



COMMONWEALTH OF MASSACHUSETTS

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November 14, 2019

The Honorable Kathleen A. Theoharides, Secretary  
Executive Office of Energy and Environmental Affairs  
Attn: Massachusetts Environmental Policy Act (“MEPA”) Office  
Anne Canaday, EEA No. 3247  
100 Cambridge Street, Suite 900  
Boston, MA 02114

**Re: Comments of the Town of Milton on the Boston Logan International Airport 2017 Environmental Status and Planning Report (2017 ESPR)**

Dear Secretary Theoharides,

The Select Board of the Town of Milton (“Milton”) is pleased to provide the following comments in response to the Boston Logan International Airport 2017 Environmental Status and Planning Report (“2017 ESPR”):

**1. Scope of the 2017 ESPR**

In Milton’s January 2017 comments to Massport’s 2015 Environmental Data Report (“EDR”), we noted several concerns we sought to be addressed in the 2016 ESPR (deferred to 2017):

- A. The off-airport impacts of the growth of Boston Logan International Airport (“Logan”), including increased throughput and increased aircraft operations. We were specifically concerned about how the increased demand for airport services impacts the surrounding communities, including increasing the volume and concentration of overflights, and increasing the amount of nighttime operations and nighttime overflights. We noted that each of these impacts must be studied in order to have a true assessment of the environmental impacts resulting from operations at Logan.

We appreciate that the 2017 ESPR does address some off-airport impacts of Logan operations. However, we feel the bulk of the report is still focused on the environmental impact of operations at Logan, rather than around Logan. Failing to

fully address off-airport impacts ignores the robust science that demonstrates that airport operations can impact communities as far as 10 miles beyond the airport location, particularly where those communities are overflowed by multiple RNAVs and the aircraft traffic is concentrated and persistent.

- B. We were and remain concerned that there is no analysis of the cumulative impacts from increasing numbers of RNAVs flown over surrounding communities. As discussed in numerous other comment letters, there are three RNAVs that overfly Milton, with two others proposed. Looking at these impacts in isolation does not provide an actual assessment of on-the-ground impacts – some of which are reflected in the increasing number of noise complaints filed in these communities.
- C. We urged, and we repeat this request, that Massport and the Secretary must move to a more updated method for noise assessment (e.g., N70, which focuses on the number of noise events greater than 70 dB(A)<sup>1</sup>), and either discontinue using the DNL standard, or reduce the threshold at which noise impacts are considered significant, as well as increase the frequency with which it is calculated. The logarithmic nature of the DNL standard, which has been widely criticized, combined with the fact that this calculation is most often calculated on an annual basis “masks” the acute impacts a succession of aircraft flying over a home has on the sleeping residents within, and also masks the acute impacts felt in a community when it is overflowed for hours on end, with little break in the incoming aircraft. Massport has the ability to calculate DNL on a much more frequent basis, and is supposed to be calculating this figure monthly but chooses not to do so. Calculating DNL across shorter time periods (e.g., monthly, weekly), would provide a more accurate indication of the suffering that Milton residents are enduring as a result of concentrated flightpaths and long hours of overuse, and would compel Massport to act to reduce airplane noise in Milton and other communities.
- D. We continue to urge real and substantive collaboration between Massport, the Secretary, and the communities impacted by Logan overflights. Multiple communities surrounding Logan (not just Milton) take the brunt of the impact of the operations of Logan, and the situation has worsened substantially since the FAA implemented NextGen. These communities should have direct and regular access to Massport and the Secretary, and both agencies should be willing to work on real and meaningful solutions to address the problems from airport operations – especially noise and pollution -- occurring in those communities. While we understand some of that work must be done via the Massport Community Advisory Committee (“MCAC”), the large size and the organization of the MCAC has the unintentional effect of diluting the voices of the most affected communities. With respect to the MIT study, three years after it began, Milton’s requests for specific analysis and relief through that study have not yet been acted upon.

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<sup>1</sup>[https://www.infrastructure.gov.au/aviation/environmental/airport\\_safeguarding/nasf/files/1.3\\_Guideline\\_A\\_attachment1.pdf](https://www.infrastructure.gov.au/aviation/environmental/airport_safeguarding/nasf/files/1.3_Guideline_A_attachment1.pdf)

## 2. Increased Airport Operations and Impacts on Surrounding Communities

Massport consistently undersells the increased number of airline operations and passenger throughput at Logan, by comparing aircraft operation numbers to pre-2000 data. This comparison is no longer valid, as airlines have significantly changed their modes of operation in the intervening 15 years, by relying on progressively larger airplanes, with progressively larger, more powerful, and louder jet engines. Further, the implementation of the FAA's RNAV systems has also changed how aircraft arrive and depart over surrounding communities.

