APPENDIX I

Comments and Comment Responses Received After Publication of the Draft Environmental Assessment

EMAIL-1

NOTE: Email-1 only comprised the email to which Letter-3 was attached. No response necessary.

EMAIL-2

COMMENT

Stephen Goetzinger

From: Elizabeth Schiffmann <easchiffmann@comcast.net>
Sent: Friday, November 20, 2020 6:27 AM
To: FAABostonWorkShops
Subject: Flight Path in Milton

Follow Up Flag: Follow up
Flag Status: Flagged

Email-2-1

Dear Sir or Madam,
Please do not proceed in adding another flight path over Milton to our already full skies. It is not fair, and our town has come up with options for you to consider.
Sincerely,
Elizabeth Schiffmann

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RESPONSE

EMAIL-2-1

The Federal Aviation Administration (FAA) does not control the scheduling of flights at Boston Logan International Airport (the Airport), as the Airport is currently not constrained in terms of airspace or runway capacity during normal operations. The implementation of the RNAV (GPS)

RWY 4L procedure will reduce delays at the Airport during times of poor weather conditions and when the Airport wind conditions dictate a Northeast configuration. In the Proposed Action Alternative, the noise impact of 359 additional annual arrivals to Runway 4L due to reduced delay in Instrument Meteorological Conditions (IMC) is modeled as well as 594 arrivals that will utilize the RNAV (GPS) RWY 4L procedure instead of the ILS RWY 15R transition to Runway 4L during marginal Visual Meteorological Conditions (marginal VMC). The 359 annual arrivals include an estimated 255 new arrivals that would have otherwise been canceled as well as 104 arrivals that would shift from Runway 4R due to reduced delays on Runway 4L during IMC. Other than 255 additional departures (to offset additional arrivals), all other traffic is assumed to fly as it does today, as the implementation of this procedure is not anticipated to change anything about the operational regime of the Airport during any other conditions, including VMC and when the Airport is in another airfield (runway use) configuration. In addition, this procedure does not constitute a new flight path as it overlies an area of existing arrivals to Runway 4L and is not expected to result in the overflight of new areas on approach.

EMAIL-3

COMMENT

Stephen Goetzinger

From: Cheryl Marceau <cheryl.a.marceau@gmail.com>
Sent: Friday, November 20, 2020 10:00 AM
To: FAABostonWorkShops
Subject: Comments on the BOS 4L Draft EA

Follow Up Flag: Follow up
Flag Status: Flagged

I encourage the FAA to use the 4L RNAV instrument approach to disperse the excessive number of approaches that currently use the 4R RNAV. I think that the Air Traffic controllers, airlines, and pilots should increase their use of the left down-wind transition for arrivals from the north which would completely avoid flying over those under the 4R RNAV
The FAA should use a 15 degree offset to the 4L instrument path so that those sandwiched between both the 4R and 4L are less affected.
Communities under the 4R path deserve protection similar to that given to other communities, including parts of Milton. The FAA's community involvement program should work with communities like Dorchester, Quincy, East Milton, Braintree, and others affected by approaches to the 4R runway and develop restrictions that will match those that protect other communities around the Logan International Airport from excessive aviation noise and pollution.
to summarize:
Email-3-1 1. I support using the 4L RNAV to disperse some of the arrivals to 4R,
2. A 15-degree offset for the 4L RNAV so as to widen the distance between the 4R and 4L paths, and
3. runway restrictions on the use of 4R and 4L that will protect the communities under the path from their excessive use.

Cheryl Marceau
Arlington, MA

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RESPONSE

EMAIL-3-1

1. The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). The RNAV (GPS) RWY 4L procedure will offer limited relief to Runway 4R, particularly during times of marginal Visual Meteorological Conditions (marginal VMC) and Instrument Meteorological Conditions (IMC) when it currently cannot be used efficiently (in the case of marginal VMC) or at all (in the case of IMC). However, the Airport

operational regime is not expected to appreciably change during VMC and Runway 4R will remain the dominant runway for arrivals when the Airport is in a Northeast configuration.

2. FAA Order 8260.58B, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, allows for an approach course to be offset between a Precision Final Approach Fix (PFAF) and the Landing Threshold Point (LTP)/Fictitious Threshold Point (FTP).

A 15-degree offset is allowed for an approach that has Lateral Navigation with Vertical Guidance (LNAV/VNAV) approach minimums. The limits to this are that the approach course does not line up with the centerline of the runway causing increased weather minimums. The approach course must cross the runway centerline at least 3,000 feet and no more than 5,200 feet prior to the LTP.

Additionally, the Obstacle Evaluation Area (OEA) for this segment of the approach would encroach closer to city buildings, potentially causing higher weather minimums. The OEA inside of the PFAF is 1.8 nautical miles wide.

It is the FAAs intention to create the most effective approach possible with the lowest weather minimums allowed by criteria that all pilots are capable of flying. In this case it is an Area Navigation (RNAV) (GPS) approach that has Localizer Performance with Vertical Guidance (LPV). An approach course with LPV minimums is allowed to have a course offset of up to 3.0 degrees.

To be more effective, the ability to use the RNAV (GPS) RWY 4L procedure while conducting ILS RWY 4R approaches has been explored. Up until 2008, centerlines of parallel runways were required to be separated by at least 2,500 feet for airports to conduct simultaneous approaches to those runways. Runway 4R and Runway 4L are separated by only 1,500 feet at the Airport.

In 2008, the FAA implemented procedures for conducting simultaneous approaches to closely spaced parallel runways (CSPR), defined as runways with centerlines that are separated by less than 2,500 feet. Since then, procedures have been written to conduct Simultaneous Offset Instrument Approaches (SOIA) to reduce the potential for wake turbulence encounters with aircraft conducting approaches to the parallel runway. The allowed offset for SOIA is up to 3.0 degrees.

While studying the requirements for conducting approaches to CSPR and SOIA, it was determined that using 2.0 degrees would allow for wake turbulence avoidance and limit the amount of compression that would be experienced when the aircraft conducting the approach to Runway 4L was making up the extra distance to the runway caused by the offset angle. Thus, 2.0 degrees was chosen as the offset angle for the RNAV (GPS) RWY 4L approach.

3. As Runway 4R and Runway 4L are the only two runways commonly used for arrivals when the Airport is in a Northeast configuration, it is difficult to add restrictions to them as any restrictions would invariably affect the Airport's arrival acceptance rate (AAR) and negatively affect operations at the Airport, via additional air traffic congestion and subsequent increased delays.

EMAIL-4

COMMENT

Stephen Goetzinger

From:	Heidi M <heidimoesinger@outlook.com>
Sent:	Thursday, October 22, 2020 10:45 AM
To:	Aisling Kerr
Cc:	FRANK.BAKER@boston.gov; Desmond; Mike Szkolka; boyledot@comcast.net; FAABostonWorkShops
Subject:	Community Meetings
Follow Up Flag:	Follow up
Flag Status:	Flagged

Hello Aisling,

As a member of the Dorchester community, I wanted to point out that two important meetings, targeting the same audience and neighborhoods are happening at the same time, **Wednesday, October 28th at 6pm.**

Email-4-1 Meetings are:
Boston Logan RNAV (GPS) RWY 4L Environmental Assessment Virtual Workshop
BPDA, Dorchester Bay City - Urban Design Meeting

Residents will have to choose between the two, which is not ideal. Since the BPDA is holding multiple sessions, that will be the one I choose to skip. However, two community meetings should not be competing for the same audience, especially during these unusual times when it's more difficult to connect.

Thank you for your attention to this matter.

Heidi

Heidi Moesinger
Dorchester, Savin Hill, 02125

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RESPONSE

EMAIL-4-1

For interested parties, recordings of the public workshops were posted to FAABostonWorkshops.com. Written comments could also be submitted.

EMAIL-5

COMMENT

Stephen Goetzinger

From: MARR, JEFFREY JR <jeffreymarrjr@marrscaffolding.com>
Sent: Friday, October 23, 2020 12:01 PM
To: FAABostonWorkShops
Subject: Comment - Milton, MA resident

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Red Category

Dear FAA,

Milton continues to be overburdened by flight traffic, noise and emissions, causing significant disruption to quality of life and health for Milton residents. This program will further tighten and concentrate this burden, namely flight noise and emissions, and will create disproportionate ill health effects on Milton residents (ex., sleep disruption, stress, high blood pressure).

The presentation hosts purported to use flight safety as its primary argument for implementation. However, this argument ignores the health, safety and well-being of Milton residents that reside under the overhead highway. Of particular concern, the 4L flight path will be used in poor weather conditions and travels directly over Milton Academy, multiple daycare centers, Glover Elementary School and Milton Hospital.

Email-5-1 Use of runway 4L is of particular concern for town of Milton residents (relative to 4R), as this passes directly over the center of town. Again, this pathway's use during bad weather is of no constellation nor does it assuage our communities' concerns. Common sense dictates that poor weather increase the likelihood of mistakes, issues. The health and safety of our residents is OUR top concern and priority and there is no greater present threat to our health and safety than use of runway 4L.

We advocate for dispersion and shared overflight burden from surrounding communities. Why is that Milton suffers from a dual runway in the sky overhead (4L + 4R) while other communities within 10 miles of Boston experience no such burden? Our air rights have been trampled, and this program only makes matters worse by increasing the number of flights over Milton. We implore you to go back to the drawing board out of an abundance of caution for our community. We seek fairness through flight dispersion, additional arrival pathways that route over other communities, points further east and west, in sharing this burden.

Additionally, we hope that engine silencing mitigation strategies, steeper descent angles and general flight dispersion will be further investigated, prioritized and mandated though further studies. Instead of increasing Milton's flight burden, we respectfully request that you seek ways to instead reduce the number of flights, noise and emissions burden, affecting our residents.

Milton accepts the reality of some air traffic burden, but the thousands of annual flights we suffer from and this proposal to increase that burden represents an assault on our community and uses an argument that subordinates the safety of our children.

With regards,

Jeff Marr
40 Marine Rd. (formerly 245 Highland St.)

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Milton, MA

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RESPONSE

EMAIL-5-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). As noted in Appendix B of the 2020 Draft EA, the implementation of the proposed RNAV (GPS) RWY 4L procedure is not planned to significantly affect operations at the Airport during VMC as an additional 359 operations to the runway (less than one per day) are expected as a result of the Proposed Action. Additionally, it is not anticipated that the implementation of the RNAV (GPS) RWY 4L procedure will affect the proportion of traffic utilizing Runway 4L as opposed to Runway 4R. Runway 4L is the designated secondary runway in use when the Airport is in a Northeast configuration and is generally not used for arrivals until

the arrival queue for Runway 4R exceeds ten nautical miles. This operational regime is not expected to change regardless of whether the RNAV (GPS) RWY 4L procedure is implemented because there are additional operational constraints that limit the use of Runway 4L for arrivals. These include an expanded separation interval required for aircraft arriving to the runway, as well as taxiway constraints that limit the ability for aircraft to efficiently enter and exit the runway.

EMAIL-6

COMMENT

Stephen Goetzinger

From: Philip Johenning <pjohenning@natcoat.com>
Sent: Friday, November 20, 2020 9:30 AM
To: FAABostonWorkShops
Subject: FW: Environmental Assessment for 4L RNAV

Follow Up Flag: Follow up
Flag Status: Flagged

See my comments below. I made a mistake in your address that I originally used.

From: Philip Johenning
Sent: Friday, November 20, 2020 10:16 AM
To: FAABostonWorkships@esassoc.com
Cc: Melinda Collins <mcollins@townofmilton.org>; Michael Zullas <mzullas@townofmilton.org>; Richard G. Wells <rwells@townofmilton.org>; Arthur Doyle <ADoyle@townofmilton.org>; Kathleen M. Conlon <kconlon@townofmilton.org>; Michael D. Dennehy <mdennehy@townofmilton.org>
Subject: Environmental Assessment for 4L RNAV

I support the creation of the 4L RNAV 100% with haste provided that in so doing an allocation scheme between the 4R and 4L runway use is simultaneously developed. I believe that there is no reason not to allocate inbound flights so that 40% to 50% of flight volume routinely uses the 4L runway. I also think that the Air Traffic controllers, airlines, and pilots should increase their use of the left down-wind transition for arrivals from the north which would completely avoid flying over those under the 4R RNAV

The FAA should use a 15 degree offset to the 4L instrument path so that those sandwiched between both the 4R and 4L are less affected.

Communities under the 4R path deserve protection similar to that given to other communities, including parts of Milton. The FAA's community involvement program should at the same time work with communities like Dorchester, Quincy, East Milton, Braintree, and others affected by approaches to the 4R runway and develop restrictions that will match those that protect other communities around the Logan International Airport from excessive aviation noise and pollution.

Email-6-1

to summarize:
1. I support 100% creating and using the 4L RNAV with haste to disperse many of the arrivals to 4R,
2. I support a 15-degree offset for the 4L RNAV so as to widen the distance between the 4R and 4L paths, and
3. I support runway restrictions on the use of 4R and 4L that will protect the communities under the path from their excessive use.

The tremendous volume of noise complaints to Massport pre-COVID-19, from Town of Milton residents living under the 4R RNAV indicates that a more equitable solution can be found in the use of these parallel runways. With the new instrument approach, there

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is no reason not to address the pollution and noise concerns of residents under the 4R RNAV now. Over time I believe that a required, roughly equal use of both RNAVs will result in more potential traffic volume over time with fewer complaints. Isn't that what everyone wants?

Sincerely,

Philip Johenning
23 Parkwood Drive
Milton, MA 02186
617 696 0838

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RESPONSE

EMAIL-6-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport)1. The modification of the operational regime of the Airport is not within the scope of this environmental assessment. However, the availability of the RNAV (GPS) RWY 4L approach will offer ATC more flexibility in operations, especially in times of Instrument Meteorological Conditions (IMC) or marginal Visual Meteorological Conditions (marginal VMC). During these time periods, Runway 4L may see increased usage due to reduced delays. Some of these operations that will likely use Runway 4L in the future would use Runway 4R today.

2. FAA Order 8260.58B, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, allows for an approach course to be offset between a Precision Final Approach Fix (PFAF) and the Landing Threshold Point (LTP)/Fictitious Threshold Point (FTP).

A 15-degree offset is allowed for an approach that has Lateral Navigation with Vertical Guidance (LNAV/VNAV) approach minimums. The limits to this are that the approach course does not line up with the centerline of the runway causing increased weather minimums. The approach course must cross the runway centerline at least 3,000 feet and no more than 5,200 feet prior to the LTP.

Additionally, the Obstacle Evaluation Area (OEA) for this segment of the approach would encroach closer to city buildings, potentially causing higher weather minimums. The OEA inside of the PFAF is 1.8 nautical miles wide.

It is the FAAs intention to create the most effective approach possible with the lowest weather minimums allowed by criteria that all pilots are capable of flying. In this case it is an Area Navigation (RNAV) (GPS) approach that has Localizer Performance with Vertical guidance (LPV). An approach course with LPV minimums is allowed to have a course offset of up to 3.0 degrees.

To be more effective, the ability to use the RNAV (GPS) RWY 4L approach while conducting ILS RWY 4R approaches has been explored. Up until 2008, centerlines of parallel runways were required to be separated by at least 2,500 feet for airports to conduct simultaneous approaches to those runways.

In 2008, the FAA implemented procedures for conducting simultaneous approaches to closely spaced parallel runways (CSPR), defined as runways with centerlines that are separated by less than 2,500 feet. Runway 4R and Runway 4L are separated by only 1,500 feet at the Airport.

Since then, procedures have been written to conduct Simultaneous Offset Instrument Approaches (SOIA) to reduce the potential for wake turbulence encounters with aircraft conducting approaches to the parallel runway. The allowed offset for SOIA is up to 3.0 degrees.

While studying all the requirements for conducting approaches to CSPR and SOIA, it was determined that using 2.0 degrees would allow for wake turbulence avoidance and limit the amount of compression that would be experienced when the aircraft conducting the approach to Runway 4L was making up the extra distance to the runway caused by the offset angle. Thus, 2.0 degrees was chosen as the offset angle for the RNAV (GPS) RWY 4L approach.3. Due to the configuration of the runways and taxiways at the Airport, it is not practical to use other runways for arrivals during normal operations, when weather conditions dictate that the Airport is in a Northeast configuration. Additionally, Runways 4L and 4R are rarely used for late night arrivals as traffic is generally light enough that the Airport can utilize its noise abatement procedure which routes most arrivals over the water for landing on Runway 33L.

During periods of IMC, the implementation of the RNAV (GPS) RWY 4L procedure will reduce delays at the Airport, decreasing the number of delayed flights and number of additional late-night arrivals borne of those delays.

EMAIL-7

COMMENT

Stephen Goetzinger

From: Maureen Flatley <maurflat@comcast.net>
Sent: Thursday, November 19, 2020 4:36 PM
To: FAABostonWorkShops
Subject: Milton issue

Follow Up Flag: Follow up
Flag Status: Flagged

Hello

Thank you for reading this comment.

Email-7-1 I own a home in Milton (Father Carney Drive) that is under the flight path of many planes as they are preparing to land. The planes fly over all day and into the night. MANY times I have to close windows to diminish the noise.

PLEASE use your legislative clout to reduce the frequency.

Thank you

Maureen Flatley
50 Father Carney Drive
Milton MA 02186

Sent from my iPhone

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See attached letter.

Thank you.

Frank Tramontozzi

RESPONSE

EMAIL-7-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). Airlines are responsible for scheduling and determine their schedules based on demand. The FAA does not have the ability to manage scheduling or frequency of operations at the Airport as the Airport is not currently capacity constrained and is not slot-controlled.

Consistent with the FAA's mission to provide the safest, most efficient aerospace system in the world, as well as to satisfy the need to provide vertical and horizontal guidance to the runway, one of the purposes of this project is to enhance safety. The implementation of the RNAV (GPS) RWY 4L procedure will enhance safety by providing vertical and lateral guidance to the runway and is not intended to change the distribution of aircraft arriving to Runway 4L. Changes in the number of annual operations attributable to the implementation of this procedure are minimal, with an estimated 359 additional operations to Runway 4L expected (104 of which consist of existing arrivals to Runway 4R that can now use Runway 4L with reduced delay). This represents an increase of an average of less than one arrival per day.

EMAIL-8

COMMENT

Stephen Goetzinger

From:	Aisling Kerr <aisling.kerr@boston.gov>
Sent:	Thursday, October 22, 2020 10:59 AM
To:	Heidi M
Cc:	FRANK.BAKER@boston.gov; Desmond; Mike Szkolka; boyledot@comcast.net; FAABostonWorkShops
Subject:	Re: Community Meetings
Follow Up Flag:	Follow up
Flag Status:	Flagged

Good Morning Heidi,

I hope all is well. Thanks for sharing this information. The BPDA, Councilor Baker's office, and the Mayor's Office of Neighborhood Services collaborated 4+ weeks ago to establish a schedule of Dorchester Bay City Article 80 public meetings, which was then shared publicly in order to provide as much notification as possible to community members wishing to attend/participate in meetings. Unfortunately, the Environmental Assessment Virtual Workshop was not on our community calendars at the time the October 28th Bay City meeting was scheduled.

As you have noted, there are a series of Dorchester Bay City public meetings taking place during this initial phase of Article 80 review and thus there will be ample opportunity for community participation. Additionally, we will continue to record all public meetings and upload them to the project webpage on our website.

Things are very busy all across the City and we appreciate community involvement in the BPDA's Article 80 review processes!

Thank you,
Aisling

On Thu, Oct 22, 2020 at 11:44 AM Heidi M <heidimoesinger@outlook.com> wrote:

Hello Aisling,

As a member of the Dorchester community, I wanted to point out that two important meetings, targeting the same audience and neighborhoods are happening at the same time, **Wednesday, October 28th at 6pm.**

Meetings are:
Boston Logan RNAV (GPS) RWY 4L Environmental Assessment Virtual Workshop
BPDA, Dorchester Bay City - Urban Design Meeting

Email-8-1 Residents will have to choose between the two, which is not ideal. Since the BPDA is holding multiple sessions, that will be the one I choose to skip. However, two community meetings should not be competing for the same audience, especially during these unusual times when it's more difficult to connect.

Thank you for your attention to this matter.

Heidi

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Heidi Moesinger
Dorchester, Savin Hill, 02125

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boston planning & development agency

Aisling Kerr
Project Manager
(617) 918 - 4212

Boston Planning & Development Agency (BPDA)
One City Hall Square | Boston, MA 02201
bostonplans.org

2

RESPONSE

EMAIL-8-1

It is unfortunate that our public workshop conflicted with that of the Boston Planning & Development Agency's meeting. It should be noted that information about this project, and the Virtual Workshops in support of this project have been available for public view and are still currently available at FAABostonWorkshops.com. Additionally, public comments were accepted in multiple formats throughout the 60-day comment period.

EMAIL-9

COMMENT

Stephen Goetzinger

From: Judy <judy162@verizon.net>
Sent: Friday, November 20, 2020 9:26 AM
To: FAABostonWorkShops
Subject: Comments on the BOS 4L Draft EA

Follow Up Flag: Follow up
Flag Status: Flagged

FAA Boston Workshops,

Email-9-1 1. I support using the 4L RNAV to disperse some of the arrivals to 4R, 2. A 15-degree offset for the 4L RNAV so as to widen the distance between the 4R and 4L paths, and 3. runway restrictions on the use of 4R and 4L that will protect the communities under the paths from their excessive use.

Thank you,
Judy Connolly
Milton Resident

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RESPONSE

EMAIL-9-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport).

1. The 4L RNAV will offer limited relief to Runway 4R, particularly during times of marginal Visual Meteorological Conditions (marginal VMC) and Instrument Meteorological Conditions (IMC) when it currently cannot be used efficiently (in the case of marginal VMC) or at all (in the case of IMC).

However, the Airport operational regime is not expected to appreciably change during VMC and Runway 4R will remain the dominant runway for arrivals when the Airport is in a Northeast configuration. Please see Appendix D of the 2020 Draft EA for additional information regarding expected operational changes associated with the Proposed Action.

2. FAA Order 8260.58B, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, allows for an approach course to be offset between a Precision Final Approach Fix (PFAF) and the Landing Threshold Point (LTP)/Fictitious Threshold Point (FTP).

A 15-degree offset is allowed for an approach that has Lateral Navigation with Vertical Guidance (LNAV/VNAV) approach minimums. The limits to this are that the approach course does not line up with the centerline of the runway causing increased weather minimums. The approach course must cross the runway centerline at least 3,000 feet and no more than 5,200 feet prior to the LTP.

Additionally, the Obstacle Evaluation Area (OEA) for this segment of the approach would encroach closer to city buildings, potentially causing higher weather minimums. The OEA inside of the PFAF is 1.8 nautical miles wide.

It is the FAAs intention to create the most effective approach possible with the lowest weather minimums allowed by criteria that all pilots are capable of flying. In this case it is an Area Navigation (RNAV) (GPS) approach that has Localizer Performance with Vertical Guidance (LPV). An approach course with LPV minimums is allowed to have a course offset of up to 3.0 degrees.

To be more effective, the ability to use the RNAV (GPS) RWY 4L approach while conducting ILS RWY 4R approaches has been explored. Up until 2008, centerlines of parallel runways were required to be separated by at least 2,500 feet for airports to conduct simultaneous approaches to those runways. In 2008, the FAA implemented procedures for conducting simultaneous approaches to closely spaced parallel runways (CSPR), defined as runways with centerlines that are separated by less than 2,500 feet. Runway 4R and Runway 4L are separated by only 1,500 feet at the Airport.

Since then, procedures have been written to conduct Simultaneous Offset Instrument Approaches (SOIA) to reduce the potential for wake turbulence encounters with aircraft conducting approaches to the parallel runway. The allowed offset for SOIA is up to 3.0 degrees.

While studying the requirements for conducting approaches to CSPR and SOIA, it was determined that using 2.0 degrees would allow for wake turbulence avoidance and limit the amount of compression that would be experienced when the aircraft conducting the approach to Runway 4L was making up the extra distance to the runway caused by the offset angle. Thus, 2.0 degrees was chosen as the offset angle for the RNAV (GPS) RWY 4L procedure.

3. As Runway 4R and Runway 4L are the only two runways commonly used for arrivals when the Airport is in a Northeast configuration, it is difficult to add restrictions to them as any restrictions would invariably affect the Airport's arrival acceptance rate (AAR) and cause operational problems at the Airport. Additionally, adding runway restrictions falls outside of the purpose this environmental assessment, which is to address the need for stabilized lateral and vertical guidance to Runway 4L by implementing the RNAV (GPS) RWY 4L procedure.

EMAIL-10

COMMENT

Stephen Goetzinger

From: DeVito, Joseph <Joseph.Devito@jetblue.com>
Sent: Friday, November 20, 2020 12:39 PM
To: FAABostonWorkShops
Subject: JetBlue Support for KBOS 4L RNAV GPS procedure.

Follow Up Flag: Follow up
Flag Status: Flagged

Email-10-1

Hello,

JetBlue is in support of the proposed KBOS Boston Logan Airport RNAV(GPS) 4L procedure. This procedure will provide a major safety enhancement to Runway 4L where no procedure with Lateral or Vertical guidance exists today. Data has proven that procedures with this type of guidance will greatly reduce un-stabilized approaches while providing a means for us to efficiently operate to the runway with reduced noise and emissions.

Thank you very much for the opportunity to comment.

JOE DEVITO
BOS CAPTAIN A320/A321
JetBlue Airways
631-664-5041 (M)
Joseph.Devito@jetblue.com

PLEASE NOTE: This message, including any attachments, may include privileged, confidential, and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

RESPONSE

EMAIL-10-1

It should be noted that while the RNAV (GPS) RWY 4L procedure will provide a safety enhancement via the addition of lateral and vertical guidance to the runway and concomitant reduction in unstabilized approaches, noise modeling and emissions results show only a marginal difference in these metrics when the procedure is implemented when compared with current operations.

EMAIL-11

COMMENT

Stephen Goetzinger

From:	Cindy L. Christiansen <clcmilton@gmail.com>
Sent:	Friday, November 20, 2020 9:22 AM
To:	FAABostonWorkShops
Subject:	people trying to comment say this email address isn't working
Follow Up Flag:	Follow up
Flag Status:	Flagged
Categories:	Red Category

Email-11-1 so this is a test
++++++++++++++
C.L. Christiansen, PhD, home: 617 322 9323; cell: 617 413 2915

RESPONSE

EMAIL-11-1

No comment required

EMAIL-12

COMMENT

Stephen Goetzinger

From:	Cindy L. Christiansen <clcmilton@gmail.com>
Sent:	Friday, November 20, 2020 12:27 PM
To:	FAABostonWorkShops
Subject:	Fwd: I'm disappointed by your response to the FAA about the 4L Environmental Assessment
Follow Up Flag:	Follow up
Flag Status:	Flagged

Email-12-1

I have already sent my comments, but after seeing my town government's official response, I want to be clear that although I live in Milton, the Milton Select Board, Senator Timilty, Rep Driscoll, and Congressman Lynch's one-hundred-plus page 11/19/2020 comment document on your draft 4L EA does NOT represent my interests for the reasons stated below.

Cindy L. Christiansen, PhD
59 Collamore St.
Milton, MA 02186
++++++++++++++
C.L. Christiansen, PhD, home: 617 322 9323; cell: 617 413 2915

---------- Forwarded message ---------
From: **Cindy L. Christiansen** <clcmilton@gmail.com>
Date: Fri, Nov 20, 2020 at 12:19 PM
Subject: I'm disappointed by your response to the FAA about the 4L Environmental Assessment
To: Representative Stephen Lynch <ma08ima-113@mail.house.gov>, Shaynah Barnes Munro <Shaynah.Barnes@mail.house.gov>

Congressman Lynch: I'm disappointed by your support for the Milton Select Board's comments to the FAA about an instrument approach to 4L.

Those of us under the 4R runway path had 9 jets for every 1 jet that flew the 4L path during 2019. Using a 4L instrument path to reduce the 160 planes/day on average to Runway 4R in 2019 would be a reasonable and fair way to **"disperse"** air traffic away from some of your overly-exposed constituents. Why isn't that what you want?

You should know that the Milton MCAC representative falsely claims that the 4R and 4L paths merge over his Milton Hill home and has even drawn, posted, and submitted maps to the FAa and the MCAC that show this along with his made-up "CHMNY" waypoint (his nextdoor neighbor's chimney) that he claims is the actual 4R path. The Select Board has allowed this without any public correction to the false information. You also should know that the two most vocal Select Board members on this issue stand to benefit from less use of the 4L.

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The Select Board's write up might read as if they are knowledgeable, tough, and have a legal basis for their complaints, but it is fluff and window dressing. Their comments are technically flawed, some fatally. Our country might be on a path toward respecting science again, but the Milton Select Board is still wandering off course.

Here are a few of the many examples. The fact that DNL is a biased metric does not make the difference biased as they essentially claim. Also, there is no NEPA requirement or FAA regulation that says the EA must include supplemental metrics. They complain about increased noise yet I cannot find one census block in Milton where the estimated noise increases by more than 1-hundredth of a decibel.

You have missed an opportunity to encourage the FAA to fairly disperse aviation exposure and you have signed something that I believe is an embarrassment to your name.

Next time, please do not rely on politicians and those with personal agendas to properly inform you about what they want you to endorse.

Cindy
++++++++++++++
C.L. Christiansen, PhD, home: 617 322 9323; cell: 617 413 2915

2

RESPONSE

EMAIL-12-1

No comment required

EMAIL-13

COMMENT

COMMONWEALTH OF MASSACHUSETTS
TOWN OF MILTON
OFFICE OF SELECT BOARD
525 CANTON AVENUE, MILTON, MA 02186
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Colleen D'Alessandro, ANE-1
New England Regional Administrator
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1200 District Avenue
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Lorna Christian
Supervisory Senior Advisor, ANE
Office of the Regional Administrator
Federal Aviation Administration
1200 District Avenue
Burlington, MA 01803-5299

via email

October 7, 2020

RE: Logan Runway 4L Environmental Assessment Technical Questions

Dear Administrator D'Alessandro:

This letter follows up on your statement during the September 21, 2020 Zoom session regarding the Logan Runway 4L Environmental Assessment (EA) that elected officials may submit technical questions.

We respectfully request that the following technical questions be addressed. The FAA's inclusion of these matters in its presentations will help residents understand and evaluate the draft EA.

We understand that these technical questions have also been submitted to you by United States Congressman Stephen Lynch and Massachusetts State Senator Walter J. Timilty, as well as by Massachusetts State Representative William J. Driscoll.

1

We appreciate your attention to this matter.

The technical questions are attached.

Sincerely,

Melinda A. Collins, Chair

Kathleen M. Conlon, Vice Chair

Arthur J. Doyle, Secretary

Richard G. Wells, Jr.

Michael F. Zullas

Milton Select Board

cc (via email):
Congressman Stephen Lynch
Massachusetts State Senator Walter J. Timilty
Massachusetts State Representative William J. Driscoll

2

Email-13-1

1. **Jet Blue Special Procedure:** Will aircraft with the 4L JetBlue Special procedure recorded in their FMS be allowed to request to use that procedure and to use it, or will the FAA state that the 4L RNAV will be the only arrival path to Runway 4L? With regard to that question, please also state:
   A. The number of arrivals in the baseline year on the 4L JetBlue Special procedure path;
   B. The number of arrival aircraft expected to use the 4L RNAV path in its first year of use that otherwise would have been expected to use the JetBlue Special procedure;
   C. The number of arrival aircraft, if any, expected to use the JetBlue Special procedure in the first year of implementation of the 4L RNAV path; and
   D. Provide a table, in format similar to Table 8 of Appendix A to the Draft EA, stating the Estimated Annual Use of 4L RNAV Approaches, on the basis of Cleared IMC, Cleared VMC, Advisory IMC (if any), Advisory VMC and Total Cleared+Advisory use while including, listed separately, as in Table 8, any RVFP use, in each of those categories.

Email-13-2

2. **4R RNAV Path on Noise Visualization:** Please promptly provide a version of the Noise Visualization on the same FAA website that adds the position of the Runway 4R RNAV path so that users can find answers to these questions: their location in relation to each of the closely spaced parallel runways; the combined noise impact on their location of the proposed RNAV 4L procedure and the existing 4R RNAV procedure; and compare that noise impact level to noise impact levels at other locations.

3. **Baseline Year:** Please provide a version of the Noise Visualization as in question 2 for the baseline year. With regard to the baseline year, please also explain:

Email-13-3

   A. On what basis has the FAA used November 1 2018 through October 31, 2019 as the baseline year rather than the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?

Email-13-4

   B. Is it correct that the Draft EA does not measure the noise impacts of consolidating the JetBlue Special procedure with the 4L Visual path into a single RNAV path?

Email-13-5

   C. Is it correct that the Draft EA only measures the noise impact of incremental 4L arrivals due to implementation of RNAV capability to use 4L in IMC circumstances?

Email-13-6

   D. Is it therefore correct that this EA will not address whether implementation of the 4L RNAV procedure will have significant or reportable noise impacts under Order 1050.1f compared with the baseline year, not the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?

Email-13-7

4. **Noise Contours:** For the present Noise Visualization and the added 4R RNAV path noise visualizations in questions 2 and 3, please provide graphically the noise contours of aircraft traveling those paths so that residents can answer the questions: how far from each side of the parallel paths aircraft noise extends; and what overlaps exist of noise from the two parallel 4L and 4R paths.

3

Email 13-8

5. **Nabove 25 Lmax peak day 60/50 [day/night] noise measurement:** On the present FAA Noise Visualization and on each of the two additional versions requested above, or in another format, show what the Nabove 25 Lmax peak day 60/50 [day/night] noise measurements at locations affected solely by the 4L and 4R RNAV paths are respectively, as well as at those locations affected by both paths' noise, using different a color for each of these three indications, or other differentiating means.

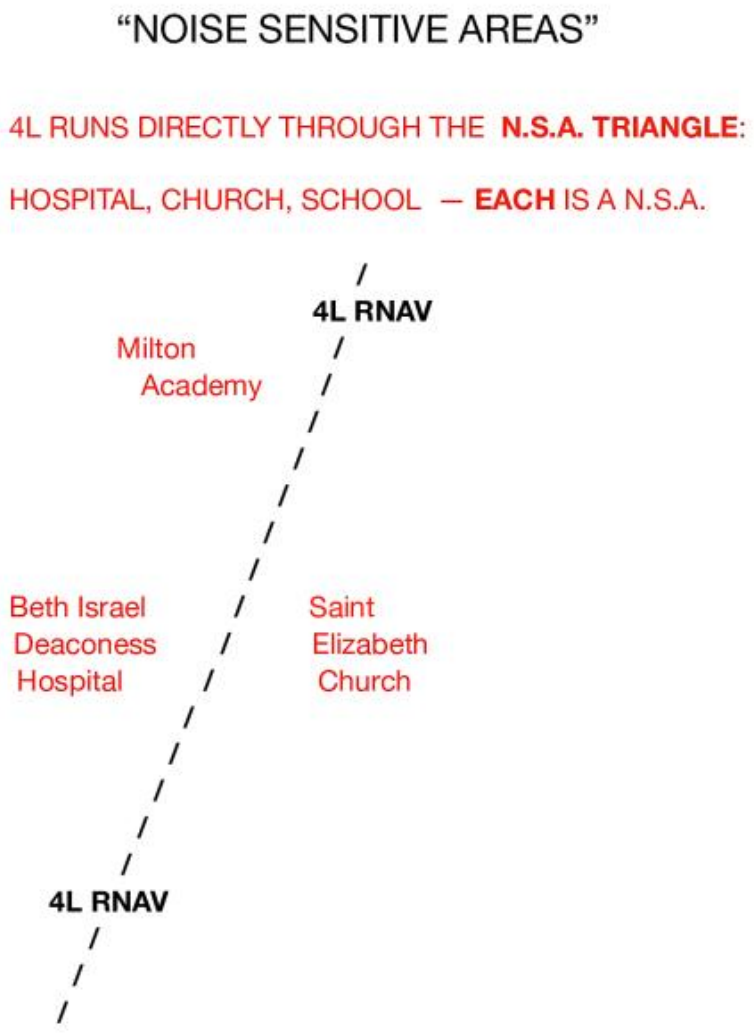
   For the Nabove 25 Lmax peak day 60/50 [day/night] noise measurement method, we refer you to Data-Driven Flight Procedure Simulation and Noise Analysis in a Large-Scale Air Transportation System June 2018 by Luke L. Jensen and R. John Hansman "The analysis in this thesis uses an annoyance threshold of 25 daily flights at the 60dB (day) and 50dB (night) level." (Section 2.8, page 59 referencing Logan runway 4L/4R arrivals)

https://pdfs.semanticscholar.org/6322/03aecd9d9a55136e8bc9e105b1e4bbc8ca93.pdf

Email 13-8

6. See the attached diagram illustrating that based on the Draft 4L EA Visualization the proposed 4L RNAV path will overfly the triangular areas formed by three noise sensitive areas, namely hospital center, church and rectory, and a 13-year school campus. In light of this, provide the Nabove 25 Lmax peak day 60/50 [day/night] noise measurement, and corresponding DNL measurement, for each of those three locations.

4



RESPONSE

EMAIL-13-1

The JetBlue Special Procedure has been subject to a Notice to Airmen (NOTAM) rendering it not authorized for use since 2014. Currently, there are no plans to cancel the NOTAM or otherwise approve the procedure for Air Traffic Control (ATC)-directed use. It has not been evaluated as part of the 2020 Draft EA. When an aircraft is cleared for a visual approach, it is allowed to follow any path to its assigned runway it chooses, provided that its chosen route does not conflict with any other instructions given to it by ATC. As a result, pilots have the option of utilizing any available procedure or flight path to the runway to provide them more accuracy and/or redundancy on approach. Currently, the JetBlue Special Procedure cannot be assigned by ATC to aircraft landing on Runway 4L at Boston Logan International Airport (the Airport).

Additionally, the JetBlue Special Procedure is a Visual Flight Rule (VFR) procedure that is not available during Instrument Meteorological Conditions (IMC). Therefore, there are no flights that are anticipated to utilize the RNAV (GPS) RWY 4L approach that would have otherwise used the JetBlue Special Procedure.

