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Letter 14

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Congress of the United States House of Representatives Washington, DC 20515-2107

September 22, 2006

Administrator Amy L. Corbett
Regional Administrator
Federal Aviation Administration
12 New England Executive Park
Burlington, Massachusetts 01803-5202

Dear Administrator Corbett:

I write to you regarding the Federal Aviation Administration's (FAA) Draft Written Reevaluation of the proposed Centerfield Taxiway at Logan International Airport.

I agree with the FAA and the Massachusetts Port Authority (Massport) that reducing delays and increasing efficiency and safety at Logan are very important. That is why I have urged for some time that we make better use of existing a planned regional facilities to accommodate demand that would otherwise fall solely on Logan.

I have always felt that residents of the communities surrounding Logan Airport (specifically Winthrop and Revere, which I represent) have been disproportionately overburdened with aircraft noise and pollution due to a failure at the state and federal level to embrace the concept of regionalization. This reluctance to promote collaboration among agencies throughout New England to develop a plan to share in the region's current and future transportation demands, gives these residents no assurance that Logan expansion (including construction of the proposed Centerfield Taxiway) will not lead to increased capacity, noise and pollution at the airport.

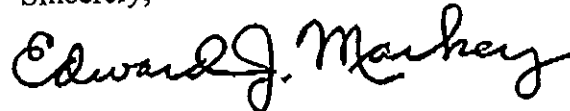
It is my understanding that as part of the FAA's August 2002 Record of Decision (ROD) on Logan's Airside Improvements Planning Project, the FAA agreed to approve the construction of the Centerfield Taxiway subject to additional evaluation of taxiway operations north of Runway 15R-33L. As part of this process, the ROD required the FAA to meet with representatives from neighborhoods surrounding the north end of the airport to better ascertain their concerns and to solicit potential actions to address their concerns. According to the community representatives chosen to fulfill this requirement, their proposals and suggested alternatives were not given full and fair consideration by the FAA. This feedback has led me to believe that the FAA is not adequately addressing the community's concerns and therefore I cannot support approval of the project at this time.

OCT 11 2006

Given current circumstances, I ask that the FAA not approve any construction for a new taxiway at Logan, or, at the very least, postpone a decision until the FAA can complete a thorough examination of practical recommendations on how to alleviate potential impacts a new taxiway will have on these communities. I hope you agree that ensuring a high quality of life for residents in neighborhoods affected by Logan Airport is a top priority and that suggestions raised by these communities must be fully explored and given complete consideration.

Thank you in advance for your prompt attention to this matter, I look forward to your response. Should you have any questions or require additional information, please do not hesitate to contact Patrick Lally of my Medford District Office at (781) 396-2900.

Sincerely,

A handwritten signature in cursive script that reads "Edward J. Markey". The signature is written in black ink and is positioned above the printed name.

Edward J. Markey

EJM/pjl



CITY OF BOSTON • MASSACHUSETTS

OFFICE OF THE MAYOR
THOMAS M. MENINO

September 22, 2006

Amy Corbett, Regional Administrator
Federal Aviation Administration
12 New England Executive Park
Burlington, Massachusetts 01803

Dear Ms. Corbett:

As you know, this is my third letter in two months regarding the Centerfield Taxiway, which I believe will have a significant impact on the health and quality of life of East Boston and Winthrop residents.

Please find attached letters from the Boston Public Health Commission, the Boston Environment Department and the Boston Transportation Department detailing the City's comments on this project.

It is my sincere hope that the Federal Aviation Administration will re-think its policy of not attending public hearings and making presentations to neighborhood residents to explain why this project is so critical to the future of Logan Airport. They need to hear first-hand how, according to the FAA, the project's benefits will outweigh the intolerable impacts of fumes and noise on their daily lives. In the final analysis, it will be residents of Orient Heights and Winthrop that will endure the impacts of the Centerfield Taxiway. I look forward to your response on how the FAA will engage the public before you continue any further work on the project.