It is important that Massport's forecasting through its ESPR be correct, as that forecast becomes the basis for planning and mitigation of the impacts of Logan operations for the next five years (at least). Massport's forecasting of growth as set forth in the 2011 ESPR was off by as much as 300%. According to that document, Logan throughput would grow by approximately 1.5% per year, and Logan would handle 38.9 million passengers by 2030. Instead, the 2017 ESPR reports that Logan surpassed 38.9 million passengers in 2017, 13 years ahead of forecasts. Passenger counts (and increased environmental impact from those passengers on the airport and off of the airport, including in the surrounding communities overflowed by airport operations) increased by 12 million passengers, to 40.9 million in 2018.

This is hardly surprising. In our 2015 EDR comments we indicated that we believed the growth in airport passenger traffic and airport operations would continue to increase. As set forth in the text above, the 2017 ESPR proves our beliefs to be correct. What is missing from the analysis, however, is recognition that these operations come with a cost -- the impacts to Milton and other communities continue to increase. While we understand and support Logan's role in the economic development of New England, we believe that development cannot come at the price of the right of citizens to peacefully co-exist within their homes. There needs to be a better balance between the economic success of the region and the duty of Massport and the airline community to protect the neighbors and communities underneath the publicly owned airspace through which they travel.

Such rapid growth is only going to continue, but once again, Massport under-projects growth. The 2017 ESPR growth forecasts predict 50 million passengers within the next 10-15 years. However, with the present 5% annual growth,<sup>2</sup> increasing operations of JetBlue and Delta which

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<sup>2</sup> According to the 2017 ESPR (p. 2-3):

Logan Airport is an important origin and destination (O&D) airport both nationally and internationally and is one of the fastest growing major U.S. airports in terms of number of passengers over the past five years. From 2016 to 2017, U.S. passenger traffic grew by 3.5 percent, whereas Logan Airport experienced a passenger growth of 5.9 percent. In 2017, passenger activity levels reached an all-time high of 38.4 million passengers and aircraft operations totaled 401,371, in direct response to the strong national and regional economies. In 2018, passenger activity levels reached 40.9 million and aircraft operations totaled 424,024. Despite the increase in passengers, aircraft operations at Logan Airport for both 2017 and 2018 remained well below the 487,996 operations in 2000 and the historic peak of 507,449 operations reached in 1998 (Figure 2-1 and Figure 2-2). This has been the result of a steady increase in aircraft size at the Airport and improving aircraft load factors (passengers/available seats). Note also, as mentioned above, that JetBlue and Delta are building hubs at Logan.

are building competing hubs at Logan,<sup>3</sup> and the improvements to Terminal E bringing in even more international flights, 50 million passengers will be reached by 2022, or 8-12 years ahead of the 2017 ESPR forecasts. Given Massport's persistent understatement of the growth of its Logan operations, we believe the Secretary should not accept the 2017 ESPR as an accurate baseline planning tool without further scrutiny, and should require Massport to justify and explain why its ESPR projections consistently fall short of foreseeable growth rates.

### **3. Increased Noise Complaints Reported**

Table 6-22 demonstrates that no single community made as many complaints on the Noise Complaint Line as Milton, although the numbers for other communities are catching up. Overall, and in Milton, both the number of complaints and the number of callers has increased. In 2016 Massport received 21,796 complaints from 466 callers. Those numbers increased to 23,940 complaints from 486 individual callers in 2017. For reference, the 2014 EDR reported 2,669 complaints and 4,991 were reported in the 2015 EDR. That represents almost a 900% increase in the number of complaints filed. Overall, Massport reports an 89% increase in the number of individual complainers on the noise complaint line, from 2016 to 2017 in all 15 reported overflown communities. Complaints on the Massport complaint line from Milton have continued to increase since 2012, coinciding with and increasing as the use of performance-based navigation at Logan has been implemented.

The 2017 ESPR does not discuss the importance of noise annoyance as a factor of environmental impact and harm. Noise annoyance in the Logan overflight communities -- which includes lack of sleep, disrupted and interrupted sleep, interrupted conversation, and impacts on use of outside spaces such as decks and yards, playgrounds, and civic spaces – is growing. This noise annoyance is not simple NIMBYism, it is a public health issue, as further discussed below. These are real impacts, suffered by real people, who live in nearby communities. It is outrageous that Massport virtually ignores these complaints in the 2017 ESPR, and still has no plan in place to address impacts on these citizens. The closest analogy is climate change, which impacts the day-to-day lives of many citizens. Further, like climate change, the noise from Logan operations impacts citizens across boundaries, yet no one community is empowered to find a solution. Instead, we must turn to our leaders at the state level, including the EOEEA for oversight, empowerment, and solutions.