Finally, the JetBlue Special Procedure overflies similar areas as the RNAV (GPS) RWY 4L procedure, as well as areas already overflown by aircraft executing visual approaches to Runway 4L. However, ATC waypoints that function to transition aircraft to the final approach course for Runway 4L are closer to the Airport in the JetBlue Special Procedure than they are in the RNAV (GPS) RWY 4L procedure. These waypoints largely approximate current areas where aircraft are transitioned to Runway 4L for the visual approach. Widespread adoption of the RNAV (GPS) RWY 4L procedure and/or the JetBlue Special Procedure approach at high levels would not cause significant noise impacts due to the large number of existing arrivals and departures overflying the airspace where these two procedures would route aircraft.

EMAIL-13-2

The Federal Aviation Administration (FAA) updated the visualization website FAABostonWorkshops.com to include the 4R RNAV path as requested on October 20th, 2020, to allow for the public to review the Proposed Action next to the existing RNAV (GPS) approach to Runway 4R. It should be noted that the RNAV (GPS) RWY 4R approach is used as part of the existing baseline scenario and is not considered part of the Proposed Action. On the visualization website, the noise impact for the Proposed Action is displayed at census block locations, historic resources, and parks within the General Study Area (GSA). There were no significant or reportable noise impacts at any of these points, nor do any of the changes associated with the GSA approach thresholds of significance or reportability. These calculated values can be found on the Noise Visualization tab of the project website.

EMAIL-13-3

November 1, 2018 through October 31, 2019 was chosen by the FAA as the baseline year because at the time the National Environmental Policy Act (NEPA) process was initiated, it was the most recent data available representing a full year of traffic with no significant traffic disturbances due to airfield construction or other activities. Using an identical baseline year to the 2016 Initial Environmental Review (2016 IER) would not represent current traffic at the Airport due to traffic growth in intervening years.

EMAIL-13-4

The JetBlue Special Procedure has been subject to a NOTAM rendering it not authorized for use since 2014. There are currently no plans to cancel the NOTAM or otherwise approve the procedure for ATC-assigned use and as a result, it has not been evaluated as part of the 2020 Draft EA. Visual arrivals to Runway 4L are modeled in the same manner in the No Action Alternative as well as the Proposed Action Alternative. There is no “4L visual path” that can be consolidated with an RNAV procedure, as visual approaches can take a variety of routes on their approach to the runway. These diverse routes are represented in the environmental model. A flight crew, upon receiving clearance for a visual approach to a runway, may choose to utilize any available approach that does not conflict with ATC instructions.

EMAIL-13-5

In the Proposed Action Alternative of the 2020 Draft EA, the noise impact of 359 additional annual arrivals to Runway 4L due to reduced delays in IMC conditions is modeled. Also modeled are the 594 arrivals that will utilize the RNAV (GPS) RWY 4L procedure instead of the ILS RWY 15R transition to Runway 4L during marginal Visual Meteorological Conditions (VMC). The 359 annual arrivals include an estimated 255 new arrivals that would have otherwise been canceled as well as 104 arrivals that would shift from Runway 4R due to reduced delays on Runway 4L in IMC. Other than 255 additional departures (to offset additional arrivals), all other traffic is assumed to fly as it does today, as the implementation of this procedure is not anticipated to change anything about the operational regime of the Airport during any other conditions, including VMC and when the Airport is in another airfield (runway use) configuration.

EMAIL-13-6

The 2020 Draft EA does address whether the implementation of the RNAV (GPS) RWY 4L procedure will result in significant or reportable noise impacts under FAA Order 1050.1F. Using the baseline data from the 2016 IER would ignore additional traffic growth at the Airport that has happened since 2015 and any potential impacts would largely be a result of that additional traffic alone, not the implementation of the RNAV (GPS) RWY 4L procedure.

The Proposed Action Alternative evaluated in the 2020 Draft EA considers the impact of 359 additional annual arrivals to Runway 4L due to reduced delays in IMC as well as 594 arrivals that will utilize the RNAV (GPS) RWY 4L procedure instead of the ILS RWY 15R transition to Runway 4L during marginal Visual Meteorological Conditions (VMC). The 359 annual arrivals include an estimated 255 new arrivals that would have otherwise been canceled as well as 104 arrivals that would shift from Runway 4R due to reduced delays on Runway 4L during IMC. Other than 255 additional departures (to offset additional arrivals), all other traffic is assumed to fly as it does today. The results of this analysis found no significant noise impacts in the GSA, when compared to the baseline scenario.

EMAIL-13-7

The FAA is not required to provide noise contours as part of environmental assessments of air traffic actions - these are generally required for airport noise compatibility planning projects completed under 14 CFR Part 150. However, in lieu of noise contours, noise grid points consisting of U.S. Census population centroids are shown and symbolized based on their modeled Day-Night Average Sound Level (DNL) ranges in the No Action and Proposed Action Alternatives.

The context of the comment seems to use the phrase "noise contours" differently than it is described above and this comment response seeks to clarify the difference. The noise contours prepared in support of airport noise compatibility planning projects are depictions of all aircraft operations at an airport over a typical day. The "noise contours" described by the commenter seek to either apply to just aircraft arriving on Runways 4L and 4R respectively or even to individual aircraft landing on these runways. The "noise contours" described by the commenter were requested due to the communication of the lateral propagation of noise to either side of the Runway 4L and Runway 4R flight paths and whether there are any noise overlaps from these two flight paths. The noise grid points described above that were used on the project do contain the impacts of arrivals on Runways 4L and 4R and therefore could be used to understand the impact of these two flight paths on the noise grid points below the flight paths.

EMAIL-13-8

FAA does not intend to use any supplemental metrics as part of this environmental assessment. DNL is the noise metric required by the FAA for NEPA studies. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10:00:00 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. DNL analysis may also be supplemented on a case-by-case basis to better characterize specific noise impacts, but the noise analysis showed that the Proposed Action does not have an appreciable effect in the noise exposure ranges associated with local communities. The data supporting this statement can be found in Table 4.6-3 of the 2020 Draft EA.

FAA acknowledges that there are noise sensitive areas within the GSA, including the identified properties. However, the results of the noise analysis indicate that these areas will not experience reportable or significant noise impacts as a result of the Proposed Action.

EMAIL-14

COMMENT

The Commonwealth of Massachusetts
MASSACHUSETTS SENATE

SENATOR WALTER F. TIMILTY
NORFOLK, BRISTOL AND PLYMOUTH DISTRICT

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CHAIR
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VICE CHAIR
JOINT COMMITTEE ON ENVIRONMENT, NATURAL RESOURCES AND AGRICULTURE

JOINT COMMITTEE ON ECONOMIC DEVELOPMENT AND EMERGING TECHNOLOGIES

JOINT COMMITTEE ON MENTAL HEALTH, SUBSTANCE USE AND RECOVERY

JOINT COMMITTEE ON PUBLIC SERVICE

SENATE COMMITTEE ON BODING, CAPITAL EXPENDITURES AND STATE ASSETS

October 2, 2020

Colleen D'Alessandro, ANE-1
New England Regional Administrator
Federal Aviation Administration
1200 District Avenue
Burlington, MA 01803-5299

Lorna Christian
Supervisory Senior Advisor, ANE
Office of the Regional Administrator
Federal Aviation Administration
1200 District Avenue
Burlington, MA 01803-5299

Dear Regional Administrator D'Alessandro and Supervisory Senior Advisor Christian,

This letter follows-up on the Regional Administrator's statement at the September 21, 2020 Zoom session with elected officials regarding the Logan Runway 4L Environmental Assessment that the elected officials may submit technical questions to you. These questions originated from Milton's representative to the Massport Community Advisory Committee, Mr. Tom Dougherty.

We are, respectfully, asking that the following technical questions be addressed. The FAA's inclusion of these matters in its presentations will help residents understand and evaluate the draft EA.

Thank you for your attention to this aspect of the EA effort. The technical questions follow.

Sincerely,

Senator Walter F. Timilty
Norfolk, Bristol and Plymouth

Congressman Stephen F. Lynch
8th District of Massachusetts

Email 14-1

1. Jet Blue Special Procedure: Will aircraft with the 4L JetBlue Special procedure recorded in their FMS be allowed to request to use that procedure and to use it, or will the FAA state that the 4L RNAV will be the only arrival path to Runway 4L? With regard to that question, please also state:
   (A) the number of arrivals in the baseline year on the 4L JetBlue Special procedure path;
   (B) the number of arrival aircraft expected to use the 4L RNAV path in its first year of use that otherwise would have been expected to use the JetBlue Special procedure;
   (C) the number of arrival aircraft, if any, expected to use the JetBlue Special procedure in the first year of implementation of the 4L RNAV path.

Email 14-2

2. 4R RNAV Path on Noise Visualization: Please promptly provide a version of the Noise Visualization on the same FAA website that adds the position of the Runway 4R RNAV path so that users can find answers to these questions: their location in relation to each of the closely spaced parallel runways; the combined noise impact on their location of the proposed RNAV 4L procedure and the existing 4R RNAV procedure; and compare that noise impact level to noise impact levels at other locations.

Email 14-3
Email 14-4
Email 14-5
Email 14-6

3. Baseline Year: Please provide a version of the Noise Visualization as in question 2) for the baseline year. With regard to the baseline year, please also explain:
   (A) On what basis has the FAA used November 1 2018 through October 31, 2019 as the baseline year rather than the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?
   (B) Is it correct that the Draft EA does not measure the noise impacts of consolidating the JetBlue Special procedure with the 4L Visual path into a single RNAV path?
   (C) Is it correct that the Draft EA only measures the noise impact of incremental 4L arrivals due to implementation of RNAV capability to use 4L in IMC circumstances?
   (D) Is the FAA going to keep the additional 4L JetBlue RNAV path (which it "suspended" in 2019) as an "Advisory" path?

Email 14-7

4. Noise Contours: For the present Noise Visualization and the added 4R RNAV path noise visualizations in questions 2 and 3, please provide graphically the noise contours of aircraft traveling those paths so that residents can answer the questions: how far from each side of the parallel paths aircraft noise extends; and what overlaps exist of noise from the two parallel 4L and 4R paths.

Email 14-8

5. Nabove 25 Lmax peak day 60/50 [day/night] noise measurement: On the present FAA Noise Visualization and on each of the two additional versions requested above, or in another format, show what the Nabove 25 Lmax peak day 60/50 [day/night] noise measurements at locations affected solely by the 4L and 4R RNAV paths are respectively, as well as at those locations affected by both paths' noise, using different a color for each of these three indications, or other differentiating means. For the Nabove 25 Lmax peak day 60/50 [day/night noise measurement method, we refer you to Data-Driven Flight Procedure Simulation and Noise Analysis in a Large-Scale Air Transportation System June 2018 by Luke L. Jensen and R. John Hansman "The

Email 14-8

analysis in this thesis uses an annoyance threshold of 25 daily flights at the 60dB (day) and 50dB (night) level." (Section 2.8, page 59 referencing Logan runway 4L/4R arrivals)
https://pdfs.semanticscholar.org/6322/03aecd9d9a55136e8bc9e105b1e4bbc8ca93.pdf

6. _Does the FAA acknowledge that the triangle formed by Beth Israel, St Elizabeth's and Milton Academy is a Noise Sensitive Area for which FAA should use a peak-day Noise Above measurement?

RESPONSE

EMAIL-14-1

The JetBlue Special Procedure has been subject to a Notice to Airmen (NOTAM) rendering it not authorized for use since 2014. Currently. there are no plans to cancel the NOTAM or otherwise approve the procedure for Air Traffic Control (ATC)-directed use. It has not been evaluated as part of this environmental assessment.

When an aircraft is cleared for a visual approach, it is allowed to follow any path to its assigned runway it chooses, provided that its chosen route does not conflict with any other instructions given to it by ATC. As a result, pilots have the option of utilizing any available procedure or flight path to the runway to provide them more accuracy and/or redundancy on approach. Currently, the JetBlue Special Procedure cannot be assigned by ATC to aircraft landing on Runway 4L at Boston Logan International Airport (the Airport).

Additionally, the JetBlue Special Procedure is a Visual Flight Rule (VFR) procedure that is not available during Instrument Meteorological Conditions (IMC). Therefore, there are no flights that are anticipated to utilize the RNAV (GPS) RWY 4L approach that would have otherwise used the JetBlue Special Procedure as the JetBlue procedure will be assigned during IMC conditions.

Finally, the JetBlue Special Procedure overflies similar areas as the RNAV (GPS) RWY 4L procedure, as well as areas already overflown by aircraft executing visual approaches to Runway 4L. However, ATC waypoints that function to transition aircraft to the final approach course for Runway 4L are closer to the Airport in the JetBlue Special Procedure than they are in the RNAV (GPS) RWY 4L procedure. These waypoints largely approximate current areas where aircraft are transitioned to Runway 4L for the visual approach. Widespread adoption of the RNAV (GPS) RWY 4L procedure and/or the JetBlue Special Procedure at high levels would not cause significant noise impacts due to the large number of existing arrivals and departures overflying the airspace where these two procedures would route aircraft.

EMAIL-14-2

The Federal Aviation Administration (FAA) updated the visualization website FAABostonWorkshops.com to include the 4R RNAV path as requested on October 20th, 2020, to allow for the public to review the Proposed Action next to the existing RNAV (GPS) approach to Runway 4R. It should be noted that the RNAV (GPS) RWY 4R approach is used as part of the No Action Alternative and is not considered part of the Proposed Action. On the visualization

website, the noise impact for the Proposed Action is displayed at census block locations, historic resources, and parks within the General Study Area (GSA) are displayed. There were no significant or reportable noise impacts at any of these points, nor do any of the changes associated with the GSA approach thresholds of significance or reportability. These calculated values can be found on the Noise Visualization tab of the project website.

EMAIL-14-3

The FAA chose November 1, 2018 through October 31, 2019 as the baseline year because at the time the NEPA process was initiated, it was the most recent data available representing a full year of traffic with no significant traffic disturbances due to airfield construction or other activities. Using an identical baseline year to 2016 IER would not represent current traffic at the Airport due to traffic growth in intervening years.

EMAIL-14-4

The JetBlue Special Procedure has been subject to a NOTAM rendering it not authorized for ATC-assigned use since 2014. Currently, there are no plans to cancel the NOTAM or otherwise approve the procedure for use. As a result, it has not been evaluated as part of this environmental assessment. Visual arrivals to Runway 4L are modeled in the same manner in the No Action Alternative as well as the Proposed Action Alternative. There is no “4L visual path” that can be consolidated with an RNAV procedure, as visual approaches can take a variety of routes on their approach to the runway. These diverse routes are represented in the environmental model. A flight crew upon receiving clearance for a visual approach to the runway may utilize any available approach that does not conflict with ATC instructions.

EMAIL-14-5

In the Proposed Action Alternative, the noise impact of 359 additional annual arrivals to Runway 4L due to reduced delay in IMC is modeled. Also modeled is the impact of the 594 arrivals that will utilize the RNAV (GPS) RWY 4L procedure instead of the ILS RWY 15R transition to Runway 4L during marginal Visual Meteorological Conditions (marginal VMC). The 359 annual arrivals include an estimated 255 new arrivals that would have otherwise been canceled as well as 104 arrivals that would shift from Runway 4R due to reduced delays on Runway 4L during IMC. Other than 255 additional departures (to offset additional arrivals), all other traffic is assumed to fly as it does today, as the implementation of this procedure is not anticipated to change anything about the operational regime of the Airport during any other conditions, including VMC and when the Airport is in another airfield (runway use) configuration. In addition, this procedure overlies an area of existing arrivals to Runway 4L and is not expected to result in the overflight of new areas on approach.

EMAIL-14-6

The JetBlue Special Procedure has been subject to a NOTAM since 2014 designating it as not authorized. As a result, ATC cannot assign this procedure to any arriving aircraft. A flight crew, upon receiving clearance for a visual approach to the runway, may utilize any available approach that does not conflict with ATC instructions. Currently, there are no plans to cancel this NOTAM.

EMAIL-14-7

The FAA is not required to provide noise contours as part of environmental assessments of air traffic actions - these are generally required for airport noise compatibility planning projects completed under 14 CFR Part 150. FAA Order Part 1050.1F states in reference to airspace actions, “noise contours are not required and are not normally used for the analysis of larger scale

air traffic airspace and procedure actions" (FAA Order 1050.1F, B-1.4). This same section of FAA Order 1050.1F details the required noise analysis, which consists of noise grid points using U.S. Census population centroids. Each of these centroids is used as a virtual receptor where the Day-Night Average Sound Level (DNL) values are calculated at that location for the No Action and Proposed Action Alternatives.

EMAIL-14-8

Noise sensitive areas are defined in FAA Order 1050.1F, sec 11-5(b)(10) and include residential, educational, health, and religious structures and sites, and parks, recreational areas, areas with wilderness characteristics, wildlife and waterfowl refuges, and cultural and historical sites. As such, the cited resources are considered noise sensitive. The noise significance threshold as specified in FAA Order 1050.1F, Appendix B-1.5 states that the action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.

All of the properties in the GSA had noise impacts calculated as part of this environmental assessment by being state-designated historic properties. The calculated values show that there will be no significant noise impact on any of these properties and that the maximum noise change at any of these properties resulting from the Proposed Action is less than 0.1 dB DNL. The maximum noise exposure in the alternative scenario at any of the three properties is approximately DNL 53 dB. Additional information concerning noise exposure values in the project study area can be found in this environmental assessment.

FAA does not intend to use any supplemental metrics as part of this Draft EA. DNL is the noise metric required by the FAA for NEPA studies. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. DNL analysis may also be supplemented on a case-by-case basis to better characterize specific noise impacts, but the noise analysis showed that the Proposed Action does not have an appreciable effect in the noise exposure ranges associated with local communities. The data supporting this statement can be found in Table 4.6-3 of 2020 Draft EA.

The FAA expects the RNAV (GPS) RWY 4L procedure to have a limited role, as its primary use will be during IMC and only when the Airport is in a Northeast configuration. In these conditions, the procedure will greatly benefit arrival flow at the Airport and reduce delays. While it is not anticipated that the new procedure will significantly reduce noise or emissions, they are not expected to significantly increase due to its implementation.

EMAIL-15

COMMENT

Stephen Goetzinger

From:	owencathy@comcast.net
Sent:	Monday, April 19, 2021 2:32 PM
To:	FAABostonWorkShops
Subject:	RE: Comment Submitted on the Boston Logan Draft Environmental Assessment

How convenient!! Here's what I submitted. I'm sure it will end up in the trash again!
I fail to see why playing fairly and conducting a true environmental impact study is being dismissed out-of-hand by your group of so called experts. It's a disgrace and you should be ashamed.

27 Centre Street
Milton, MA 02186
(617) 833-8908 cell
owencathy@comcast.net

November 19, 2020

Environmental Science Associates
c/o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress Street, Suite 450
Tampa, FL 33607

Re: Opposition to Proposed 4L RNAV

Dear Madam/Sir:

The FAA's proposed 4L RNAV procedure is based on arbitrary and capricious assertions and assumptions, and an actual environmental impact study would reveal that the proposed 4L RNAV would be overly burdensome to the Town of Milton residents given the cumulative impact of the thousands of arrival and departures the town presently endures. Furthermore, during your October 28, 2020 Workshop, your presenter's claim that- the 4L RNAV is needed for "safety." This assertion is both unconvincing and an obvious pretext to create yet another superhighway RNAV that would allow for increased air traffic capacity at Logan International Airport.

Email-15-1

During your October 28th Workshop, your panelists chose to ignore the thousands of Milton residents' noise complaints submitted due to low-flying aircraft after the implementation of 4R RNAV in 2012. These thousands of complaints were filed with the quasi-governmental agency, Massport, as urged by our elected federal, state, and local officials in order to create data points which could be used for future environmental impact studies. During your October 28th Workshop you systematically ignored these thousands of complaints, and admittedly failed to utilize the data associated by these first-hand accounts of noise disturbances. Instead, your panelists read canned responses utilizing the FAA's faulty DNL metrics, which over-extrapolate noise metrics over both time period and distance in order to comport with the FAA's finding that there is no community impact nor will there be if the 4L RNAV is implemented. The FAA's failure to utilize actual first-hand noise-disturbance accounts in its analysis is arbitrary and

1

capricious, and thus, your panelists' assertions that there will be no additional airplane noise impact upon Milton and Boston residents, is baseless. An actual environmental impact study should be conducted.

With respect to the tone of the October 28th Workshop, and the participants' false claims that there will be no measurable airplane noise burden on the Town of Milton, admittedly, and according to your panelists, none has conducted any field-work in Milton when runways 4R and 4L are in use. None has physically been in the "sandwich zone" when both 4R and 4L runways are being simultaneously utilized. None of your participants has placed any noise monitors or other devices to take actual measurements of plane noise when 4R and 4L is in use. None has contacted any Milton residents in person, via phone or email to follow-up on past noise complaints.

In sum, no actual scientific or environmental data of any kind has been collected beneath the 4R RNAV nor under the proposed 4L RNAV, nor the "sandwich zone," which encompasses the large area between these the 4L AND 4R RNAV. Instead, your Workshop's panelists chose to ignore thousands of residents' noise complaints, and instead relied on faulty DNL metrics designed to mathematically extrapolate ridiculous distances and time periods to almost make the noise burned non-existent, if not beneficial!!! The panelists FAA's overreliance on mathematical modeling and over-extrapolation of data, undermined the intent of conducting these workshops and public meetings, and is thus, arbitrary and capricious.

When citizens are forced to endure a dog-and-pony show, like your October 28th Workshop, citizens lose confidence in their government and agency employees. The October 28th Workshop was reminiscent of some of the early cigarette commercials, where smoking was found to be not bad for your lungs, but actually good for your health! Even though you have over 500 planes flying over your house daily, no big deal! Don't worry, the FAA's noise metric models say you are experiencing nothing!! A lack of ANY field work, and an over-extrapolation of your DNL metrics is obtuse, and both arbitrary and capricious as well as having the overarching consequence of people losing faith in their government agencies.

And, while airplane noise is the obvious burden, your panelists failed to mention the silent killer- that of small particle pollution, which these RNAVs unfairly expose those beneath these "sky super-highways" to an increased level of small particle pollution at disproportionate shares. Unless I'm mistaken, and that's fairy dust that the planes emitting, the small particle pollution has not been properly studied. Small particle pollution has been linked to many childhood and adult diseases such as asthma and cancer. This small particle pollution caused by airplane emissions should be studied by scientists, and not agency personnel utilizing mathematical models. Failure to not properly study small particle pollution beneath the existing and proposed RNAVs in Milton is arbitrary and capricious.

Email-15-2

In sum, I implore your agency to do the right thing and conduct an actual environmental impact study. I also urge agency to immediately implement simple measures that would drastically reduce the impact to sufferers on the ground, i.e.; requiring vortex generators on all aircraft- a very simple and cheap partial solution; directing aircraft to fly at a higher altitude upon approach- local commercial pilots have indicated that this is absolutely feasible; and lastly, requiring that aircraft lower landing gear closer to the destination, as opposed to six to ten miles away. These simple changes would drastically reduce Milton's immediate noise burden.

In this age of division and mistrust of government, your October 28th Workshop was a classic example of an arbitrary and capricious process using "safety" as a pretext for the FAA's forced implementation of an RNAV superhighway over Milton and Boston. If your agency truly cares about the impact on communities, it would work to

formulate a regional approach of burden-sharing for all the towns surrounding Logan International Airport. As the FAA is well aware, approval of the 4L

RNAV is only to placate the airline industry at the expense of those who live under and around these superhighways in the sky, and not for any safety concerns. Flying planes at hundreds of feet apart, and less than a thousand feet in altitude at six miles before landing, is the real safety concern.

For the above-set forth reasons, I urge you to not approve the 4L RNAV. At a minimum, I implore your agency to conduct an actual environmental impact study.

Respectfully,

Catherine Sheedy-McGonagle

cc.

Congressperson Stephen Lynch
Congressperson Ayaan Pressley
U.S. Senator Edward Markey
U.S. Senator Elizabeth Warren
Milton's Selectperson Melinda Collins

From: FAABostonWorkShops <FAABostonWorkShops@esassoc.com>
Sent: Tuesday, April 13, 2021 4:01 PM
To: owencathy@comcast.net
Subject: Comment Submitted on the Boston Logan Draft Environmental Assessment

To Whom It May Concern:

You are receiving this email because you submitted an email comment on the Draft Environmental Assessment of the RNAV (GPS) Runway 4-Left Approach Procedure at Boston Logan International Airport. As the project team was reviewing the comments received, it was discovered that a small percentage of comments received were unknowingly

caught by an email spam filter. The record of these messages being received was recorded, but the content of these emails was automatically deleted before their discovery. We are reaching out to you to request you to resubmit (forward) your emailed comment submitted on 11/20/2020 with the Subject *Comments in Opposition to Implementation of 4L RNAV*. This comment will be considered with equal weight to the rest of the comments on the Draft Environmental Assessment and a response to your comment will be prepared and published alongside all of the other Draft Environmental Assessment comment responses. We apologize for any inconvenience related to the submission of this comment.

Sincerely,

The BOS Environmental Assessment Team

4

RESPONSE

EMAIL-15-1

Per Section 3.4.6.1 of the Draft EA, noise was modeled according to the guidance in FAA Order 1050.1F.

EMAIL-15-2

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). Based on reasonable assumptions to how this implementation would affect existing air traffic at the Airport, it was found that a comparatively low number of flights will be newly using this procedure because it will only be assigned during times

of marginal Visual Meteorological Conditions (marginal VMC) or Instrument Meteorological Conditions (IMC). The only other aircraft that will be using this procedure are those that currently use the ILS RWY 15R procedure, then transition to a left-downwind approach to Runway 4L. Everything else will be using the current procedures - the operations will not change during VMC that occur at the Airport most of the time.

Modeling associated with this procedure showed very little change in Day-Night Average Sound Level (DNL) exposure at any of the population centroids within the General Study Area (GSA). If the model had showed significant or reportable impacts, or if any centroids had even approached the thresholds of significance or reportability, a case for an Environmental Impact Statement (EIS) might be considered. This study did not meet either of those criteria.

Aerodynamic improvements that could reduce noise exposure have other impacts which must be considered before FAA would take action and are beyond the scope of this environmental assessment.

Aircraft that fly the RNAV (GPS) RWY 4L procedure will approach the Airport at a higher altitude than those that use the visual approach to Runway 4L due to the former approach having a higher glide path angle (GPA) than the latter. The RNAV (GPS) RWY 4L approach will use a 3.1-degree GPA while the current visual approach uses a 3.0-degree GPA. While flying a higher approach at times is feasible in VMC, the ability to do so is primarily dictated by individual aircraft performance, weather, and air traffic considerations. Passenger comfort is another factor. Maintaining a stabilized approach to the runway is critical to a safe landing and asking aircraft to fly higher reduces pilot response time and has the potential to introduce additional risk.

EMAIL-16

COMMENT

To: FAABostonWorkshops@esassoc.com

From: Cindy L. Christiansen, PhD; 59 Collamore St., Milton, MA 02816; cLcMilton@gmail.com

Date: November 16, 2020

RE: Comments on the BOS 4L Draft EA

Please respond to these comments.

Dispersion

I'm in favor of using a 4L instrument approach path to reduce the excessive noise burden to those under the 4R flight path. In 2019 there were 9 jets landing on 4R for every 1 jet landing on 4L. On average, the 4R sufferers had 160 jets/day every day. That is inhumane.

Of course, some in Milton, Dorchester, and South Boston receive both 4R and 4L arrivals. Using 4L to disperse planes from the most-used approach path, 4R, won't help them, but the #1 in my list of questions that follows could.

Please provide answers to the following questions:

Email 16-1

1. Why did the FAA not consider a wider angled offset that would help those residents who are sandwiched between the 4R and 4L straight-in paths? I know the FAA will say "Safety", but can't pilots fly safely with 15 degree offsets? Wouldn't the added separation distance provide more safety from wake turbulence problems and make the ATC's job a little easier too?

Email 16-2

2. Why are there restrictions on the use of 4L for approaches?
   a. What is the specific restriction?
   b. Why is it there?
   c. When did it start?
   d. Is it fair to have restrictions that help some residents at the expense to others? Please answer this specifically.

Email 16-3

3. If the FAA is interested in efficiency, which is part of its mission, shouldn't all arrivals from the north use the left-downwind transition? If not, why not?

The DNL Metric and 65 dB Threshold

During the 10/23/2020 workshop, one of my questions was said to be "out of scope". It is not. It is specific to my neighborhood and is no more hypothetical than the assumptions made to do the environmental assessment analyses. Please answer this question:

Email 16-4

4. How much of an increase in traffic during the baseline year would be required for my neighborhood, with a DNL of about 53, to reach the important 65 DNL threshold?

I also asked the question below during both workshops but did not receive a helpful answer. I was told to go to the FAA.gov and read the AEDT manual. As the FAA knows, the AEDT software

is proprietary and is not freely available to residents like me. It is the FAA's responsibility to provide an answer to my question. Please comply.

Email 16-5

5. How precise are the AEDT DNL estimates for locations that are not close to the 65 DNL threshold? By "how precise" I mean what is the numerical value of the margin of error for these estimates? So, for my neighborhoods 53 DNL estimate, could the true value be as high as 60? As low as 45, more, less?

FAA's Poor Communication and Lack of Information Sharing

The lack of accuracy in answering some resident questions and the lack of direct responses during the two workshops are disturbing. Even though Massport's Flavio Leo has told CAC members several times that pilots/ATC have used 4R/4L side-steps for years, during the workshop we were told that side-steps are not possible because of the distance between 4R and 4L runways.

At the first workshop those listening were told that the 4L Visual will no longer be used and that it hasn't been used for years; at the second workshop we learned that the FAA thinks JetBlue won't use it again and that it is up to JetBlue to share the path or not (they already did share it by the way).

Email 16-6

6. On the faa.gov site the Special Visual 4L RNAV is part of the " listing of current active Special Instrument Procedures" even though the workshop members told us that it was not active. What is the truth?

Bottom line is that the FAA continues to check-box its way through community involvement. It makes information difficult to obtain and it closes its doors on some residents who ask for information (currently wanting everyone to go through the dysfunctional MCAC).

Conclusion

I've been responding to EAs, EDRs, ESPRs, making FOIA requests, joining with others to appeal, writing reports to Congress, and advocating for those under RNAV paths for years. I expect that the 4L instrument path will happen. I encourage the FAA to use the 4L approach to disperse the excessive number of approaches that currently travel the 4R RNAV – it would be the fair thing to do, especially if the ATC utilizes the left down-wind transition for all arrivals from the north and if the FAA would consider a 15 degree offset to the 4L path. Communities under the 4R path deserve similar protection that other communities have from runway use restrictions, including parts of Milton. The FAA's community involvement program should work with communities like Dorchester, Quincy, East Milton, and others affected by approaches to the 4R runway and develop restrictions that will match those that protect communities from excessive aviation noise and pollution.

RESPONSE

EMAIL-16-1

Federal Aviation Administration (FAA) Order 8260.58B, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, allows for an approach course to be offset between a Precision Final Approach Fix (PFAF) and the Landing Threshold Point (LTP)/Fictitious Threshold Point (FTP).

A 15-degree offset is allowed for an approach that has Lateral Navigation with Vertical Guidance (LNAV/VNAV) approach minimums. The limits to this are that the approach course does not line up with the centerline of the runway causing increased weather minimums. The approach course must cross the runway centerline at least 3,000 feet and no more than 5,200 feet prior to the LTP.

Additionally, the Obstacle Evaluation Area (OEA) for this segment of the approach would encroach closer to city buildings, potentially causing higher weather minimums. The OEA inside of the PFAF is 1.8 nautical miles wide.

It is the FAAs intention to create the most effective approach possible with the lowest weather minimums allowed by criteria that all pilots are capable of flying. In this case it is an Area Navigation (RNAV) (GPS) approach that has Localizer Performance with Vertical Guidance (LPV). An approach course with LPV minimums is allowed to have a course offset of up to 3.0 degrees.

To be more effective, the ability to use the RNAV (GPS) RWY 4L approach while conducting ILS RWY 4R approaches has been explored. Up until 2008, centerlines of parallel runways were required to be separated by at least 2,500 feet for airports to conduct simultaneous approaches to those runways. In 2008, the FAA implemented procedures for conducting simultaneous approaches to closely spaced parallel runways (CSPR), defined as runways with centerlines that are separated by less than 2,500 feet. Runway 4R and Runway 4L are separated by only 1,500 feet at the Airport.

Since then, procedures have been written to conduct Simultaneous Offset Instrument Approaches (SOIA) to reduce the potential for wake turbulence encounters with aircraft conducting approaches to the parallel runway. The allowed offset for SOIA is up to 3.0 degrees.

While studying the requirements for conducting approaches to CSPR and SOIA, it was determined that using 2.0 degrees would allow for wake turbulence avoidance and limit the amount of compression that would be experienced when an aircraft conducting the approach to Runway 4L was making up the extra distance to the runway caused by the offset angle. Thus, 2.0 degrees was chosen as the offset angle for the RNAV (GPS) RWY 4L procedure.

Note that implementing the RNAV (GPS) RWY 4L procedure will not result in an increase in the number of Runway 4L arrivals unless the Airport is both experiencing an extended timeframe of Instrument Meteorological Conditions (IMC) and is in the Northeast configuration. In all other conditions, operations to the runway will remain as they are today.

EMAIL-16-2

There are currently no restrictions on the usage of Runway 4L for arrivals. Though not a restriction, the Massachusetts Port Authority (Massport) has guidance to use Runway 33L exclusively for arrivals between the hours of 12:00 AM and 6:00 AM when weather permits. However, this does not preclude the use of Runway 4L during those hours if operationally required.

EMAIL-16-3

When traffic from the north approaches the Airport when it is in a Northeast configuration, each aircraft uses one of several ATC transitions to complete its journey to Runway 4L or Runway 4R, some of which primarily transit airspace above the water for a majority of their trajectories. The choice of transition depends on several factors including the type/class of aircraft (which affects its required landing distance and approach speed), the volume of aircraft approaching the Airport, and the presence of other air traffic. While these can change dynamically, all aircraft from the north using the left-downwind approach would only be feasible in very light traffic conditions. Additionally, aircraft using a single transition would unfairly burden those living and working under that corridor, who would experience exponentially more air traffic than they do today.

EMAIL-16-4

The decibel (dB) is a logarithmic value. That is, if you have 50 dB of sound energy, adding 10 dB to that amount would result in a 10-fold increase in sound energy, adding 20 dB would result in a 100-fold increase, and so on. Day-Night Average Sound Level (DNL) is not a direct measurement of sound energy from any single event - rather, it describes total noise exposure at a given point over a given period of time. Consequently, the question of how many additional operations it would take for an area of 53 dB DNL to exceed 65 dB DNL, it would have to be known exactly what those additional operations are and where that neighborhood is specifically located.

Note that it would not take a neighborhood moving from a 53 dB DNL value in a baseline scenario to a 65 dB DNL value in an alternative scenario to require the FAA to report noise increases. While FAA Order 1050.1F's significance threshold for noise does require at least a 1.5 dB DNL increase to meet or exceed 65 dB DNL, a 5.0 dB DNL increase for areas with a baseline DNL value between 45 dB DNL and 60 dB DNL is considered a reportable impact under FAA 1050.1F. Therefore, if a neighborhood with a 53 dB DNL value in a baseline reached or exceeded 58 dB DNL in an alternative scenario, that would be reported in the environmental documentation associated with the noise study. When considering population census blocks that are exposed to DNL 45 or higher within the GSA, the maximum change in noise exposure level ranged from areas that would experience a decrease of 0.06 dB to areas that would experience an increase of 0.02 dB as a result of the Proposed Action.

A theoretical 12 dB increase--generally akin to what is described by the commenter--would likely only take place with huge increases in both operations at the Airport (on the order of hundreds of operations per day), as well as additional operations to runways primarily responsible for noise exposure in these areas. Given current runway capacity at the Airport (terminal capacity notwithstanding) such operational increases are not feasible today and will not be feasible in the near future. Other variables that could affect noise exposure include fleet mix, proximity and aircraft altitude, and the number of nighttime operations. If these variables were to change it could affect the number of operations that would cause a 65 DNL noise exposure.

EMAIL-16-5

There is no margin-of-error associated with FAA's Aviation Environmental Design Tool (AEDT) since the tool is not calculating any values based on sampling. Rather, the tool takes known inputs for baseline scenarios, including flight tracks, aircraft information, terrain, weather, and population data and calculates DNL values based only on these inputs. If identical input is provided, AEDT will provide the same answer every time. Variability in output usually comes in the specific design of the alternative scenarios, as there will always be small differences in alternative scenarios designed by different analysts. However, in this case, differences in specific alternative procedure design would be very unlikely to result in any changes exceeding 0.5 dB DNL.

EMAIL-16-6

The JetBlue Special Procedure has been subject to a Notice to Airmen (NOTAM) rendering it not authorized for use since 2014. However, as the procedure has not been canceled, it will still show up in the active listing of published procedures for the Airport. Currently, there are no plans to cancel the NOTAM or otherwise authorize the procedure for ATC-assigned use.

The RNAV (GPS) RWY 4L procedure will offer limited relief to Runway 4R, particularly during times of marginal Visual Meteorological Conditions (marginal VMC) and Instrument Meteorological Conditions (IMC) when it currently cannot be used efficiently (in the case of marginal VMC) or at all (in the case of IMC). However, the Airport operational regime is not expected to appreciably change during the occurrence of VMC and Runway 4R will remain the dominant runway for arrivals when the Airport is in a Northeast configuration.

FAA Order 8260.58B, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, allows for an approach course to be offset between a Precision Final Approach Fix (PFAF) and the Landing Threshold Point (LTP)/Fictitious Threshold Point (FTP).

A 15-degree offset is allowed for an approach that has Lateral Navigation with Vertical Guidance (LNAV/VNAV) approach minimums. The limits to this are that the approach course does not line up with the centerline of the runway causing increased weather minimums. The approach course must cross the runway centerline at least 3,000 feet and no more than 5,200 feet prior to the LTP. Additionally, the Obstacle Evaluation Area (OEA) for this segment of the approach would encroach closer to city buildings, potentially causing higher weather minimums. The OEA inside of the PFAF is 1.8 nautical miles wide.

It is the FAAs intention to create the most effective approach possible with the lowest weather minimums allowed by criteria that all pilots are capable of flying. In this case it is an RNAV (GPS) approach that has Localizer Performance with Vertical guidance (LPV). An approach course with LPV minimums is allowed to have a course offset of up to 3.0 degrees.