Sincerely,

Thomas M. Menino
Mayor of Boston

To: John V...
ANE-610
Cy to ANE-1/2
Cy to ANE-30

Letter 15

OCT 30 2006

Letter 16



1010 Massachusetts Avenue
Boston, MA 02118

telephone (617) 534-5966
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September 22, 2006

Mr. John Silva
Federal Aviation Administration
New England Region
12 New England Executive Park
Burlington, MA 01803

Re: AIRSIDE IMPROVEMENTS, CENTERFIELD TAXIWAY, LOGAN
INTERNATIONAL AIRPORT, BOSTON, MASSACHUSETTS.

Dear Sir:

Logan International Airport is a vitally important transportation asset necessary for the social and economic well being of persons living and working in New England. People across the region benefit substantially from the operation of Logan Airport, but only the residents of Boston, Winthrop, and other nearby communities bear the brunt of its significant adverse impacts. In addition, its adverse impacts disproportionately fall on the high population of minority and low-income residents now living in neighborhoods near the airport and under flight paths. A more equitable distribution of such adverse impacts is needed in addition to the maximum feasible reduction of such impacts.

Strategies for adverse impact reduction from Logan Airport include regionalization of air transportation services, the use of better emissions control technology, and more efficient airside and landside operations to reduce fossil fuel combustion and noise. The Boston Public Health Commission believes that with the construction of the Centerfield Taxiway, Logan Airport will experience greater aircraft access to the taxiway and therefore a possible increase the level of air pollution related adverse health impacts unless the emissions affecting Suffolk County from other sources can be reduced.

During a Boston City Council Sub-Committee public hearing held on September 6, 2006 at East Boston High School, Logan Airport CEO Thomas Kinton was asked whether Logan Airport would cap the number of aircraft flights using the facility to limit emissions and noise impacts. Mr. Kinton indicated that the airport opposes imposition of any capacity limits.

Massport concludes that since the Boston Metropolitan Area is in attainment for criteria pollutants, no further emission reductions are necessary at the airport to comply with federal standards. There are many possible health risks for which further study is necessary.

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B

However, there are multiple indications suggesting that Logan Airport may be contributing in significant part to the adverse health impacts being experienced by nearby populations. Such indicators include:

- a. Environmental Defense Fund (EDF) Risk Assessment,
- b. BPHC Health of Boston Data,
- c. MIT Community Risk Assessment,
- d. Winthrop Community Health Survey,
- e. O'Hare Airport Risk Assessment

As an example, according to Environmental Defense Fund risk assessment based on U.S. EPA's National-Scale Air Toxics Assessment data, there are 680,000 Suffolk County residents having an added cancer risk of greater than 1 per 1000 attributable to hazardous air pollutant exposure.¹ There are 690,000 Suffolk County residents exposed to an acute health effects Hazard Index of greater than the maximum acceptable level of 1.00. The average Suffolk County Hazard Index is 5.4, greater than 5 times more than the acceptable level. On average, Suffolk County residents have an added cancer risk of 2 per 1000 persons compared to an average added cancer risk of 0.89 for Massachusetts (including Suffolk County) residents. Acceptable added cancer risks range from 0.01 to 0.001 per 1000. Ninety percent of the added cancer risk for Suffolk County is attributable to diesel emissions. Ninety seven percent of the Suffolk County added cancer risk is attributable to mobile sources. Logan Airport is one of the largest contributors to mobile source air pollution in Suffolk County.

According to the 2005 Health of Boston Report, East Boston has an age-adjusted lung cancer mortality rate of 87 deaths per 100,000 population compared to a rate of 58 deaths per 100,000 population for the rest of Boston.² The neighborhoods having the highest three age-adjusted cancer mortality rates are South Boston (303 deaths per 100,000), Charlestown (241 deaths per 100,000), and East Boston (231 deaths per 100,000). These are the neighborhoods close to Logan Airport. The high cancer death rates in South Boston, East Boston, and Charlestown may not be able to be explained by smoking rates alone. The percentage of adult South Boston, East Boston, and Charlestown residents smoking tobacco is currently within 1 percentage point of the rate for Boston as a whole (19 percent).

International airport operations are a major mobile source of air pollution, which can be expected by their known emissions to contribute significantly to cancer risk in nearby communities. The Risk Assessment commissioned by the City of Park Ridge, Illinois published in August 2000, in which Risk Assessment calculations was based on conservative toxic emissions data developed in 1999 by Chicago's consultant, KM Chng Environmental, Inc. demonstrated significant cancer risk related to the operation of O'Hare Airport.

