Metropolitan Airports Commission
6040 28th Avenue South, Minneapolis, MN 55450 • 612-726-8100 • metroairports.org

March 15, 2021

Mr. Kevin Welsh
Director, Office of Environment and Energy
Federal Aviation Administration

Docket Operations, M-30
US Department of Transportation
1200 New Jersey Avenue SE
Room W12-140, West Building, Ground Floor
Washington, DC 20590

Re: Docket No. FAA-2021-0037
"Overview of FAA Aircraft Noise Policy and Research Efforts"

Dear Mr. Welsh:

There is a long history of efforts at Metropolitan Airports Commission (MAC) operated airports to reduce noise impacts from aircraft operations. As Chair of the MAC, I am keenly aware of the challenges airport noise continues to present in communities around MSP and our reliever airport system. These challenges exist even though our organization has a decorated history of proactively addressing noise issues, funds one of the most extensive noise mitigation programs in the nation and maintains a robust community engagement calendar.

The MSP Noise Oversight Committee (NOC) operates as an advisory board appointed to provide a balanced forum for the discussion and evaluation of noise impacts around MSP. Among other things, the NOC is tasked to provide policy recommendations or options to the MAC Commission regarding airport noise issues. In its history, the NOC has amassed a distinguished record of identifying and analyzing airport noise issues around MSP. In February, the NOC unanimously approved the attached letter for filing on the Federal Register Notice titled, "Overview of FAA Aircraft Noise Policy and Research Efforts: Request for Input on Research Activities to Inform Aircraft Noise Policy" published on January 13, 2021. The recommendations offered in the NOC's letter are sound and originate from the collective experience the Committee has garnered in this field. The MAC Commission has reviewed and unanimously endorses the NOC's letter.

Thank you for your ongoing efforts to study and manage aircraft noise issues around the country. The MAC is particularly enthusiastic about the extensive research on the effects of aircraft noise on individuals and communities including speech interference and children's learning, health and human impacts, impacts to cardiovascular health, sleep disturbance, and economic impacts. This coordinated effort with academic institutions should produce useful data to inform this discussion moving forward.

I appreciate the partnership between our organizations and am confident we will be included in future discussions on the matter.

Sincerely,

Rick King
Chairman

cc: Brian Ryks – MAC Executive Director
NOC Co-Chairs Jeff Hart and Dianne Miller

MSP NOISE OVERSIGHT COMMITTEE

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February 17, 2021

Mr. Kevin Welsh
Director, Office of Environment and Energy
Federal Aviation Administration

Docket Operations, M-30
US Department of Transportation
1200 New Jersey Avenue SE
Room W12-140, West Building, Ground Floor
Washington, DC 20590

Re: Docket No. FAA-2021-0037
"Overview of FAA Aircraft Noise Policy and Research Efforts"

Dear Mr. Welsh:

Thank you for inviting comments on the Federal Register Notice regarding the scope and applicability of research initiatives being undertaken by the Federal Aviation Administration to address aircraft noise.

The Minneapolis-St. Paul International Airport Noise Oversight Committee (NOC) is the primary advisory body on aircraft noise issues associated with the Minneapolis-St. Paul International Airport (MSP). The NOC is composed of six community representatives and six aviation industry representatives that provide policy recommendations to the Metropolitan Airports Commission (MAC), which owns and operates MSP[1]. For more than 18 years, the NOC has provided a balanced forum and amassed a distinguished record of identifying and analyzing airport noise issues around MSP, which has resulted in the development of many innovative solutions[2]. These solutions are based both in acoustical mitigation as well as non-acoustic methods, such as stakeholder and community collaboration. The NOC recognizes the importance of collaboration and, in conjunction with MAC staff, maintains a robust calendar of engagements designed to meet and collaborate with our stakeholders.

[1] The NOC aviation industry representation includes air carriers, cargo air carriers, chief pilots, charter air carriers, and the Minnesota Business Aviation Association. NOC community representation includes the cities of Minneapolis, Bloomington, Eagan, Mendota Heights, Richfield and an At-Large community seat on the Committee representing the cities of Burnsville, Inver Grove Heights, St. Louis Park, St. Paul, Sunfish Lake, Apple Valley and Edina.

[2] Please see https://www.macnoise.com/our-neighbors/msp-noise-abatement-efforts.

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The results of the FAA Neighborhood Environmental Survey validate a principle known by the NOC: Noise concerns around MSP do not stop at 65 decibel (dB) Day-Night Average Sound Level (DNL). Between 2017 and 2019 the NOC reviewed reports of more than 450,000 total noise complaints attributed to MSP operations. Complaint locations were overwhelmingly from locations with an annual noise level below 65 dB DNL, with only one percent of complaints filed from homes within the 65+ dB DNL noise contour.

It is with the above as background that the NOC formulates the following comments and suggestions in response to the FAA's request for public comment on the Neighborhood Environmental Survey.