To be more effective, the ability to use the RNAV (GPS) RWY 4L procedure while conducting ILS RWY 4R approaches has been explored. Up until 2008, centerlines of parallel runways were required to be separated by at least 2,500 feet for airports to conduct simultaneous approaches to those runways. Runway 4R and Runway 4L are separated by only 1,500 feet at the Airport.

In 2008, the FAA implemented procedures for conducting simultaneous approaches to closely spaced parallel runways (CSPR), defined as runways with centerlines that are separated by less than 2,500 feet. Since then, procedures have been written to conduct Simultaneous Offset Instrument Approaches (SOIA) to reduce the potential for wake turbulence encounters with aircraft conducting approaches to the parallel runway. The allowed offset for SOIA is up to 3.0 degrees.

While studying the requirements for conducting approaches to CSPR and SOIA, it was determined that using 2.0 degrees would allow for wake turbulence avoidance and limit the amount of compression that would be experienced when the aircraft conducting the approach to Runway 4L was making up the extra distance to the runway caused by the offset angle. Thus, 2.0 degrees was chosen as the offset angle for the RNAV (GPS) RWY 4L approach.

EMAIL-17

COMMENT

Stephen Goetzinger

From: fiveryans <fiveryans@comcast.net>
Sent: Tuesday, April 13, 2021 3:57 PM
To: FAABostonWorkShops
Subject: Fwd: Comments BOS 4L

As directed, I am re-sending comments from 11/20/20 - with an added note. Could you please confirm receipt?

For the first time in many years, I have enjoyed my own back yard due to the reduced 4R flights over the past 13 months. While I wouldn't wish a pandemic to end flight traffic, it has highlighted the massive disruption that the typical pre-pandemic constant barrage of planes landing on 4R has caused for my family and neighbors. Please spread arrival traffic and offset approaches so as not to hit the same exact homes, hundreds of times per day. It's unhealthy and unbearable.
Thank you,
Susanna Ryan
Milton MA, u nder 4R arrivals

---------- Original Message ----------
From: fiveryans <fiveryans@comcast.net>
To: "FAABostonWorkshops@esassoc.com" <FAABostonWorkshops@esassoc.com>
Date: 11/20/2020 11:39 AM
Subject: Comments BOS 4L

Email-17-1

- I support using the 4L RNAV to help disperse some of the arrivals to 4R. 4R is used far too excessively, and is irreparably harming those who live under the flight path.
- I support A 15-degree offset for the 4L RNAV so as to widen the distance between the 4R and 4L paths. After all, 4L is not very far from 4R, so it still harms those under 4R as well as 4L.
- I support runway restrictions on the use of 4R and 4L that will protect the communities under the paths from their excessive use.

Spread the planes, spread the pain.

Thanks,
S Ryan, Milton MA

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RESPONSE

EMAIL-17-1

1. The RNAV (GPS) RWY 4L procedure will offer limited relief to Runway 4R at Boston Logan International Airport (the Airport), particularly during times of marginal Visual Meteorological Conditions (marginal VMC) and Instrument Meteorological Conditions (IMC) when it currently cannot be used efficiently (in the case of marginal VMC) or at all (in the case of IMC). However, the Airport operational regime is not expected to appreciably change during times of VMC and

Runway 4R will remain the dominant runway for arrivals when the Airport is in a Northeast configuration.

2. Federal Aviation Administration (FAA) Order 8260.58B, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, allows for an approach course to be offset between a Precision Final Approach Fix (PFAF) and the Landing Threshold Point (LTP)/Fictitious Threshold Point (FTP).

A 15-degree offset is allowed for an approach that has Lateral Navigation with Vertical Guidance (LNAV/VNAV) approach minimums. The limits to this are that the approach course does not line up with the centerline of the runway causing increased weather minimums. The approach course must cross the runway centerline at least 3,000 feet and no more than 5,200 feet prior to the LTP.

Additionally, the Obstacle Evaluation Area (OEA) for this segment of the approach would encroach closer to city buildings, potentially causing higher weather minimums. The OEA inside of the PFAF is 1.8 nautical miles wide.

It is the FAAs intention to create the most effective approach possible with the lowest weather minimums allowed by criteria that all pilots are capable of flying. In this case it is an Area Navigation (RNAV) (GPS) approach that has Localizer Performance with Vertical Guidance (LPV). An approach course with LPV minimums is allowed to have a course offset of up to 3.0 degrees.

To be more effective, the ability to use the RNAV (GPS) RWY 4L procedure while conducting ILS RWY 4R approaches has been explored. Up until 2008, centerlines of parallel runways were required to be separated by at least 2,500 feet for airports to conduct simultaneous approaches to those runways. In 2008, the FAA implemented procedures for conducting simultaneous approaches to closely spaced parallel runways (CSPR), defined as runways with centerlines that are separated by less than 2,500 feet. Runway 4R and Runway 4L are separated by only 1,500 feet at the Airport. Since then, procedures have been written to conduct Simultaneous Offset Instrument Approaches (SOIA) to reduce the potential for wake turbulence encounters with aircraft conducting approaches to the parallel runway. The allowed offset for SOIA is up to 3.0 degrees.

While studying all the requirements for conducting approaches to CSPR and SOIA, it was determined that using 2.0 degrees would allow for wake turbulence avoidance and limit the amount of compression that would be experienced when the aircraft conducting the approach to Runway 4L was making up the extra distance to the runway caused by the offset angle. Thus, 2.0 degrees was chosen as the offset angle for the RNAV (GPS) RWY 4L approach.

3. As Runway 4R and Runway 4L are the only two runways commonly used for arrivals when the airport is in a Northeast configuration, it is difficult to add restrictions to them as any restrictions would invariably affect the Airport's arrival acceptance rate (AAR) and negatively affect operations at the Airport, via additional air traffic congestion and subsequent increased delays.

EMAIL-18

COMMENT

Sent: Tuesday, April 20, 2021 12:08 PM
To: FAABostonWorkShops
Subject: Public Comment

Hi, I'm resubmitting this public comment. Really happy that so far no planes making noise today. It's a rare day that this happens here in Milton.

From: Liz O'Rourke
Sent: Friday, October 30, 2020 9:02 AM
To: faabostonworkshops@esassoc.com
Subject: Public comment

To whom it may concern,

After watching and asking questions at the FAA workshop (Wed. 10/28/2020) concerning the Environmental Impact and Assessment of 4L RNAV I would like to comment.

Permanently establishing this flightpath is adding insult to injury, especially in Milton. There are already too many flightpaths over Milton (and surrounding communities) as it is.
What has been taking place with already existing flight paths is too much and disregards quality of life for those on the ground. My assessment of the FAA assessment is this: The FAA will do whatever it wants, and every study done (by the FAA) will show what they want it to show. There is no disputing any findings in these studies because the spokespeople for the FAA have all the answers, even if those answers do not make sense or don't even answer the questions that are asked.

Email-18-1

I found from the workshop that the FAA Environmental Impact study does not focus on ground level concerns. Even though planes are flying in the air, they still impact people on the ground. The study is extremely narrow and based on a very strict criteria. It doesn't matter how many or how much people under (any) flight paths are suffering because the instruments used by the FAA to assess the impact don't measure the issues that folks on the ground are dealing with. So my assessment of the FAA assessment; it falls far, far short of the necessary testing and field work that should be done and needs to be done in order to make a true and valid assessment of the environmental impact. It's negligent what the FAA is doing in order to bring efficiency and safety to the airways at the expense of the health and well being of many communities across the Commonwealth and the country. The FAA is not a team player or a community advocate. Their main concern is their agenda and how close it brings them to the success and completion of their plans. Though the FAA (and Massport) profess to keep the community in mind and encourage community groups to discuss topics and participate, no real credence is given to community groups to actually affect change at any level. No town government is able to dissuade the FAA from doing what the FAA wants to do. (Unless they litigate at great expense).

I've witnessed enough over the years to see obvious patterns that are established. I've lived in Milton since 1998 so I have observed that the amount of air traffic over my neighborhood and all over Milton has increased every year (except 2020) since I've lived here. I didn't begin noticing it negatively until 2012. Yes, Milton is approx. 8 miles from Logan so I would expect air traffic. I am not against planes and do fly when I can afford

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to, which isn't very often. Still, for the FAA to establish permanent flight paths over select towns and fly thousands of planes over the same areas day after day, hour after hour, often planes are minutes apart, is not fair, not healthy, and reeks of a profit driven incentive. As a consumer I'm appalled by the lack of concern or empathy for those chosen communities who are bearing the brunt of the massive onslaught of air traffic and it's accompanying noise and pollution… Oh, don't forget, no environmental impact was found.

Very sincerely yours,
Liz O'Rourke
79 Meagher Ave, Milton
617-755-3560 mobile
And
Liz O'Rourke-Harris
Activities Director
Winter Valley 600 Canton Ave
Unquity House 30 Curtis Road
Milton MA 02186
lorourke@mreinc.org
W 617-898-2030
C 617-755-3560

From: FAABostonWorkShops <FAABostonWorkShops@esassoc.com>
Sent: Tuesday, April 20, 2021 12:24 PM
To: Liz O'Rourke <lorourke@mreinc.org>
Subject: Comment Submitted on the Boston Logan Draft Environmental Assessment, 2nd email

To Whom It May Concern:

You are receiving this email because you submitted an email comment on the Draft Environmental Assessment of the RNAV (GPS) Runway 4-Left Approach Procedure at Boston Logan International Airport. As the project team was reviewing the comments received, it was discovered that a small percentage of comments received were unknowingly caught by an email spam filter. The record of these messages being received was recorded, but the content of these emails was automatically deleted before their discovery. We are reaching out to you to request you to resubmit (forward) your emailed comment submitted on 10/23/2020 at 3:07 pm with the Subject *Public comment*. This comment will be considered with equal weight to the rest of the comments on the Draft Environmental Assessment and a response to your comment will be prepared and published alongside all of the other Draft Environmental Assessment comment responses. We apologize for any inconvenience related to the submission of this comment.

Sincerely,

The BOS Environmental Assessment Team

2

RESPONSE

EMAIL-18-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). The scope of this environmental assessment involves assessing the impact of the Proposed Action Alternative when compared to the operating conditions at the Airport under the No Action Alternative. In the Proposed Action, the noise impact of 359 additional annual arrivals to Runway 4L due to reduced delay is modeled. Also modeled are the 594 arrivals that will utilize the RNAV (GPS) RWY 4L procedure instead of the ILS RWY 15R transition to Runway 4L during marginal Visual Meteorological Conditions (marginal VMC). The 359 annual arrivals include an estimated 255 new arrivals that would have otherwise been

canceled, as well as 104 arrivals that would shift from Runway 4R due to reduced delays on Runway 4L during Instrument Meteorological Conditions (IMC). Other than 255 additional departures (to offset additional arrivals), all other traffic is assumed to fly as it does today. As described above, this procedure is adding a minimal number of additional overflights as the procedure overlies an area of existing arrivals to Runway 4L and is not expected to result in the overflight of new areas on approach.

EMAIL-18-2

This environmental assessment was prepared in accordance with the required applicable FAA regulations summarized in FAA Order 1050.1F. The FAA is required to consider the environmental impact across multiple categories including air quality, climate, historic and cultural resources, noise, and environmental justice. Even as the Proposed Action is an airspace change, all environmental analysis is done to consider the impact upon resources on the ground within the General Study Area (GSA). The analysis was done specifically to consider the impact of the Proposed Action, which is adding a single RNAV (GPS) procedure into Runway 4L and compare that impact to the existing or No-Action conditions at the Airport.

Additionally, the FAA does not control airline scheduling – as the Airport is not slot-controlled, airlines can freely schedule flights based on demand.

LETTER-1

COMMENT

Office of State Representative William J. Driscoll, Jr.

7th Norfolk District

Commonwealth of Massachusetts

October 13, 2020

Colleen D'Alessandro, ANE-1
New England Regional Administrator
Federal Aviation Administration (FAA)
VIA EMAIL: Colleen.DAlessandro@faa.gov

RE: Logan Runway 4L Environmental Assessment Technical Questions

Dear Administrator D'Alessandro:

In response to my letter dated September 29, 2020, Ms. Christian sent an email stating that my "questions will be addressed during the Boston public workshops."

That response is, at best, woefully inadequate, and, at worst, an affront to the office that I hold. My previous correspondence with your office in 2019 generated a written response.

I deserve written responses to the questions in my 9/29/20 letter as soon as is practicable, and not halfway through the comment period and as part of workshops intended for the public.

In addition, my requests included that

Letter-1-1 i. The FAA visualization website "promptly" to be revised to include the 4R RNAV path on the visualization so that residents now can use the FAA visualization to see their residence in the actual 4L/4R paths setting.

Letter-1-2 ii. Residents know prior to the public workshops the Nabove Lmax 60/50 (Day/Night) alternative noise readings so they can ask questions about it.

Letter-1-3 iii. The FAA add to the EA Draft an updated statement addressing the other technical questions (including the Noise Sensitive Area (Hospital/Church/School) impacts prior to the public workshops so residents can ask about it and the Nabove Lmax noise impacts.

Letter-1-4 iv. The FAA address prior to the public workshops the "Advisory" use of the proposed RNAV path by planes (for example) that had been on the JetBlue RNAV path previously, and any other Advisory use of the former JetBlue path, or any use of any Visual 4R path.

I look forward to receiving your responses to these and all the questions included in my prior letters **on or before October 16, 2020**.

Best Regards,

William J. Driscoll, Jr.
State Representative, 7th Norfolk District

Page 1 of 2

cc: Michael D. Dennehy, Milton Town Administrator
Thomas J. Dougherty, Massachusetts Port Authority Community Advisory Committee (MCAC)
Milton Town Select Board

Page 2 of 2

RESPONSE

LETTER-1-1

The Federal Aviation Administration (FAA) updated the visualization website to include the Runway 4R Area Navigation RNAV path as requested on October 20th, 2020 to allow for the public to review the Proposed Action next to the existing RNAV (GPS) approach to Runway 4R. It should be noted that the RNAV (GPS) RWY 4R procedure is used currently and is not considered part of the Proposed Action.

LETTER-1-2

FAA does not intend to use any supplemental metrics as part of this environmental assessment. Day-Night Average Sound Level (DNL) is the noise metric required by the FAA for National

Environmental Policy Act (NEPA) studies. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10:00:00 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. DNL analysis may also be supplemented on a case-by-case basis to better characterize specific noise impacts; however, the noise analysis in the 2020 Draft EA showed that the Proposed Action does not have an appreciable effect in the noise exposure ranges associated with local communities. The data supporting this statement can be found in Table 4.6-3 of the 2020 Draft EA. The Number above L_{max} 60/50 (Day/Night) metric was not included in this environmental assessment, therefore, there is no information to use for public notification of this metric.

LETTER-1-3

This comment asks to address the other technical questions including the Noise Sensitive Area (Hospital/Church/School) impacts. The referenced September 29, 2020 letter and this letter do not mention any specific hospitals, churches, or schools to consider. However, the entire General Study Area (GSA) was analyzed for noise impacts at census block locations and the local parks and historic resources were all analyzed for noise impacts giving multiple points throughout the GSA where the noise impact of the Proposed Action was analyzed. There were no significant or reportable noise impacts at any of these points, nor do any of the changes associated with the GSA approach thresholds of significance or reportability. These calculated values can be found on the Noise Visualization tab of the project website at FAABostonWorkshops.com for the public's review.

LETTER-1-4

Advisory use of an instrument approach is available any time an aircraft has been cleared for a visual approach and can proceed to the runway at the discretion of its flight crew. This is not unique to this procedure and is not something that can be modeled--whether it happens or not is generally a function of pilot preference. Please note that advisory use of the procedure still does not guarantee that the autopilot is flying the aircraft, so there will still be some pilot drift in those cases. Additionally, the RNAV (GPS) RWY 4L procedure will only partially overlay the horizontal extent of flight tracks represented by aircraft that currently fly visual approaches. Implementation of this procedure will not result in areas that are not currently overflown being overflown in the future.

LETTER-2

COMMENT

Office of State Representative William J. Driscoll, Jr.
7th Norfolk District
Commonwealth of Massachusetts

September 29, 2020

Colleen D'Alessandro, ANE-1
New England Regional Administrator
Federal Aviation Administration (FAA)
VIA EMAIL: Colleen.DAlessandro@faa.gov

RE: Logan Runway 4L Environmental Assessment Technical Questions

Dear Administrator D'Alessandro:

This letter follows up on the September 21, 2020 Zoom session regarding the Logan Runway 4L Environmental Assessment (EA). During the session, it was stated that elected officials may submit technical questions.

I respectfully request that the following technical questions be addressed. The FAA's inclusion of these matters in its presentations will help residents understand and evaluate the draft EA.

Thank you for your attention to this aspect of the EA effort.

The technical questions follow.

Best Regards,

William J. Driscoll, Jr.
State Representative, 7th Norfolk District

Letter-2-1

1) **JetBlue Special Procedure**: Will aircraft with the 4L JetBlue Special procedure recorded in their FMS be allowed to request to use that procedure and to use it, or will the FAA state that the 4L RNAV will be the only arrival path to Runway 4L? With regard to that question, please also state:
   A. The number of arrivals in the baseline year on the 4L JetBlue Special procedure path.
   B. The number of arrival aircraft expected to use the 4L RNAV path in its first year of use that otherwise would been expected to use the JetBlue Special procedure.
   C. The number of arrival aircraft, if any, expected to use the JetBlue Special procedure in the first year of implementation of the 4L RNAV path.

Page 1 of 2

2) **4R RNAV Path on Noise Visualization**: Please promptly provide a version of the Noise Visualization on the same FAA website that adds the position of the Runway 4R RNAV path so that users can find answers to these questions: their location in relation to each of the closely spaced parallel runways; the combined noise impact on their location of the proposed RNAV 4L procedure and the existing 4R RNAV procedure; and compare that noise impact level to noise impact levels at other locations.

3) **Baseline Year:** Please provide a version of the Noise Visualization as in question 2) for the baseline year. With regard to the baseline year, please also explain:
   A. On what basis has the FAA used November 1, 2018 through October 31, 2019 as the baseline year rather than the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?
   B. Is it correct that the Draft EA does not measure the noise impacts of consolidating the JetBlue Special procedure with the 4L Visual path into a single RNAV path?
   C. Is it correct that the Draft EA only measures the noise impact of incremental 4L arrivals due to implementation of RNAV capability to use 4L in IMC circumstances?
   D. Is it therefore correct that this EA will not address whether implementation of the 4L RNAV procedure will have significant or reportable noise impacts under Order 1050.1f?

4) **Noise Contours:** For the present Noise Visualization and the added 4R RNAV path noise visualizations in questions 2 and 3, please provide graphically the noise contours of aircraft traveling those paths so that residents can answer the questions: how far from each side of the parallel paths aircraft noise extends; and what overlaps exist of noise from the two parallel 4L and 4R paths.

5) **Nabove 25 Lmax peak day 60/50 [day/night] noise measurement:** On the present FAA Noise Visualization and on each of the two additional versions requested above, or in another format, show what the Nabove 25 Lmax peak day 60/50 [day/night] noise measurements at locations affected solely by the 4L and 4R RNAV paths are respectively, as well as at those locations affected by both paths' noise, using different a color for each of these three indications, or other differentiating means.

   For the Nabove 25 Lmax peak day 60/50 [day/night] noise measurement method, we refer you to Data-Driven Flight Procedure Simulation and Noise Analysis in a Large-Scale Air Transportation System June 2018 by Luke L. Jensen and R. John Hansman "The analysis in this thesis uses an annoyance threshold of 25 daily flights at the 60dB (day) and 50dB (night) level." (Section 2.8, page 59 referencing Logan runway 4L/4R arrivals) https://pdfs.semanticscholar.org/6322/03aecd9d9a55136e8bc9e105b1e4bbc8ca93.pdf

cc: Michael D. Dennehy, Milton Town Administrator
Milton Town Select Board
Thomas J. Dougherty, Massachusetts Port Authority Community Advisory Committee (MCAC)
Milton Airplane Noise Advisory Committee (ANAC)

Page 2 of 2

RESPONSE

LETTER-2-1

The JetBlue Special Procedure has been subject to a Notice to Airmen (NOTAM) rendering it not authorized for use since 2014. There are currently no plans to cancel the NOTAM or otherwise approve the procedure for ATC-directed use. It has not been evaluated as part of this environmental assessment.

When an aircraft is cleared for a visual approach, it is allowed to follow any path to its assigned runway it chooses, provided that its chosen route does not conflict with any other instructions given to it by Air Traffic Control (ATC). As a result, pilots have the option to utilize any available procedure or flight path to the runway to provide them more accuracy and/or redundancy on

approach. As the JetBlue Special Procedure is the subject of a NOTAM rendering it not authorized, it cannot be assigned by ATC to aircraft landing on Runway 4L.

Additionally, the JetBlue Special Procedure is a Visual Flight Rule (VFR) procedure that is not available during Instrument Meteorological Conditions (IMC). Therefore, there are no flights that are anticipated to utilize the RNAV (GPS) RWY 4L that would have otherwise used the JetBlue Special Procedure as the JetBlue Procedure will be assigned during IMC conditions.

Finally, the JetBlue Special Procedure overflies similar areas as the RNAV (GPS) RWY 4L procedure, as well as areas already overflown by aircraft executing visual approaches to Runway 4L. However, waypoints that function to transition aircraft to the final approach course for Runway 4L are closer to the Airport in the JetBlue Special Procedure than they are in the RNAV (GPS) RWY 4L procedure. These waypoints largely approximate current areas where aircraft are transitioned to Runway 4L for the visual approach. Widespread adoption of the RNAV (GPS) RWY 4L procedure and/or the JetBlue Special approach at high levels would not cause significant noise impacts due to the large number of existing arrivals and departures overflying the airspace where these two procedures would route aircraft.

LETTER-2-2

The Federal Aviation Administration (FAA) updated the visualization website *FAABostonWorkshops.com* to include the 4R RNAV path as requested on October 20th, 2020 allow the public to review both the Proposed Action next to the existing RNAV (GPS) procedure into Runway 4R. It should be noted that the RNAV (GPS) RWY 4R procedure is included in the No Action Alternative and is not considered part of the Proposed Action. On the visualization page, the noise impact for the Proposed Action is displayed at census block locations, historic resources, and parks within the General Study Area (GSA). At all these points across the GSA there were no significant or reportable noise impacts, nor do any of the changes associated with that area approach thresholds of significance or reportability. These calculated values can be found on the Noise Visualization tab of the project website.

LETTER-2-3

The FAA chose November 1, 2018 through October 31, 2019 as the baseline year because at the time the National Environmental Policy Act (NEPA) process was initiated, it was the most recent data available representing a full year of traffic with no significant traffic disturbances due to airfield construction or other activities. Using an identical baseline year to the 2016 Initial Environmental Review (IER) would not represent current traffic at the Airport due to traffic growth in intervening years.

LETTER-2-4

The JetBlue Special Procedure has been subject to a Notice to Airmen (NOTAM) rendering it not authorized for use since 2014. There are currently no plans to cancel the NOTAM or otherwise approve the procedure for ATC-assigned use. As a result, it has not been evaluated as part of the 2020 Draft EA. Visual arrivals to Runway 4L are modeled in the same manner in the No Action Alternative as well as the Proposed Action Alternative. There is no “4L visual path” that can be consolidated with an RNAV procedure, as visual approaches can take a variety of routes on their approach to the runway. These diverse routes are represented in the environmental model. A flight crew, upon receiving clearance for a visual approach to the runway, may choose to utilize any available approach that does not conflict with ATC instructions.

LETTER-2-5

In the Proposed Action Alternative, the noise impact of 359 additional annual arrivals to Runway 4L due to reduced delays in IMC is modeled as well as 594 arrivals that will utilize the RNAV (GPS) RWY 4L procedure instead of the ILS RWY 15R transition to Runway 4L during marginal Visual Meteorological Conditions (marginal VMC). The 359 annual arrivals include an estimated 255 new arrivals that would have otherwise been canceled as well as 104 arrivals that would shift from Runway 4R due to reduced delays on Runway 4L during IMC. Other than 255 additional departures (to offset additional arrivals), all other traffic is assumed to fly as it does today, as the implementation of this procedure is not anticipated to change anything about the operational regime of the Airport during any other conditions, including VMC, and when the Airport is in another airfield (runway use) configuration.

LETTER-2-6

This environmental assessment does address whether the implementation of the RNAV (GPS) RWY 4L procedure will result in significant or reportable noise impacts under FAA Order 1050.1F. Using the baseline data from the 2016 IER would ignore additional traffic growth at the Airport that has happened since 2015 and any potential impacts would largely be a result of that additional traffic alone, not the implementation of the RNAV (GPS) RWY 4L procedure.

LETTER-2-7

The FAA is not required to provide noise contours as part of environmental assessments of air traffic actions - these are generally required for airport noise compatibility planning projects completed under 14 CFR Part 150. However, in lieu of noise contours, noise grid points consisting of U.S. Census population centroids are shown and symbolized based on their modeled Day-Night Average Sound Level (DNL) ranges in the baseline and alternative scenarios.

The context of the comment seems to use the phrase "noise contours" differently than it is described above and this comment response seeks to clarify the difference. The noise contours prepared in support of airport noise compatibility planning projects are depictions of all the traffic at an airport over a typical day. The "noise contours" described by the commenter seek to either apply to just aircraft arriving on Runways 4L and 4R respectively or even to individual aircraft landing on these runways. The "noise contours" described by the commenter were requested due to the communication of the lateral propagation of noise to either side of the Runway 4L and Runway 4R flight paths and whether there are any noise overlaps from these two flight paths.

The noise grid points described above that were used in this environmental assessment do contain the impacts of arrivals into Runways 4L and 4R and therefore could be used to understand the impact of these two flight paths on the noise grid points below the flight paths.

LETTER-2-8

FAA does not intend to use any supplemental metrics as part of this environmental assessment. DNL is the noise metric required by the FAA for NEPA studies. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10:00:00 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. DNL analysis may also be supplemented on a case-by-case basis to better characterize specific noise impacts, but the noise analysis showed that the Proposed Action does not have an appreciable effect in the noise exposure ranges associated with local communities. The data supporting this statement can be found in Table 4.6-3 of the 2020 Draft EA.

LETTER-3

COMMENT

COMMONWEALTH OF MASSACHUSETTS
TOWN OF MILTON
OFFICE OF THE SELECT BOARD
525 CANTON AVENUE, MILTON, MA 02186
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MICHAEL D. DENNEHY
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SECRETARY
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MEMBER
MICHAEL F. ZULLAS
MEMBER

November 19, 2020

VIA EMAIL AND VIA OVERNIGHT MAIL

FAABostonWorkshops@esassoc.com
ATTN: Lorna Christian, Supervisory Senior Advisor, ANE

and

Environmental Science Associates
c\o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress St
Suite 450
Tampa, FL 33607

Comment Statement of Congressman Stephen F. Lynch, Massachusetts Senator Walter F. Timilty, Massachusetts Representative William J. Driscoll, Jr., Boston City Councilor Ricardo Arroyo, Boston City Councilor Andrea J. Campbell, and the Milton Select Board

To Whom It May Concern:

Enclosed please find the comment statement of the following federal, state, and municipal elected officials, including its appendix:

Congressman Stephen F. Lynch

Massachusetts Senator Walter F. Timilty

Massachusetts Representative William J. Driscoll, Jr.

Boston City Councilor Andrea J. Campbell

Boston City Councilor Ricardo Arroyo

The Town of Milton Select Board:

Melinda A. Collins, Chair

Kathleen M. Conlon, Vice Chair

Arthur J. Doyle, Secretary

Richard G. Wells, Jr.

Michael F. Zullas

Kindly confirm receipt of this document via e-mail.

Most sincerely,

Ralph P. Eppolito for Michael Dennehy

Michael Dennehy

Town Administrator

Enclosure: Comment Statement (108 pages)

MDD:hw

COMMENT STATEMENT OF CONGRESSMAN STEPHEN F. LYNCH,
MASSACHUSETTS SENATOR WALTER F. TIMILTY,
MASSACHUSETTS REPRESENTATIVE WILLIAM J. DRISCOLL, JR.,
BOSTON CITY COUNCILOR ANDREA J. CAMPBELL,
BOSTON CITY COUNCILOR RICARDO ARROYO,
AND
THE MILTON SELECT BOARD

November 19, 2020

VIA EMAIL AND VIA OVERNIGHT MAIL

FAABostonWorkshops@esassoc.com
ATTN: Lorna Christian, Supervisory Senior Advisor, ANE

and

Environmental Science Associates
c\o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress St
Suite 450
Tampa, FL 33607

To Whom It May Concern:

These comments and supporting appendix are submitted by the undersigned federal, state, and municipal elected officials regarding the FAA's proposed Logan Airport Runway 4L Environmental Assessment announced on September 15, 2020, with Comment Period running from September 21, 2020 to November 20, 2020.

The FAA's proposed 4L RNAV procedure, applied to the closely spaced parallel Logan Runway 4L and 4R realities, is based on arbitrary and capricious assertions and assumptions, and is compounded by FAA's material misstatements and omissions in its Draft EA and workshops.

It is important to note at the outset that there is no separate, independent federal oversight agency charged with watch-dog responsibilities to question FAA actions and disclosures before the proposed FAA procedure takes place.

For that reason, a public Comment Period can and should serve as an alert for affected residents to act as their own watch-dog, on alert for both arbitrary FAA rationales and materially misleading FAA justifications.

Accordingly, we submit these Comments, reserving all rights, and stating here explicitly that the EA process should be cancelled, rescinded, and the Draft EA withdrawn. In these Comments, we support that statement.

A. EXECUTIVE SUMMARY OF COMMENTS

But we also Comment on the material deficiencies in the Draft EA and workshops and state additions and revisions that would be needed to make clear the arbitrariness of FAA scope, method and disclosure. However, do not confuse that with this: the Draft EA website and the virtual workshops are not worth the paper they are not printed on.

In Section 1, we review the background to the March 20, 2017 IER, the public meetings that preceded it in 2015, and commentary by the undersigned federal, state and municipal elected officials, and by community members, as background to the IER and CATEX that led to FAA's commitment to conduct an EA of the proposed Runway 4L RNAV path.

In Section 2, we address FAA's delay between 2015 and 2020 in conducting the EA and its arbitrary, capricious and self-contradictory "safety" reason for proceeding now amidst a Covid-19 pandemic and collapse in runway operations at Logan and across the US. That Section is in two parts: Section 2A, addressing the time frame 2015 to the onset of the pandemic; and Section 2B, addressing the time frame from pandemic onset to September 15, 2020.

In Section 3, we address FAA's repeated denials of the undersigned elected officials' requests for written answers to their technical questions regarding the Draft EA, and also FAA's "virtual workshops" process. (See also the related Section 6 on FAA's lack of transparency, material misstatements and omissions.)

In Section 4, we address the undifferentiated scope of FAA's approach to the 4L RNAV analysis which we contend is an abuse of its discretion. We also address the FAA's failure to complete a cumulative impacts analysis, and how that failure is also an abuse of discretion.

By undifferentiated scope we mean this: FAA's confounding use, on the one hand, of a 1,173 square mile GSA for purposes of assessing overall air traffic compatibility across all 427,000 Logan Airport flight movements with, on the other hand, inapposite use of that same GSA 1,173 square mile GSA for assessing specific noise and health impacts of a proposed new RNAV procedure that originates southwest of the airport and proceeds for 15 miles from that point in concentrated fashion exclusively on a narrow sky-rail to the airport over noise sensitive areas.

The Draft EA fails to bifurcate the scope of the Assessment between (A) overall Logan air traffic compatibility, versus (B) focused evaluations of the proposed 4L RNAV path's noise and other environmental effects on residents under that path and impacts on residents already under the nearby 4R RNAV path.

This unfocused scope is also methodologically unsound and is presented in a misstated manner which we address in Sections 5 and 6.

In Section 5, we address FAA's 4L RNAV Draft EA methodology, including: materially understated noise impacts resulting from FAA's exclusive use of the DNL metric without supplementation through use of the metric recommended for RNAV noise effect measurement;

lack field work; failure to include noise contours even though the proposed 4L RNAV track is closely spaced adjacent to the extant 4L RNAV path; landing gear deployment modeling flaws; and disregard of 15R approach/circling to 4L alternatives.

In Section 6, we address FAA's Non-Transparency, including its self-contradictory statements, selective and misleading disclosures, material misstatements and omissions and refusals to answer questions, which collectively render this Draft EA in need of being withdrawn and restated with requisite transparency.

In Section 7, we address FAA's failure to identify, examine and pursue any available Alternatives (other than the "No Action" alternative) and specify several that require full development, full presentation and full discussion.

In Section 8, we address FAA's failure to assess and present Environmental Justice impacts and alternatives.

In Section 9, we address FAA's failure to identify, examine and pursue available mitigation measures.

In Section 10, we discuss the impacts on Milton residents, and our concluding remarks.

CONTENTS

B. COMMENTS

1. 2015-2016: COMMUNITY INVOLVEMENT, IER, FAA INACTION

The first page of the Draft EA contains the following statement:

Letter 3-1

"In **March 2016**, the FAA completed a comprehensive Initial Environmental Review (IER) for the permanent implementation of a RNAV GPS IAP to Runway 4L at the Airport. The **IER concluded** that the proposed procedure qualified for the **categorical exclusion** (CATEX) found in Order 1050.1F, paragraph 5-6.5.g, entitled "Establishment of Global Positioning System (GPS) , Flight Management System (FMS), Area Navigation/Required Navigation Performance (RNAV/RNP) or essentially similar systems that use overlay of existing flight tracks."

That IER is Appendix 1 to the Draft EA. It contains this statement at page 68. We have bold highlighted it for emphasis.

> The FAA must:
> **Make a determination if the proposed project has the potential to become highly controversial.**
> **The effects of an action are considered highly controversial when reasonable disagreement exists over the project's risks of causing environmental harm. Opposition on environmental grounds by a Federal, State or local government agency or by a Tribe, or by a substantial number of the person[s] affected by the action should be considered in determining whether reasonable disagreement regarding the effects of a proposed action exists (see FAA Order 1050.1F, Paragraph 11-5.b.(10)).**

In fact, there was extensive opposition by Federal, State and local government and by a substantial number of the persons affected which had been raised repeatedly in meetings, in writing, and in virtual gatherings for years prior to the FAA's March 2016 IER page 68 statement—and that opposition continues to this day.

Nevertheless, and despite longstanding elected official and public opposition, at page 78, the FAA asserted that effects on the quality of the human environment are **not likely to be highly controversial:**

> 9. Effects on the quality of the human environment that are likely to be **highly controversial on environmental grounds** (see Order 1050.1F, paragraph 5-2.b.(10)).
> [ ]Yes [**x**] **No** [ ] Possibly

The FAA went on to comment on that same page:

> Comment:
> As evidenced by comments received by the FAA following an outreach meeting on May 18, 2015 **there is opposition** from some residents of Milton, MA,

> (approximately 108 comments received) and their elected officials regarding implementation of the Proposed Action (Runway 4L RNAV GPS IAP). Two members of the Logan Airport CAC from other communities and the Board of Health for the Town of Randolph also expressed opposition.
>
> As stated in FAA Order 1050.1F, paragraph 5-2, **opposition alone is not sufficient for a Proposed Action or its impacts to be considered highly controversial on environmental grounds. There must be a reasonable disagreement regarding the impacts of the Proposed Action. Comments received indicate that the majority of the opposition is based on noise and air quality associated with current flights over Milton.**

The FAA's assertion that there is no reasonable disagreement is factually false and misleading, and administratively an abuse of discretion. The elected officials and residents living under the proposed 4L RNAV path are the relevant representatives and affected persons here.

Other Sections of these Comments will address FAA's basis for its contra-factual assertion that this matter is not highly controversial on environmental grounds. But we quote next FAA's purported support for this assertion so that it can be referred to below. FAA's assertion continues as follows. We have added some bold to highlight it:

Letter 3-1

> To provide detailed information on noise impacts, FAA has done a full INM analysis for the FAA's Proposed Action, which includes analysis of the proposed JetBlue Runway 4L RVFP for cumulative impact purposes. Typically, a noise screen is conducted for these types of situation — adding instrument guidance an existing visual operation, without changing the type of aircraft, nor increasing the number of flights involved, or changing the area on the ground that is overflown. The INM cumulative analysis findings (for both proposed procedures) are summarized in Table 14 (page 39). **People exposed to less noise outnumber those exposed to more noise by a 13:1 ratio**. Within the Baseline 45 dB DNL contour, the maximum DNL increase is 0.3 dB. All DNL increases are negligible in comparison to the applicable thresholds shown in Table 4. For the FAA's Proposed Action individually, the maximum DNL increase is 0.1 dB and the population exposed to a decrease in DNL exceeds those exposed to an increase by a ratio of 5-to-1 (Table 11, page 36).
>
> In addition, the implementation the FAA's Proposed Action would result in **reduced fuel consumption and CO2 emissions**. Based on the findings of these detailed analyses, **there is no "reasonable" disagreement regarding the impacts of the proposed procedure.**

Disagreeing with FFA's proposal to concentrate flight tracks onto residents who will then live under a narrow sky-rail such that **13 times** as many people are **relieved** of the existing dispersed noise burden compared to the victims who will then have that **noise shifted onto them** is more than a reasonable disagreement. It is response to an authoritarian act that merits legitimate, reasoned officials' and public disagreement.

Similarly, disagreement on behalf of people to be exposed to proposed 4L RNAV path jet exhaust emissions presently dispersed across 13 times that many people is reasoned, and reasonable, disagreement. See also Sections 4 and 5 below.