Massachusetts Institute of Technology, Department of Urban Studies and Planning, has prepared a report "Community Risk Assessment, Air Quality in Chelsea and East Boston" for the Chelsea Creek Action Group. The report is dated May 18, 2001. This report indicates that there is increased residential cancer risk in part from Logan Airport operation emissions.

¹ http://www.scorecard.org/env-releases/hap/county.tcl?fips_county_code=25025

² http://www.bphc.org/reports/pdfs/report_201.pdf

Environmental Health and Safety professionals living in the town of Winthrop published the Winthrop Community Health Survey, Winthrop Environmental Health Facts Subcommittee (Winthrop Airport Hazards Committee), Winthrop Board of Health, AIR, Brian Dumser, PhD, CIH, August 18, 1999.³ This report indicates that **“for the most common respiratory diseases, asthma and allergy, disease is twice as common in the most heavily exposed neighborhood as it is in the least exposed.”** The Winthrop group’s finding is consistent with that of the Environmental Defense Scorecard for Suffolk County indicating a Risk Assessment Cumulative Hazard Index for non-cancer hazards of 5.4.

C

Compliance with the NAAQS for criteria pollutants across a large metropolitan domain, such as Boston, does not address local air quality impacts near major emission sources, such as airports. This is especially true for Logan Airport because of its close proximity to residential communities with populations having an already compromised health status compared to the average for Boston and for Massachusetts.

D

Attainment of the particulate matter (PM) standard determined from monitors located several miles from the airport does not take into account the concentration gradient of ambient PM immediately downwind of runways with over 1000 aircraft landing and departing on a daily basis at the airport or the impaired health status of the nearby community. The methods used to measure PM emissions and evaluate health impacts should be reviewed and supported by local, state, federal, and university based authorities before their implementation to promote credibility with the impacted public.

E

The MA Department of Public Health (DPH) has indicated that consideration of operations on the Centerfield Taxiway is critical to the overall objectives of the monitoring program because emissions profiles for aircraft vary depending on the stage of the landing and takeoff cycle (LTO).⁴ Therefore, in addition to the suite of volatile organic compounds (VOCs, including aldehydes and other air toxics), PAHs, and fine particle sampling, we believe that ultrafine particles should be included in the sampling protocol because they are the major particulate fraction emitted from aircraft engines.

F

Depending on meteorological conditions, combustion-related particles can remain suspended in ambient air within the spatial distance of residential communities abutting the airport (Zhu et al., 2002, Reopen et al., 2003). Ultrafine particles (UFP) are important because current epidemiological evidence support associations between inhalation of fine ($\leq 2.5 \mu\text{m}$) and ultrafine ($\leq 0.1 \mu\text{m}$) ambient particulate matter and increases in cardiovascular and respiratory morbidity and mortality (Penn et al., 2005).

G

UFP are capable of efficiently carrying and transporting large amounts of absorbed or condensed toxic air pollutants into the respiratory tract (Sioutas et al., 2005). The small particle size

³ <http://www.us-caw.org/winstudy.htm>

⁴ During taxiing/idling, the aircraft engine is at low speed and power, which results in ground-level emissions of volatile organic compounds (VOCs), including hazardous air pollutants (HAPs, such as benzene). Combustion-related ultrafine particulate matter (UFPs, aerodynamic diameter $\leq 0.1 \mu\text{m}$) are generated at thrusts greater than 60% (e.g., during taxiing). Emissions of oxides of nitrogen occur primarily when the engine is in high speed and power during takeoff and climbout.

facilitates uptake into cells and across epithelial and endothelial cells into the blood and lymph circulation to reach potentially sensitive target sites such as heart, bone marrow, lymph nodes, and spleen. With respect to monitoring UFP, the total mass of ultrafine particles is insignificant compared to particles in the larger size range (e.g., PM_{2.5} measurements). Therefore, it is important that UFP are measured using real-time methods that characterize particle number concentration and number size distribution.