### **4. Increased Nighttime Operations**

Nighttime operations at Logan – defined as from 10:00 P.M. to 7:00 A.M. – continue to increase. Nighttime operations increased by 15% from 2016 to 2017 (Table 6-4). Total nighttime operations have increased by almost 100% since 1990.

Although the noise complaint data is not broken down by time of day (either that the complaint was filed, or that the complaint concerned), it follows that some portion of the increase in complaints in Milton and other communities is driven by increased nighttime operations. Data

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<sup>3</sup> <https://www.forbes.com/sites/tedreed/2019/07/23/jetblue-to-delta-in-boston-come-and-get-us/#556512660cc8>

continues to be developed which indicates airplane noise in overflown communities disrupts sleep patterns, which has been shown to result in adverse human health impacts.

Information from Milton residents indicate that the noise from airplanes in Milton is clearly heard above background noise in both commercial and residential areas. As elected officials, we hear frequently from Milton residents who suffer from interrupted sleep, anxiety and a reduced quality of life because of the noise pollution caused by very frequent – and some days continuous – flights over Milton at low altitudes. Indeed, this is one of the two most common requests for relief we receive from residents. We cannot overstate the seriousness of the health problems that these RNAVs cumulatively pose for Milton residents, and the adverse cumulative environmental impact that the RNAVs and the low flying planes have on our entire community. The noise from airplane overflights can also negatively impact property values. Fewer buyers are willing to purchase a home in an area with known noise impacts, and prices can be suppressed. Meanwhile, recent buyers have been vocal on social media that they would not have purchased a home in Milton had they been aware of the amount of airplane noise in the town.

We request that the Secretary work with the FAA, Massport, and Milton to implement late night aircraft restrictions, similar to those set forth in 740 CMR 24.04, which are protective of Milton and its residents. In particular, it is important to discuss restrictions on RNAV usage and routes that overfly residential neighborhoods, including spreading the routes further so that the nighttime noise is less concentrated in residential neighborhoods, or moving routes over the ocean during certain periods of time. Specifically, as there are already nighttime restrictions on arrivals to runway 4L, we request the same restrictions (no arrivals between 11:00 PM and 6:00 AM) for runway 4R. See Massachusetts Port Authority Noise Rules and Regulations I.1(b), Summary of Runway Use Restrictions, Boston Logan International Airport (May 2, 2016) (also referenced in FAA BOS ATCT Noise Abatement Order 7040.1H). In addition, early-morning departures from runway 27 also routinely overfly Milton and the other communities under the runway 27 RNAV.

## **5. Air Pollution and Public Health.**

The 2017 ESPR only discusses air pollution from airport operations in the context of the actual operations of Logan airport, on Logan property. We repeat our comments to the 2014 and 2015 EDRs that this perspective is overly and conveniently narrow. Recent studies at LAX (Hudda, et al., May 2014) found ultrafine particle (UFP) counts as far as ten miles from heavily used arrival runways. Although study of the negative effects of UFPs are ongoing, UFPs are believed to have negative effects on respiratory and cardiovascular health in humans, and Massport does not dispute that UFP pollution is an issue at Logan<sup>4</sup>. We are disappointed that the 2017 ESPR did not consider the developed science on this important environmental impact to the citizens living in the Logan overflight area. The health of our residents, employees, and visitors depends upon policy and operational procedures that takes this data into account.

We request that the Secretary direct Massport, in conjunction with the Department of Public Health (“DPH”) and the Department of Environmental Protection (“DEP”), to conduct noise and

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<sup>4</sup> <https://www.wgbh.org/news/local-news/2019/09/24/air-pollution-from-logan-airport-harms-surrounding-communities-research-shows>

air pollution studies in communities like Milton which receive a substantial number of low-flying arrival aircraft. This work would be consistent with the evolving science on this point, and protective of the residents in these communities. We further request that the scope of the future EDRs be expanded to consider the health impacts from increased and concentrated arrival and departure operations due to RNAVs, and that pollution data be measured for every community under any of the many Logan RNAVs, and that no new RNAV overflight paths be put into use until such study is complete and all parties agree that no additional detrimental effects will be experienced by residents in communities bearing the brunt of low-flying airplane overflight.

## 6. Dwell and Persistence

Dwell and persistence relate to the length of time that noise impacts occur. As defined by Massport, dwell is a daily measure while persistence is calculated over a period of 3 days. Both measures define exceedance as being more than a set number of hours of operation between 7:00 AM and midnight (7 hours for dwell, 23 hours for persistence), meaning that the nighttime operations that Milton is often subjected to are not counted towards this measure. Also, in contrast to the annual Preferential Runway Advisory System (“PRAS”) goals, Massport uses the number of hours the runway is in operation, not the actual number of operations that take place on that runway, creating a misleading and inaccurate picture of what is happening on the ground.