The Draft EA goes on to state that "in July 2016 [FAA] elected to conduct an EA to further study the procedure." (Draft EA page 1-1). But, the Draft EA immediately then states, [d]ue to budgetary constraints and other [unspecified] exigent circumstances, however, this effort was delayed." Yes, FAA delayed for many years and nowhere is that delay further explained. In further disregard to residents' lives, FAA now proceeds during a pandemic and air traffic near-shutdown. (See Section 2 below)

Lastly for this Section, we raise the following statutory comment:

Letter 3-2

The Draft EA does not explain how a CATEX that it determined in March 2016 complies with the requirements of the National Defense Authorization Act of 2017, Section 341(b)(4) enacted in December 2016. We highlight in bold for emphasis:

> (b) **Performance-based Navigation.**--Section 213(c) of the FAA Modernization and Reform Act of 2012 (Public Law 112-95; 49 U.S.C. 40101 note) **is amended by adding at the end the following:**
>
> ``(4) Review of certain categorical exclusions.--
> ``(A) In general.--**The Administrator shall review any decision of the Administrator made on or after February 14, 2012, and before the date of the enactment of this paragraph to grant a categorical exclusion under this subsection with respect to a procedure to be implemented at an OEP airport that was a material change from procedures previously in effect at the airport to determine if the implementation of the procedure had a significant effect on the human environment in the community in which the airport is located.**
> ``(B) Content of review.--If, in conducting a review under subparagraph (A) with respect to a procedure implemented at an OEP airport, the Administrator, in consultation with the operator of the airport, determines that implementing the procedure had a significant effect on the human environment in the community in which the airport is located, the Administrator shall--
> ``**(i) consult with the operator of the airport to identify measures to mitigate the effect of the procedure on the human environment; and**
> ``**(ii) in conducting such consultations, consider the use of alternative flight paths that**

do not substantially degrade the efficiencies achieved by the implementation of the procedure being reviewed.

We are not aware of any review conducted by the FAA or that the operator of Logan Airport, Massport, was consulted by FAA. FAA apparently disregarded this mandatory duty required by Congress nearly four years ago.

2. 2017-2020: DELAY, AND THEN A MISLEADING SAFETY PREDICATE

a. January to Pandemic Onset

FAA took no action on its EA for years following the March 2016 IER. The economy was growing, planes were flying at increasing numbers per year on Logan runways including 4L and 4R. Community concerns about the high concentration of planes on the runway 4R approach continued, and at the urging of communities and elected officials, an FAA-Massport MIT assisted Study proceeded to examine ways to restore dispersion of flight paths toward pre-RNAV levels.

Letter 3-3

Then, in late 2019, FAA announced that it was going to proceed with the 4L EA after 5 years' delay. In response to that announcement, Milton's representative on the Massport Community Advisory Committee (MCAC) commenced what became a multi-month effort to gather information from FAA, including by requesting that it publish its unpublished Appendices to the IER and respond to questions about the proposed 4L RNAV path in relation to other 4L approach paths and the existing closely spaced parallel runway 4R RNAV path. The documentation of that effort is appended hereto as the Appendix to this letter, and is incorporated herein as part of these Comments as if fully set forth at this point.

Among other things, the FAA Regional Administrator was asked to provide in writing the specific approach procedures to 4L, both visual and instrument. On March 4, the Regional Administrator responded in writing as follows, after checking with the relevant FAA Points of Contact:

> ***FAA Response: Currently, Runway 4L does not have an instrument approach procedure associated with it. We use a Visual Approach (no course or vertical guidance). When weather goes below a 3000ft. ceiling we can make an instrument approach to Runway 4R and circle to Runway 4L. We also can conduct an ILS approach to Runway 15R and when the pilot reports BOS in sight, the Tower clears the aircraft for a Visual Approach over the harbor to Runway 4L. The 15R situation is only good down to weather conditions of 1500ft. ceiling and 5 miles visibility. When circling from Runway 4R we can use about an 800ft. ceiling and 2 miles visibility.***
>
> ***When pilots are aware that they will be getting a Visual Approach to Runway 4L, they have the ability in their FMS to build a course and artificial glide slope if they choose. It would all depend on workload and Company requirements.***

Other than the proposed RNAV RWY 4L, there are no other procedures planned. The old JetBlue visual procedure is no longer authorized.

The penultimate paragraph of that statement will be addressed in Section 3 of our Comments below.

b. Pandemic Onset, Community Requests to Defer This EA, and FAA's Capricious "Safety" Rationale for Proceeding

In March-April 2020, the Covid-19 pandemic hit and the American society, health system, economy and air traffic were massively disrupted. Jet arrivals on runway 4L **plummeted 98%** in April to only 7 arrivals that entire month, and then only 5 arrivals during the month of May.

At the behest of Milton's MCAC representative, the MCAC wrote to FAA on May 18, 2020 asking FAA to defer the 4L EA process because Covid-19 impacts and FAA's already 5 year delay in proceeding with the EA respectively restricted residents from participating in any EA at this time and suspended any legitimate urgency for FAA to proceed with the EA now. Residents were (and still are) dealing with high incidence of Covid (and as this is written, with a second wave of high incidence), and severe economic impacts. Milton, Mattapan and Dorchester include many health care workers, essential workers on bus, rail and other basic services efforts whose lives are disrupted by those duties now. Home child care, unemployment, small business losses, food stamp needs all require extraordinary attention and time-consuming alternative measures, as the MCAC letter pointed out specifically.

Social gatherings are restricted and/or prohibited such that residents cannot meet to confer about the EA issues. Libraries are closed and residents without internet access have no practical alternative means of internet assess because any libraries open at all limit such access to a few people for limited time each. Virtual meetings have serious limitations. The MCAC asked FAA to defer the EA until the later of January 1, 2021 or two months after flights to and from Logan Airport resume with volume and frequency similar to what can be expected in future years.

By letter dated June 11, 2020, FAA's Regional Administrator refused MCAC's request to defer the EA asserting:

1. that air operations had increased in May and early June;
2. that safety and efficiency were its priorities; and
3. those residents' concerns were immaterial because FAA's virtual workshop routine would suffice.

Letter 3-4

In actuality, the FAA's assertion that air operations were increasing was false. Logan Airport reported that jet arrivals on 4L were, as stated above, 7 in April, 5 in May and only **3** in June. That was no basis to proceed with the EA. And single digit monthly jet arrivals on runway 4L continue today.

As to the assertion (3) that FAA's virtual workshop would substitute for in-person gatherings of residents, it is obvious that in-person meetings of residents to prepare, discuss, review **among**

themselves are not part of FAA virtual workshops. And the material failings of those "workshops" are discussed separately in Section 3 below.

Letter 3-5

Turning now to assertion (2), there are two rationales for the proposed 4L RNAV that are repeatedly asserted in the Draft EA, and its predecessor IEA appended thereto: safety and efficiency. We address efficiency in Sections 4 and 5.

But here, in this Section 2B, we want to address at some length the FAA's purported safety reason for FAA's 4L RNAV initiative. We do so, not merely to negate **any** assertion that now is a time that FAA needs to proceed with the EA for safety reasons, but also to comment explicitly that FAA's assertion of safety concern is a misleading predicate for the 4L RNAV proposal **itself.**

Regarding safety, the Draft EA states the following at page 1-3:

> The implementation of the RNAV (GPS) RWY 4L procedure where no instrument procedure currently exists will improve safety by providing pilots with a stabilized approach and enables air traffic control to more precisely monitor each aircraft both vertically and laterally along the arrival track.

As support for its safety rationale for proceeding with an EA, the FAA had referred in its March 2016 IER to generalized US and worldwide safety statistics but offered **no** specific instance of any runway 4L safety concerns. (Draft EA Appendix A, page 32).

When the FAA by its June 11, 2020 letter denied MCAC's request to defer this EA process, Milton's MCAC representative on July 14, 2020, and the MCAC itself by separate letter that same day, each responded to FAA reiterating that the EA process must be deferred. In addition to reiterating the reasons for deferral stated above and addressing FAA's disregard of those ongoing concerns in its June 11 letter, the MCAC representative pointed out that the FAA had not identified any specific safety incidents prompting the need for the EA to proceed now. The FAA again denied the requests to defer the EA by letter dated August 7, 2020 without further explanation of why.

Perhaps in light of the MCAC representative's July 14 statement that (from the time of the FAA's 2013-2016 analyses for its IEA through July 2020) FAA had not identified any specific safety rationale for proceeding with the EA now, the Draft EA, published on September 21, 2020, contains the following statement:

> **Circling Visual Approach to Runway 4L after conducting ILS RWY 15R approach to visual conditions**
>
> A circling approach can be used by the pilot to align the aircraft with the runway for landing when a straight-in approach is not possible or desirable.
> **The circling maneuver that is currently used for aircraft landing on Runway 4L is only available during VMC and marginal VMC.**

When traffic and weather conditions dictate, **small, maneuverable Category A or Category B aircraft (limited to approach speeds of 120 knots or below) are able to follow the ILS straight-in approach to Runway 15R until descent below the cloud ceiling. Once the aircraft is below the cloud ceiling and has the Airport in sight, the pilot can execute a circling approach to land on Runway 4L.**

A circling approach, in this context, consists of an aircraft executing a turn to the south upon transitioning below the cloud ceiling. While remaining clear of clouds and **with the Airport in sight at all times,** the aircraft then maneuvers to a visual landing on Runway 4L. Pilots are responsible for maintaining visual separation from other traffic, including traffic landing Runway 4R, at all times when executing this maneuver. As this approach requires significant manual low-altitude maneuvering while maintaining visual separation from other traffic in busy airspace at an airport with multiple intersecting runways, it can be a challenging and potentially hazardous maneuver. **Numerous safety-related incidents have occurred with aircraft flying this procedure, including some particularly notable recent incidents as described below:**

* In October **2016**, **a DeHavilland Dash 8** passed directly over an Airbus A320 at low altitude while executing a go-around following an errant approach to Runway 4L's parallel Taxiway Bravo instead of the runway itself.

* In October **2019**, **a Cessna 414**, after receiving clearance to execute a final approach to land Runway 4L, mistakenly lined up with Runway 9 instead, where another aircraft was preparing for takeoff. Once the pilot of the Cessna realized there was another aircraft on the runway, he executed a go-around at low altitude, overflying a third aircraft by an estimated 300 feet.

* In October **2019**, **a DeHavilland Dash 8,** when flying the left downwind leg to Runway 4L after departing the ILS 15R approach course, extended the left downwind more than expected due to **excessive airspeed on that leg**. This resulted in ATC cancelling the approach clearance and instructing the aircraft to complete a go-around due to the imminent risk of an airspace incursion.
Of the three described methods that pilots can currently follow to land on Runway 4L, **the change of runway and circling maneuvers are used far less frequently than visual approaches to the runway.** (Draft EA page 2-6)

We submit that there are these extraordinary elements to that FAA statement:

1) In all the many years that the 4L EA has been deferred, these are the **only** specifics mentioned;

2) **Each** of these three proffered scenarios occurred during **Visual Meteorological Conditions, not** during **IMC** for which FAA proposes the 4LRNAV to reduce late night arrival delays.

3) **Each** of these involved **old** propeller (Cessna 414) and turboprop DeHavilland Dash 8 (turbo-propeller) **small** (8 passengers, 36 passengers, respectively) planes. **Neither** Cessna 414 (built in the 1970s and early 80s) nor DeHavilland Dash 8 (built in the 1980s) are identified by FAA as having any gps capability on board —necessary for RNAV if the 4LRNAV had been in place. In other words, the 4LRNAV does not address that safety issue at all.

4) **Each** of the planes was in visual contact with the Logan runways, and the third scenario mentioned concerned excessive speed.

Letter 3-6

None of these anomalies in all these years is a basis to proceed with an EA now, when few planes are flying. But also consider this: In its last sentence the FAA states that this "Circling Visual Approach to Runway 4L" is used far less frequently than other visual approaches to runway 4L." Then why not discontinue its use if it is unsafe, and in any event why use this as a reason to subject thousands of residents to the noise and pollution impacts of a concentrated RNAV path rather than mitigating that safety anomaly itself ? (See Section 7 of these Comments)

Well, a complete reading of the Draft EA and its appendices, reveals that FAA may do just that: At Draft EA Appendix D page 8, FAA states: "[i]n the Proposed Action Alternative, **the ILS 15R circling transition to Runway 4L** will still be available, but based on consultation with Boston Consolidated TRACON (A90) personnel, **it is not expected that it will continue to be used."**

Our comment is to agree that it need not be used and is not a safety reason to proceed with this EA now. To be clear, FAA still wants to associate the aircraft that used the 15R circling transition to Runway 4L with runway 4L **by another means: "**[i]nstead, Air Traffic Control (ATC) plans to assign the aircraft previously flying the ILS 15R circling transition to Runway 4L to **fly the RNAV (GPS) RWY 4L** in the Proposed Action Alternative." (Draft EA Appendix D-8)
However, we submit that 4L or 4R without RNAV guidance in VMC can be used—and no RNAV is needed for that. No EA for 4L RNAV need proceed at **any** time for that purpose.

3. SEPTEMBER 15 - NOVEMBER 20, 2020: FAA FAILS TO ANSWER QUESTIONS OF ELECTED OFFICIALS AND OTHER RESIDENTS AND CONDUCTS OPAQUE, FORMULAIC "WORKSHOPS"

We begin this section with a quote from the FAA Regional Administrator's March 4, 2020, statement about Runway 4L paths that we referred to in Section 2A above:

> ***"When pilots are aware that they will be getting a Visual Approach to Runway 4L, they have the ability in their FMS to build a course and artificial glide slope if they choose. It would all depend on workload and Company requirements.***

Other than the proposed RNAV RWY 4L, there are no other procedures planned. The old JetBlue visual procedure is no longer authorized."

Letter 3-7

The statement in that first part of the quotation that "pilots and their airline companies can use their flight management systems **"to build a course and artificial glide slope if they choose" is a red flag**, raising the concern that FAA can allow **additional concentrated visual FMS-guided 4L flight paths to be built and flown over additional parts of Mattapan, Milton and Dorchester,** thereby adding yet more overflight burden than the proposed concentrated 4L RNAV path over residents' homes, along with schools, hospitals and churches.

It is no solace that FAA adds that no other procedures "are planned." There is **no statement** by FAA that any community engagement process would be required if FAA decides to accept an airline's decision to "use their FMS to build a course and a glide slope if they choose" for repeated concentrated use.

Indeed, during the October 28 FAA virtual "workshop," FAA's presenters gave conflicting answers to the question of whether additional 4L flight paths could be added: The airline pilot presenter indicated that use of an aircraft's onboard FMS to build a flight path is available, and the FAA representative stated only that the JetBlue procedure is no longer authorized**, without** addressing the fact that the FAA's stated policy is that airlines can build their own FMS guided course if they choose.

Letter 3-8

Because of that FAA red flag, earlier in this EA process, the Town of Milton Select Board, along with Congressman Stephen Lynch, State Senator Walter Timilty, State Representative William Driscoll, and other residents, each asked the FAA in writing to provide in writing the FAA's answer to the following question, so that residents would know what to expect, what is actually at stake here:

> (D) provide a table, in format similar to Table 8 of Appendix A to the Draft EA, stating the **Estimated Annual Use** of 4L RNAV Approaches, on the basis of **Cleared** IMC, **Cleared** VMC, **Advisory** IMC (if any), **Advisory VMC** and Total Cleared+Advisory use while **including, listed separately**, as in Table 8, **any RVFP use**, in **each** of those categories.

(See the Appendix to these Comments which contains letters submitted by each of those elected officials asking that they receive FAA's written response prior to the FAA "workshops.")

The FAA never answered the elected officials' question before, during, or after the FAA's two "workshops."

That question was one of several from elected officials to which the FAA failed respond.

On September 21, 2020, Zoom session with elected officials regarding the Draft EA, the FAA invited those elected officials to submit technical questions about the Draft EA. Soon thereafter, those elected officials submitted technical questions in writing, including the question quoted above, and sought written responses.

Letter 3-9

In response, the FAA sent emails stating that "questions will be addressed during the Boston public workshops." (See Appendix to these Comments at document 1). The elected officials followed-up again, and sought written responses to the questions "as soon as practicable, and not halfway through the comment period and as part of workshops intended for the public." (See Appendix to these Comments at document 2).

The FAA never responded to these questions about the Draft EA from elected officials – not in writing, and not as part of the workshops.

The FAA's pattern of failing to respond to questions about the Draft EA continued during the virtual "workshops."

Letter 3-10

During the October 23 FAA virtual workshop, the FAA did not answer a question submitted by a resident that was similar to the question from elected officials quoted above: "for the first year of 4L RNAV operation, what is the expected number of flights on the proposed 4L RNAV path, and on **each other** alternative 4L path expected to be in use if any."

We will address this matter again the Sections 4 (Scope of the Draft EA), 5 (its Methodology) and 6 (its Lack of Transparency, Material Misstatements and Omissions).

Letter 3-11

As one prelude to those Comment Sections, we add this Comment on the virtual workshops process. The FAA's technical workshop team members, including its consultants, from Washington D.C. Virginia, Dallas and Raleigh-Durham never visited Mattapan, Milton and Dorchester in connection with this EA, and, because of COVID-19 restrictions, never conducted an in-person session with residents, which is the standard process for a Draft EA.

The two workshops were recorded. So, any reader of the Comments can review those videos and form his or her own view of our Comment that the presentations by FAA were formulaic recitations of FAA positions, were arbitrarily selective in content, omitted material facts, and were wholly incomplete as information statements for the public.

As such, the Draft EA itself and its accompanying workshops and non-responses to officials' questions are reminiscent of the misleading process and content of unregulated prospective investment "roadshows" that our federal securities laws long-ago outlawed. See Section 6 of these Comments.

Letter 3-12

The FAA emailed a letter dated November 10, but sent on November 12, only after the draft of these Comments had been published on November 10, stating that FAA had never answered the technical questions by elected officials that FAA itself had solicited. That FAA letter was emailed to undersigned elected officials stating that the unanswered technical questions "will be responded to in the Final Environmental Assessment." The FAA's November 10/12 letter doubly deprived residents of the Comment Period information that their elected officials asked for, namely: (1) written responses before the September virtual workshops so that residents could absorb that information and ask questions based upon those responses at those workshops; and (2) information contained in written responses to those questions that residents could also

comment upon as they developed their Comments during the Comment Period for submission before November 20. (See the Appendix to these Comments.)

4. SCOPE: THE DRAFT EA FAILS TO DIFFERENTIATE ITS GENERAL STUDY AREA FROM AN APPROACH STUDY AREA, IGNORES CSPR REALITIES, NOISE CONTOUR IMPACTS, AND SOOT, WITH SEVERAL RESULTANT SINGLE POINTS OF ANALYTICAL FAILURE AND CUMULATIVE ABUSES OF DISCRETION

a. The Draft EA Ignores 4L/4R CSPR Realities

The proposed arrival procedure to Runway 4L originates Southwest of Logan Airport beginning at an altitude of approximately 5,000 feet, at 15 nautical miles from the Runway 4L threshold. (Draft EA, Appendix A page 25). Residents familiar with the area will recognize that as in the Blue Hills area to the south of the Blue Hills Observatory. Runway 4L at Logan Airport sits 1500 feet to the West of its Closely Spaced Parallel Runway (CSPR) counterpart Runway 4R and should be analyzed together with it for reasons explained here.

That 1500 foot separation of Runways 4L and 4R at touchdown has fundamental significance for RNAV analysis because at the point of arrival procedure onset, 15 nautical miles Southwest of touchdown, the proposed 4L RNAV path and the extant 4R RNAV path are 4500 feet apart. The paths' lateral separation decreases at a rate of approximately 200 feet per mile over the 15 nautical miles to touchdown.

Letter 3-13

For that reason, it is important to consider alone and together the combined impacts of aircraft traversing the proposed 4L and extant 4R sky-rails on residents, schools, hospitals, churches and other noise sensitive areas under and adjacent to those CSPR paths. Noise perception depends critically on time and place, coincidence of event (overflight) and proximity. Locations such as Wellesley, Hopkinton, Watertown, Medford, Newton, Kingston or Sherborn may have their own issues, but they are **not** near the 4L/4R conical CSPS paths corridor, nor near planes passing along as it sits in the sky from its point of origin 15 nautical miles Southwest of Logan, where the 4L/4R paths are only 4500 feet apart, to touch down where the 4L/4R runways are 1500 feet apart.

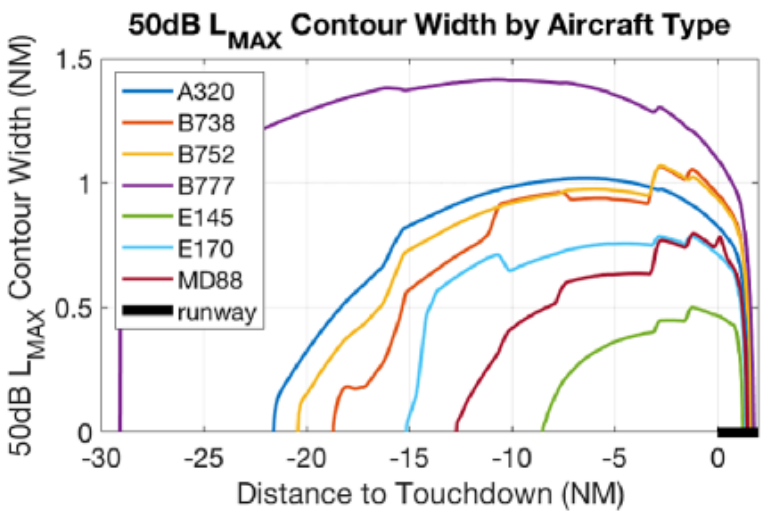
In addition, one needs to take into account two dynamics:

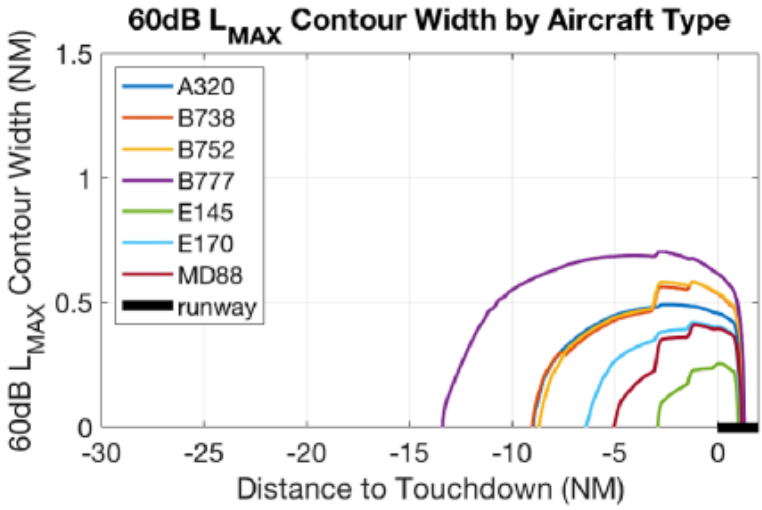
1. that planes proceeding along the 4L path create so-called **noise contours** that reach to the west and east side of each plane; and
2. by doing so, they extend 4L noise to the west of the path and 4R noise to its east; but also by extending 4L noise to the east toward the 4R path, and 4R noise to the west toward the 4L path create a **noise overlap** between the 4L and 4R paths increasing noise occurrence, intensity and duration in that between-CSPRs overflight area.

MIT identified aircraft noise contours as part of its work on the Massport-FAA study referred to earlier in these Comments. The following MIT diagram shows that from distances 15 nautical miles and less to touchdown many aircraft (each identified by type) generate noise contours of

50 and 60 decibels a mile wide (50 decibels) and half a mile wide (60 decibels). That contour width is wide enough to spread across the area between the proposed 4L RNAV and extant 4R RNAV flight paths as planes overfly residential Milton.

Figure 41. Approach L_{MAX} Contour Widths for 7 Fleet Types Following Radar Median Approach Profiles





Letter 3-14

The foregoing paragraphs are prelude to this statement: the Draft EA's scope of analysis addresses none of the foregoing 4L/4R CSPR noise realities. Indeed, runway 4R is mentioned in the Draft EA at its Section 2.1.2 which only states its procedure elements, and in its Section 2.2.2.3 which exclusively addresses aircraft-to-aircraft wake turbulence issues created by 4L/4R closely spaced parallel flight tracks **without** any analyses of 4L/4R closely spaced parallel noise turbulence effects on residents.

In fact, once the Draft EA was published, the undersigned state and municipal elected officials had to request that the 4R RNAV flight path (not even shown by FAA on its "Noise Visualization" tool) be shown there. And each of those undersigned elected officials repeatedly insisted to no avail, that FAA address in writing the CSPR noise contour impacts, and noise metrics appropriate to be considered for noise sensitive areas. This has dispositive effects on the FAA's Draft EA methodology and non-transparency as will be discussed in Sections 5 and 6 of these Comments.

Letter 3-15

Instead, FAA's Draft EA deliberately, and we submit, in abuse of its discretion, uses a single geographical scope for all purposes of its Draft EA called a General Study area (GSA). The FAA's chosen GSA covers **1,173 square miles,** including 27,000 census centroids across locations far away from the proposed 4L RNAV approach path and the combined 4L/4R CSPR paths.

That huge geographical scope is appropriate for one purpose, namely, assessing **overall air traffic compatibility** across all 427,000 Logan Airport flight movements. In other words, assuring that aircraft using a proposed 4L RNAV path will be able to fit in amongst the totality of aircraft movements associated with all Logan arrivals and departures.

Letter 3-16

But, it is inarguable that locations that are **not near** the CSPR RNAV paths' **narrow conical corridor** (4500 feet wide at the start of the procedure and 1500 feet wide at touchdown) are not appropriate candidates for the specific tasks of noise measurement because residents of those locations are neither proximate to the 4L/4R overflights in location or in time. Residents of towns and cities such as Wellesley, Hopkinton, Watertown, Medford, Newton, Kingston or Sherborn and the other almost innumerable inapposite locations listed on FAA's Draft EA hundreds of pages long Appendix B are **not exposed to 4L/4R approach noise impacts.**

For that reason: **the Draft EA is fundamental flawed**. It fails to bifurcate the scope of the Assessment between: (A) overall Logan air traffic compatibility (for which a GSA of its scope is appropriate), versus (B) focused evaluations of the proposed 4L RNAV path's noise and other environmental effects on residents under that path and impacts on residents already under the nearby 4R RNAV path (for which the Draft EA contains no focused scope).

In these Comments, we will use the term Approach Study Area to refer to the Draft EA's missing focused scope defined by the conical corridor defined by the CSPR approach paths and their respective outreaching and inward/overlapping noise contours—none of which the Draft EA addresses. Using FAA's own practice of assigning acronyms, we refer to that as the missing **ASA**.

One might well ask why FAA chose not to prepare, include and present an ASA with associated, focused noise metrics and other environmental effects metrics. On the one hand, such reasoning is irrelevant to the fact that the Draft EA is materially incomplete, and reasons for such abuse of discretion are irrelevant. On the other, it may in part have to do with the following two admissions embedded in the FAA's many Draft EA pages and words.

Letter 3-17

First, at page 32 of Appendix A of the Draft EA contains the following statement.
Note that INM refers to FAA's Integrated Noise Model:

> The INM standard assumption is that, when aircraft are flying an approach below 3,000 feet, they utilize ILS guidance. While true for the vast majority of air carrier approaches at major U.S. airports, it is not true for approaches to Logan Runway 4L. While a non-standard profile could have been developed and used, that was not done because **reliable data for the associated noise emissions for each aircraft involved were not available.**

We submit that lack of reliable noise data for aircraft flying the conical corridor defined by the 4L/4R CSPR approach paths over Mattapan, Milton and Dorchester would certainly impede application of focused, appropriate noise metrics. Hence, no ASA analysis, though lack of data does not excuse the FAA's fatal omission of it.

Second, as discussed in Section 5, when asked at the October 28 FAA virtual workshop why noise monitors were not used as supplement to FAA's sole reliance on a computer noise model across the entire GSA, FAA's respondent replied that noise monitors would only allow **targeted** measurements and are therefore for **not practical**.

Letter 3-18

We agree that noise monitors would allow targeted measurements. That is their very purpose, and if used in the ASA as supplement to the FAA's noise model that is applied only to the GSA, they could have provided actual data otherwise unavailable and without which the Draft EA is materially incomplete. We disagree that such use of monitors is not practical. Many are in place and were not used. In addition, as a supplement, there is a practical alternative. We will address that in Section 5.

Letter 3-19

As discussed in the next Section, FAA did no field work at all for this EA at any time. Use of the existing field noise monitors could have been accompanied by some FAA soot monitoring. When residents living under the 4L/4R CSPS paths use hoses pointed skyward to wash down the clapboards of their houses in the Spring or Summer, they can place a tarp along the base of the wall to protect any shrubs or plants on the ground from the wash. Residents daily see the speckles of jet fuel soot on their white, or yellow, or other paint-colored outer walls. But when they do the wall wash, as their hose does its work, the soot turns to slurry cascading down clapboard after clapboard. And if the tarp began as a white or pale cloth, it becomes a blackened soggy reminder of what their own and their family members' lungs regularly absorb in their CSPR yards and neighborhoods.

The Town of Milton Board of Health registered its opposition to the proposed Runway 4L RNAV (and any use of a visual RVNP) by letter to the Town's Select Board dated October 6, 2020, which we quote here in its entirety and have included in the Appendix to the Comments:

TO: Milton Select Board members

FROM: Milton Board of Health

DATE: October 6, 2020

RE: Detrimental Health Effects of RNAV Plane Flights over the Town of Milton

Letter 3-20

The Milton Board of Health strongly opposes the proposed 4L RNAV and 4L visual approach RNAV. We strongly urge the FAA to halt any further implementation of these RNAV's.

The Town of Milton is 13.3 square miles in area, and is already experiencing an unfair distribution of flights compared to other surrounding communities. Milton residents have the highest number of complaints compared to all other communities.

The Town has experienced an exponential increase in RNAV's. As you know these RNAV's are highways in the sky: they are narrow concentrated paths for

the airplanes to fly along. We are very concerned about the potential health risks associated with repeat exposure. Already residents have told us about their worries, including soot falling on their cars, homes, lawns and gardens from the airplanes fine particulate matter. These airplanes are lower also, many are flying less than 3000 feet.

According to a LAX study, fine particulate matter can cause blocked coronary arteries as well as worsen respiratory diseases like asthma. Those with underlying conditions like asthma who also contract COVID-19 may develop more severe respiratory symptoms.

It should be noted that the LAX study authors stated that their findings could apply to any other large airport. In addition, other studies have demonstrated increases in blood pressure for those bothered by noise from aircraft while they were sleeping.

Letter 3-21

The residents in Milton will be put at a higher risk for illnesses if these proposed changes occur. Additionally, the location of these RNAV's would affect some of the most vulnerable populations including: elderly residents of Fuller Village, Milton Health Care nursing home facility, college students-Curry College, young children- Thatcher Montessori school, Delphi academy, Tucker Elementary School, just to name a few.

In the past, routes have gone out over the water, and not over populated communities and residential areas. These proposed changes will be going over residential areas and effecting homeowners and residents that never previously had routes over their homes.

We ask the Select Board to urge the FAA to consider the above factors and stop the implementation of these proposed RNAV's.

Respectfully,

Caroline A Kinsella B.S.N. R.N.

Caroline Kinsella, BSN, RN, RS
Milton Health Director

b. NEPA Requirements and Failure to Consider Cumulative Impacts

Under the NEPA, the FAA is required to evaluate the potential environmental effects of projects before "undertaking a major federal action which could significantly affect the quality of the human environment." 42 US § 4332(2)(C). In addition to NEPA and the regulations implementing NEPA, the FAA has established its own regulations which set forth the process by

which an EIS or an EA must be conducted and the results evaluated. FAA Order1050.1F, dated July 16, 2015, updates FAA Order 1050.1E to: "1) provide a clear, concise, and up-to-date discussion of the FAA's requirements for implementing NEPA; and 2) clarify requirements in order to facilitate timely, effective, and efficient environmental reviews of FAA actions, including NextGen improvements." Order 1050.1F applies to actions directly undertaken by the FAA and those where the FAA has sufficient control or responsibility to condition the license or project of a non-FAA entity.

Letter 3-22

While no formal scoping process is required for an EA, Order 1050.1F states that items considered within an EA should be similar to those considered within an EIS. We submit that, as set forth below, by not complying with its own internal procedures, and not preparing a thorough and comprehensive EA, or EIS, the FAA has been arbitrary and capricious.

1050.1F, paragraph 2-3.2(b) "Initial Environmental Review" requires that in evaluating the scope of an EA, the FAA must consider:

> (1) Connected actions. Connected actions are closely related actions that: (a) automatically trigger other actions; (b) cannot or will not proceed unless other actions are taken previously or simultaneously; or (c) are interdependent parts of a larger action and depend on the larger action for their justification (see 40 CFR § 1508.25(a)(1), CEQ Regulations). Connected actions and other proposed actions or parts of proposed actions that are related to each other closely enough to be, in effect, a single course of action must be evaluated in the same EA or EIS (see 40 CFR §§ 1502.4(a) and 1508.25(a)(1), CEQ Regulations). A proposed action cannot be segmented by breaking it down into small component parts to attempt to reduce impacts (see 40 CFR § 1508.27(b)(7), CEQ Regulations).
>
> (2) Cumulative actions. Cumulative actions, when viewed with other proposed actions, have cumulatively significant impacts. Cumulative actions should be discussed in the same EIS (see 40 CFR § 1508.25(a)(2), CEQ Regulations). (See Paragraph 4-2.d(3) for a discussion of cumulative impacts).
>
> (3) Similar actions. Similar actions, such as those with common timing or geography, should be considered in the same environmental document when the best way to assess their combined impacts or reasonable alternatives to such actions is in a single document (see 40 CFR §§ 1502.4(b) through (c) and 1508.25(a)(3), CEQ Regulations).

In addition, FAA Order 1050.1F, paragraph 4-2(d) identifies the types of impacts that must be considered in each EA or EIA. It states:

Within each applicable environmental impact category, the EA or EIS must address the following types of impacts (for further details, see the 1050.1F Desk Reference):

> (1) Direct impacts (see 40 CFR § 1508.8(a), CEQ Regulations);

> (2) Indirect (including induced) impacts (see 40 CFR § 1508.8(b), CEQ Regulations); and
>
> (3) Cumulative impacts (see 40 CFR §§ 1508.7, 1508.8, 1508.25, and 1508.27(b)(7), CEQ Regulations, and CEQ Guidance on Considering Cumulative Effects Under the National Environmental Policy Act (January 1997)). Cumulative impacts are those that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, whether Federal or non-Federal. If the proposed action would cause significant incremental additions to cumulative impacts, an EIS is required.

Letter 3-23

Taken together, these two sections of FAA Order 1050.1F mandate that the Draft EA for the Runway 4L RNAV consider the cumulative impact together of the proposed Runway 4L RNAV and its existing CSPR approach Runway 4R RNAV on the residents actually subjected to the combined ASA corridor noise effects noise effects. Instead of performing the required analysis, the Draft EA utterly fails to address cumulative impacts in any meaningful way. The cumulative impacts of imposing yet another concentrated flight path over Milton requires the completion of an EIS, and a full evaluation of the resulting environmental impacts, with a formal scoping process. The Draft EA is insufficient to meet the FAA's requirements to comply with NEPA, the CEQ regulations and guidance, and its own guidance, i.e. Order 1050.1

The EA attempts to address cumulative impacts at section 3.4.8 (p.3-34) and in section 4-4 (p. 4-25 to 4-27). In Section 3.4.8, the FAA dutifully recites:

> Cumulative impacts refer to the impacts resulting from the effects of implementation of the Proposed Action with other actions in the GSA that when combined have the potential to affect the environment. The White House Council on Environmental Quality (CEQ) regulations define a cumulative impact as "an impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions."17 The CEQ regulations also state that cumulative impacts can result from individually minor, but collectively significant actions that take place over a period of time. The Proposed Action is only expected to change the arrival path for a subset of air traffic at the Airport and has no effect on any activities once the aircraft has touched down. This Proposed Action Alternative and the changes related to this Proposed Action Alternative will be considered against past, present, and reasonably foreseeable future actions with direct or indirect effects on the human environment.

Incredibly, the EA then goes on to consider undifferentiated impacts in and around the 1,173 square mile GSA as discussed above.

The FAA's 1,173 square mile GSA dilutes noise impact analysis to the point of elimination of the required focus on cumulative noise impacts upon CSPR dual RNAV path victims (proposed 4L/Extant 4R).

That fatal defect in FAA's Draft EA occurred precisely because FAA includes no targeted analysis of such cumulative noise impacts.

Letter 3-23

Using a GSA for an overall air traffic compatibility purpose, while failing to differentiate an appropriate CSPR approach paths' study area to provide the requisite cumulative noise analysis of the CSPR approach paths' impacts on overflown residents, is the definition of arbitrary and capricious.

The FAA then states, at page 3-34 to 3-35 of the Draft EA (emphasis added) further distracting focus from the actual CSPR noise corridor cumulative overflight impacts:

> Because the Proposed Action concerns an arrival path, aviation-related projects associated with airports within the GSA were emphasized when assessing cumulative impacts; as these projects would be more likely to generate impacts similar to the Proposed Action. **Aside from Boston Logan International Airport, additional projects have been identified within the GSA and these projects at the Airport and the remainder of the airports within the GSA are identified in Table 3.4-7**. Non-aviation projects and plans within the GSA were also identified for consideration in the assessment of cumulative impacts. Regional and local plans for jurisdictions and agencies in the GSA were reviewed to identify projects which could contribute to cumulative impacts.
>
> While these plans have been identified from across the GSA, the environmental consequences from the considered impact categories in this EA will be tabulated and reviewed relative to these projects to ascertain if any of plans meet the definition of cumulative impacts with respect to the Proposed Action. **Given that the project is entirely within the airspace around the Airport,** the potential for cumulative impact for non-aviation projects and plans will be judged relative to any significant or reportable impacts from the considered impact categories. **There are over 100 non-aviation projects that have recently occurred or are expected to occur in the reasonably foreseeable future within the GSA and given the large list**, these projects are listed in Appendix E.

Table 3.4-7 and Appendix E list construction projects such as gate expansions, runway reconstruction, and terminal modifications. This failure to differentiate distant noise occurrences throughout the GSA from noise effects within the CSPR approach path noise corridor (inclusive of construction project noise, if any, heard there) is fatal to the Draft EA because inclusion of the 100+ projects regardless of proximity to that corridor disables any focused overflight noise impacts analysis.

The FAA repeats this approach in section 4-8 if the EA. There the FAA summarily concludes that there are no environmental consequences from the proposed alternative, and then again tries to shift the focus to landside projects. It states, on page 4-26, in part:

> In the research of potential projects at airports within the GSA, some of these projects at the Airport consisted of **projects on the landside area** such as the Logan Airport Parking Project and the Terminal C Canopy, Connector, and Roadway Project. These landside projects impacts would likely be limited to the landside areas but the environmental documents for the Framingham Logan Express Expansion, Logan Airport Parking, BOS Terminal C Canopy, Connector and Roadway, BOS Terminal E Modernization, and Logan Airport Renovations and Improvements at Terminals B & C/E projects were all reviewed for documentation of any noise impacts.