G

Given the ubiquitous nature of combustion-related emissions in communities surrounding the airport, it is unlikely that monitors located at various distances from the airport will measure distinct gradients before and after the construction of the Centerfield Taxiway. Therefore, we believe that it would be more informative and would also benefit public health investigations to obtain a robust baseline of current ambient pollutant concentrations on and near the airport property. This may be accomplished by locating monitors primarily on the airport property and in the immediate vicinity of the airport boundary where the highest concentrations of airport-related emissions are likely to occur.

H

Ambient monitoring data alone are insufficient to address local air pollution impacts from airport activities. The state-of-the-science for assessing environmental impacts from airport operations combines source apportionment, speciation and atmospheric dispersion modeling to predict ambient concentrations at receptors in the vicinity of the airport.⁵ In this regard, monitoring data alone are not sufficient for addressing questions regarding the local impact of airport operations. Therefore, it would be important for this monitoring effort to leverage several important monitoring and modeling projects that are attempting to assess potential impacts of Logan Airport. For example, MA DEP recommended working closely with them to leverage the monitoring network for criteria and air toxic pollutant data collected in Boston. We also would like to see Massport leverage the information gained from the atmospheric dispersion modeling project MA DPH/CEH is conducting to augment exposure data for the Logan Airport Health Study.

The monitoring data that have been collected at Logan Airport by Aerodyne, Inc., by the MOZAIC⁶ airborne program that measures ozone and water vapor using Airbus in-service aircraft, and by the NASA Satellite program (e.g., NASA Aura Earth-Sun System measurements) may also provide valuable information for developing optimal air quality monitoring protocols at Logan Airport.

Exposure to noise is detrimental to health. Hearing impairment, sleep disturbance, cardiovascular effects, psycho physiologic effects, and psychiatric symptoms have been related to excessive community noise exposure. Noise annoyance reduces performance and increased aggressive behavior. The use of day-night noise levels (L_{dn}) for evaluation of community noise impacts from Logan Airport is insufficient because the impacts of loud events of short duration are obscured. Peak and single event noise levels better correlate with community perceived

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⁵ Report on the Peer Review Workshop on the Los Angeles World Airports Air Quality and Source Apportionment Study of the Area Surrounding Los Angeles International Airport. Prepared for Sabrina Johnson, Office of Policy Analysis and Review, OAR, USEPA, Washington, DC by EC/R Incorporated, Chapel Hill, NC. August 8, 2003.

⁶ Measurement of ozone and water vapor by Airbus in-service aircraft (MOZAIC)
<http://www.agu.org/pubs/crossref/1998/98JD00977.shtml>

excessive noise and hearing damage. Average noise levels should be monitored using the CNEL metric utilized by the state of California as well as Ldn. Noise contours for Lmax and SENEL should be mapped as well as Ldn and CNEL. Sound level data should be provided for the period during which the airport was closed following 9/11.

I

Industrialization's benefits have associated health risks. Logan Airport is by no means the only significant contributor to mobile source air pollution and noise. However, as Logan is a major mobile source in Suffolk County, the public and their elected representatives deserve to know the level of health risk attributable to airport-related emissions in order to make informed choices for health impact, future transportation resources, and development. The legislature recognized this need when they directed the MA DPH to conduct a health risk survey. This work by the MA DPH should now be supplemented by the establishment of air pollutant inventories and by comprehensive risk assessment commissioned by Logan Airport and reported as part of its EDR requirement.

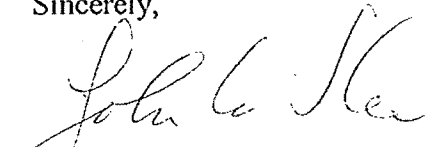
J

Our Recommendation

If the capacity of Logan Airport must increase with increased emission of its air pollutants, maintaining current or reducing future adverse health impact levels caused by air pollution exposure in nearby communities will require reducing emissions from other nearby sources. The Boston Public Health Commission recommends that approval of the Centerfield Taxiway Project be delayed until such time as the legislatively-mandated MA DPH health study, the environmental health-related Air Quality Initiative program indicated by former EOEA Secretary Durand, and the noise study mandated by the FAA's Record of Decision have been completed and can be considered in the evaluation of this proposed addition to Logan.

