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September 29, 2023

**Docket No. FAA-2023-0855**  
Request for Comments on the Federal Aviation Administration's Review  
of the Civil Aviation Noise Policy

Thank you for allowing an open comment period on the Federal Aviation Administration's (FAA) Review of the Civil Aviation Noise Policy. Arlington County has a deep interest in the matter, and we thank you for the opportunity to provide comments and recommendations regarding the FAA's noise policy review.

Arlington County is 26 square miles of residential, business, and government land that either borders or is less than one nautical mile from the restricted air space known as Prohibited Area 56 (P-56A and P-56B). The County is home to approximately 250,000 residents and Ronald Reagan Washington National Airport (DCA). Our dense residential area comes with unique characteristics, including proximity to restricted air space, which requires careful management of operations to mitigate aircraft noise. The noise from aircraft heard by residents in Arlington County is quite pronounced since flight paths are drawn directly over the county for landing and take-off procedures.

Arlington County actively participates in the DCA Community Noise Working Group (CWG). We have two appointed members and one alternate member to the working group. We collaborate with our neighboring jurisdictions, the Metropolitan Washington Airports Authority (MWAA), the airlines that serve the airport, and the FAA. While we value our relationship with the FAA through this working group, we believe the FAA should revise its noise policy to equally balance the growth of the aviation industry and the well-being of residents affected by noise, especially during nighttime hours.

The revision of the noise review should incorporate new metrics, and data sharing and promote research into quieter aircraft and mitigation tools outside of the National Environmental Policy Act (NEPA) process. There should be a formal, codified approach that allows for transparency and one in which Arlington County can be confident the measurements demonstrate true noise impacts.

### **Additional Research and Noise Metrics**

Arlington County urges the FAA to complete its current research efforts. Data from ongoing research, such as auditory and non-auditory effects and epidemiological studies currently underway by the FAA, are crucial elements in the portfolio of scientific evidence on the impact of aviation in the community. Scientific evidence resulting from the FAA's studies on children's learning, impacts on cardiovascular health, sleep disturbance, and economic impacts is necessary to inform policymakers on the best use of resources and techniques available to minimize aircraft noise impact on our communities.

A new analysis by the Boston University School of Public Health and Oregon State University has found that exposure to even moderate levels of airplane noise may disrupt sleep, building upon a growing body of research on the adverse health effects of environmental noise. Published in the journal *Environmental Health Perspectives*, the study found that people who were exposed to airplane noise at levels as low as 45 decibels (dB) were more likely to sleep less than seven hours per night. For comparison, the sound of a whisper is 30 dB, a library setting is 40 dB, and a typical conversation at home is 50 dB. Sleep is essential to overall health and well-being, including daily physical and mental functioning, and a lack of adequate sleep can lead to increased risks of cardiovascular disease, depression, diabetes, cancer, and numerous other health conditions. Health experts state that most adults need seven to nine hours of sleep each night for healthy functioning. Arlington County encourages the FAA to establish a new noise policy that incorporates research related to social, emotional, and mental health to mitigate side effects for our residents.

To adequately understand and address the impacts of aviation noise on residents, the FAA must first establish adequate metrics to measure those impacts. DNL does not represent and account for additional factors resulting from today's aircraft operations that add to annoyance. The FAA should consider incorporating additional noise metrics that account for the human perception of noise rather than just the factory computer-tested models. Metrics such as the Community Noise Equivalent Level (CNEL), Time Above (TA), Number Above (NA), and others provide a more comprehensive understanding of the impact of aviation noise on communities, especially during night-time hours. These metrics should be integrated into the assessment and decision-making process.

### **Technology and Noise Reduction**

Technology designed to reduce noise at the source is tremendously beneficial to residents and often provides mutual benefits to airports and operators. Federally developed incentive programs should be considered for aircraft operators to install or employ noise reduction equipment, as well as methods to accelerate the adoption of these systems and incorporate noise reduction equipment into the fleet as quickly as possible. One example of a noise reduction system was a recommendation from the County's recent aircraft noise mitigation study that was approved by the CWG for aircraft to adopt the Noise Abatement Departure Procedure 1 (NAPD1) for north flow at DCA. This procedure allowed planes to reach higher altitudes faster and to eliminate noise on the ground for Arlington County residents. Unfortunately, not every airline at DCA adopted this procedure and due to FAA safety concerns of takeover situations, aircraft are no longer permitted to fly this procedure. Arlington County hopes this procedure can be re-implemented in the future and that Fly Quiet incentive programs can be prioritized. These

capabilities would allow the FAA and airport operators like MWAA to further reduce the impact on affected communities by actively designing and implementing noise abatement procedures at airports, which would reduce the frequency of flights over residential and other sensitive land uses.

**Nighttime Noise**

While we understand that restricting nighttime flights would be a near-term challenge to current national airspace capacity needs, Arlington County strongly encourages the FAA to devote resources and research into the severe impacts of night-time noise and appropriately account for it in measurements as well as initiate a long-term and comprehensive plan to address those impacts.

**Community Engagement/Mitigation**

Arlington County appreciates the FAA’s community engagement with the DCA CWG. We advocate for the FAA to be required to actively engage with all affected communities to develop and implement noise mitigation measures outside of the NEPA process. In addition to robust community engagement, the FAA should direct attention to incentives for airlines to adopt quieter aircraft and operational procedures, and for builders to offer insulation for residential properties and schools with higher sound-blocking characteristics. The effectiveness of these actions would be measured using event-oriented metrics to assess the impacted areas within and outside the current DNL contours. It is important for the FAA to develop a clear communication structure and community engagement strategy to bolster mitigation tactics.

**Data Sharing**

Finally, the FAA should prioritize transparency in sharing data related to noise complaints submitted to airports, flight paths, and operational changes with the public. This will enable communities to have a clear understanding of how the FAA measures and determines impacts.

We urge the FAA to consider these recommendations seriously when revising its regulations and policies regarding noise metrics and nighttime noise associated with aviation operations. The well-being of communities should remain at the forefront of decision-making, to create a more balanced aviation noise management system.

Thank you for considering our input on this matter. We look forward to seeing these recommendations incorporated into the final rulemaking and working together to ensure that aviation noise does not compromise the quality of life for residents in affected communities.

Sincerely,



Christian Dorsey, Chair  
Arlington County Board