First, the NOC encourages the FAA to continue to explore and accelerate implementation of creative noise reduction strategies. Technology designed to reduce noise at the source is tremendously beneficial to residents, and often provides mutual benefits to airports and operators. Research on a Low Noise Augmentation System being tested in Europe or landing gear noise reduction tests being conducted by Boeing and Safran are examples of exciting progress that will take years to materialize. The NOC is also closely monitoring research conducted by MIT through ASCENT on advanced operational flight procedures, such as modifying landing gear and flap extension and changes to aircraft speeds, to reduce noise at the source. Federally developed incentive programs should be considered for aircraft operators to install or employ noise reduction equipment and methods to accelerate the adoption of these systems and incorporate noise reduction equipment into the fleet as quickly as possible. The NOC encourages the FAA to build capabilities into the Aviation Environmental Design Tool to quantify the noise reduction benefits provided by such advanced operational flight procedures and accurately model these low-noise procedures and systems. These capabilities would allow the agency to further reduce the impact on affected residents, by actively designing and implementing noise abatement procedures at airports that would reduce the frequency of flights over residential and other sensitive land uses.

Second, as outlined in the survey results, non-acoustic factors will often help to predict the likelihood that a person is highly annoyed by aircraft noise. Frequency of successive overflights may be causing higher annoyance levels. Further, drastic or abrupt changes to aircraft activity or the mere perception of change will alter the patterns of complaints received at MSP. National public awareness and sensitivity to aircraft noise was heightened after NextGen procedure implementation issues at airports such as Phoenix Sky Harbor and San Francisco. These are two potential examples that may have impacted the survey responses. Locally at MSP, the discussion of Area Navigation procedure implementation was contentious, disruptive, and highlighted the fact that early and effective outreach to communities is a critical component to successful implementation. The NOC suggests the FAA evaluate the survey results in concert with operational or procedural changes occurring during the

survey period at these airports. The NOC further encourages the FAA to find creative ways to integrate timely and holistic community involvement when pursuing changes at airports with a long history of intelligent dialogue and active participation in noise, like MSP.

Third, the NOC urges the FAA to fully consider the impacts of aircraft noise beyond the current federally established 65 dB DNL threshold when making policy decisions on the impacts of aircraft noise in communities around U.S. airports. In its efforts, the NOC would encourage the FAA to think creatively about strategies to reduce noise impacts for residential areas outside of traditional sound insulation programs. The NOC monitors the current MSP residential sound insulation program, which is the most unique and expansive program in the country. Resulting from an agreement settling litigation at MSP, the MAC currently offers sound insulation to homes within the actual 60 dB DNL contour. This program achieves an excellent record of homeowner satisfaction with 95 percent of respondents indicating the improvements were effective at reducing aircraft noise. The NOC recognizes and appreciates the value of this successful program. Further, the NOC also recognizes that residential sound insulation is not the only form of noise reduction. Therefore, this Committee encourages the FAA to think broadly about alternative and innovative forms of noise reduction, including operational abatement measures, and provide the necessary tools and resources to airports to enable these efforts. This is an opportunity to build upon the long-established collaboration and ingenuity among airports, communities, regulators, and industry.

Fourth, the NOC urges the FAA to consider the use of alternative noise metrics to evaluate single event and threshold noise impacts, such as number of events and time above decibel thresholds and maximum sound levels. While the MAC uses the DNL metric, as directed by federal regulations, the NOC finds that alternative metrics are useful and necessary to more effectively communicate with residents concerned about aircraft noise. The MAC operates the largest system of permanent sound level meters around any airport in the country. Data from this system is available daily and reported to the NOC monthly to provide a more complete assessment of aircraft activity. From this system, the NOC monitors Events Above 65 dB and Time Above 65 dB regularly. Further, sound octave data is used to investigate sound source, L_n data has been used to explain ambient environmental sound, and L_{max} data helps to explain unusually intrusive events. The NOC will also incorporate data from temporary sound level meters during work plan studies to inform Committee members. In 2016, communities around MSP passed resolutions stating that the FAA's noise metric for determining significant impact does not convey the magnitude of high single event noise levels and that alternative noise metrics aid in making quantitative assessments for aircraft noise impacts and communicating those impacts to surrounding communities. Given the use and acceptance of alternative metrics in this community, the NOC would encourage the FAA to further study the inclusion of alternative metrics into future efforts to quantify aircraft noise exposure. Specifically, metrics that quantity the frequency of aircraft activity

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and considers the time that activity occurs, would augment the benefits of DNL while also addressing the concerns of residents that feel an average level is not representative of their experience.

Finally, we applaud the efforts of the FAA to objectively study and understand the effect that aviation noise exposure may have on communities that neighbor airports. The collection of research outlined in this Federal Register notice is extensive. Current research on the Effects of Aircraft Noise on Individuals and Communities including Speech Interference and Children's Learning, Health and Human Impacts Research, Impacts to Cardiovascular Health, Sleep Disturbance, and Economic Impacts will be crucial elements in the portfolio of scientific evidence on the impact of aviation in the community. These results will more effectively inform future policy makers on the best use of resources and techniques available to minimize the impact on our communities. The NOC would encourage the FAA to prioritize these efforts and complete its research to enable the next phase of this discussion to begin. In keeping with its mission to provide noise program recommendations to the MAC, the NOC is poised and eager to participate in discussions as to how aircraft noise in communities near airports may be effectively managed as well as the FAA's future decisions on federal noise policy.

Sincerely,

Jeff Hart
NOC Airport User Co-Chair

Dianne Miller
NOC Community Co-Chair

cc: MAC Planning, Development & Environment Committee
Brian Ryks, MAC Executive Director / CEO