The EA makes only a passing reference to possible aviation noise from the imposition of this new RNAV, when it states, on page 4-27:

> On top of the aviation and non-aviation projects already considered, the Proposed Action Alternative has already been considered for cumulative impacts relative to all of the existing arrival and departure procedures that exist at the Airport. The radar traffic data covering the period November 1, 2018 to October 31, 2019 that was used to build the No Action Alternative includes aircraft flying those existing procedures at the Airport and so the comparison between the No Action and Proposed Action alternatives considers the potential impact from all other existing Airport procedures. As there were no significant or reportable noise increases discussed in Section 4.6, the addition of the Proposed Action to the existing Airport airspace will not contribute to the exceedance of any noise threshold.
>
> As a result, it can be concluded that the Proposed Action Alternative will not create a cumulative impact that will reach the significant or reportable threshold with respect to noise when environmental consequences are considered cumulatively with the consequences of past, present, and reasonably foreseeable projects.

Letter 3-24

By these Comments we reiterate our objection to those asserted conclusions. It is a matter of record that the elected officials submitting these Comments have long protested the imposition of hyper-concentrated RNAV path noise, which this EA will compound. And, for example, the Town of Milton stated its concerns in Section 10 of the following 2017 letter. Not only are there impactful noise increases from the new RNAV, the citizens of Milton have been complaining about such, as set forth in more detail in Section 10 of this letter.

Milton has long been concerned with how the FAA would view cumulative impacts in the EA, since the time which the EA was announced, and shared its concerns with the FAA Regional Counsel Mary McCarthy in a June 23, 2017 letter. That letter stated:

> *Milton is currently impacted by the ongoing overuse of Runway 4R (which already has an RNAV). . . Two new RNAVs for Runway 4L would bring the total number of RNAVs for Milton to five (5). Given Milton's unique circumstances, the FAA should and must analyze the cumulative impact of all five (5) RNAVs that*

either already fly over or are proposed to fly over Milton, and not only the impact of the proposed 4L RNAVs in isolation.

The vast majority of the land use in Milton under the 4L RNAVs is residential. In addition to many single family and multi-family homes, this area also includes a large housing development for senior citizens, a nursing home, Curry College, Milton Academy, Beth Israel Deaconess Hospital – Milton, and three elementary schools. Combining increased throughput and residential neighborhoods increases the impact of aviation on those neighborhoods. The FAA must evaluate these impacts with a critical eye – particularly where schools and nursing homes, which are highly sensitive communities, are under the concentrated RNAV flight paths and impacted by the ongoing RNAV implementations. Moreover, the Fowl Meadow and Ponkapoag Bog, which is an "area of critical environmental concern," as well as portions of the Blue Hills would also lie under the 4L RNAV.

The importance of evaluating cumulative impacts cannot be stressed enough. Runways 4L and 4R are parallel to each other and separated by only 1,500 feet. The homes of many Milton residents are "sandwiched" between the proposed 4L RNAV paths and the 4R RNAV path. Multiple schools and playgrounds also lie under or between these flight paths. As you know, in recent weeks Runway 4R has been closed for renovation. The temporary closure has resulted in either Runway 4L being used more frequently than it has in the past, or pilots using other flight paths that are between or near the proposed 4L RNAV paths and/or the 4R RNAV path. During the temporary closure of Runway 4R, many Milton residents who are typically adversely impacted by the FAA's overuse of the 4R RNAV continued to be adversely impacted by arrivals to Runway 4L. Additionally, the Milton Board of Selectmen heard from residents of Milton who live near the proposed 4L RNAV paths and are newly impacted by continuous airplane noise. Thus, the recent temporary closure of Runway 4R confirms what common sense already tells us -- it is impossible for any environmental assessment of the impact of the two proposed Runway 4L flight paths to have any analytic value unless all of the impacts of Runway 4R (including noise, public health, and all other environmental impacts) are also evaluated at the same time and in conjunction with it, consistent with the cumulative impact requirements as set forth in Order 1050.1F.

Letter 3-25

The FAA has ignored the actual cumulative impacts from the imposition of Runway 4L on overflown approach corridor residents. Such an action is arbitrary, capricious and inconsistent with its obligations and mandates under NEPA.

5. METHODOLOGY

a. Undefined Permitted Use, Opaque as to IMC/VMC, Arbitrary and Misleading "Efficiency" Assumption

Our first set of Comments on methodology draw upon our Comments on Scope and begin with this predicate question:

Letter 3-26

What number and percentage of arrivals on runway 4L will follow the proposed 4L RNAV path in its first year of operation and what rate of growth of those two numbers is expected thereafter? The Draft EA nowhere addresses that question. That is a fundamental methodological flaw and material non-disclosure, as discussed further in Section 6.

Instead, the Draft EA, page 4-16, merely and only states that its analysis assumes that 255 new arrivals will be placed on the 4L RNAV procedure along with an unidentified number of former 15R circling procedure small aircraft flights:

> Only two sets of flights were placed on the backbones representing the new procedure – **the 255 new net arrivals** that will be able to take place in IMC and cannot do so today, **and** the flights that were previously using the ILS **15R procedure** and circling to a visual landing on Runway 4L. All other flights in the No Action Alternative and the Proposed Action Alternative are identical. The noise analysis therefore reflects changes in noise exposure **solely** due to the implementation of the RNAV (GPS) RWY 4L procedure when compared to the No Action Alternative

Is that the entirety of proposed permitted 4L RNAV path use?

At the October 28, 2020 FAA virtual workshop, FAA consultant Donovan Johnson, who joined the Zoom event from Dallas, stated that other than those two 4L RNAV path arrival candidates (255 net new and whatever small aircraft15R conversions occur) flights arriving on 4L "**will follow closely existing flight tracks**."

Letter 3-27

But **nowhere** in the Draft EA does FAA commit that use of the 4L RNAV will be limited to 255 net new arrivals plus former small aircraft 15R circling procedure converts.

Nowhere in the Draft EA does FAA disclose what 4L fight path(s) will be flown by the JetBlue aircraft that formerly flew the now discontinued JetBlue Special RVNP. Nor has FAA responded to the undersigned elected officials' request for written answers to those matters.

i. Opaque as to IMC/VMC Use

Nowhere does the Draft EA state that the 4L RNAV will **not** be used in **VMC** conditions. Such use is inconsistent with the FAA's stated suggestion that the 4L RNAV path's purpose is to **reduce arrival delays during extended IMC** as defined in the Draft EA (page 1-2).

Nowhere, does the Draft EA contain a Table such as that contained in its 2016 IER in which there, **Table 8** states "Estimated Annual Aircraft Use of RNAV Approaches" to Runway 4L, including "Cleared IMC", Cleared VMC, "Advisory VMC" and Total annual aircraft use of 4L RNAV approaches. That table listed **10,860** Cleared and Advisory annual aircraft use of the 4L RNAV path assuming JetBlue aircraft to be included in its analysis.

Letter 3-28

Are we to assume that JetBlue aircraft will not use the proposed 4L RNAV path in VMC conditions, nor any other aircraft, on a cleared or advisory basis?

We reiterate therefore: What "existing" 4L approach flight paths will be used?

Letter 3-29

As we addressed in Section 4, "**reliable data for the associated noise emissions for each aircraft involved were not available"** for 4L VMC approach path aircraft for FAA to use for FAA's INM model in 2016. The Draft EA does **not** state that it was able to obtain reliable actual VMC flight path data to input to its model for this Draft EA? If so **where is it**? If not, this Draft EA has materially insufficient empirical data.

Letter 3-29

Figure 8 of FAA's 2016 IER (Appendix A to the Draft EA page 15) depicts a triangular image in **blue brush-stroke form** of some selected tracks for JetBlue Airlines flights (Airbus A320 and Embraer E190 jets) during April-May of 2013 using the VMC arrival procedure. **Does FAA** represent that such tracks are representative of where JetBlue jets will fly upon the implementation of the proposed 4L RNAV? Or, will JetBlue aircraft be able to use their "FMS to build a course and artificial glide slope if they choose…. depend[ing] on workload and Company requirements" as the FAA represented on March 4 of this year? **If so, that concentration has not been modeled or addressed in this Draft EA.**

Letter 3-30

What would preclude aircraft that fly the 4L RNAV path in extended IMC conditions from building its GPS another coordinates into their FMS and flying that 4L RNAV path in IMC conditions that are shorter than the hours stated in the Draft EA. or in VMC conditions? Nothing in the Draft EA addresses that.

ii. Arbitrary and Misleading "Efficiency" Assumption

Letter 3-31

The Draft EA's stated efficiency purpose for the 4L RNAV procedure is in order to reduce late night arrival delays on runway 4R in "extended IMC conditions" by adding a net of 255 flights a year onto 4L arrivals. For the Draft EA, FAA chose to build a model based on assumed "eligible" weather conditions (6 consecutive hours or 8 out of 10 hours" of below 5 nautical miles visibility with the airport in Northeast configuration at least 80% of that time). Its model found only 7 such days for the baseline year. (Draft EA Appendix D page 10) We submit that residents under the 4L and 4R arrival paths will find the assertion that there are only 7 days a year of extended inclement weather conditions absurd. Will the FAA agree to limit use of the 4L RNAV to an additional 255 flights a year, given its stated purpose?
Or is this model **a stalking horse** for **much more use of the 4L RNAV path in the actual weather conditions we experience?**

This is not Arizona, and there is no need for such **model-itis**. Various public records show that in 2019 there were 130 days reported as days with reportable rain, and there is little variation in that count depending on each recorder's method. Why didn't FAA state the number of **actual days** during which more than x number of Logan 4R arrivals were delayed for more than y hours in the baseline year? And state the number of actual days that more than x number of Logan 4R arrivals were delayed y hours beyond a scheduled arrival time of 10 pm?

Letter 3-32

Perhaps because the **US Department of Transportation Bureau of Transportation Statistics** public records show that during that baseline period **5% of all Logan arrivals were delayed due to weather. That does not suggest** a potential of net **255** new arrivals out of 4L's approximately 12,000 jet and small aircraft arrivals, and Runway 4R's more than 60,000 arrivals in the baseline year, but rather a total of 72000 x.05= **3,600** delayed additional arrivals from which delayed but arrived before 10 pm would need to be calculated—-and there again, the FAA's analyses are baseless and misleadingly materially **understate** the burden shift that any 4L RNAV would impose on the proposed 4L RNAV residents, schools, hospitals, churches and libraries— here **by a factor of 14 x multiplier.**

Without realistic data, the Draft EA model is arbitrary and fundamentally flawed. The FAA's stated "efficiency" purpose for its proposed 4L RNAV procedure is presented in a materially misleading way. It is cause for worry, not a don't worry marginal matter.

b. This Draft EA's Use of DNL: Dead o**N** Arriva**L**

The FAA's methodology as conceived and as applied to the introduction of an RNAV approach procedure for the Runway 4L component of the CSPRs 4L and 4R is materially incomplete, arbitrary and harmful as conceived and as applied in the Draft EA.

Letter 3-33

Like a doctor with discretion who applies the wrong medicine, it will make a bad situation worse. As is addressed in these Comments, the FAA's DNL metric as applied here, and as used as the sole metric for these CSPR approaches, is materially incomplete. Like a partial diagnosis, if used, it can and here does lead to a faulty calibration of the infection…here, of the noise impacts and other health effects.

i. GSA But No ASA and No Field Work

The Draft EA uses a GSA comprised of **1,173 square miles and 1,054,982 people** to develop a Yearly Day-Night Average Sound Level (**DNL**) range of 41.46 to 58.16 dB in the baseline year in Milton, 46.46 to 51.49 dB in Mattapan, and 47.26 to 60.58 dB in Dorchester. (FAA 1050.1f Desk Reference, February 2020 page 11-2).

Letter 3-34

As stated previously, the FAA did **no field work**, relying solely on its AEDT noise model and DNL metric. At its October 28, 2020 Draft EA virtual workshop, FAA's presenter, in response to questions, stated that use of field monitors "would only allow targeted measurements" and therefore are "not practical". We dispute that. **Sample testing** would have confirmed that actual overflight noise impacts are out of line with FAA's analyses.

For example, taking just two of the days between the first and second FAA virtual workshops and looking at field readings of noise impacts of overflights of Milton Hill showed dB readings exemplary of **any** day Runway 4R is in use:

October 25, 2020

4:40 pm	AAL 1569	from Phoenix	A321	72.3 dB
4:51 pm	UAL 385	from Denver	B738	73.4 dB
5:00 pm	AAL 1728	from Charlotte	B738	74.2 db
5:02 pm	AAL 1148	from Dallas	B738	73.7 dB

October 26, 2020

4:30 pm	AAL 2148	from Reagan National	A319	71.7 dB
4:50 pm	UAL 2068	from SFO	B738	74.2 dB
5:05 pm	AAL 1569	from Phoenix	A321	74.0 dB
5:13 pm	UAL 664	from Orlando	A320	75.0 dB
5:17 pm	SWA 950	from BWI	B738	75.4 dB

ii. No Noise Contours

Letter 3-35

Furthermore, despite the fact that Runway 4L overflies "noise sensitive areas" (NSA) as does its CSPR counterpart 4R, FAA developed no **noise contours** to assess cumulative impacts of their combined overlapping noise and health effects. Section 4 of these Comments contains MIT's noise contour graphics and our related discussion. No contours analysis was included in the Draft FAA, and once it was published, the undersigned elected officials informed FAA in writing that they wanted noise contours included in the analysis and a written reply. The FAA ignored that request.

The FAA defines NSA as:

> [a]n area where noise interferes with normal activities associated with its use. Normally, noise sensitive areas include **residential, educational, health, and religious structures and sites, and parks, recreational areas,** areas with wilderness characteristics, wildlife refuges, and **cultural and historical sites**.

(Paragraph 11-5.b.(8) of FAA Order 1050.1F)

And the FAA's Order 1050.1f Desk Reference Section 11-4 states:

> **In some cases, public understanding may be improved with a more complete narrative description of the noise events contributing to the DNL contours with additional tables, charts, maps, or metrics. In other cases, supplemental analyses may include the use of metrics other than DNL.**

FAA did **none** of that.

Letter 3-35

Lastly, FAA's regulation states that it is only **required** to employ noise contour analyses, even as to noise sensitive areas, for its **"larger scale air traffic airspace and procedure actions."** But that: "If the study encompasses **a large geographical area,** it is not recommended that contours be created for the representation of results below DNL 55 dB due to fidelity of receptor sets needed to create an accurate representation of the contour." Here the GSA is 1,173 square miles. However, the narrow ASA corridor that these Comments addresses is much less than 5% of that 1,173 square miles—not "large scale traffic airspace" at all.

iii. Dilutive DNL and No In-Use Metrics

Letter 3-35

Yet, although FAA stated that the Draft EA "will **focus** on a **change-in-exposure analysis,** which examines the change in noise levels as compared to population and demographic information at population points throughout the study area," its over-broad GSA, and failure to include a focused ASA, using the DNL metric without field confirmation of metric supplementation is methodologically fatal to representative change-in-focus analysis. Why?—Because it is materially incomplete as to CSPR impacts precisely because the DNL metric as applied massively **dilutes** the **actual** Runway 4L **in-use** noise impacts by including days of the year when Runway 4L is not in use.

Runways 4L and 4R are used 34% of the days of the year according to Logan Airport published records—not 365 days of the year which the DNL 365 day metric includes. That is, Runway 4R and 4L were in use 121 days of the baseline year (November 1, 2018 to October 31, 2019).

So, consider this: In response to a resident's Freedom of Information Act (FOIA) to FAA in connection with this Runway 4L Environmental Assessment, FAA was required to provide access to its AEDT model. The AEDT model shows that for this Draft EA's **baseline year, the number of flights per day that meet an above 60 dB a day sound level threshold when divided by <u>365 days</u> were: more than <u>150</u> flights a day under the 4R path.**

Consequently, the **above 60 dB sound level** number of flights during **121** days corresponds to residents' **actual experience** of more than **450** flights a day in the CSPR corridor where impacts of both Runway 4R and 4L overflights are experienced.

And corresponding figures under the 4L Triangle, comprised of Beth Israel Hospital, St Elizabeth's Church and Milton Academy, are 66 flights per 365 days and therefore actually more than 190 flights a day that create above 60dB sound level when 4L is in use.

The FAA's methodology does not even begin to address this. And—that is only the beginning of its flawed use of DNL.

Letter 3-36

The AEDT model also shows average time each day of the years' 365 days that residents' experience of noise above the 60dB sound level, which under Runway 4R is more than 50 minutes a day, and therefore more than **150 minutes every day 4R is in use. More than two and a half hours of the sound of planes approaching residents' yards, flying over and receding toward the airport—-building in level from 45dB to over 70 dB and receding as the plane proceeds toward Logan . . . to the extent that on the days as a whole sound level is doubled across the day !**

In fact, 70 dB sound is perceived as **four times as loud** as 50 dB sound, and 60dB sound is perceived as **twice as loud as 50dB sound. For these reasons alone,** the assertion that no further analyses by FAA is needed due to yearly average DNL as low as 45 dB is fundamentally flawed and incomplete analysis as applied by FAA here. Noise rising to a 70dB crescendo then falling repeatedly 450 times, interrupting for two and a half cumulative hours across each overflight day with such annoyance is nowhere addressed by FAA's methodology.

But there is much more to be addressed.

iv. Missing Supplemental Metrics

The FAA's own regulation 1050.1f Desk Reference for noise analysis in its Section 11.4 states:

> DNL analysis **may optionally be supplemented on a case-by-case** basis to characterize specific noise impacts. Because of the diversity of situations, the variety of supplemental metrics available, and the limitations of individual supplemental metrics, the FICON report concluded that the use of supplemental metrics to analyze noise should remain **at the discretion of individual agencies."**

And one FAA's listed supplemental metrics is:

> **Maximum sound level (Lmax) defined as: A single event metric that is the highest A-weighted sound level measured during an event.**

Notably, the US Federal Highway Department (which, like FAA is also part of the US Department of Transportation) also states:

> U S Department of Transportation
> Federal Highway Administration FHWA-HEP-17-053:
> **The LMAX, or Maximum Sound Level, descriptor is the highest sound level measured during a single noise event (such as a vehicle pass by), in which the sound level changes value as time goes on.**

These statements concern noise measurement for **any** noise event analysis such as a single RNAV path noise analysis. And here we have a proposed new CSPR Runway 4L RNAV counterpart to the extant Runway 4R RNAV.

MIT's experts who studied the Logan Runway 4R RNAV path including reference to its present 4L CSPR counterpart wrote a methodological thesis in 2018 that specifically states that the Lmax noise metric is the appropriate measurement tool for supplemental RNAV analyses, superior to the yearly average DNL metric for that analysis, stating that overflight frequency is an important factor driving annoyance. N_{ABOVE} captures overflight frequency effects directly, essentially counting the number of qualifying events experienced by a surface observer over the period of interest. Lmax captures the overflight flight-by highest sound level. Together they measure repetitive high annoyance. Together they are used to target days that the approach path is in use, and in a focused way are also used to assess peak-day use repetitive noise annoyance, as MIT's expert'' study shows.

For those reasons, N_{ABOVE} Lmax 60dB/50dB is a sine-qua-non of this EA analysis for the 4L CSPR RNAV procedure. Consequently, when the Draft EA was published **without** inclusion of Lmax analysis as a supplemental measure to DNL, at residents' request, our elected officials acted.

Letter 3-37

Each of the undersigned state and municipal elected officials **asked FAA in writing** to provide Nabove Lmax dB 60Day/50Night noise metric readings in writing prior to any FAA virtual workshops. They pointed out that the N_{ABOVE} Lmax metric is described by MIT avionics experts as a more appropriate measurement tool for noise effect analyses of proposed RNAV paths overflight noise impact than yearly average DNL for the reason that it focuses on the heightened noise effects of concentrated overflight paths by measuring the number of flights a day that have sound readings of at least 60 dB by day and 50dB—-undiluted by days without overflights. FAA **never did so.**

v. No Wake Turbulence Analyses

The FAA's Draft EA Section 2.2.2.2 contains a recitation of aircraft in-flight wake turbulence. Wake turbulence forms behind an aircraft as it passes through the air. The Draft EA uses many paragraphs to address **wake turbulence modeling** for the CSPR 4R and 4L paths. That analysis is directed to the safety need for lateral and vertical separation of approaching 4R RNAV path (and visual or ILS path) aircraft from the proposed 4L RNAV path.

Approach paths 4L/4R are so closely parallel paths that the wake of a plane on the 4R approach path can affect the wake of a plane on the 4L approach path and vice versa.

But the Draft EA contains **no** analysis of the import of wake turbulence for the proposed 4L RNAV and its likely noise effects due to reduced aircraft separation and therefore increased overflight frequency —that is to say reduced time between aircraft overflying residents on a hyper-concentrated RNAV path by day and with its string of landing lights visible like bright beads stretching from Southwest sky for 15 miles by night.

Letter 3-38

FAA's ongoing efforts to reduce wake turbulence by "optimizing" the lateral and vertical spacing of aircraft will have the effect of enabling more planes to land each day on Runway 4L once it has an RNAV procedure, and enable "optimized" 4R arrivals spacing in relation to 4L aircraft as well. Yet FAA **denied** this in response to a direct question raised at the November 4, 2020 Massport Community Advisory Committee meeting at which FAA made a presentation about the 4L EA and Wake Turbulence stating: There will be no effect on 4L/4R capacity utilization.

However, FAA's own website contains this statement to the contrary:

From FAA website: Wake RECAT. Memphis Airport example 2012

"Last updated by FAA July 27, 2020"

> January 30–**Capacity at Memphis International Airport has increased significantly since the FAA revised wake turbulence separation standards.** Memphis Tower and TRACON were the first facilities to apply the new standards on Nov. 1, 2012.
>
> The re-categorization of separation standards (RECAT) resulted from **a decade of collaboration** between the FAA, DOT/Volpe National Transportation System Center, EUROCONTROL and the aviation industry. Experts in wake turbulence, and safety and risk analysis determined that **decreasing separation** between similar type aircraft **is as safe, or safer than current** standards….
>
> The FAA estimates a **more than 15 percent increase in capacity at Memphis as a result of RECAT.** Overall, the FAA can accommodate nine additional flights per hour using the new separation standards. Lower fuel consumption and fewer emissions are added benefits of this newly gained efficiency.
>
> The FAA plans to expand the new standards to other airports in 2013 and 2014, and estimates **an average capacity increase of 7 percent.** Capacity increases at each airport will depend on the mix of aircraft categories operating at that airport. For more information read the Safety Alert for Operators (SAFO) (PDF).

Will capacity utilization increase on Runway 4L arrivals by 7 percent (the average) or as much as in Memphis, 15 percent? What about 4R?

Letter 3-39

That 2012 statement by FAA was last updated only a few months ago and **remains current today**. For that reason, the Draft EA and FAA's presentation at the MCAC meeting on November 4, 2020 are materially incomplete, and contrary to FAA's wake turbulence re-categorization promotional statements and contrary to reality: an RNAV procedure on Runway 4L will bring more arrivals per hour on 4L and 4R.

vi. No Analysis of Deployed Landing Gear Noise Effects

Letter 3-40

Residents of Mattapan, Milton and Dorchester observe planes routinely overflying them on approach to Logan Airport with landing gear deployed miles **before** each plane passes over the Final Approach Fix (FAF), which for both 4L and 4R is 5 nautical miles from the airport, labeled MTTPN for Runway 4L and MILTT for Runway 4R. For readers, that is located at Cedar Grove (ironically not in Mattapan—perhaps CDRGR would be a better FAA acronym) and MILTT located at the Granite Ave entrance to the Expressway. (There are no markers at either location. It is all GPS coordinates now. The little white painted hut at MILTT was removed years ago.)

To be clear, **we recognize** that the timing of landing gear deployment is **determined at the discretion of the aircraft captain** subject to FAA's **only** requirement that it must be deployed at the FAF. In this section we are **not suggesting** that landing gear must be deployed no earlier than at the FAF. We speak only about noise effects here.

Residents routinely observe landing gear already deployed by overflying aircraft at significant distances from the FAF. Reports of routine observations on Randolph Ave (the numbering of which increases with distance from MTAPN and MILT of aircraft approaching from the Southwest) at locations numbered in the 1151 Randolph Ave range or further are numerous. That is a far distance from the FAFs. Every one of the aircraft listed in Subsection B-i above had its landing gear deployed when it was observed. Notably also, in 2010, a teenager who hid in the landing gear enclosure of the left wing of a Boeing 737 on approach from Charlotte, NC fell to his death in the Brierbrook Road Blue Hills neighborhood when the landing gear was deployed, several miles from the FAF. Aircraft overflying locations such as the Runway 4L Triangle formed by Beth Israel Hospital, St. Elizabeth's Church and Milton Academy, or the Milton Library are repeatedly observed with landing gear lowered.

Letter 3-40

When landing gear is deployed it accounts for 40% of total aircraft noise effect. This has been a concern to residents living under Runway 4L and 4R. For purposes of this Comment, we will leave aside landing gear deployment by propeller aircraft, and address that of jet aircraft. Nothing that follows is reflected in the Draft EA. We state that for these reasons.

In August 2020, after the FAA stated that it will proceed with this EA despite repeated reasoned requests to defer it, Milton's MCAC representative submitted the following FOIA request to the FAA and received this FAA response:

> The Federal Aviation Administration received your FOIA request dated July 14, 2020, to obtain the following information:
>
> **Request "Item 1.)** Data showing the **actual time, aircraft speed, and aircraft location when landing gear deployed by each aircraft that arrived on runway 4L, and the flight number, aircraft type and engine model."**
> **FAA Response: "**We conducted a search within the Air Traffic Organization, Mission Support Services, Eastern Service Center, Operations Support Group. **As a result, records you requested in Item 1 do not exist.**

Letter 3-40

The FAA has no data on when landing gear is deployed.

After determining that FAA has no landing gear deployment data at all, the representative submitted a FOIA request to review modeling inputs for the Runway 4L EA to determine what landing gear deployment assumptions it makes. There is no data or modeling information in the AEDT modeling about landing gear deployment.

Why is that alone a dispositive material methodological failure of this Draft EA?

Current professional studies report that landing gear accounts for about 40% of the total noise emitted by a long-range aircraft in approach conditions. And that it takes approximately 6 seconds to deploy landing gear. (See the references below.)

The FAA requires that an aircraft's landing gear is deployed as the plane passes by the FAF, located approximately 5 nautical miles from the threshold of the applicable runway, as stated above. That landing gear deployment requirement likely derives from FAA aircraft certification criteria by which each model of aircraft and its engine design is certified by means of measurement of noise as the aircraft passes by a certification point that the model assumes is at 1500 feet altitude. **That** is FAF altitude. On a 3 degree glide slope, that altitude places the aircraft 5 nautical miles from the runway threshold in the test modeling, the FAF.

However, as stated above, observation in the field indicates that aircraft on approach very often have lowered their landing gear after passing by the Initial Fix (IF), located 15 nautical miles from the airport threshold and miles before the FAF, not as the plane passes the FAF.

Lowered landing gear of long range aircraft approaching between the IF and FAF, contributing approximately 40% of total noise emitted by those long-range aircraft, is not accounted for in the FAA's noise model used in connection with its EAs. The FAA's modeling assumes only that landing gear are lowered as planes pass by the certification location.

The FAA does not require pilots to report lowering of landing gear at the time they do so, nor does it restrict them from doing so, absent exigent circumstances, prior to the FAF. There is no model data to reflect the realities of when landing gear is actually lowered along the arrival path prior to the FAF, and the Draft EA noise modeling results are fatally flawed for that reason.

Noise from deployed landing gears at higher speeds (i.e., when the aircraft is between the IF and FAF) is not measured as part of an aircraft's noise certification process and not incorporated into the AEDT noise model. Each aircraft's speed between the IF and the FAF, and the differential noise effect of higher speed at IF and thereafter, with landing gear deployed prior to FAF as the plane approaches is **not reflected in the FAA's EA model.**

As mentioned above, lowering a landing gear takes only seconds (six seconds for an Airbus A320) and could be done promptly at the FAF.

The EA modeling does not include any record of the location of lowered landing gear and accompanying **flight speed** with gear lowered for each flight approaching. As residents witness,

when landing gear is being lowered the jet aircraft emits a loud whistling sound—which is highly audible and disturbing. Total noise jumps. They are correct (see below).

Consequently, the contribution to noise impacts of those numerous flights in that important unrecorded regard is not addressed all on the Draft EA. For that reason alone, it does not present the material effects of this proposed Runway 4L procedure and should be withdrawn.

In sum, the FAA's model does not track the material contributing grounds (i.e. observed landing gear noise source and effects) or give any proper consideration to the circumstances of lowered landing gear noise impacts on residents under the fight path between the IF and FAF.
Nor is the noise effect of lowered landing gear at higher aircraft speed between the IF and FAF given any proper consideration.

References:
ARC: JOURNAL OF AIRCRAFT Vol. 55, No. 6, November–December 2018

During aircraft approach to landing, when engines are operating at low thrust, the noise from the landing gear and the wheel bay cavity contributes substantially and can often be a major contributor to the overall noise signature of modern aircraft. Specifically, of the total aircraft noise that radiated from the landing gear, it varies for short-range to long-range aircraft from 31 to 40%, which compares significantly when compared to that from the engine, which ranges from 38 to 42% [4]. Because landing gear is typically deployed at the 1500 ft altitude position on the 3 degree glide slope, radiated noise disturbs communities for many kilometers outside the airport boundary.

[Citation: footnote[4]: Manoha, E., Sanders, L., and De La Puente, F., "Landing Gear Noise Prediction: What Is the Best Method?" Proceedings of 19th CEAS-ASC Workshop on Broadband Noise of Rotors and Airframe, The Aeroacoustics Specialists Committee of the Council of European Aerospace Societies, La Rochelle, France, 2015.

EU ACARE (Advisory Council for Aviation Research in Europe):
In terms of noise impact for the residential areas surrounding airports, takeoff and landing are the most critical phases of the flight. While noise emissions at takeoff are mainly dominated by engines, contributions of all other noise sources are evenly balanced during landing.

For a typical long-range airplane during the approach phase, around 54% of the noise stems from the airframe. Out of these 54%, 76% originate from the landing gear alone (see Figure 2 and Figure 3).

In total, the landing gear accounts for about 40% of the total noise emissions of a long-range airplane in approach conditions.

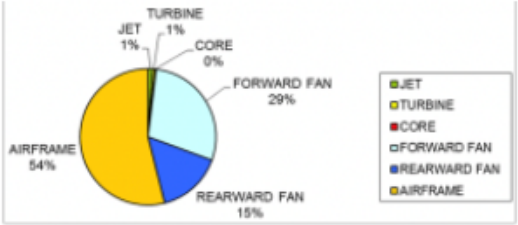


Figure 2 – Contribution to the overall noise emission of a typical long-range jet airplane during the landing phase

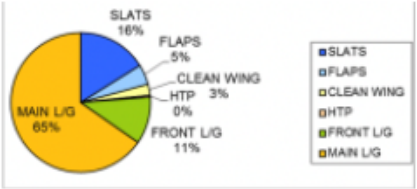


Figure 3 – Decomposition of airframe noise of a typical long-range jet airplane during the landing phase

6. NON-TRANSPARENCY, MATERIAL MISSTATEMENTS AND OMISSIONS, SELECTIVE DISCLOSURES, ARBITRARY REFUSALS TO DISCLOSE, SELF-CONTRADICTORY STATEMENTS

The proposed Logan Airport Runway 4L procedure would add a hyper-concentrated RNAV approach path to the narrow CSPR corridor already bordered by the adjacent extant Runway 4R RNAV path. To understand the fatally deficient recitations of the Draft EA and its associated virtual "workshops," one needs to understand the applicable disclosure standards to be applied, and FAA's disregard of them. That is needed for the following reason.

The Draft EA itself and FAA's associated virtual workshops process contain materially incomplete, selective, and misleading statements as well as material omissions and self-contradictory statements. But consider this: The FAA's practice of arbitrary and capricious scope and methodological analytics leads to, **but should not be confused with**, its **related, coincident** misstatements, and its refusals to disclose material information that would fill-in its material omissions, as well as its failures to address its selective statements' disclosure gaps, all of which creates fundamental objective non-transparency.

So much so that residents potentially impacted by the proposed 4L RNAV approach procedure are not provided with the full and accurately presented set of facts that are reasonably considered important to their understanding of the situation. That is a separate and fatal deficiency in the Draft EA and its process for a distinct set of legal reasons.

Letter 3-41

It is a fundamental tenet of public disclosure, whether under or federal administrative procedures or federal securities disclosure laws, that without full and complete disclosure of material information by the proponent (here the FAA) to the recipient (here affected residents and others) there can be no adequately informed process.

Material misstatements and omissions disable and invalidate a disclosure process such as an EA Draft publication process and its workshops, making it uninformed, prejudicial to recipients, and unlawful.

The standard of disclosure as applied to this EA process is **objective.** The FAA has no discretion to depart from it.

Information reasonably believed by an objective observer to be important to the recipient's understanding of the proposal must be disclosed in full and complete fashion to the recipients. That did not happen here.

What does that mean?

In some instances, there is an independent agency to whom the proponent provides its proposed draft statement of information so that the independent agency can review it and clear it for public distribution, or require it to be amended for completeness and accuracy.

Proposed offerings of investment securities to the public by companies (the proponents of the offering) must go through SEC (Securities and Exchange Commission) pre-clearance review of their information statements by SEC staff for objective completeness and accuracy before the draft information statements can be approved for use by potential investors (the public recipient people and investment firms such as brokerages and pension funds).

In addition, meetings with potential investors, referred to as "roadshows" are held to the **same** standards of accuracy and completeness as the associated information statements.

The FAA has no independent federal agency to which it submits it Draft EA prior to publication for review. But that does not change the objective standard: the FAA cannot provide an objectively incomplete or mis-informative information statement, or workshop assertions, and there is ultimately objective review available in a court of law.

But there is no prior review by an independent federal disclosure watch-dog like the SEC. Nevertheless, the FAA cannot self-police its own draft assessment information statement content.

And in the absence of a federal watch-dog, citizens need to raise their voice to point out disclosure defects in the information that are **objectively important**—that is, **where there is a substantial likelihood that a reasonable recipient would consider the misstated, incomplete or omitted information important in determining how the proposal affects him or her or their family or organization.**

As to information **missing, omitted** from the draft information statement, that requires a determination whether under all the circumstances, the omitted fact would have assumed actual significance in the determination of the recipient of how the proponent's proposal affects him or her or their family or organization.

Letter 3-42

Those are the well-considered principles for determining the material accuracy and completeness of a proponent's information statement and our Comments are made on that basis. We submit that the following Comments address objectively important information that is misstated, incomplete or omitted such that in all the circumstances the missing misstated information would have actual significance to readers' determination of how the proposed 4L RNAV procedure will affect them. It needs to be provided.

Our effort in that regard is presented here, drawing upon the previous Sections of these Comments. The following format draws upon extant federal watch-dog formats.

a. Purpose and Need for the Proposed Action

Section 1.2 of the Draft EA states that **safety and efficiency** are the purposes of the proposed Runway 4R RNAV procedure.

Letter 3-43

Safety: Section 2.1.1 states that safety under the No Action Alternative is jeopardized by the Circling Visual Approach to Runway 4L after conducting ILS Runway 15R approach to visual conditions.

Please address in Section 2.1.1 the additional facts not presented regarding the only three instances referenced in the past 5 years as safety concern examples:

***Each** of these three proffered scenarios occurred during **Visual Meteorological Conditions, not** during **IMC** for which FAA proposes the 4LRNAV to reduce late night arrival delays.*

***Each** of these involved **old** propeller (Cessna 414) and turboprop DeHavilland Dash 8 (turbo-propeller) **small** (8 passengers, 36 passengers, respectively) planes. **Neither** Cessna 414 (built in the 1970s and early 80s) nor DeHavilland Dash 8 (built in the 1980s) are identified by FAA as having any gps capability on board —necessary for RNAV if the 4LRNAV had been in place. In other words, the 4LRNAV does not address that safety issue at all.*

***Each** of the planes was in visual contact with the Logan runways, and the third scenario mentioned concerned excessive speed.*

Letter 3-44

Please explain why the Circling Visual Approach to Runway 4L was not discontinued if it is unsafe and in light of the last sentence Section 2.1.1. of the Draft EA which states that the "Circling Visual Approach to Runway 4L is used far less frequently than other visual approaches to runway 4L."

Letter 3-45

Please explain why FAA did not and cannot discontinue its use if it is unsafe, and in any event why should this be a reason to subject thousands of residents to the noise and pollution impacts

of a concentrated RNAV path rather than mitigating that safety anomaly itself?

Letter 3-46

Please disclose why this safety concern was not addressed without the need for a Runway 4L RNAV procedure previously and explain why the Draft EA did not give equal prominence by including in Sections 1.2 and 2.1.1 the disclosure contained in its Appendix D page 8 that "based on consultation with Boston Consolidated Tracon (A90) personnel, ***it is not expected*** *that [the ILS 15R circling transition to Runway 4L] will continue to be used."*

Letter 3-46

Please address whether Runway 4L and/or Runway 4R can be used in VMC for aircraft that have previously used the ILS 15R circling transition to Runway 4L.

Letter 3-47

Please amend Section 1.2 of the Draft EA to explain to readers concisely why, if the ILS 15R circling transition to Runway 4L will not continue to be used, and if Runway 4L and/or Runway 4R can be used in VMC for aircraft that have previously used the ILS 15R circling transition to Runway 4L, why there is a safety based need for the proposed 4L RNAV procedure. Please concisely explain it, and do so in Section 2.1.1 without placing any material aspect of the statement in an appendix. Specifically explain why only a proposed 4L RNAV procedure can address the safety need.

Efficiency: The Draft EA states in its Section 4.6.6 at page 4-16 that:

> the Proposed Action Alternative… **includes an additional 255 net arrivals** annually to the Airport that are enabled by **increased efficiency at the Airport during IMC.** An associated 255 net departures annually are also included in the noise analysis. Only two sets of flights were placed on the backbones representing the new procedure – **the 255 new net arrivals that will be able to take place in IMC** and cannot do so today, and the flights that were previously using the ILS 15R procedure and circling to a visual landing on Runway 4L. **All other flights in the No Action Alternative and the Proposed Action Alternative are identical.** The noise analysis therefore reflects changes in noise exposure **solely** due to the implementation of the RNAV (GPS) RWY 4L procedure when compared to the No Action Alternative. A more detailed explanation of all of these modeling assumptions and how they were arrived at is available in Appendix D.

