



City of Medford

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March 23, 2021

Mr. Stephen Dickinson
Federal Aviation Administration, Administrator
Ms. Colleen D'Alessandro
New England Region, Regional Administrator

RE: Comments submitted for FAA Document FAA-2021-0037-0001

Dear Administrators D'Alessandro and Dickinson,

The City of Medford has been part of the Commonwealth of Massachusetts since before the War of Independence and played a vital role in the region since its founding. A key center of ship building and innovation in ship design throughout most of the 19th century, Medford was also home to Amelia Earhart, who lived here before her historic 1932 solo flight across the Atlantic Ocean. In today's Medford, nearly sixty thousand residents call the city home. Long densely settled in many places, our city has grown, and continues to grow and evolve in parallel with a busy transportation infrastructure that has also grown and evolved alongside us and in the skies above us. Naturally, steady growth of this infrastructure has been driven by the city's proximity to Boston and by dramatic growth of the metro region in recent decades.

The ground transportation infrastructure impact on Medford is unmistakably evident: the city is bisected along its entire North-South axis by I-93, the largest coastal interstate artery in the Northeast. Densely populated residential neighborhoods line both sides of this highway. In the western half of the city, there is a busy commuter railway and new light rail service is currently being added within that corridor. In the eastern half is the MBTA Orange Line train, which runs above ground in Medford.

Additionally, Medford is no stranger to air transportation noise. Logan airport's longest runway, 33L/15R, points directly at Medford. The city's inhabitants have lived with jet traffic for generations.

However, major changes in the geolocation of flight paths following the implementation of NextGen procedural changes in 2013 (most notably, the "33L RNAV SID"), resulted in immediate, profound, and unprecedented changes in the sonic landscape of the entire city. Medford went from being one of a group of non-line-of-sight communities exposed to jet departure noise, to being the exclusive catchment area for *all* jet departures en route to the primary GPS waypoint (known as "TEKKK"), as well as arrivals on runway 15R. Compounding the problem, the TEKKK waypoint is located directly over the largest elementary/middle school complex in Medford, resulting in the exposure of hundreds of children to constant low-altitude aircraft noise on a daily basis. Planes turning at TEKKK use one of four branches that together effectively blanket large parts of Northwest and Southwest Medford.

In the case of Medford, the effects of system-wide flight path concentration have been greatly compounded by other factors specific to Logan and the region:

A large (26%) increase in overall operations at Logan 2013-19, including the addition of a 2019 hub by Delta Airlines.

Significant expansion of international flights resulting in a disproportionate increase in late-night operations (10.5% in one year alone, 2016-17), often including large aircraft types, and a contraction of our "sleep window" from 6-7 hours to only 3-4 hours when 33L is in use. Seasonal prevalence of NW winds, causing almost constant use of runway 33L for prolonged periods of time.

Therefore, it came as no surprise to us when findings from the Neighborhood Environmental Survey (NES) confirmed what we have been experiencing, and also hearing from many of our fellow citizens for the last nearly eight years.

Medford complaints to the FAA (both individual households and overall complaints) have increased by orders of magnitude since 2013 and have stayed at unprecedented levels since, indicating that our citizens are not "getting used to" the new normal. As illustrated by the MIT RNAV Study, these complaints are clearly clustered in areas of the most extreme RNAV concentration, many of which lie within the borders of Medford [1]. The inescapable conclusion is that, although Medford lies well outside Logan's 65DNL jet noise footprint, many of her citizens are annoyed, and remain annoyed, by repetitive, round-the-clock jet noise. Clearly DNL is not a sufficient metric to quantify citizen annoyance in a flight path concentrated RNAV regime.

The City of Medford appreciates the Federal Aviation Administration's (FAA's) undertaking of the National Environmental Survey (NES) for the stated purpose of creating a new nationally representative dose-response curve to understand, and presumably reflect, how community response to aircraft noise may have changed since the era of the Schulz Curve. Similarly, there is an appreciation of how the introduction of Performance Based Navigation (PBN) procedures brought improvements to safety and efficiency. **It must be noted, however, that these improvements have come at the expense of significant community public health disbenefits in the communities exposed to extreme concentration of flights.**

The City of Medford appreciates the opportunity afforded through the public comment process for FAA document FAA-2021-0037-0001 to give voice to what our residents have been sharing. We support the FAA consideration of supplemental noise metrics beyond the Day-Night Average Sound Level (DNL) and agree that supplemental metrics such as those developed by the Massachusetts Institute of Technology (MIT) in neighboring Cambridge may help with communication and public understanding. **We are certainly supportive of systematic departure flight track dispersion and have been advocating for it for some time.** We do not seek to move concentrated flight path noise to other communities. Instead, we seek to share the noise burden equitably. We all benefit from the relative proximity to Logan International Airport and must share the burden equitably.

The City of Medford agrees that it is important to better understand whether related aircraft noise considerations, such as the potential effects of aviation noise on reading comprehension and learning motivation in children, warrant more detailed studies. As stated earlier, TEKKE was placed in very close proximity to a large public-school complex. **In addition to that, the accumulated toll on disadvantaged communities should also be better understood.** TEKKE is in very close proximity to the City of Medford's environmental justice populations, as well as our schools [2].

Future studies will be important, and their outcomes may lead to meaningful improvements, but we cannot continue to wait indefinitely. **We need systematic and equitable dispersion of the departure flight tracks, today.** Our residents are not acclimatizing to this dramatic increase in noise. As our society

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adapts to the next normal and more residents work from home, we expect that the restoration of pre-pandemic air traffic levels will lead to an even greater negative public health toll on residents.

We urge the FAA to recognize and promptly address the inequities caused by NextGen flight path concentration that have so profoundly affected Medford and many other communities across the country.

Thank you for the opportunity to comment on this important matter. Please contact my office with any questions.

Sincerely,



Breanna Lungo-Koehn
Mayor, City of Medford, Massachusetts

[1] Maps of Medford and 33L RNAV SID/noise exposure by census block

[2] http://maps.massgis.state.ma.us/map_ol/ej.php