K

Sincerely,



John W. Shea, Director
Environmental Hazards Program

cc: John Auerbach,

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Letter 17

BOSTON
TRANSPORTATION
DEPARTMENT

ONE CITY HALL PLAZA/ROOM 721
BOSTON, MASSACHUSETTS 02201
(617) 635-4680/FAX (617) 635-4295

September 22, 2006

Mr. John Silva
Federal Aviation Administration
12 New England Executive Park
Burlington, Massachusetts 01803

Re: Logan International Airport – Airsides Improvements – Centerfield Taxiway

Dear Mr. Silva:

The Boston Transportation Department has been involved with the Centerfield Taxiway discussion since the project was first proposed and continues to be concerned that the FAA is proceeding with its implementation without considering all alternatives. In addition, East Boston and Winthrop residents have sent a clear message to your agency regarding their concerns about the impacts of this project on their environment and health.

Till recently, the Centerfield Taxiway has not received the attention it deserves within the context of the overall airport surface improvement program. A major reason has been the dominance of Runway 14/32 during the Logan Airport Airside Improvement Program environmental process. The other components of the airport surface improvement plan, which included lowering of the landing minimums, rearranging certain existing taxiways and the Centerfield Taxiway, took a back seat to ongoing runway related public discussion and environmental review. While the impacts of Runway 14/32 were easy to quantify, other airport improvements were more complex and required more technical comprehension.

The opposition to the Centerfield Taxiway has surfaced more recently as the residents of Orient Heights and Winthrop have become more aware of the project. However, they have yet to understand what it entails and what the potential impacts could be. At the community's request, I instructed my staff to meet with East Boston residents and inform them about the taxiway's location and its operational characteristics. It has now become clear to residents that the Centerfield Taxiway has the potential to be extremely harmful to their quality of life. I urge the FAA to reconsider their decision not to make public presentations and explain the full impacts and benefits of the proposed project.

The controversy surrounding the Centerfield Taxiway is not a new subject as it was first proposed back in 1990. Based on intense community opposition at the time, the proposal was changed to include only what was then called the southern portion of the Centerfield Taxiway.

THOMAS M. MENINO, Mayor



This involved only building a portion of the Centerfield Taxiway, essentially from the middle of the airport down towards it's southern portion near Boston Harbor. This proposal was also met with opposition and removed from further consideration.

In addition to the City of Boston's concerns regarding environmental impacts, we are also concerned about public safety and the potential of the Centerfield Taxiway to exacerbate the ground incursion problem at Logan. As you know, the Centerfield Taxiway would be located between Runways 22L and 22R. The distance between these two runways is 1,500 feet from centerline to centerline. The distance between the edges of Runway 22R and the Centerfield Taxiway will be approximately 375 feet. Although the taxiway will be lighted differently from the runways, it will present a cluttered view and prove to be confusing to a pilot landing on either 22R or 22L. This could result in a pilot landing on the wrong runway such as the event that occurred in July 1987 when a 757 landed on Runway 22R after the pilot was instructed to land on 22L.

Construction of the Centerfield Taxiway will result in the creation of eight new airside intersections. The City of Boston questions the FAA on their claim that the taxiway will decrease the number of crossings on Runway 22R. Currently, an aircraft cannot cross Runway 22R to depart on Runway 22L. The Centerfield Taxiway will create new crossover points on Runway 22R for a pilot requesting 22L for departure, increasing the potential for an incursion. Between October 2004 and October 2005 alone, there were sixteen runway incidents at Logan. I am troubled as to why FAA would want to support a project that would increase the potential for a ground incursion to occur at Logan.

I urge FAA to postpone the Centerfield Taxiway until the public has time to become more familiar with the project. Although the Centerfield Taxiway was included in the Airside Improvement Project, as I stated earlier in this letter, Runway 14/32 dominated the study and the public is just now becoming aware of how the Centerfield Taxiway will impact their lives. Although not required to do so, the FAA should attend public meetings in order to discuss with the community a project that has them more concerned than any other proposed for Logan Airport in many years.

Sincerely,



Thomas J. Tinlin
Acting Commissioner