Letter 3-48

Please note that readers of the foregoing statement need to page through literally scores of pages of centroids listings in Appendix C in order to find material information that completes the above statement. Please note that Appendix C can be placed last in the Draft EA materials so that the present Appendix D is more accessible.

Letter 3-49

Please revise Section 4.6.6 to state there the following (from Appendix D):

[A] net total of 255 annual operations will be added to traffic at the Airport to represent additional operations that would currently be canceled under the No Action Alternative. This will occur because the additional gain in efficiency attributable to the Proposed Action increases

the Airport's hourly Average Arrival Rate (AAR) and allows additional arrival operations. These operations comprise:
** An **additional 359 annual arrivals to runway 4L,** representing flights that are no longer canceled or delayed due to additional runway throughput available with the RNAV (GPS) RWY 4L IAP.*
** A **reduction of 104 annual arrivals to Runway 4R**, representing flights that can now use Runway 4L earlier in the day due to increased throughput and no longer need to wait to use Runway 4R.*

Please note that the above stated calculation of how a total of 255 net added annual operations will be added to traffic at the airport deserves greater prominence in the Draft EA and should be concisely stated in Section 1 of a revised Draft EA.

Letter 3-50

Please confirm** that **nowhere in the Draft EA does FAA commit that the proposed 4L RNAV path will only be used in IMF conditions to provide a net total of 255 added annual operations at the airport.

If FAA commits to that, state so explicitly and prominently in Section 1 of a revised EA Draft.

If FAA does not commit to that, state so explicitly and prominently in Section 1 of a revised EA Draft.

Letter 3-51

Please see our related Comments below regarding the need to inform readers of the Draft EA of the noise and other health impacts of each of the foregoing eventualities:

—use of the 4L RNAV procedure only in IMF conditions limited to a net total of 255 added annual operations with no other changes in 4L operations; or

—use beyond IMC conditions and/or other permitted changes in operations such as, but not limited to, elective FMS use of gps guidance or cleared or advisory use of the proposed Runway 4L RNAV procedure in VMC.

In either event, prominent disclosure in plain English with accompanying graphics and table are required in order to provide objectively complete and accurate information.

b. Scope

Letter 3-52

The Draft EA, at various places states that FAA is using a **single GSA.**
That GSA is stated to be comprise an area of **1,173 square miles** (Section 3.2.1) **for "purposes of assessing overall air traffic compatibility" across all 427,000 Logan Airport flight movements** (Section 3.4.6.2), and **27,080 census blocks** (Section 3.4.6.1) that include **1,054,982 people** (Table 3.4-5)

Please state prominently in one paragraph those combined GSA characteristics.

Please note prominently and explicitly that use of a single 1,173 GSA does not bifurcate

Letter 3-53

the scope of the Assessment between (A) overall Logan air traffic compatibility, versus (B) focused evaluations of the proposed 4L RNAV path's noise and other environmental effects on residents under that path and impacts on residents already under the nearby 4R RNAV path.

Letter 3-53

Please revise the Draft EA to explain to its readers that the FAA is permitted to supplement its analyses to better focus on noise and other environmental impacts by using a supplemental study area for those purposes. Here we refer to such a supplemental study area as the Approach Study (ASA).

Letter 3-54

Please provide supplement the Draft EA to include disclosure focused on the objectively material combined impacts of aircraft traversing the proposed 4L and extant 4R RNAV approach paths (and their Visual and ILS counterparts) on residents, schools, hospitals, churches and other noise sensitive areas under and adjacent to those CSPR paths.

Letter 3-55

Please address in a revised Draft EA that noise perception depends critically on time and place, coincidence of event (overflight) and proximity.

Letter 3-56

Please acknowledge and address in a revised Draft EA that locations such as Wellesley, Hopkinton, Watertown, Medford, Newton, Kingston or Sherborn may be relevant to overall Logan air traffic compatibility assessment, but that they are ***not*** *near the 4L/4R conical CSPS paths corridor, nor near planes passing along those approach paths from its point of origin 15 nautical miles Southwest of Logan, where the 4L/4R paths are only 4500 feet apart, to touch down where the 4L/4R runways are 1500 feet apart.*

Letter 3-57

Please describe in a revised Draft EA the material information concerning the noise and health impacts of planes passing along those CSPR approach paths from its point of origin 15 nautical miles Southwest of Logan, where the 4L/4R paths are only 4500 feet apart, to touch down where the 4L/4R runways are 1500 feet apart.

In doing so, please take describe two important aircraft noise dynamics that the Draft EA omits:

(1) *that planes proceeding along the 4L path create so-called* ***noise contours*** *that reach to the west and east side of each plane; and*
(2) *by doing so, they extend 4L noise to the west of the path and 4R noise to its east; but also by extending 4L noise to the east toward the 4R path, and 4R noise to the west toward the 4L path create a* ***noise overlap*** *between the 4L and 4R paths increasing noise occurrence, intensity and duration in that between-CSPRs overflight area.*

Letter 3-57

Please describe the approximate area of the ASA, from its origin 15 nautical miles Southwest of Logan, where the 4L/4R paths themselves are only 4500 feet apart, to touch down where the 4L/4R runways are 1500 feet apart and also including its respective noise contour areas to the west and east of the 4L/4R CSPR approach corridor.

c. Methodology

Letter 3-58

Permitted Use: The Draft EA does not define and state what the permitted use of the proposed 4L RNAV will be. **So that readers of it can understand what the expected use of the proposed Runway 4L RNAV:**

Please state in an early and prominent section of a revised Draft EA:

(1) *the total number of arrival aircraft that will use the proposed 4L RNAV procedure in its first, second and fifth years of operation;*
(2) *the percentage of Runway 4L arrivals that will use the proposed Runway 4L RNAV procedure in its first, second and fifth years of operation;*
(3) *the total number of arrival jet aircraft that will use the proposed 4L RNAV procedure in its first, second and fifth years of operation;*
(4) *the percentage of Runway 4L jet aircraft arrivals that will use the proposed Runway 4L RNAV procedure in its first, second and fifth years of operation.*

Letter 3-59

So that readers of the Draft EA can understand the assumptions, if any, underlying the statements to be made upon revision of the Draft EA regarding each of the foregoing 4 total and percentage numbers, ***state any important assumptions made for each, and in doing so:***

(a) state separately what assumptions are made about permitted use, including IMC use, VMC use, and use under any meteorological conditions of FMS-guided use of the Runway 4L RNAV path by aircraft other than the 359 arrival aircraft that the Draft EA presently references;

(b) state clearly what assumption is made, if any, about the impact of ***Covid-19 pandemic*** *induced uncertainties and flight curtailments in the statements to be made upon revision of the Draft EA regarding each of the foregoing 4 total and percentage numbers;*

(c) if uncertainty due to ***Covid-19 pandemic circumstances have any influence on the degree of the FAA's confidence in the statements to be made*** *upon revision of the Draft EA regarding each of the foregoing 4 total and percentage numbers, state in the revised Draft EA what that influence is; and*

(d) state why the FAA is proceeding with this EA at this time when Runway 4L and Runway 4L arrivals are curtailed to a small fraction of baseline year operations and explain fully in the revised Draft EA why the FAA refused to postpone this EA process as have been repeatedly requested by the Runway 4L and 4R communities' federal, state and municipal officials if Covid-19 circumstances materially affect FAA's ability to answer matters (1) through (4) with confidence.

The Draft EA nowhere states that the 4L RNAV procedure will not be used in VMC conditions.

The Draft EA does not contain a Table such as that contained in its 2016 IER in which there, **Table 8** states "Estimated Annual Aircraft Use of RNAV Approaches" to Runway 4L, including "Cleared IMC", Cleared VMC, "Advisory VMC" and Total annual aircraft use of 4L RNAV

approaches. That table listed **10,860** Cleared and Advisory annual aircraft use of the 4L RNAV path assuming JetBlue aircraft to be included in its analysis.

Letter 3-60

Please revise the Draft EA to state whether the Runway 4L RNAV Procedure will be used in any way by any aircraft in VMC Conditions.

Letter 3-61

Please revise the Draft EA to add a table stating "Estimated Annual Aircraft Use of RNAV Approaches" to Runway 4L, including "Cleared IMC", Cleared VMC, "Advisory VMC" and Total annual aircraft use of 4L RNAV approaches so that readers can understand those matters.

Letter 3-62

Please similarly revise the Draft EA to state whether JetBlue aircraft will or will not use the proposed 4L RNAV path in VMC conditions and state separately whether any other airline's aircraft included in that table will be permitted to use the proposed Runway 4L RNAV path on a cleared or advisory basis and in what condition or conditions.

Letter 3-63

Please revise the Draft EA to specifically state what VMC approach path or paths Jet Blue aircraft will be permitted to fly in VMC conditions and whether in light of the fact that JetBlue aircraft previously used the Special RVNP procedure, JetBlue air craft will be permitted to use their FMS to build a path and glide slope. If so, state whether or not the FAA will conduct an EA regarding such procedure in advance of its use.

Noise Emissions Data: In light of the statement at page 32 of Appendix A to the Draft EA that:

> **The INM standard assumption is that, when aircraft are flying an approach below 3,000 feet, they utilize ILS guidance.** While true for the vast majority of air carrier approaches at major U.S. airports, it is **not true for approaches to Logan Runway 4L.** While a non-standard profile could have been developed and used, **that was not done because reliable data for the associated noise emissions for each aircraft involved were not available.**

Letter 3-64

Please describe how, if at all, the FAA's AEDT model developed a non-standard profile for approaches to Runway 4L for the associated noise emissions for each aircraft; and if any reliable data were used, state what it is and how it was obtained.

Letter 3-64

Please describe whether FAA used reliable data for the associated noise emissions for each aircraft based on any data specific to noise emissions over the ASA's arrivals corridor and its adjacent east/west noise contour areas.

Letter 3-65

Please explain in the Draft EA why no noise monitors were placed, on a supplemental basis in the ASA to measure the associated noise emissions for each aircraft involved in the proposed 4L RNAV procedure, and/or as a check on the reliability of AEDT modeling.

Letter 3-65

If the answer to the foregoing request is that field work use of a monitor for such purpose is not or would not be "practical" explain why, and if cost is a factor, state that cost per monitor, and state whether FAA has the ability to use a portable monitor that can test different locations at different times.

Letter 3-66

Soot and Particulates Emissions Data: The Draft EA nowhere states that the FAA did any sample testing of aircraft engine emission particulates in the CSPR proposed 4L-extant-4R RNAV corridor and that corridor's aprons to the west and east sides of it.
Closely Spaced Parallel Runway approach corridors pose a rare and exacerbated coincidence of hyper-concentrated noise and emissions.

That reality renders sole use of GSA of 1,173 square miles arbitrary and capricious as evidenced by the Draft EA's reliance on its assertion that 13 times as many people reside outside the CSPR corridor and its contour aprons as under it. That 13-to-1 assertion bears no reasonable relationship to the hyper-concentrated ASA CSPR realities that are not extant in the areas outside of the ASA. It attempts to dilute noise and pollutant impact analysis by ignoring hyper-concentration.

Please revise the Draft EA to include measurement and health expert evaluation for the proposed Runway 4L RNAV/extant Runway 4R RNAV CSPR ASA of: aircraft engine emission particulate residue; relevant resident interviews; house clapboard and other surfaces' aircraft engine emission soot accumulation sampling; and other measurements as directed by health expertise.

Letter 3-67

FMS: As quoted in Section 2A of these Comments on March 4, 2020, in response to a direct written question, the FAA Regional Administrator stated:

> When pilots are aware that they will be getting a Visual Approach to Runway 4L, they have the ability in their FMS to build a course and artificial glide slope if they choose. It would all depend on workload and Company requirements.

The Draft EA does not negate that statement and leaves a reader uninformed on this fundamentally important question: will pilots be able, depending on workload and their Company requirements, to build a course and artificial glide slope if they choose?

Please revise the Draft EA to state yes or no to that question. Please concisely and clearly explain the import of that answer for Runway 4L approach path location and concentration in the revised Draft EA. Include in that statement whether such an FMS-built path can become a concentrated repeatedly used flight path used by that Company's flight operations. If so, state what prior FAA review, if any, will occur and what prior advisory information will be provided to residents of the ASA, including how much advance public notice will be given, and by what means, by the FAA of any proposed FMS-built path.

Letter 3-68

DNL: *Please revise the Draft EA to state the following clearly, prominently and explicitly in* ***bold type****:*

DNL is based on the yearly average annual day whether or not the applicable runway is in use.

For that reason, DNL dilutes the noise impacts of days in use by including days without use, thereby reducing overflights' noise impact on days in use by including in the DNL the noise impact calculation days when there are no aircraft overflying, thereby adding zero overflight noise impact for each such day and reducing annual noise impact analysis accordingly.

Letter 3-69

Please add to that revised Draft EA statement that due to its logarithmic nature, A-weighted decibel readings of 50dB, 60dB and 70dB scale as follows:
*60dB is perceived as **twice** as loud as 50dB;*
*70dB is perceived a **four** times as loud as 50dB and **twice** as loud as 60dB.*

Letter 3-70

Please include in that statement that FAA's AEDT model for the baseline year indicates that more than 150 aircraft overflew Milton Hill residents on an average annual day during the baseline year exposing residents to 60 dB or higher.

Letter 3-71

*Please include in that statement that Logan Runways 4L and 4R approach procedures are **in use 34% of the year** according to the public Massport website. Therefore, and accordingly the significant extent that DNL dilutes days of noise effect can be determined by multiplying the DNL metric's yearly annual average days stated factor by the inverse of the yearly percentage of **days in use.***

*Please state that for that reason when Runways 4R and 4L were in use during the baseline year **in-use noise exposure** based on FAA's AEDT model indicates that Milton Hill residents were overflown by more than 450 flights with noise exposure above the 60dB level.*

Letter 3-72

*Please add that according to the FAA's AEDT model on the average annual day (including when Runways 4L and 4R were **not** in use Milton Hill residents were subject to more than 50 minutes of noise above the 60dB level, and therefore on days when Runways 4L and 4R were in use in the baseline year those residents were subjected on average each and every in-use day to more than two hours and half hours of noise above the 60dB level as planes overflew in consecutive order at times 50 or 60 seconds apart during peak hours of the day and night.*

Letter 3-73

Please add that corresponding figures under the 4L Triangle, comprised of Beth Israel Hospital, St Elizabeth's Church and Milton Academy, are 66 flights per 365 days and therefore actually more than 190 flights a day creating above 60dB sound level when 4L is in use.

Letter 3-74

Resident dB readings of jet engine overflights during this Comment Period regularly exceed **70dB** as referenced in Section 5B-1 of these Comments.

Please revise the Draft EA to include field work measurements of peak dB readings for jet aircraft on approach to Runway 4L and 4R, during a time period following these Comments and prior to the revised EA, listing the time of each siting, flight number, departure airport, and location of the aircraft at the time of siting.

For reasons stated below, include whether the aircraft's landing gear were observed to be deployed during the siting for each aircraft.

Supplemental Metrics and Noise Contours: The Draft EA contained no supplemental metrics and no noise contours despite repeated written requests of the undersigned federal, state and local elected officials and despite the need for them. Without such metrics, the use of the stated GSA without supplement of an ASA combined with use only of the yearly average day DNL metric without supplemental noise metrics and noise contours renders this Draft EA's noise methodology as applied arbitrary and capricious as well as materially incomplete and misleading.

Please revise the Draft EA to include this statement (highlighted in bold and prominently placed within its noise analysis section):

Letter 3-74

"FAA's Order 1050.1f regarding Environmental Impacts, Section 11.4 states:
DNL analysis may optionally be supplemented on a case-by-case basis to characterize specific noise impacts**. Because of the diversity of situations, the variety of supplemental metrics available, and the limitations of individual supplemental metrics, the FICON report concluded that the use of supplemental metrics to analyze noise should remain **at the discretion of individual agencies.

Supplemental noise analyses are most often used to describe aircraft noise impacts for specific noise sensitive locations or situations and to assist in the public's understanding of the noise impact.** The selection of supplemental analyses will depend upon the circumstances of each particular project. In some cases, public understanding may be improved with a more complete narrative description of the noise events contributing to the DNL **contours with additional tables, charts, maps, or metrics. In other cases, supplemental analyses may include the use of metrics other than DNL. There is no single supplemental methodology that is preferable in all situations and these metrics often do not reflect the magnitude, duration, or frequency of the noise events under study."

In light of the hyper-concentrated noise impacts in the ASA of the CSPR proposed Runway 4L RNAV approach procedure and its extant 4R RNAV counterpart:

Letter 3-74

Please revise the Draft EA to disclose the Nabove 50 flights peak period Lmax 60dB Day and 50dB Night sound level readings for baseline year and the first, second and fifth years of operation of the Runway 4L procedure and the Nabove 50 flights peak period Lmax 60dB Day and 50dB Night sound level readings for baseline year and separately for those same first, second and fifth years of corresponding operation of the extant Runway 4R RNAV procedure.

Please revise the Draft EA to point out the Nabove Lmax metric is described by MIT avionics experts as a more appropriate measurement tool for noise effect analyses of proposed RNAV paths overflight noise impact than yearly average DNL for the reason that it focuses on the heightened noise effects of concentrated overflight paths by measuring the number of flights a day that have sound readings of at least 60 by day and 50dB—undiluted by days without overflights.

Wake Turbulence Capacity Impact: The Draft EA uses many paragraphs to address wake turbulence modeling for the CSPR 4R and 4L paths. That analysis is directed to the safety need

for lateral and vertical separation of approaching 4R RNAV path (and visual or ILS path) aircraft from the proposed 4L RNAV path.

Approach paths 4L/4R are so closely parallel paths that the wake of a plane on the 4R approach path can affect the wake of a plane on the 4L approach path and vice versa. But the Draft EA contains **no** analysis of the import of wake turbulence for the proposed 4L RNAV and its likely noise effects due to reduced aircraft separation and therefore increased overflight frequency — that is to say reduced time between aircraft overflying residents on a hyper-concentrated RNAV path by day and with its string of landing lights visible like bright beads stretching from Southwest sky for 15 miles by night.

Letter 3-75

Please revise Section 2.2.2.2 of the Draft EA to disclose that FAA's ongoing efforts to reduce wake turbulence by "optimizing" the lateral and vertical spacing of aircraft ***will have the effect of enabling more planes to land each day on Runway 4L once it has an RNAV procedure, and enable "optimized" 4R arrivals spacing in relation to 4L aircraft as well.*** *State the estimated increase in arrivals on Runways 4L and 4R resulting from the proposed Runway 4L RNAV procedure and wake turbulence optimization of Runway 4L and 4R approach path flights.*

*Please disclose that due to its Wake Turbulence Re-Categorization initiatives, FAA currently estimates "****an average capacity increase of 7 percent****" at applicable US airports, and achieved a* ***15 percent increase in capacity at Memphis airport****, and:*

Please state the estimated percentage increase in arrivals on Runways 4L and 4R respectively and combined resulting from the proposed Runway 4L RNAV procedure and wake turbulence optimization of Runway 4L and 4R approach path flights.

Letter 3-76

Landing Gear Deployment: The Draft EA contains no mention of noise impacts of deployed landing gear on approach path noise.

Please revise the Draft EA to disclose that professional studies show that landing gear, when deployed, comprises 40% of total aircraft noise.

Please revise the Draft EA to disclose that FAA's AEDT noise model has no "data showing the actual time, aircraft speed, and aircraft location when landing gear deployed by each aircraft that arrived on runway 4L, and the flight number, aircraft type and engine model."

Please revise the Draft EA to disclose that for those reasons the AEDT model inputs to any noise metric are not reflective of landing gear deployment noise impacts, and for that reason are likely to materially understate aircraft approach noise impacts within the ASA as applied in this matter.

Please revise the Draft EA to state that residents' of the ASA routinely report that sighting Runway 4L and 4R approach path aircraft with lowered landing gear miles to the Southwest of the MTAPN and MILTT final fix location and mark on the loudness of such noise.

Please revise the Draft EA to include any FAA field work it does to confirm this.

d. Process

Letter 3-77

The Draft EA needs to be candid and accurate regarding the Draft EA process.

Please revise the Draft EA to disclose that the proposed 4L RNAV procedure has been highly controversial since inception and remains so. That is a fact and not for FAA to claim otherwise.

Please revise the Draft EA to state that the MCAC repeatedly requested that this EA process be deferred and candidly state in the text of the revised Draft EA each of the Covid-19 related reasons stated in those requests. State also the actual low number of Runway 4L jet arrivals per month beginning with April 2020 (e.g. only 7 jet arrivals that month).

Please disclose that at September meetings with elected officials the FAA's Regional Administrator stated that those officials could submit technical questions for FAA to answer regarding the proposed 4L RNAV and that the officials did so, in writing asking for written response from the FAA before the FAA's two virtual workshops.

Please disclose that the FAA never answered those questions in writing at any time, nor during either workshop other than drawing a single line onto its visualization representing the Runway 4R RNAV path which it otherwise ignored. Please include by quotation each of the elected officials' written questions by adding a new prominent Section 1.1 to the initial pages of the Draft EA.

Letter 3-78

We reiterate that the Virtual Workshops are held to the same disclosure standard as the Draft EA and that elected officials' questions were not responded to there or otherwise addressed.

Please disclose the written questions that were submitted by email or text or other means for each virtual workshop.

Please revise the Draft EA to provide a new appendix with a transcription of any question on which an FAA representative, consultant or pilot remarked and all remarks stated upon that respective question.

Please revise the Draft EA to state that the FAA's technical workshop team members, including its consultants, from Washington D.C. Virginia, Dallas and Raleigh-Durham never visited Mattapan, Milton and Dorchester in connection with this EA, and, because of COVID-19 restrictions, never conducted an in-person session with residents, which is the standard process for a Draft EA in non-Covid-19 times. Residents were unable to have their own in person meetings on this matter due to Covid-19 restrictions.

And there are some who say, in Europe and elsewhere, we can work with the Communists. **Let them come to Berlin.**

And there are even a few who say that it is true that communism is an evil system, but it permits us to make economic progress. **Let them come to Berlin.**

We say:

There are some who say that RNAV is the wave of the future. **Let them come to Milton, Mattapan and Dorchester.**

And there are some who say, in airline headquarters and airfreight offices, we can work with the FAA. **Let them come to Milton, Mattapan and Dorchester.**

And there are even a few who say that it is true that the FAA is a closed system, but permits us to make progress. **Let them come to Milton, Mattapan and Dorchester.**

The FAA-residents dynamic needs to change.

8. THE EA FAILS TO INCLUDE CONSIDERATION OF ENVIRONMENTAL JUSTICE IMPACTS

Letter 3-79

The Draft EA fails to assess and present environmental justice ("EJ") impacts and alternatives, as required by FAA Order 1050.1F, which sets forth the FAA's policies and procedures for compliance with the National Environmental Policy Act. The Draft EA also fails to comply with Executive Order 12898, "Federal Actions to Address EJ in Minority and Low-Income Populations," by providing (1) meaningful public involvement by minority and low-income populations and (2) analysis, including demographic analysis, which identifies and addresses potential impacts on those populations that may be disproportionately high and adverse.

Milton borders the Boston neighborhoods of Mattapan to the west and Dorchester to the north. Mattapan, Dorchester and the western part of Milton have large minority populations and low-income populations. The FAA is aware that the geographic area overflown by arrivals to the closely-spaced parallel runways 4L and 4R includes communities with populations exceeding the poverty threshold and/or the minority threshold. See Attachment 4 to the FAA's March 20, 2017 Air Traffic Initial Environmental Review (relating to the reconstruction of Runway 4R-22L, the temporary implementation of an RNAV approach to runway 4L, and a "side-step" maneuver to the RNAV approach for runway 4R). The communities shown in said Attachment 4 include Mattapan, Dorchester and parts of Milton.

Both FAA Order 1050.1F, Paragraph 2-5.2.b, and Executive Order 12898 require the FAA to provide an opportunity for meaningful public involvement by minority and low-income populations on proposed actions. For the reasons stated above in Section 2.B, residents of Milton, Mattapan and Dorchester have had no meaningful opportunity to provide input on the FAA's analysis of the impacts of the Draft EA. Since the onset of the COVID-19 pandemic in February, 2020, residents of Mattapan, Dorchester and parts of Milton have dealt with a high

incidence of COVID-related illness and economic disruption. Social gatherings have been restricted, preventing residents from meeting to confer about the Draft EA. Many residents do not have internet access, and public libraries have been either closed or limited to short visits.

In Section 3.4.7 of the Draft EA, the FAA noted that its environmental analysis of the proposed 4L RNAV must consider "the potential of the Proposed Action Alternative to cause disproportionate and adverse effects on low-income or minority populations. In the event that adverse impacts are determined, applicable mitigations will be explored in order to avoid or minimize disproportionate impacts."

In Section 4.7 of the Draft EA, the FAA concluded that:

> Under the Proposed Action Alternative, there are no Census block groups of low-income concern that would exceed any applicable thresholds of significance for noise impact or air quality.
>
> While the FAA does not define a threshold of significance associated with visual impacts, visual impacts associated with the 255 net new flights, as well as the flights that previously flew the ILS RWY 15R and transitioned visually to a landing on Runway 4L that now use the RNAV (GPS) RWY 4L approach in the Proposed Action, occur over an area with a high concentration of EJ Census block groups.
>
> Additionally, it should be noted that the small increase in CO, associated with the 255 new flights, while marginal in the context of total Airport CO, emissions, does similarly occur over an area with a high concentration of EJ Census block groups. However, these new arrival operations comprise less than 0.5% of all arrivals at the Airport and given the high volume of flights currently using the Airport, any potential impacts are likely to be small and not detectable to most of the overflown population. As such, no persons of low income or minority populations are expected to experience disproportionately high and adverse effects. Accordingly, under the Proposed Action Alternative there would be no significant EJ impacts.

Letter 3-80

The EJ analysis underlying the Draft EA considers only the "255 net new flights" that the FAA anticipates will use the Runway 4L RNAV in the first year of its operation (i.e., 359 minus 104 that otherwise would have arrived to Runway 4R). By taking into account only 255 flights, the FAA's EJ analysis is incomplete and inadequate. The FAA failed to consider the 4L JetBlue special path that flew over Milton, Mattapan and Dorchester and where those aircraft will fly in VMC and IMC if the 4L RNAV procedure is adopted, using Jet Blue, FMS or otherwise. Moreover, the Draft EA contains no data or images of flight path tracks over Mattapan in the baseline comparison year.

At the October 23, 2020 workshop, an FAA representative stated that the 4L JetBlue special path has not been used since 2014 and will be cancelled if the proposed 4L RNAV is implemented. However, on many other occasions, FAA representatives have stated that any airline that has an

arrival path programmed into its flight management system can request and obtain permission to use such path. Therefore, the former 4L JetBlue special path, even if it were to be officially "cancelled", can be expected to remain in use by JetBlue and potentially other airlines. Yet, the Draft EA provides no information or analysis concerning the number of flights that would continue to utilize the 4L JetBlue special path (or use the 4L RNAV in lieu of it). Therefore, residents of Mattapan, Dorchester and the western part of Milton and their respective elected officials have no way of knowing what impact this "back door" use of the 4L JetBlue special path will have upon them.

Letter 3-81

At the FAA's October 28, 2020 workshop, a Milton official asked the following question: "***What is the expected number of jet aircraft that will pass over Mattapan in the first year of operation after the proposed 4L RNAV path is implemented?***" The FAA could not answer this question. An FAA representative merely repeated that 359 flights are expected to use the 4L RNAV in its first year of operation. That fact is irrelevant to the question because the proposed 4L RNAV path does not fly over Mattapan. The Draft EA should have analyzed the impacts, including EJ impacts, of the 4L JetBlue special path as well as the anticipated use of the 4L RNAV. Not doing so is another fatal flaw in this Draft EA.

Letter 3-82

9. THE FAA FAILS TO IDENTIFY, EXAMINE AND PURSUE AVAILABLE MITIGATION MEASURES

The Draft EA fails to identify, examine, and pursue available mitigation measures. This requirement under a complete NEPA analysis requires an agency to evaluate measures to mitigate the impacts of the proposed/chosen alternative.

Letter 3-83

On page 85 of the Draft EA, Appendix X, the FAA provides the total of its mitigation analysis, as set forth below:

> VII. Mitigation Are there measures, which can be implemented that might mitigate any of the potential impacts, i.e., GPS/FMS plans, navaids, etc.?
> __Yes X No __ N/A
> **There are no impacts that require mitigation per FAA environmental requirements.**

This is the sum total of the FAA's effort to address mitigation. Of course, because of the scope of the EA, and how it defined the impacted areas, diluting the impacts on certain residents, then of course the FAA didn't identify any impacts which required mitigation.

We note the following additional points:

There is no need to mitigate the assorted 15R Circling procedure safety risk--that VMC procedure has been discontinued.

The 4L RNAV IMC procedure won't mitigate a withdrawn VMC procedure that had no substantial safety need documented by this Draft EA.

As noted in Section 6 of these Comments, the Draft EA at Section 2.1.1 states that safety under the No Action Alternative is jeopardized by the Circling Visual Approach to Runway 4L after conducting an ILS Runway 15R approach to visual conditions.

Letter 3-84

Yet, this safety concern was not addressed prior to the asserted the need for a Runway 4L RNAV procedure previously and the Draft EA at Appendix D page 8 states that "based on consultation with Boston Consolidated Tracon (A90) personnel, **it is not expected that [the ILS 15R circling transition to Runway 4L] will continue to be used."**

Given that the ILS 15R circling transition to Runway 4L will not continue to be used, and if Runway 4L and/or Runway 4R can be used in VMC for aircraft that have previously used the ILS 15R circling transition to Runway 4L, there is no safety based need for the proposed 4L RNAV procedure.

10. RESIDENT COMPLAINTS, COMMENTS AND OBSERVATIONS AND THE CONCLUSION TO THESE COMMENTS

a. Complaint Data from Residents

There is, by this date, mountains of data from Milton residents which indicate that the noise from airplanes in Milton is clearly heard above background noise in both commercial and residential areas, and the impact of that noise is increasing as new RNAVs are implemented. Residents of Milton filed only 102 noise complaints in 2012 21,796 noise complaints were filed in 2016, and 41,475 noise complaints were filed in 2019, which demonstrates the serious impact of these RNAVs on the overflown communities, particularly the cumulative impact from increasing the number of flights. The Logan Noise Abatement Office received 2,331 total noise complaints in 2012, rising to 38,046 total noise complaints in 2016, and X in 2019. Arlington, Belmont, Cambridge, Cohasset, Dorchester, Hull, Hyde Park, Jamaica Plain, Medford, Nahant, Roslindale, Roxbury and Somerville have all filed an escalating number of noise complaints since 2012. The courts have recognized that noise complaints, in and of themselves, are substantial evidence of a noise problem, even absent corroborating data showing a DNL above 65. Helicopter Association International, Inc. v. FAA, 722 F.3d 430, 435-37 (D.C. Cir. 2013).

Specifically in Milton, between January 1, 2012 and October 31, 2020, residents of the Town filed 155,554 noise complaints, with complaint volumes rising steadily at a compound annual growth rate of 135% until 2020 when the pandemic significantly curtailed air traffic globally. (Note: Logan Airport is operating at 40% of 2019 volume through October 31, 2020, after rising to more than 109% of 2019 volume in January and February, and falling to only 16% of the 2019 volume in May).

Total number of noise complaints filed per year:

2020 - 23,654
2019 - 41,475
2018 - 34,902
2017 - 23,940

Therefore, the undersigned federal, state and municipal elected officials, respectfully request that this terribly flawed, arbitrary, and capricious EA process should be cancelled and rescinded, and the Draft EA withdrawn.

Respectfully submitted by:

Congressman Stephen F. Lynch
Massachusetts Senator Walter F. Timilty
Massachusetts Representative William J. Driscoll, Jr.
Boston City Councilor Andrea J. Campbell
Boston City Councilor Ricardo Arroyo
Milton Select Board

RESPONSE

The responses to the 57-page Town of Milton letter are assumed to be continuous and consequently acronyms, etc. are assumed to carry through the associated RESPONSES. Note that this letter was received twice (via both mail and email), but as both submissions were identical, it will only be responded to once.

LETTER-3-1

The 2016 IER is briefly discussed in Chapter 1 of the 2020 Draft EA and a copy is provided in Appendix A. This comment references the instructions about Community Involvement in 2016 IER (page 68) and then mentions that there was opposition to the proposed project, which was part of the aforementioned 2016 IER. The 2016 IER is included in the 2020 Draft EA for the

primary purpose of providing contextual history of the development of the Proposed Action. The conclusions and analysis of the 2016 IER are not applicable to this environmental assessment.

The Proposed Action investigated in the 2020 Draft EA was not built with any particular airline in mind and will be available for all airlines to use within the normal air traffic flow at the Airport.

LETTER-3-2

The National Defense Authorization Act of 2017, Section 341(b)(4) states that the FAA Administrator must review any categorical exclusions made on or after February 12, 2012 until December 2016. While the Proposed Action was determined to qualify for a Categorical Exclusion as part of the 2016 IER, the decision was made by the FAA to continue the environmental review in the preparation of this environmental assessment before implementing the Proposed Action. Therefore, the FAA is not relying on this provision of the National Defense Authorization Act in its review of the Proposed Action.

LETTER-3-3

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). An initial concept that provided safety and efficiency benefits was considered in the 2016 Initial Environmental Review (2016 IER). However, scarce funding prevented the FAA from advancing that concept any further. After the effort had been paused in 2016, there were several safety incidents associated with aircraft landing at the Airport--see Section 2 of the 2020 Draft EA. Careful review of the cause of those incidents lead to the conclusion that safety benefits from the proposed action would have avoided or mitigated the risks from those incidents. This analysis of the safety incidents resulted in the proposed action now being identified as a priority safety initiative, and funding was allocated to complete the analysis.

The FAA chose to include the 2016 IER as an appendix to the 2020 Draft EA to provide context for the proposed action by documenting the history on the development of the proposed action. Aside from providing context, 1) while the action described in the 2016 IER is similar, it is not the same as the proposed action, and 2) the analysis methodology in the 2016 IER is not the same as that used in 2020 Draft EA. Thus, it is not appropriate to take the 2016 IER as anything other than documentation of the thoughtful and careful approach FAA has taken in fine tuning the proposed action.

LETTER-3-4

Air traffic continues to recover since reaching a nadir in April 2020. The continued aviation industry recovery since publication of the 2020 Draft EA reinforces the wisdom of FAA's observation that air operations had already begun to recover. FAA's mission is to provide the safest and most efficient aviation system in the world, and the Proposed Action provides both safety and efficiency benefits, regardless of activity levels.

Additionally, Order 1050.1F does not require any meetings or workshops to be held for an EA, but FAA went to extraordinary lengths of ensuring residents could be heard by holding virtual public workshops and creating a project web site. This kept the public safe during the pandemic while also allowing voices from the community to be heard. Also, two Congressional and public official briefings were held on September 21 and 22nd, 2020.

LETTER-3-5

The 2016 IER is included in the 2020 Draft EA for the primary purpose of providing contextual history of the development of the Proposed Action. The conclusions and analysis of the 2016 IER are not applicable to this environmental assessment.

Section 2.1.1 of the 2020 Draft EA provides a description of a number of recent documented safety incidents that would have been avoided or mitigated had the Proposed Action been implemented. Further, the Final Environmental Assessment has been updated to reflect FAA's March 29, 2021 decision to deny a waiver to incorporate safety logic alerts onto the ILS RWY 15R transition to Runway 4L approach path. The FAA believes the subsequent analysis of recent incidents conclusively demonstrates that there would be a material improvement in safety if the Proposed Action were implemented.

LETTER-3-6

The visual approach to Runway 4L is generally used only in the case of marginal Visual Meteorological Conditions (marginal VMC) - in full VMC aircraft can make a fully visual approach to Runway 4L. That is why there are so few aircraft that currently use this approach - it is not available in Instrument Meteorological Conditions (IMC), and it is not generally used in full VMC. Aircraft that can use the visual approach to Runway 4L are small, maneuverable aircraft – large aircraft cannot use this approach. However, most of these aircraft do have Global Positioning Systems (GPS) and often have the ability to fly Area Navigation (RNAV) procedures. Keeping the current procedure to Runway 4L available allows for the few aircraft that do not have that capability to maintain access to the Airport in cases where winds favor using Runway 4L and 4R for approaches in marginal VMC. As stated in the 2020 Draft EA it is not expected to be used often - in fact, it will likely be used less than it is today in the case that the RNAV (GPS) RWY 4L procedure is available.

LETTER-3-7

The JetBlue Special Procedure was originally evaluated under NEPA, and a categorical exclusion (CATEX) was issued in 2013. However, the JetBlue Special Procedure has been subject to a Notice to Airmen (NOTAM) rendering it not authorized for use since 2014. There are currently no plans to cancel the NOTAM or otherwise approve the procedure for further use.

When an aircraft is approved for a visual approach, ATC does not control the path that the flight crew uses to approach the runway at that point. The crew is left to approach at their own discretion. JetBlue aircraft, as well as any other aircraft, are allowed to utilize instrument approach guidance on a visual approach if they choose to do so. This includes FMS-constructed approaches – as long as there are no aspects of the approach that conflict with ATC instructions, approaches can be flown in any reasonable manner necessary for the flight crew to execute a safe landing. JetBlue aircraft, and all other aircraft, will be able to fly existing arrival procedures into the Airport and if the Proposed Action is approved, they will also be able to fly the RNAV (GPS) RWY 4L procedure.

