sound_Levels_COMPLETED_report_w_letters.pdf

[7] Ibid.

countries, the World Health Organization recommended using a threshold of 45 dB or lower for day and evening aircraft noise[8] – that constitutes 20 dB less than the DNL metric employed by the FAA, which also does not disaggregate evening-levels from night. Far from trailing Western European nations, the U.S. should be demonstrating global leadership to mitigate the public health effects of aircraft noise.

When the FAA Reauthorization Act of 2018 was passed into law, Congress sought to address community airplane noise concerns by utilizing the scientific and research arms of the FAA to substantively evaluate alternative noise metrics with an eventual eye to having those metrics inform FAA decision-making. There is widespread consensus that the DNL metric remains an inadequate measure because it averages noise over a 24-hour period, thereby understating the impact of individual noise incidences. Thus, the congressional intent underpinning Sections 188 and 173 was to address the inadequacy of the DNL metric and nudge the FAA towards a more comprehensive measure. The report fails to understand that intent. Instead, we have received a delayed and highly insufficient report that does not address community impacts of noise.

Therefore, we, the undersigned Members of Congress, insist that the FAA return to the drawing board and meaningfully evaluate alternative metrics to the current DNL 65 average, not just dismiss or ignore them, and include the potential for the use of such metrics in the United States. Furthermore, we seek formal responses to the questions in the appended Citizens' Response Report, a *Technical Report to the FAA's April 2020 Report on Alternative Noise Metrics (Reauthorization Act of 2018, Sections 173 and 188)*. The concerned constituents who raised these eleven questions live in communities directly affected by increased noise from NextGen implementation. We request formal responses to each question.

Without a thorough and nuanced analysis of the DNL standard and better, more accurate metrics, progress on aircraft noise will remain elusive. It is therefore imperative that the FAA meet its congressional mandate and begin the report anew while also addressing our constituents' questions. We look forward to the agency's response, including its plans to follow through on our request.

Sincerely,

Karen Bass
Member of Congress (CA-37)

Eleanor Holmes Norton
Member of Congress (DC)

[8] World Health Organization, Regional Office for Europe. (2018). Environmental Noise Guidelines for the European Region. Retrieved September 16, 2020, from https://www.euro.who.int/__data/assets/pdf_file/0008/383921/noise-guidelines-eng.pdf

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