For example, Figure 6-17, creates the false impression that dwell and persistence exceedance is a relatively small issue for people living under the 4s even though the 4s typically see the plurality of operations annually.<sup>5</sup> The reason for this is two-fold:

1. As defined, the period from midnight to 7:00 AM is not counted in these figures. Therefore, Milton could – and does – see constant air traffic through the night but not have this traffic count towards dwell and persistence exceedance counts.
2. Some runways are given “credit” towards dwell and persistence exceedance counts because they are available for use but are not experiencing any flight operations.<sup>6</sup>

This omission of night-time operations from the dwell and persistence calculations harms communities like Milton because it discounts the negative impact that constant operations have on daily life by ignoring the existence of sleep interruption created by these nighttime flights. This rise in air traffic means that more flights will be overhead when residents are trying to sleep at a time when a) Massport’s calculations are demonstrably understated (in Table 6-20, Massport predicts that nighttime flights will only reach 167.75 per day for the Future Planning Horizon –

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<sup>5</sup> 2017 was an anomalous year as Runway 4R/22L was closed from May 15 - June 23, 2017 and had reduced availability through September 15th for 4R arrivals because of construction at Logan. In comparison, arrivals to 4R and 4L totaled (57,899 to 4R and 7,274 to 4L) in 2018, or 35.3% of all arrivals for the year. Also – please note that Table 6-6 erroneously notes this anomalous decline as an improvement in effective usage for 4R/L under PRAS.

<sup>6</sup> Logan will often report that 15R is available for arrivals when 4R is in use, giving 15R “credit” towards dwell and persistence calculations. However, arrivals on 15R are rarely if ever observed at times when 4R is in use, as demonstrated by the disparity in arrival numbers. In the anomalous 2017, 4R saw 21.6% of arrivals compared to 15R’s 4.4%. The 2018 figures are more indicative of a typical year as 4R saw 31.4% of arrivals and 15R saw but 0.4%.

an increase of 0.15% despite double-digit growth in the years prior), and b) Massport regularly fails to optimize over-water operations during nighttime hours.

## 7. Conclusion and Request for Assistance.

Thank you for your attention to and consideration of our comments on the 2017 ESPR. We believe that there can be solutions available to remedy and mitigate the ongoing impact of Logan operations on the residents of Milton. We request that the Secretary work with Massport, Milton, the MCAC, and other affected communities to help remedy the multiple impacts discussed above. Specifically, the requests made are as follows:

- a. Not to certify the 2017 ESPR and to direct Massport to prepare a Supplemental ESPR which fully and realistically addresses projected increases to Logan operations and airport throughput, and the resulting environmental impacts;
- b. Work with the FAA, Massport, and Milton to develop and implement late-night aircraft overflight restrictions which are protective of Milton and its residents, including consideration of an 11:00 PM to 6:00 AM landing prohibition on runway 4R;
- c. Direct Massport and the MCAC to promptly develop a system for the fair and equitable distribution of aircraft overflights that provides real relief to the highly impacted surrounding communities, especially those that are under multiple RNAVs;
- d. Direct Massport to collaborate with DPH and DEP to develop and conduct noise and air pollution studies in highly impacted surrounding communities, especially those that are under multiple RNAVs;
- e. Direct Massport to consider off-airport noise and pollution impacts, including but not limited to the health impacts from increased and concentrated arrival and departure operations due to RNAVs, in all communities under any RNAV, in all future EDRs
- f. Direct Massport to include all of the points made above in the scope of the 2017 ESPR. This includes impacts to health from noise and pollution from: off-airport impacts of growth, cumulative impacts of RNAV overflights, increased nighttime operations, moving to updated noise measurements which are more protective of human health and which account for acute impacts more realistically than the DNL standard; and working directly with impacted communities to more fully understand and evaluate the human health effects from Logan operations.
- g. Include the hours from midnight to 7:00 AM in the dwell and persistence calculations to provide a clearer indication of the noise burden being borne by communities subject to nighttime operations.

We would appreciate a time to meet with you and your staff to personally discuss the concerns we have outlined here, as well as our specific requests for assistance.

Sincerely,

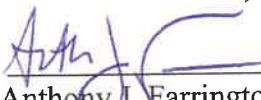
Select Board of the Town of Milton



Michael F. Zullas, Chair



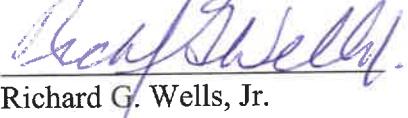
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Representative Ayanna Pressley  
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State Senator Walter F. Timilty  
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