LETTER-3-8

Aircraft that are cleared for a visual approach to Runway 4L will be overflying the same areas in the Proposed Action as they do currently. Any use of the RNAV (GPS) RWY 4L procedure will only assist with tracking the runway centerline, which pilots on a visual approach and not using the procedure as guidance would also be doing, only without the benefit of vertical and lateral guidance in the flight deck. An aircraft cannot be cleared for the visual approach until the flight

crew has the runway in sight, so at the point in time where an aircraft might utilize the RNAV (GPS) RWY 4L approach, it will already be maneuvering to line up with the runway. Therefore, providing a breakdown of predicted ATC-directed use of the RNAV (GPS) RWY 4L procedure compared to pilot-initiated use of the procedure for advisory purposes is not practical nor useful because both sets of flights will be maneuvering in the same areas as they are today and would not significantly differ in their paths to the runway once they have been cleared for the visual approach. Notwithstanding the uncertainty and the fact that aircraft will already be lining up with the runway following existing tracks, in response to the public's concerns, the FAA conducted a sensitivity analysis for informational purposes which assumed a very aggressive (and in the FAA's view, unrealistic) scenario in which 100% of aircraft landing on Runway 4L would use the procedure. The results of the sensitivity analysis are located at Appendix B and reveal that even in this aggressive scenario there will be no reportable or significant noise increases.

LETTER-3-9

The FAA has noted the questions and many of the topics brought up in these questions were discussed in the Public Workshops. The specific questions were very technical and requested that additional technical analyses be performed. The questions submitted were all considered as comments on this environmental assessment and as such comment responses have been prepared.

LETTER-3-10

The number of flights expected to use the new procedure is described in Section B.3.2 of Appendix B in the 2020 Draft EA. This includes 359 flights per year listed in Table B.5 plus the 594 flights that previously flew the ILS RWY 15R visual transition to Runway 4L approach. This is estimated based on likely changes from the flight activity in the baseline year.

LETTER-3-11

Detailed flight data for a full year of operations at the Airport were evaluated for this environmental assessment. In order to fully understand operations at the Airport, multiple discussions were held with ATC to understand how the Proposed Action would be flown in order to model the Proposed Action properly and gathered resources data from multiple online public databases in order to capture every potential resource that may be impacted by the Proposed Action. A site visit was not ruled out as part of this environmental assessment, but a large amount of data was able to be collected on the existing operations, the Proposed Action, and the potential resources without visiting the Airport.

The public workshops were not held in person as public health officials were advising against large gatherings of people and they were strongly recommending social distancing. Also, many meeting venues remained closed due to ongoing concerns about COVID. The procedure is critical to flight safety at the Airport. Implementing new flight procedures takes time, and the study team decided to move forward with this process so that the procedure can be made available to pilots and ATC personnel as soon as practicable.

LETTER-3-12

The topics covered in these technical questions were generally discussed in the Public Workshops and these questions submitted would be addressed as comments on the 2020 Draft EA.

LETTER-3-13

The comment requests that the environmental assessment consider all parts of the arrival paths into both Runway 4L and Runway 4R as the approach paths often affect the same neighborhoods due to the closeness of the approach paths and the lateral propagation of noise. The environmental assessment used all operations into both Runway 4L and 4R when considering the impact of the Proposed Action within the General Study Area (GSA). The GSA was defined by identifying the area where the Proposed Action could potentially cause a change in environmental conditions, which encompassed all arrival routes below 10,000 feet for both Runway 4L and Runway 4R.

LETTER-3-14

Activity on Runways 4L and 4R—closely spaced parallel runways (CSPR)-- was considered and simulated as part of the noise analysis in this environmental assessment. When considering the environmental impact of the Proposed Action, two alternatives were prepared: a No-Action Alternative and a Proposed Action Alternative. Both alternatives include the activity on all runways at the Airport with the Proposed Action Alternative only adding the additional activity happening from the Proposed Action to the environmental analysis.

LETTER-3-15

This comment suggests that a smaller more focused GSA should have been used instead of the 1,173 square mile GSA used in the 2020 Draft EA. The GSA was defined by identifying the area where the Proposed Action could potentially cause a change in environmental conditions rather than determined arbitrarily. The Proposed Action consists of four ATC transitions (NUNZO, WOONS, Cape-area, Left-downwind), which cover a wide area and had the potential to cause impacts across that wide area. Apart from the Section 106 analysis, which used a more focused Area of Potential Effect for its analysis of historic properties, the environmental analysis was equally applied across the GSA. It should be noted that the GSA appears to be inclusive of the suggested study area--referred to in the comment as the CSPR.

LETTER-3-16

The activity on Runways 4L and 4R was considered and simulated as part of the noise analysis in this environmental assessment. When considering the environmental impact of the Proposed Action, two alternatives were prepared: a No-Action Alternative and a Proposed Action Alternative. Both alternatives include the activity on all runways at the Airport with the Proposed Action Alternative only adding the additional activity happening from the Proposed Action to the environmental analysis.

This comment suggests that a smaller more focused GSA should have been used instead of the 1,173 square mile GSA used in this environmental assessment. The GSA was defined by identifying the area where the Proposed Action could potentially cause a change in environmental conditions rather than determined arbitrarily. The Proposed Action consists of four ATC transitions (NUNZO, WOONS, Cape-area, Left-downwind), which cover a wide area and had the potential to cause impacts across that wide area. In addition, the Proposed Action is expected to cause an additional 255 departures per year from Runway 27. Apart from the Section 106 analysis, which used a more focused Area of Potential Effect for its analysis of historic properties. The environmental analysis was equally applied across the GSA. It should be noted that the GSA appears to be inclusive of the suggested study area--referred to in the comment as the CSPR.

LETTER-3-17

The comment requests that this environmental assessment consider all parts of the approaches to Runway 4L and Runway 4R as the paths often affect the same neighborhoods due to the closeness of the paths and the lateral propagation of noise. This environmental assessment used all arrivals to both Runway 4L and 4R when considering the impact of the Proposed Action within the GSA. The GSA was defined by identifying the area where the Proposed Action could potentially cause a change in environmental conditions.

The 2016 IER is included in the 2020 Draft EA for the primary purpose of providing contextual history of the development of the Proposed Action. The conclusions and analysis of the 2016 IER are not applicable to this environmental assessment. The Proposed Action investigated in the 2020 Draft EA was not built with any particular airline in mind and will be available for all airlines to use within the normal air traffic flow at the Airport.

LETTER-3-18

In the Virtual Workshops, the following question was asked, "Do you measure the noise? Are there noise monitors out there in the neighborhoods? Did you use those to calculate these noise levels?" The FAA's commenter answered that 1) the FAA is required to use noise modeling instead of noise measurements, 2) noise modeling allows the FAA to estimate noise levels over a large area, and 3) modeling allows the FAA to estimate noise levels of future aircraft operations. The FAA is required by its orders to calculate the Day-Night Average Sound Level (DNL) value for the No-Action and Proposed Action alternatives across the entire GSA in each of 27,080 census blocks. Since monitoring would only provide information about the current noise levels, it would have limited value in understanding the consequences of the Proposed Action.

The additional comments referenced in Section 5 have been answered there.

LETTER-3-19

Field measurements aggregate all sources of pollution regardless of source, obfuscating the impacts of aircraft. Further, such measurements would only set a baseline, providing little insight into how the Proposed Action would affect air pollution. The use of regulatory models provides a way to look at just the impact of aircraft emissions and carefully discern the consequences of the Proposed Action. The analysis that was undertaken considered the air quality impacts cited in the comment and used the most scientifically appropriate methodology.

LETTER-3-20

No response required.

LETTER-3-21

An air quality analysis and a noise analysis using FAA's standard methodology considered whether the Proposed Action would exceed any of the FAA's significance thresholds identified in FAA Order 1050.1F. The noise analysis in this environmental assessment determined that there were no significant impacts resulting from the Proposed Action.

The counties within the GSA are found to be in Attainment for all of the criteria pollutants—see EPA Greenbook, 2020. The Air Quality section of the 2020 Draft EA identifies emissions for the No-Action Alternative and Proposed Action Alternative up to the mixing height as regulatorily required by the FAA —mixing height is the top of the vertical region of the atmosphere in which pollutant mixing occurs and affects ground level concentrations. The net change in all the criteria

pollutants were below the *de minimis* limits as determined by the EPA for both nonattainment and maintenance areas. As such, the Proposed Action is not expected to cause any pollutant concentrations to exceed any of the National Ambient Air Quality Standards and thus will not impact air quality.

LETTER-3-22

Section 6-2.2 of Order 1050.1F states that

"Scoping, as described in 40 CFR § 1501.7, CEQ Regulations, is optional for EAs. Scoping can be particularly useful when an EA deals with uncertainty or controversy regarding potential conflicts over the use of resources or the environmental impacts of the proposed actions. The scoping process can provide a transparent way to identify environmental issues, focusing the analysis on the most pertinent issues and impacts."

As applied to this environmental assessment, since there is no uncertainty over the most pertinent environmental issues and the impacts are clearly understood, scoping would not have been particularly useful.

LETTER-3-23

The activity on Runways 4L and 4R was considered and simulated as part of the noise analysis in this environmental assessment. When considering the environmental impact of the Proposed Action, two alternatives were prepared: a No-Action Alternative and a Proposed Action Alternative. Both alternatives include the activity on all runways at the Airport with the Proposed Action Alternative only adding the additional activity happening from the Proposed Action to the environmental analysis. The Proposed Action Alternative considers the impact of the Proposed Action in addition to the already existing activity at the Airport.

The cumulative impacts section was written to identify and analyze projects that could collectively result in a significant impact when considered together with the Proposed Action.

LETTER-3-24

Comment Noted. The discussion of the proposed noise impacts resulting from the Proposed Action can be found in Section 4.6 of the 2020 Draft EA. The noise assessment within this environmental assessment determined that there are no significant or reportable increases in noise resulting from the Proposed Action.

The discussion of the proposed cumulative impacts resulting from the Proposed Action can be found in Section 4.8 of the 2020 Draft EA. This section has determined that the Proposed Action Alternative will not create an impact that will reach significant or reportable noise thresholds when considered cumulatively with the consequences of past, present, and reasonably foreseeable projects.

LETTER-3-25

The impacts of the proposed overflights from the Proposed Action were assessed across multiple impact categories as part of the 2020 Draft EA and the impact has not been found to exceed any of the significance thresholds put forth by FAA Order 1050.1F.

LETTER-3-26

It is estimated that a total of 359 operations that will follow the proposed RNAV (GPS) RWY 4L procedure in its first year of operation. These operations consist of 255 net new arrivals to the

Airport enabled by reduced arrival delays during IMC, as well as 104 arrivals that would use Runway 4R with additional delay without the procedure in place. In addition, 594 small, maneuverable aircraft that currently utilize the ILS RWY 15R transition to Runway 4L approach during marginal VMC will also utilize the RNAV (GPS) RWY 4L approach in the FAA 's Proposed Action. The rate of traffic growth thereafter is not a part of the scope this environmental assessment as traffic growth at the Airport is not affected materially by the presence of this proposed procedure. This procedure addresses safety and efficiency at the Airport primarily during periods of IMC.

LETTER-3-27

As stated in the 2020 Draft EA, the RNAV (GPS) RWY 4L approach will be used when the Airport is experiencing IMC while in a Northeast configuration. The 255 net new arrivals per year is estimated based on the expected change if the procedure had been available in the Baseline year. This was determined by considering the reduced delays that would occur during IMC should the RNAV (GPS) RWY 4L procedure be implemented. The FAA cannot commit to this number as it will be variable based on the amount of time that the Airport spends in IMC while in a Northeast configuration. The less this weather condition happens, the less that this procedure will be used and vice versa.

The JetBlue Special Procedure has been subject to a Notice to Airmen (NOTAM) rendering it not authorized for use since 2014. There are currently no plans to cancel the NOTAM or otherwise approve the procedure for ATC-assigned use. JetBlue aircraft were modeled as flying the current suite of procedures available at the Airport.

LETTER-3-28

JetBlue aircraft (as well as other aircraft) will have the RNAV (GPS) RWY 4L procedure available for advisory use during VMC. However, the circumstances under which this procedure can be used for advisory purposes are limited. If an arriving aircraft is receiving radar vectors to Runway 4L but has not yet been cleared for a visual approach to the runway, the aircraft cannot use the RNAV (GPS) RWY 4L procedure for advisory purposes – the flight crew must continue to follow ATC instructions. However, upon receiving clearance for the visual approach to Runway 4L the flight crew may proceed to the runway at their discretion and may use the RNAV (GPS) RWY 4L procedure for advisory purposes if desired. Note that clearance for the visual approach to Runway 4L is usually given at least five miles from the runway threshold, at a point where flight crews would usually have established themselves on a stabilized visual glidepath to the runway and be able to proceed with a normal visual landing from that point. Thus, advisory utilization of this procedure will not significantly change the flight paths for aircraft that have been cleared for the visual approach. Additionally, flights that have not yet been cleared for the visual approach will continue to be vectored as they are today in VMC, resulting in no changes to their flight paths relative to current operations. Please see Section 2.2.1 of this EA for further details

LETTER-3-29

The quoted text from Section 4 refers to a section of the 2016 IER, which is provided in Appendix A of the 2020 Draft EA. The 2016 IER is included in the 2020 Draft EA for the primary purpose of providing contextual history of the development of the Proposed Action. The conclusions and analysis of the 2016 IER are not applicable to this environmental assessment.

The Proposed Action investigated in the 2020 Draft EA was not built with any particular airline in mind and will be available for all airlines to use within the normal air traffic flow at the Airport.

LETTER-3-30

When an aircraft has been cleared for a visual approach, the pilot of that aircraft can proceed to the runway at their discretion. Pilots are allowed to use instrument approaches for advisory purposes only (such as guidance) in these circumstances. Since the flight tracks of aircraft that fly visual and instrument approaches tend to converge as aircraft approach the runway, radar data does not provide any context as to the frequency at which pilots use instrument approaches as guidance in VMC or marginal VMC conditions. In response to public comments, the FAA prepared a sensitivity analysis using a very aggressive usage scenario, which is included in Appendix B to the Final EA. Even in that aggressive scenario, which assumed all arriving aircraft to Runway 4L would use the RNAV (GPS) RWY 4L procedure, there were no reportable or significant noise increases. The largest increase observed at any population centroid was an increase of DNL 2.2 dB. The FAA believes its original assumptions were reasonable; however, this modeling effort in response to public comments was for informational purposes and demonstrates that even if more aircraft use the procedure than expected by the FAA, it would not cause a reportable or significant noise change compared to existing conditions.

LETTER-3-31

The seven days that the FAA identified as what the commenter described as "extended inclement weather days" were identified based on identified ATC criteria for what would likely cause significant weather-related delays at the Airport. There are other days when the time criteria for IMC is satisfied, but the Airport is not in a Northeast configuration. There are also other days when the Airport is in the Northeast configuration in IMC, but the weather lasts a shorter period of time and is not responsible for large-scale cancellations that day. In these cases, the model does not assume any future changes as the Airport could operate the exact same way in the future as it does today. The RNAV (GPS) RWY 4L procedure does not add any capacity at these times so there would be no rationale to change its operation or the mix of arriving aircraft to Runway 4L and Runway 4R in the Northeast configuration.

LETTER-3-32

The analysis completed by the FAA is based on the number of flights canceled today that would not be expected to be canceled if the RNAV (GPS) RWY 4L procedure was implemented. The 3,600 delayed flights number cited by the commenter isn't relevant because the model treats a flight identically for noise purposes even if (for example) it was originally scheduled to land at 3:00 p.m. and instead landed at 6:00 p.m. due to weather-related delays. However, if a flight that was supposed to land at 8:00 p.m. is delayed until midnight, it receives a 10 dB DNL noise penalty to represent increased annoyance to residents and businesses during the overnight hours. This penalty is applied to any operation that takes place between 10:00 p.m. and 6:00 a.m. As a result, the model only considers the additional set of flights that would be able to operate normally if the RNAV (GPS) RWY 4L procedure was implemented.

LETTER-3-33

The methodologies included in the 2020 Draft EA follows FAA guidance documents for the preparation of an environmental analysis and the use of the DNL metric is consistent with FAA standard practices.

LETTER-3-34

Comment noted.

LETTER-3-35

The activity on Runways 4L and 4R was considered and simulated as part of the noise analysis in the 2020 Draft EA. When considering the environmental impact of the Proposed Action, two alternatives were prepared: a No-Action Alternative and a Proposed Action Alternative. Both alternatives include the activity on all runways at the Airport with the Proposed Action Alternative only accounting for additional activity that the new procedure is directly responsible for to the environmental analysis.

In line with FAA Order 1050.1F, the noise impacts of the Proposed Action are presented in change-of-exposure tables and maps of population centers to identify where noise will change by the following specified amounts instead of the requested noise contours.

- For DNL 65 dB and higher: +1.5 dB
- For DNL 60 dB to <65 dB: +3 dB
- For DNL 45 dB to <60 dB: +5 dB

DNL is the noise metric required by the FAA for NEPA studies. DNL includes the cumulative noise generated by the average aircraft operations across an entire year with an additional weighting for operations occurring at night (10:00:00 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night.

LETTER-3-36

DNL is the noise metric required by the FAA for NEPA studies. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10:00:00 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. The use of this metric is required by FAA Order 1050.1F.

LETTER-3-37

FAA determined supplemental metrics were not necessary as part of this environmental assessment. DNL is the noise metric required by the FAA for NEPA studies. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. While DNL analysis may also be supplemented on a case-by-case basis, the Proposed Action will have limited changes to operations at BOS and the noise analysis showed that the Proposed Action does not have an appreciable effect in the noise exposure ranges associated with local communities or other resources. The data supporting this statement can be found in Table 4.6-3 of the 2020 Draft EA.

LETTER-3-38

This comment conflates two actions that have independent utility and have little operational overlap. First, the key efficiency benefit of the project is that the Airport Arrival Rate (AAR) for Runway 4L and 4R will increase by approximately four aircraft per hour during IMC conditions when the Airport is in a Northeast configuration. Secondly, any reduction in aircraft spacing afforded by wake re-categorization are unlikely to affect operations in IMC conditions because wake turbulence is not a controlling factor on aircraft separation during IMC. Outside of IMC conditions the AAR can generally accommodate the demand from inbound aircraft.

LETTER-3-39

During IMC the AAR is often unable to meet the demand of inbound aircraft and delays result. The Proposed Action will increase the AAR by approximately four additional aircraft per hour during IMC. The Proposed Action is not expected to affect the AAR outside of IMC and is not expected to change the runway usage outside of IMC. The Proposed Action is independent of any future wake recategorization effort by the FAA. The estimated runway usage was modeled using these assumptions.

LETTER-3-40

The lowering of landing gear is a factor that is considered with respect to the noise and air quality modeling of the Proposed Action. This parameter is contained within the standard Approach Profiles within the Aviation Environmental Design Tool (AEDT). To quote from Appendix K.2.2.1 of the AEDT User Manual in reference to approach profiles in the model:

"The four Descend steps start at 6000, 3000, 1500, and 1000 feet AFE. They bring an airplane from zero-flaps configuration, terminal-area entrance speed, down to landing-gear/flaps configuration, final-approach speed."

This section gives further detail and parameter about the approach profiles within AEDT but this quote notes that the landing gear deployment is considered within AEDT.

LETTER-3-41

FAA is committed to full transparency and technical accuracy in all analysis. It is important to note that this environmental assessment has been prepared in accordance with the requirements of FAA Order 1050.1F.

LETTER-3-42

The FAA has gone well beyond the regulatory requirements of 40 CFR 1500 and Order 1050.1F, by 1) choosing to elevate the environmental review from a Categorical Exclusion to an Environmental Assessment, 2) completing two virtual public workshops when none were required, 3) creating a project website, and 4) preparing an online tool that lets individuals find the noise exposure at any property in the GSA.

This commitment to informing the community reflects FAA's interests in ensuring the public can fully understand the impacts of the Proposed Action.

LETTER-3-43

Section 2.1.1 of the 2020 Draft EA provides a description of several recent safety incidents that would have been avoided or mitigated had the Proposed Action been implemented. Further, the Final environmental assessment reflects FAA's March 29, 2021 decision to deny a waiver to incorporate safety logic alerts onto the ILS RWY 15R visual transition to Runway 4L approach. The FAA believes the subsequent analysis of recent incidents conclusively demonstrates that there would be a material improvement in safety if the Proposed Action were implemented.

LETTER-3-44

Implementation of the RNAV (GPS) RWY 4L procedure will enhance aviation safety when compared to the ILS RWY 15R visual transition to Runway 4L approach. The existing approach requires aircraft to maneuver at low altitude through congested airspace, often during marginal VMC. ATC is also tasked with monitoring aircraft on this approach in these same marginal

conditions while continuing to safely monitor and instruct other aircraft using the Airport. While pilots and ATC are trained to the highest standards and regularly complete this maneuver successfully, the RNAV (GPS) RWY 4L procedure is a simpler procedure for ATC to implement, as well as a simpler procedure for flight crews to execute. FAA's core mission is to provide the safest, most efficient airspace system in the world and the Proposed Action represents an opportunity to make a clear improvement in safety.

LETTER-3-45

The ILS RWY 15R visual transition to Runway 4L approach is not unsafe. However, there are multiple safety benefits that come with replacing this procedure with the RNAV (GPS) RWY 4L approach. Section 1.2 of the 2020 Draft EA notes that the RNAV (GPS) RWY 4L procedure offers vertical and lateral guidance to aircraft arriving to Runway 4L. As this is one of the few runways in the United States that regularly accepts large commercial aircraft and does not have a system of vertical or lateral guidance available, this represents a major safety improvement. Additionally, this procedure would allow Runway 4L to accept arrivals during IMC, which will lessen the load on Runway 4R and increase safety margin via more efficient usage of the airspace.

LETTER-3-46

Section 2.1.1 of the 2020 Draft EA provides a description of several recent safety incidents that would have been avoided or mitigated had the Proposed Action been implemented. Further, the Final environmental assessment reflects FAA's March 29, 2021 decision to deny a waiver to incorporate safety logic alerts onto the ILS RWY 15R visual transition to Runway 4L approach. The FAA believes the subsequent analysis of recent incidents conclusively demonstrates that there would be a material improvement in safety if the Proposed Action were implemented.

Yes, both Runway 4L and Runway 4R are available for arrivals during VMC. Use of the ILS 15R approach to runway 4L is usually limited to times of marginal VMC conditions.

LETTER-3-47

Aircraft using the ILS RWY 15R transition to Runway 4L approach generally do so during marginal VMC, where ceilings are between 1,000 and 3,000 feet and visibility is three to five miles, not full VMC where ceilings are greater than 3,000 feet and visibility is greater than five miles. In marginal VMC conditions, small, maneuverable aircraft sometimes use the ILS RWY 15R transition to Runway 4L because a full visual approach to Runway 4L (or an approach to Runway 4R of any kind) may not be available. In the Proposed Action, these aircraft will be able to use a RNAV (GPS) RWY 4L approach during marginal VMC conditions, representing a safety benefit as they will have full vertical and lateral guidance to the runway. Additionally, they will not have to fly the comparatively challenging ILS RWY 15R transition to Runway 4L approach in low visibility and congested airspace. The Final environmental assessment reflects the safety benefits of the Proposed Action as described above.

Section 2.1.1 already contains background information on the ILS RWY 15R transition to Runway 4L approach and the associated safety incidents. The 2020 Draft EA does not assert that there are no other viable methods to address the safety concern, simply that the Proposed Action meets this requirement. Order 1050.1F does not require looking at additional alternatives since no significant environmental impacts from the Proposed Action have been identified.

LETTER-3-48

Comment Noted. Appendices have been reordered to address this comment.

LETTER-3-49
The environmental consequences section of the Final EA (Section 4) has been revised to provide greater visibility for this aspect of the analysis.

LETTER-3-50
The proposed procedure will be available at all times for advisory use – its use is not restricted to IMC. However, the approach will primarily be assigned during IMC as the Airport generally utilizes visual approaches (which allow flight crews to choose their path to the runway visually or utilizing appropriate vertical and/or lateral guidance) during VMC. The increase in 255 additional operations is an estimate based on what is expected to have occurred in the Baseline year had the procedure been available. This number is expected to change annually depending on the weather and future demand. The Final environmental assessment states that usage of this procedure will be unrestricted.

LETTER-3-51
The commenter has recommended analysis of two additional scenarios that do not reflect FAA's anticipated implementation of the Proposed Action. Analysis of such hypothetical scenarios is unlikely to better inform the public of the environmental consequences of the Proposed Action.

LETTER-3-52
Comment noted. These GSA characteristics has been included in the Final environmental assessment in a single paragraph.

LETTER-3-53
This comment suggests that a smaller more focused GSA should have been used instead of the 1,173 square mile GSA used in the 2020 Draft EA. The GSA was defined by identifying the area where the Proposed Action could potentially cause a change in environmental conditions rather than determined arbitrarily. The Proposed Action consists of four ATC transitions (NUNZO, WOONS, Cape-area, Left-downwind), which cover a wide area and had the potential to cause impacts across that wide area. Apart from the Section 106 analysis, which used a more focused Area of Potential Effect for its analysis of historic properties, the environmental analysis was equally applied across the GSA. It should be noted that the GSA appears to be inclusive of the suggested GSA-referred to in the comment as the CSPR.

LETTER-3-54
The activity on Runways 4L and 4R was considered and simulated as part of the noise analysis in the 2020 Draft EA. When considering the environmental impact of the Proposed Action, two alternatives were prepared: a No Action Alternative and a Proposed Action Alternative. Both alternatives include the activity on all runways at the Airport with the Proposed Action Alternative only accounting for additional activity that the new procedure is directly responsible for to the environmental analysis.

In line with FAA Order 1050.1F, the noise impacts of the Proposed Action are presented in change-of-exposure tables and maps of population centers to identify where noise will change by the following specified amounts instead of the requested noise contours.

• For DNL 65 dB and higher: +1.5 dB

• For DNL 60 dB to <65 dB: +3 dB

• For DNL 45 dB to <60 dB: +5 dB

LETTER-3-55

Comment Noted. This concept has been added to the noise discussion within the Final environmental assessment.

LETTER-3-56

This comment suggests that a smaller more focused GSA should have been used instead of the 1,173 square mile GSA used in the 2020 Draft EA. The GSA was defined by identifying the area where the Proposed Action could potentially cause a change in environmental conditions rather than determined arbitrarily. The Proposed Action consists of four ATC transitions (NUNZO, WOONS, Cape-area, Left-downwind), which cover a wide area and had the potential to cause impacts across that wide area. Apart from the Section 106 analysis, which used a more focused Area of Potential Effect for its analysis of historic properties, the environmental analysis was equally applied across the GSA. It should be noted that the GSA appears to be inclusive of the suggested GSA-referred to in the comment as the CSPR.

LETTER-3-57

The activity on Runways 4L and 4R was considered and simulated as part of the noise analysis in the 2020 Draft EA. When considering the environmental impact of the Proposed Action, two alternatives were prepared: a No Action Alternative and a Proposed Action Alternative. Both alternatives include the activity on all runways at the Airport with the Proposed Action Alternative only accounting for additional activity that the new procedure is directly responsible for to the environmental analysis.

In line with FAA Order 1050.1F, the noise impacts of the Proposed Action are presented in change-of-exposure tables and maps of population centers to identify where noise will change by the following specified amounts instead of the requested noise contours.

• For DNL 65 dB and higher: +1.5 dB

• For DNL 60 dB to <65 dB: +3 dB

• For DNL 45 dB to <60 dB: +5 dB

LETTER-3-58

The use of Runway 4L in the analysis is described in Appendix B of the 2020 Draft EA. It is important to note that these are estimates of runway use and of the RNAV (GPS) RWY 4L procedure assuming that the Baseline year is meteorologically and operationally representative of future years.

The Final EA more prominently shows this information in the main document.

LETTER-3-59

The following response is structured to align with the four issues raised by the commenter:

a) The procedure will be available for use at all times, but the primary efficiency benefit is expected to be realized by the 359 incremental annual operations expected during IMC, and the primary safety benefit will come from the 594 annual operations from the ILS RWY 15R transition to Runway 4L approach during VMC.

b) COVID-19 has temporarily devastated the aviation industry, but the analysis was performed using data from the pre-COVID-19 Baseline year. While traffic is depressed, the impacts identified in 2020 Draft EA will likely overstate the actual impacts. However, traffic is recovering quickly and could reach activity levels contemplated in 2020 Draft EA in the near future.

c) Decreased traffic means decreased usage of the Proposed Action and therefore decreased environmental consequences. However, in an abundance of caution, FAA would prefer to overstate impacts rather than developing uncertain forecasts that might not clearly communicate the potential impacts.

d) The Proposed Action provides safety and efficiency benefits regardless of operational activity level. The benefits are more pronounced at higher activity levels, but there are still immediate safety and efficiency benefits that would be realized even at the currently depressed activity levels.

LETTER-3-60

While the RNAV (GPS) RWY 4L procedure will be available at all times, ATC-directed usage during VMC is expected to be infrequent. However, the procedure will remain available to ATC if needed for safety or other operational reasons. In response to public comments, the FAA prepared a sensitivity analysis using a very aggressive usage scenario, which is included in Appendix B to the Final EA. Even in that aggressive scenario, which assumed all arriving aircraft to Runway 4L would use the RNAV (GPS) RWY 4L procedure, there were no reportable or significant noise increases. The largest increase observed at any population centroid was an increase of DNL 2.2 dB. The FAA believes its original assumptions were reasonable; however, this modeling effort for informational purposes in response to public comments demonstrates that even if more aircraft use the procedure, it would not cause a reportable or significant noise change. This EA is not revised as requested.

LETTER-3-61

The noise modeling was developed based on actual radar tracks collected during the Baseline year. The potential impact was determined by isolating those tracks occurring when analysis of meteorological data indicate that the Airport operated in a Northeast flow during IMC conditions. It is technically possible to assign all the meteorological data to an operational configuration, however, this additional work would not provide further understanding of the environmental impacts of the Proposed Action.

LETTER-3-62

JetBlue aircraft, as well as other aircraft, will usually not be cleared by ATC to use the RNAV (GPS) RWY 4L procedure in VMC conditions. Rather, they will generally be cleared for a visual approach. However, as a public, published procedure, the RNAV (GPS) RWY 4L procedure is available for advisory use by flight crews in VMC and may be flown on an ad-hoc basis by flight crews desiring additional lateral and vertical guidance to the runway upon receiving clearance to execute a visual approach. The Final EA emphasizes that advisory use of the procedure in VMC is at the discretion of the flight crew once they are cleared for a visual approach.

LETTER-3-63

The JetBlue Special Procedure was originally evaluated under NEPA, and a categorical exclusion (CATEX) was issued in 2013. However, the JetBlue Special Procedure has been subject to a

Notice to Airmen (NOTAM) rendering it not authorized for use since 2014. There are currently no plans to cancel the NOTAM or otherwise approve the procedure for further use.

When an aircraft is approved for a visual approach, ATC does not control the path that the flight crew uses to approach the runway at that point. The crew is left to approach at their own discretion. JetBlue aircraft, as well as any other aircraft, are allowed to utilize instrument approach guidance on a visual approach if they choose to do so. This includes FMS-constructed approaches – as long as there are no aspects of the approach that conflict with ATC instructions, approaches can be flown in any reasonable manner necessary for the flight crew to execute a safe landing. JetBlue aircraft, and all other aircraft, will be able to fly existing arrival procedures into the Airport and if the Proposed Action is approved, they will also be able to fly the RNAV (GPS) RWY 4L procedure.

LETTER-3-64

The AEDT model has been used for environmental review of air traffic noise and emissions impacts since 2012, and is used for 14 CFR Part 150 Studies, NEPA EAs, and NEPA EISs. AEDT contains noise data for simulating over 4,000 different aircraft types and is FAA's approved model for simulating noise from aircraft on all types of activity at commercial airports.

AEDT includes a series of "standard" arrival and departure profiles for use in the model. The RNAV (GPS) RWY 4L procedure specifies minimum altitude restrictions at coded waypoints. These altitude restrictions were implemented on the representative backbones as AEDT "at-or-above" control codes which instruct AEDT to model standard profile arrivals as long as the control code restrictions are met. The above information is stated in the Noise Technical Modeling Report of the 2020 Draft EA.

LETTER-3-65

Noise modeling allows the FAA to estimate noise levels over a wide geographic area. Modeling also allows the FAA to estimate noise levels of future aircraft operations. The FAA is required to use noise modeling, rather than noise measurements per FAA Order 1050.1F. In order to simulate the same fidelity of modeling using noise monitors, one would need thousands of noise monitors across the GSA. For information about the complete noise analysis, see the Noise Modeling Technical Report in the Appendix of the 2020 Draft EA.

LETTER-3-66

The commenter quotes text from the 2016 IER that was included in an Appendix of the 2020 Draft EA for historical context. The 2016 IER that is quoted has no material relevance to the technical analysis 2020 Draft EA.

Secondarily, the commenter requests that the methodology be modified to incorporate pollutant monitoring. Such an approach would aggregate aircraft emissions with emissions from all surrounding pollution sources, obfuscating any understanding of the impacts of aircraft. Further, such data would provide little insight into the changes in air quality resulting from the Proposed Action. FAA has chosen to perform the air quality analysis consistent with the methodology prescribed in FAA Order 1050.1F.

LETTER-3-67

Pilots are responsible for the safe operation of their aircraft and when cleared for a visual approach, the pilot is free to use whatever tools, including the Flight Management system (FMS), they feel are necessary. Pilots do not report to FAA on their use of an FMS, thus FAA has no

ability to estimate how often it occurs. In response to public comments, the FAA prepared a sensitivity analysis using a very aggressive usage scenario, which is included in Appendix B to the Final EA. Even in that aggressive scenario, which assumed all arriving aircraft to Runway 4L would use the RNAV (GPS) RWY 4L procedure, there were no reportable or significant noise increases. The largest increase observed at any population centroid was an increase of DNL 2.2 dB. The FAA believes its original assumptions were reasonable; however, this modeling effort in response to public comments demonstrates that even if more aircraft use the procedure, it would not cause a reportable or significant noise change.

LETTER-3-68

DNL is the noise metric required by the FAA for NEPA studies. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10:00:00 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. DNL analysis may also be supplemented on a case-by-case basis to better characterize specific noise impacts, but the noise analysis showed that the Proposed Action does not have an appreciable effect in the noise exposure ranges associated with local communities. The data supporting this statement can be found in Table 4.6-3 of the 2020 Draft EA.

FAA does not intend to use any supplemental metrics as part of this environmental assessment.

LETTER-3-69

An additional discussion of logarithmic sound and a corresponding sound levels figure has been added to the Final environmental assessment. This exact point about the logarithmic nature of noise was also made on the project website within the Aircraft Noise Overview, "Sound energy is measured in decibels (dB) on a logarithmic scale, which means a 70 dB noise event has 10 times as much energy as a 60 dB event."

LETTER-3-70

Table 4.6-3 in Chapter 4 of the 2020 Draft EA summarizes the DNL exposure ranges for both the No-Action and the Proposed Action Alternatives in noise sensitive communities south of the Airport.

LETTER-3-71

Analysis of the baseline year showed that Runway 4L approaches comprised approximately 6.4% of all approaches at the Airport, while Runway 4R approaches comprised 29.6% of all approaches, which is consistent with Massachusetts Port Authority (Massport) figures.

The purpose of this environmental assessment is to evaluate the environmental impacts of implementing the RNAV (GPS) RWY 4L procedure at the Airport. Listing a series of individual events and their noise levels over a specific portion of the GSA is not consistent with an evaluation of the Proposed Action. DNL is the noise metric required by the FAA for NEPA studies in accordance with the regulations summarized in FAA Order 1050.1F. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10:00:00 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. DNL analysis may also be supplemented on a case-by-case basis, but the Proposed Action will have a limited impact on operations at BOS and the noise analysis using FAA's standard model showed that the Proposed Action does not have an appreciable effect in the noise exposure ranges associated with local communities or resources. The data supporting this statement can be found in Table 4.6-3 of the 2020 Draft EA.

LETTER 3-72

DNL is the noise metric required by the FAA for NEPA studies. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10:00:00 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. DNL analysis may also be supplemented on a case-by-case basis to better characterize specific noise impacts, but the noise analysis showed that the Proposed Action does not have an appreciable effect in the noise exposure ranges associated with local communities. The data supporting this statement can be found in Table 4.6-3 of the 2020 Draft EA.

FAA does not intend to use any supplemental metrics as part of this environmental assessment.

LETTER-3-73

The request seeks noise analysis information that is not consistent with the FAA's DNL metric. The DNL method measures average annual noise, not noise on specific days. Modifying the graphics to conflate the 60 dB DNL significance threshold with an alternative noise measurement scheme would confuse the public and undermine the utility of this environmental assessment.

LETTER-3-74

Noise modeling allows the FAA to estimate noise levels over a wide geographic area. Modeling also allows the FAA to estimate noise levels of future aircraft operations. The FAA is required to use noise modeling, rather than noise measurements per FAA Order 1050.1F. To simulate the same fidelity of modeling using noise monitors, one would need thousands of noise monitors across the GSA. For information about the complete noise analysis, see the Noise Modeling Technical Report in the Appendix of the 2020 Draft EA.

The lowering of landing gear is a factor that is considered with respect to the noise and air quality modeling of the Proposed Action. This parameter is contained within the standard Approach Profiles within AEDT. To quote from Appendix K.2.2.1 of the AEDT 3b User Manual in reference to approach profiles in the model:

"The four Descend steps start at 6000, 3000, 1500, and 1000 feet AFE. They bring an airplane from zero-flaps configuration, terminal-area entrance speed, down to landing-gear/flaps configuration, final-approach speed."

For further details regarding approach profiles and components of noise, please see the AEDT 3b User Manual and the AEDT 3b Technical Manual.

LETTER-3-75

Any Wake Turbulence Recategorization that increases national airspace capacity is speculative, particularly an extrapolation of how it would be applied at the Airport. Thus, it is beyond the scope of this environmental assessment.

It is important to note that the primary efficiency benefit of the Proposed Action is to increase the AAR by about four aircraft per hour during IMC conditions in a Northeast flow. Any future wake recategorization would most likely affect arrivals during VMC conditions where the AAR is

generally greater than the demand of incoming aircraft. As such, these two actions are fundamentally independent as they have impacts with minimal temporal overlaps.

LETTER-3-76

The lowering of landing gear is a factor that is considered with respect to the noise and air quality modeling of the Proposed Action. This parameter is contained within the standard Approach Profiles within AEDT. To quote from Appendix K.2.2.1 of the AEDT User Manual in reference to approach profiles in the model:

"The four Descend steps start at 6000, 3000, 1500, and 1000 feet AFE. They bring an airplane from zero-flaps configuration, terminal-area entrance speed, down to landing-gear/flaps configuration, final-approach speed."

This section gives further detail and parameters about the approach profiles within AEDT but this quote notes that the landing gear deployment is considered within AEDT.

LETTER-3-77

Comment Noted. The FAA indicated to elected officials that their questions would be considered as comments to the 2020 Draft EA and would be answered as part of the Final EA.

LETTER-3-78

Order 1050.1F does not require public meetings, workshops, or other engagement in the preparation of a draft environmental assessment. While there are differences between virtual and in-person communication, the public outreach program in this environmental assessment far exceeded requirements. FAA chose to put resources into engaging the community so they could better understand the safety and efficiency benefits of the Proposed Action. Further, by using a virtual platform, the questions and responses are preserved for the public to review at their leisure.

LETTER-3-79

Comment Noted. The Environmental Justice Environmental Consequences can be found in Section 4.7 of the Final EA. Please also see Section 3.4.7 of the 2020 Draft EA.

LETTER-3-80

The JetBlue Special Procedure was originally evaluated under NEPA, and a categorical exclusion (CATEX) was issued in 2013. However, the JetBlue Special Procedure has been subject to a NOTAM rendering it not authorized for use since 2014. There are no current plans to cancel the NOTAM or otherwise approve the procedure for further use. JetBlue aircraft, along with all other aircraft, were modeled as flying the current suite of procedures available at the Airport in the No-Action Alternative. In VMC, these aircraft will largely fly as they are today, while in IMC, a portion of them will be assigned the RNAV (GPS) RWY 4L approach.

When an aircraft is approved for a visual approach, ATC does not control the path that the flight crew uses to approach the runway at that point. The crew is left to approach at their own discretion. JetBlue aircraft, as well as any other aircraft, are allowed to utilize instrument approach guidance on a visual approach if they choose to do so. JetBlue aircraft, and all other aircraft, will be able to fly the existing arrival procedures to the Airport and if the Proposed Action is approved, they will also be able to fly the Proposed Action.

LETTER-3-81

When an aircraft is approved for a visual approach, ATC does not control the path that the flight crew uses to approach the runway at that point. The crew is left to approach at their own discretion and can use any available instrument approach guidance to do so. If a procedure is available but not authorized, it is available for use, but cannot be assigned by ATC. The JetBlue Special Procedure is not authorized, so any use of it would be determined by individual flight crews and utilized for the purpose of providing that crew an additional source of vertical and lateral guidance. To reiterate - this scenario could only take place during VMC and after receiving clearance to execute a visual approach to Runway 4L.

The environmental model incorporated all the different visual transitions to Runway 4L associated with the No-Action Alternative. These visual transitions are not expected to change regardless of whether or not the RNAV (GPS) RWY 4L procedure is implemented. As a result, any potential or actual advisory use of the JetBlue Special Procedure taking place in the No-Action Alternative also takes place in the Proposed Action Alternative.

LETTER-3-82

The JetBlue Special Procedure has been subject to a NOTAM and has not been authorized for use since 2014. There are no current plans to cancel the NOTAM or otherwise approve the procedure for use. JetBlue aircraft were modeled as flying the current suite of procedures available at the Airport.

The change in the number of operations overflying Mattapan is expected to be limited to a fraction of the 359 additional net annual operations to Runway 4L if the Proposed Action were implemented. However, the purpose of this Proposed Action is to increase safety by implementing the RNAV (GPS) RWY 4L procedure at the Airport. Analysis of the number of flights overflying any particular neighborhood or town is not within the scope of environmental assessment. As there are no reportable or significant noise increases associated with the Proposed Action, the FAA has determined there will not be any disproportionately high and adverse effects to environmental justice populations.

LETTER-3-83

The Proposed Action has been carefully developed through years of technical analysis. No significant environmental impacts were identified as part of this environmental assessment, a reflection of the iterative development of the Proposed Action. The 2016 IER contained in an Appendix to the 2020 Draft EA provides historical context showing how the Proposed Action has evolved and has been tailored to minimize environmental impacts.

LETTER-3-84

This comment succinctly identifies the safety benefit of the Proposed Action. The ILS RWY 15R transition to Runway 4L approach is not expected to be actively assigned after the implementation of the RNAV (GPS) RWY 4L procedure. However, it may remain an authorized procedure for the benefit of a very limited number of aircraft that are not GPS-equipped and cannot use the RNAV (GPS) RWY 4L procedure for additional lateral and vertical guidance during marginal VMC. The visual approach to Runway 4L after conducting an ILS approach to Runway 15R will continue to be in use but will not have an ASDE alert system in place for aircraft flying it, which means ATC personnel will not have a non-visual means of determining if an aircraft flying this procedure is incorrectly lined up to land on a taxiway.

The ability to implement an alternative procedure that can handle the small, maneuverable aircraft that use this procedure would represent a safety benefit to the Airport. When an aircraft is executing a visual approach during marginal VMC conditions, aircraft that lose sight of the runway during a visual approach must execute the missed approach procedure. If visibility and/or ceiling conditions approach VMC minimums, the possibility of aircraft conducting visual approaches having to execute missed approaches due to losing sight of the runway or encountering localized areas of IMC often necessitates use of instrument procedures. If the Proposed Action is implemented, safety concerns associated with the ILS RWY 15R transition to Runway 4L approach would largely be allayed as the RNAV (GPS) RWY 4L procedure would present another option in marginal VMC for aircraft that are equipped to utilize it.

LETTER-4

COMMENT

NOTE: The following letters were received as an Appendix to Letter 3 and did not contain any direct comments on the Draft Environmental Assessment.

APPENDIX

Federal Aviation Administration

MCAC Jan 9th 2020 Milton Q&As

Question 1- Why was the 4L JetBlue RNAV procedure suspended from September 15, 2019 through March 14, 2020?
Answer - Currently the procedure is NOTAM'ed out of service.
Boston Terminal Radar Approach Control (TRACON) had not been using the procedure for years since the FAA agreed to conduct an EA.

FAA NOTAMS PAGE LINK

!FDC 94872 (KBOS A0015/19) BOS SPECIAL EDWARD LAWERENCE LOGAN INT'L BOSTON, MA SPECIAL RNAV VISUAL RWY 04L ORIG - PROC NOT AUTH 1909251930-2003141259

* The 4L JetBlue RNAV procedure will be analyzed only in the cumulative impacts section of the EA. Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Question 2- Will the baseline for noise comparison be conditions pre-4L JetBlue path?
Answer- The baseline covers the period between November 1, 2018 and October 31, 2019. This time-frame was chosen because it is representative of current operations and was largely free of factors that could affect normal air traffic operations, such as runway and airfield construction or runway closures.

*The EA scope only involves the proposed BOS RNAV (GPS) RWY 4L instrument approach procedure.

Question 3-Will noise metrics other than DNL be used, specifically: A-weighted Lmax; LEQ and SEL?
Answer- FAA does not intend to use any supplemental metrics at this time. Order 1050.1F specifies that supplemental noise metrics can be considered for determining impact in noise sensitive areas, as well as in areas where a quiet setting is considered a recognized purpose and attribute. If any of these areas are identified after the determination of the area of potential impact (APE), FAA will work with those whose jurisdiction these areas fall under to determine if supplemental noise analysis should be done, and what supplemental metrics should be used for this analysis.

Question 4- Will the EA noise model use gear-down at 10 miles from final approach fix (FAF) in addition to at FAF?
Answer- The Aviation Environmental Design Tool (AEDT) models aircraft using individual flight profiles for each specific aircraft type, and the exact point of the approach where landing gear is extended differs by profile. For the proposed RNAV (GPS) RWY 4L approach, the FAF is 5 miles from the Runway 4L threshold and the intermediate fix (IF) is 10.3 miles from the Runway 4L threshold. Profiles for most aircraft types frequenting BOS would be expected to extend landing gear at a point between the IF and the FAF – between approximately 5 and 10 miles away from the Runway 4L threshold.

U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Regional Administrator
New England Region

1200 District Avenue
Burlington, MA 01803-5299

June 11, 2020

Mr. Matthew A. Romero, Executive Director
Massport Community Advisory Committee
One Broadway, 14th Floor
Cambridge, MA 02142

Dear Mr. Romero:

Thank you for your May 18, 2020, correspondence on behalf of the Massport Community Advisory Committee (MCAC). This letter is in response to MCAC's request to delay the environmental review process for the proposed General Edward Lawrence Logan International (BOS) Area Navigation (RNAV) Global Positioning System (GPS) Runway (RWY) 4 Left (4L) [RNAV (GPS) RWY 4L] approach procedure. The proposed action will establish an instrument approach procedure to Runway 4L, where no instrument approach procedure is currently published. that will enhance both safety and efficiency at BOS and in the National Airspace System (NAS). As a result of the expected benefits and with recent proven success conducting virtual public workshops for other initiatives, the FAA intends to proceed with the project as currently scheduled.

The implementation of the RNAV (GPS) RWY 4L will enhance safety specifically by:

1) Allowing air traffic control to more precisely monitor each aircraft both vertically and laterally along the arrival track;
2) Enable air traffic control and operators to conduct instrument approaches to Runway 4L when Runway 4 Right (R) is not available and;
3) Significantly reduce the need to use the Instrument Landing System (ILS) approach to Runway 15R with a transition to a Visual Approach (VA) to Runway 4L (ILS 15R VA 4L) procedure.

The implementation of the RNAV (GPS) RWY 4L will enhance efficiency by improving aircraft arrival rates and will reduce pushing delays incurred during the daytime into the nighttime, particularly during inclement weather.

The FAA first notified the community of its intent to conduct an Environmental Assessment (EA) in 2015 as a result of input from community members and elected officials regarding the level of environmental review planned for the project. After securing funding and procuring contract support, the FAA notified MCAC that the EA process had begun in October 2019. Continuing the EA for the proposed RNAV (GPS) RWY 4L during this time is important to increasing flight safety, and the FAA has determined that realizing the procedure's benefits are an operational necessity for BOS and the NAS. The FAA will follow its normal process to

analyze the impacts of the proposed procedure by using historical radar track data to model the baseline conditions and compare them to the expected changes from the proposed action. Since historical data will be used, the reduced operations caused by COVID-19 will not inhibit the FAA's ability to assess the environmental impacts of the procedure. Furthermore, BOS operations have increased the first week of June to a total of 2,215 operations from a total of 1,709 during the first week of May, representing an increase of nearly 30 percent; a trend we expect to continue further justifying the need for the procedure.

The FAA's environmental analysis will first be shared with the public in the form of a Draft EA, at which time the public can submit any comments or concerns they might have about the FAA's analysis. Ensuring the appropriate level of public notification about a Draft EA through interactive virtual public workshops has proven successful in achieving the desired outreach with the communities potentially affected by proposed changes to instrument flight procedures. Recently, as part of the EA process for the South Florida Metroplex project, virtual public workshops, attended by tens of thousands, were held via Zoom, Facebook, Twitter and YouTube to notify the public of the Draft EA. During the live virtual public workshops, participants could submit their questions through any one of the platforms, using a mobile device or PC, or submit inquiries through the dedicated website created for the virtual events. Community members have access to the site as a source for more information related to the Draft EA, access to recorded live question and answer sessions, and may submit comments through the site during the open comment period. Establishing this new technology-enabled environment and offering multiple opportunities for community members to attend events increased the quality and rigor of our communications and allowed the FAA to reach a much broader audience. In addition, copies of the Draft EA will be available at local libraries, which are expected to be open prior to the release of the Draft EA. These libraries allow public access to the Internet, where the public can view the website for the project and submit comments. If libraries do not open by the time the Draft EA is released, then physical copies can be mailed to residents upon request.

We appreciate MCAC sharing potential accessibility concerns with the FAA. We look forward to working with MCAC members and local community leaders to identify other accommodations that may help address specific community challenges. While the FAA understands that the COVID-19 pandemic has caused massive disruptions within communities across the world, we must continue our mission to improve safety and enhance efficiency in the National Airspace System. As a result, we intend to proceed with the project as scheduled with virtual public workshops conducted in early fall 2020.

Sincerely,

COLLEEN M D'ALESSANDRO

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Date: 2020.06.11 11:09:02 -04'00'

Colleen D'Alessandro
Regional Administrator, New England Region

247 Adams Street Milton MA 02186

July 14, 2020

(VIA ELECTRONIC MAIL)
Colleen D'Alessandro, ANE-1, FAA New England Regional Administrator
Colleen.Dalessandro@faa.gov

RE: Proposed Runway 4L Environmental Assessment Follow Up Response

Dear Ms. D'Alessandro:

I am writing on behalf of residents of Milton, Mattapan and Dorchester, with the support of the Milton Select Board and Boston City Councilor Ms Andrea Campbell, to respond to your letter of June 11, 2020 to the MCAC. The MCAC is submitting a letter to you also.

The FAA's June 11, 2020 reply, rejecting the MCAC's request that the Logan runway 4L EA be deferred, should be reversed because it is prejudicial to the residents of Milton, Mattapan, Dorchester and other neighborhoods overflown by the referenced RNAV flight path for these reasons:

1. The FAA bases its decision in part on the statement that BOS operations increased in the first week of June by 30% over May's operations. The FAA reply does not acknowledge that due to the CDC's Covid-19 advisory that air travel should be limited, there actually were only **5** landings on runway 4L during the entire month of May 2020. (In 2019, there were 907 arrivals in May.) Then yesterday, July 13, Massport reported that there were only **3** landings on runway 4L during the entire month of June 2020. Meanwhile, airlines have announced reductions in planned August service given the continuing Covid-19 contagion. There is no runway-utilization-related reason to resume the EA now.

2. Given the paucity of 4L arrivals due to the CDC's Covid-19 advisory, there is also no safety reason to proceed with the runway 4L arrival path EA now as contrasted with the **7 prior years** since 2013 during which FAA

announced that it would proceed with the EA but did not do so. Nor does the FAA's June 11, 2020 reply reference any recent 15R or 4L incursion or other safety instances at all.

3. The FAA's letter ignores the important predicate need for residents to have their own meetings to discuss the proposed 4L arrivals RNAV path prior to and during the EA public comment period. A large group of residents cannot readily meet in person due to Covid-19 restrictions, and many residents have no access to internet/virtual meeting capability. FAA's reply ignores residents' need for their own gatherings. Furthermore, libraries are closed. Residents without internet access cannot attend virtual-meetings among their own neighbors, nor attend a FAA virtual workshop. The FAA had no response to this very question at its recent Tampa virtual-meeting, nor did its reply to the MCAC letter address how such residents could participate meaningfully now.

4. The recent FAA virtual meetings regarding an EA for the South Central Florida Metroplex Airports confirmed added concerns that virtual meetings are no substitute for in person meetings by residents with the FAA.

There are 2.877 million residents of the Tampa metro area. The FAA's attendance record for the two days of virtual meetings indicated that 31 registered residents attended, not including Matthew Romero and myself, whom you allowed to attend as observers.

The virtual-meetings for the Tampa Airport residents provided no means for residents to engage other than by submitting a written question--without the ability to follow-up or ask for further explanation or detail, and provided no ability for participants to drill-down on summary explanations of FAA policy. In a word, it is not a fully interactive dynamic, as in-person meetings can be.

Our further concerns about the virtual-meeting modality include the following issues: FAA's voluminous EA and Appendices were not explained by slide run-through or other means during the Tampa virtual-meeting. Instead, FAA participants' terminology often equated FAA "measurements" with modeling outputs, suggesting to residents that noise data from more than a hundred thousand locations had been gathered rather than modeled. The means of measurement versus modeling and the methods of noise calculation were not clarified for residents. The FAA puts a lot of resources and effort into its virtual meetings. However, the lack of interactive dialog renders the

FAA's virtual-meeting modality not a "workshop" but rather a friendly, recital equivalent to the FAA's required flight attendant advisory content, given to minimally-participatory passengers on aircraft, or here a small number of registered live-attendee residents.

5. The FAA's Draft EA's importance, length, embedded terminologies, and assumptions render it complex. Residents will need time to read, absorb and discuss it among themselves before the public comment period begins to run. For that reason, the Draft EA should be made publicly available at least 30 days before any EA public comment period. Furthermore, any online resources like those presented at the South Central Florida Metroplex virtual meetings (e.g. interactive maps, video representations flight paths, etc.) should be made available less than 30 days prior to the commencement of the public comment period. Additionally, given economic justice concerns, please include in the information provided 30 days prior to the public comment period current census block data for the neighborhoods within the proposed 4L RNAV path's IF-to-touchdown sound contours, including race and ethnicity data as well as mean, median and modal incomes. For inclusiveness and comparison, please include separately such data for the neighborhoods overflown by all 4L visual and FMS paths as well as neighborhoods overflown by the parallel 4R path.

As the MCAC's May 18, 2020 letter requested, 30 days prior to commencement of the public comment period should be at least 30 days before the later of January 1, 2021, or two months after flights to and from Logan Airport resume with volume and frequency similar to what can be expected in future years. We hereby reiterate that request and timing.

We also request that when the public comment period occurs, it be extended to 90 days to permit added opportunity for resident questions, input and interaction among themselves and with the FAA.

6. Lastly, without the frequency of flights that occur absent the Covid-19 restrictions, it is impossible for residents to do the field work regarding 4L arrivals that they plan to do. The FAA's reply ignored this factor. It is a sine qua non for residents.

Thank you for your attention to this matter.

Sincerely,

Thomas J. Dougherty

cc Town of Milton Select Board
and Boston City Councilor Ms Andrea Campbell

July 14, 2020

(VIA ELECTRONIC MAIL)
Colleen D'Alessandro, ANE-1, FAA New England Regional Administrator
Colleen.Dalessandro@faa.gov

RE: Proposed Runway 4L Environmental Assessment Follow Up Procedural Request

Dear Ms. D'Alessandro:

Thank you for your response to my letter dated May 18, 2020 regarding the Environmental Assessment (EA) process and timeline for the proposed Boston Logan International (Logan) Airport Runway 4 Left (4L) Approach Procedure. I would also like to thank you and FAA staff for attending our virtual Massport Community Advisory Committee (MCAC) meeting on June 11, 2020 to discuss this matter further. We were disappointed that FAA denied our request to delay the timing of the 4L EA process considering the ongoing COVID-19 pandemic and the effect upon the communities, neighborhoods, and residents that would be impacted by this process. We urge FAA to reconsider our request for the delay as stated in my initial letter. Barring that, however, I would put forward some follow up requests for the Proposed 4L EA process.

As discussed at our virtual meeting, the current FAA process would release the draft EA upon the commencement of the public comment period, during which the public workshops would be conducted. We request that the Draft Proposed 4L EA be provided to members of the public no less than 30 days prior to the commencement of the public comment period. Furthermore, any online resources like those presented at the Southern Florida Metroplex virtual workshop (e.g. interactive maps, video representations of flight paths, etc.) should also be made available no less than 30 days prior to the commencement of the public comment period. This would ensure adequate time to review the Draft EA and supporting materials prior to both the workshops and the public comment period.

Your letter indicated that the FAA plans to conduct the 4L EA public workshops virtually using a format and platforms like the recent South Florida Metroplex project virtual workshops. Having attended these virtual workshops, we maintain our belief that the virtual workshop format is not an adequate substitute for in person meetings. In particular, we remain concerned for impacted communities and neighborhoods with higher proportions of residents lacking sufficient resources and availability to attend virtual meetings in a meaningful way. Adequate access to information and the ability for impacted residents to participate is critical for any environmental review process. To address these concerns, we request that the comment period be extended from the currently planned 30 days to 90 days to allow for greater participation and engagement by the impacted communities and their residents given the anticipated use of the virtual workshops format.

We appreciate the FAA's participation with the MCAC on matters relating to Boston Logan International Airport, and especially for your further consideration of our requests as it relates to the 4L EA. Ensuring the impacted communities, neighborhoods, and residents are fully briefed and aware of the proposed procedure and can participate and comment in a meaningful way is our primary concern on this issue.

We are also aware that some of the communities and neighborhoods plan to commit both time and monetary resources to further evaluate and study this matter and its effect on their residents. We expect they will submit follow up questions directly to FAA as well as specific recommendations or requests regarding the 4L EA process. We respectfully request that these questions and requests be fully considered and responded to by FAA as needed.

I look forward to working with you on this matter moving forward.

Sincerely,

Matthew A. Romero
Massport CAC Executive Director

cc: David Carlon, MCAC Chairman
Thomas Dougherty, MCAC Milton Representative and Treasurer
Flavio Leo, Massport Director of Aviation Planning and Strategy
Anthony Gallagher, Massport Community Relations

U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Regional Administrator
New England Region

1200 District Avenue
Burlington, MA 01803-5299

August 7, 2020

Mr. Matthew A. Romero, Executive Director
Massport Community Advisory Committee
One Broadway, 14th Floor
Cambridge, MA 02142

Dear Mr. Romero:

Thank you for your July 14, 2020 correspondence regarding the proposed Runway (RWY) 4 Left (L) environmental assessment (EA) follow-up procedural request on behalf of the Massport Community Advisory Committee (MCAC).

In your letter, you requested the Federal Aviation Administration (FAA) delay the environmental review process for the proposed General Edward Lawrence Logan International Airport (BOS) Area Navigation (RNAV) Global Positioning System (GPS) RWY 4L [RNAV (GPS) RWY 4L] approach procedure. However, the FAA intends to proceed with the project as scheduled, with virtual public workshops to be conducted in the fall 2020 for the reasons cited in our June 11, 2020 letter.

You also requested to extend the comment period from 30 days to 90 days. After careful consideration, we have determined that we are able to extend the comment period for an additional 30 days for a total of 60 days. The draft proposed 4L EA will be provided to members of the public no less than 30 days prior to the commencement of the virtual public workshop. The draft EA and supporting information will be made available in the fall 2020. The public and stakeholders may begin to provide comments at that time for 60 days.

Finally, you requested that the FAA provide adequate access to information and the ability for impacted residents to participate in the environmental review process. The FAA plans to host two virtual workshops in the fall 2020, which will be recorded and available on YouTube and the FAA website. The proposed format for these workshops will be similar to the Southern Florida Metroplex. The FAA will consider all comments and respond to them in the final decision document. The final decision is expected to be made in the spring 2021.

We appreciate the continuing dialog with MCAC on this subject and look forward to working with MCAC members and local community leaders to identify other accommodations that may help address specific community challenges. While the FAA understands that the COVID-19 public health emergency has caused massive disruptions within communities across the world, we must continue our mission to improve safety and enhance efficiency in the National Airspace System.

Sincerely,

COLLEEN M D'ALESSANDRO

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Date: 2020.08.10 09:55:55 -04'00'

Colleen M. D'Alessandro
Regional Administrator, New England Region

CC: Thomas Dougherty

Question 5- Will total CSPR noise impacts be taken into account inclusive of the other RNAV 4L and 4R path realities?
Answer- Assuming CSPR means closely-spaced parallel runways, all traffic at the airport will be captured for the purposes of determining noise impacts.

Question 6- Will the noise impacts of 27 and 33L departures on the same 4L JetBlue RNAV residents be included in the EA?
Answer- Noise impacts of all BOS departures will be included in the EA cumulatively.

Question 7- Will economic justice criteria be assessed, given Blue Hill Ave, Mattapan, and Dorchester overflights?
Answer- Yes. As specified by FAA Order 1050.1F, environmental justice should be considered in order to determine potential disproportionate impacts on minority- or low-income communities. These impacts can come from potentially any impact category, and all relevant impact categories will be evaluated for potential environmental justice issues.

Office of State Representative William J. Driscoll, Jr.
7th Norfolk District
Commonwealth of Massachusetts

September 29, 2020

Colleen D'Alessandro, ANE-1
New England Regional Administrator
Federal Aviation Administration (FAA)
VIA EMAIL: Colleen.DAlessandro@faa.gov

RE: Logan Runway 4L Environmental Assessment Technical Questions

Dear Administrator D'Alessandro:

This letter follows up on the September 21, 2020 Zoom session regarding the Logan Runway 4L Environmental Assessment (EA). During the session, it was stated that elected officials may submit technical questions.

I respectfully request that the following technical questions be addressed. The FAA's inclusion of these matters in its presentations will help residents understand and evaluate the draft EA.

Thank you for your attention to this aspect of the EA effort.

The technical questions follow.

Best Regards,

William J. Driscoll, Jr.
State Representative, 7th Norfolk District

1) **JetBlue Special Procedure:** Will aircraft with the 4L JetBlue Special procedure recorded in their FMS be allowed to request to use that procedure and to use it, or will the FAA state that the 4L RNAV will be the only arrival path to Runway 4L? With regard to that question, please also state:
    A. The number of arrivals in the baseline year on the 4L JetBlue Special procedure path.
    B. The number of arrival aircraft expected to use the 4L RNAV path in its first year of use that otherwise would been expected to use the JetBlue Special procedure.
    C. The number of arrival aircraft, if any, expected to use the JetBlue Special procedure in the first year of implementation of the 4L RNAV path.

Page 1 of 2

2) **4R RNAV Path on Noise Visualization:** Please promptly provide a version of the Noise Visualization on the same FAA website that adds the position of the Runway 4R RNAV path so that users can find answers to these questions: their location in relation to each of the closely spaced parallel runways; the combined noise impact on their location of the proposed RNAV 4L procedure and the existing 4R RNAV procedure; and compare that noise impact level to noise impact levels at other locations.

3) **Baseline Year:** Please provide a version of the Noise Visualization as in question 2) for the baseline year. With regard to the baseline year, please also explain:
   A. On what basis has the FAA used November 1, 2018 through October 31, 2019 as the baseline year rather than the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?
   B. Is it correct that the Draft EA does not measure the noise impacts of consolidating the JetBlue Special procedure with the 4L Visual path into a single RNAV path?
   C. Is it correct that the Draft EA only measures the noise impact of incremental 4L arrivals due to implementation of RNAV capability to use 4L in IMC circumstances?
   D. Is it therefore correct that this EA will not address whether implementation of the 4L RNAV procedure will have significant or reportable noise impacts under Order 1050.1f?

4) **Noise Contours:** For the present Noise Visualization and the added 4R RNAV path noise visualizations in questions 2 and 3, please provide graphically the noise contours of aircraft traveling those paths so that residents can answer the questions: how far from each side of the parallel paths aircraft noise extends; and what overlaps exist of noise from the two parallel 4L and 4R paths.

5) **Nabove 25 Lmax peak day 60/50 [day/night] noise measurement:** On the present FAA Noise Visualization and on each of the two additional versions requested above, or in another format, show what the Nabove 25 Lmax peak day 60/50 [day/night] noise measurements at locations affected solely by the 4L and 4R RNAV paths are respectively, as well as at those locations affected by both paths' noise, using different a color for each of these three indications, or other differentiating means.

   For the Nabove 25 Lmax peak day 60/50 [day/night] noise measurement method, we refer you to Data-Driven Flight Procedure Simulation and Noise Analysis in a Large-Scale Air Transportation System June 2018 by Luke L. Jensen and R. John Hansman "The analysis in this thesis uses an annoyance threshold of 25 daily flights at the 60dB (day) and 50dB (night) level." (Section 2.8, page 59 referencing Logan runway 4L/4R arrivals) https://pdfs.semanticscholar.org/6322/03aecd9d9a55136e8bc9e105b1e4bbc8ca93.pdf

cc: Michael D. Dennehy, Milton Town Administrator
Milton Town Select Board
Thomas J. Dougherty, Massachusetts Port Authority Community Advisory Committee (MCAC)
Milton Airplane Noise Advisory Committee (ANAC)

Page 2 of 2

Office of State Representative William J. Driscoll, Jr.

7th Norfolk District

Commonwealth of Massachusetts

October 7, 2020

Colleen D'Alessandro, ANE-1
New England Regional Administrator
Federal Aviation Administration (FAA)
VIA EMAIL: Colleen.DAlessandro@faa.gov

RE: Additional Technical Questions – Logan Runway 4L Environmental Assessment

Dear Administrator D'Alessandro:

This letter is intended to serve as a supplement to my previous letter dated 09/29/2020 regarding technical questions on the Draft Environmental Assessment (EA). Upon further reflection and consideration of the ongoing Draft EA, I would like to submit three new questions in addition to those previously submitted.

The new technical questions are highlighted in yellow below and are **1(D)**, **3(D)** and **6**.

I appreciate your time and attention to this aspect of the EA effort.

Best Regards,

William J. Driscoll, Jr.
State Representative, 7th Norfolk District

1) Jet Blue Special Procedure: Will aircraft with the 4L JetBlue Special procedure recorded in their FMS be allowed to request to use that procedure and to use it, or will the FAA state that the 4L RNAV will be the only arrival path to Runway 4L? With regard to that question, please also state:
   A. The number of arrivals in the baseline year on the 4L JetBlue Special procedure path;
   B. The number of arrival aircraft expected to use the 4L RNAV path in its first year of use that otherwise would have been expected to use the JetBlue Special procedure;
   C. The number of arrival aircraft, if any, expected to use the JetBlue Special procedure in the first year of implementation of the 4L RNAV path; and
   D. Provide a table, in format similar to Table 8 of Appendix A to the Draft EA, stating the Estimated Annual Use of 4L RNAV Approaches, on the basis of Cleared IMC, Cleared VMC, Advisory IMC (if any), Advisory VMC and Total Cleared + Advisory use while including, listed separately, as in Table 8, any RVFP use, in each of those categories.

1 of 4

2) 4R RNAV Path on Noise Visualization: Please promptly provide a version of the Noise Visualization on the same FAA website that adds the position of the Runway 4R RNAV path so that users can find answers to these questions: their location in relation to each of the closely spaced parallel runways; the combined noise impact on their location of the proposed RNAV 4L procedure and the existing 4R RNAV procedure; and compare that noise impact level to noise impact levels at other locations.

3) Baseline Year: Please provide a version of the Noise Visualization as in question 2) for the baseline year. With regard to the baseline year, please also explain:
   A. On what basis has the FAA used November 1 2018 through October 31, 2019 as the baseline year rather than the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?
   B. Is it correct that the Draft EA does not measure the noise impacts of consolidating the JetBlue Special procedure with the 4L Visual path into a single RNAV path?
   C. Is it correct that the Draft EA only measures the noise impact of incremental 4L arrivals due to implementation of RNAV capability to use 4L in IMC circumstances?
   D. Is it therefore correct that this EA will not address whether implementation of the 4L RNAV procedure will have significant or reportable noise impacts under Order 1050.1f compared with the baseline year, not the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?

4) Noise Contours: For the present Noise Visualization and the added 4R RNAV path noise visualizations in questions 2 and 3, please provide graphically the noise contours of aircraft traveling those paths so that residents can answer the questions: how far from each side of the parallel paths aircraft noise extends; and what overlaps exist of noise from the two parallel 4L and 4R paths.

5) Nabove 25 Lmax peak day 60/50 [day/night] noise measurement: On the present FAA Noise Visualization and on each of the two additional versions requested above, or in another format, show what the Nabove 25 Lmax peak day 60/50 [day/night] noise measurements at locations affected solely by the 4L and 4R RNAV paths are respectively, as well as at those locations affected by both paths' noise, using different a color for each of these three indications, or other differentiating means.

   For the Nabove 25 Lmax peak day 60/50 [day/night] noise measurement method, we refer you to Data-Driven Flight Procedure Simulation and Noise Analysis in a Large- Scale Air Transportation System June 2018 by Luke L. Jensen and R. John Hansman "The analysis in this thesis uses an annoyance threshold of 25 daily flights at the 60dB (day) and 50dB (night) level." (Section 2.8, page 59 referencing Logan runway 4L/4R arrivals)

   https://pdfs.semanticscholar.org/6322/03ueed9d9a55136e8bc9e105b1e4bbc8ca93.pdf

6) Please see the attached diagram illustrating that based on the Draft 4L EA Visualization the proposed 4L RNAV path will overfly the triangular areas formed by three noise sensitive areas,

namely hospital center, church and rectory, and a 13-year school campus. In light of this, provide the Nabove 25 Lmax peak day 60/50 [day/night] noise measurement, and corresponding DNL measurement, for each of those three locations.

cc: Michael D. Dennehy, Milton Town Administrator
Thomas J. Dougherty, Massachusetts Port Authority Community Advisory Committee (MCAC)
Milton Airplane Noise Advisory Committee (ANAC)
Milton Town Select Board

Office of State Representative William J. Driscoll, Jr.

7th Norfolk District

Commonwealth of Massachusetts

October 13, 2020

Colleen D'Alessandro, ANE-1
New England Regional Administrator
Federal Aviation Administration (FAA)
VIA EMAIL: Colleen.DAlessandro@faa.gov

RE: Logan Runway 4L Environmental Assessment Technical Questions

Dear Administrator D'Alessandro:

In response to my letter dated September 29, 2020, Ms. Christian sent an email stating that my "questions will be addressed during the Boston public workshops."

That response is, at best, woefully inadequate, and, at worst, an affront to the office that I hold. My previous correspondence with your office in 2019 generated a written response.

I deserve written responses to the questions in my 9/29/20 letter as soon as is practicable, and not halfway through the comment period and as part of workshops intended for the public.

In addition, my requests included that

i. The FAA visualization website "promptly" to be revised to include the 4R RNAV path on the visualization so that residents now can use the FAA visualization to see their residence in the actual 4L/4R paths setting.
ii. Residents know prior to the public workshops the Nabove Lmax 60/50 (Day/Night) alternative noise readings so they can ask questions about it.
iii. The FAA add to the EA Draft an updated statement addressing the other technical questions (including the Noise Sensitive Area (Hospital/Church/School) impacts prior to the public workshops so residents can ask about it and the Nabove Lmax noise impacts.
iv. The FAA address prior to the public workshops the "Advisory" use of the proposed RNAV path by planes (for example) that had been on the JetBlue RNAV path previously, and any other Advisory use of the former JetBlue path, or any use of any Visual 4R path.

I look forward to receiving your responses to these and all the questions included in my prior letters **on or before October 16, 2020**.

Best Regards,

William J. Driscoll, Jr.
State Representative, 7th Norfolk District

Page 1 of 2

cc: Michael D. Dennehy, Milton Town Administrator
Thomas J. Dougherty, Massachusetts Port Authority Community Advisory Committee (MCAC)
Milton Town Select Board

From: Timilty, Walter (SEN)
Sent: Wednesday, October 7, 2020 9:21 AM
To: Lorna.Christian@faa.gov <Lorna.Christian@faa.gov>; Colleen.DAlessandro@faa.gov <Colleen.DAlessandro@faa.gov>
Cc: Congressman Lynch Stephen (Stehphen.Lynch@mail.house.gov) <Stehphen.Lynch@mail.house.gov>; shaynah.barnes@mail.house.gov <shaynah.barnes@mail.house.gov>; Buntich, Hannah (SEN) <Hannah.Buntich@masenate.gov>
Subject: Questions regarding Logan Airport's Environmental Assessment

Dear Regional Administrator D'Alessandro and Supervisory Senior Advisor Christian,

Attached, please find a letter from myself and Congressman Stephen Lynch with questions pertaining to the Logan Runway 4L Environmental Assessment.

We appreciate the time that was taken on September 21st to review the EA with ourselves, and other stakeholders. We believe that the FAA's attention to the attached technical questions will help stakeholders further understand and evaluate the draft EA.

Thank you for your attention to this matter. We look forward to hearing from you.

Sincerely,

State Senator Walter F. Timilty
Norfolk, Bristol and Plymouth. District

Congressman Stephen F. Lynch
8th Congressional

The Commonwealth of Massachusetts
MASSACHUSETTS SENATE

SENATOR WALTER F. TIMILTY
Norfolk, Bristol and Plymouth District

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BOSTON, MA 02133-1053

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CHAIR
JOINT COMMITTEE ON VETERANS AND FEDERAL AFFAIRS

VICE CHAIR
JOINT COMMITTEE ON ENVIRONMENT, NATURAL RESOURCES AND AGRICULTURE

JOINT COMMITTEE ON ECONOMIC DEVELOPMENT AND EMERGING TECHNOLOGIES

JOINT COMMITTEE ON MENTAL HEALTH, SUBSTANCE USE AND RECOVERY

JOINT COMMITTEE ON PUBLIC SERVICE

SENATE COMMITTEE ON BONDS, CAPITAL EXPENDITURES AND STATE ASSETS

October 2, 2020

Colleen D'Alessandro, ANE-1
New England Regional Administrator
Federal Aviation Administration
1200 District Avenue
Burlington, MA 01803-5299

Lorna Christian
Supervisory Senior Advisor, ANE
Office of the Regional Administrator
Federal Aviation Administration
1200 District Avenue
Burlington, MA 01803-5299

Dear Regional Administrator D'Alessandro and Supervisory Senior Advisor Christian,

This letter follows-up on the Regional Administrator's statement at the September 21, 2020 Zoom session with elected officials regarding the Logan Runway 4L Environmental Assessment that the elected officials may submit technical questions to you. These questions originated from Milton's representative to the Massport Community Advisory Committee, Mr. Tom Dougherty.

We are, respectfully, asking that the following technical questions be addressed. The FAA's inclusion of these matters in its presentations will help residents understand and evaluate the draft EA.

Thank you for your attention to this aspect of the EA effort. The technical questions follow.

Sincerely,

Senator Walter F. Timilty
Norfolk, Bristol and Plymouth

Congressman Stephen F. Lynch
8th District of Massachusetts

1. Jet Blue Special Procedure: Will aircraft with the 4L JetBlue Special procedure recorded in their FMS be allowed to request to use that procedure and to use it, or will the FAA state that the 4L RNAV will be the only arrival path to Runway 4L? With regard to that question, please also state:
   (A) the number of arrivals in the baseline year on the 4L JetBlue Special procedure path;
   (B) the number of arrival aircraft expected to use the 4L RNAV path in its first year of use that otherwise would have been expected to use the JetBlue Special procedure;
   (C) the number of arrival aircraft, if any, expected to use the JetBlue Special procedure in the first year of implementation of the 4L RNAV path.

2. 4R RNAV Path on Noise Visualization: Please promptly provide a version of the Noise Visualization on the same FAA website that adds the position of the Runway 4R RNAV path so that users can find answers to these questions: their location in relation to each of the closely spaced parallel runways; the combined noise impact on their location of the proposed RNAV 4L procedure and the existing 4R RNAV procedure; and compare that noise impact level to noise impact levels at other locations.

3. Baseline Year: Please provide a version of the Noise Visualization as in question 2) for the baseline year. With regard to the baseline year, please also explain:
   (A) On what basis has the FAA used November 1 2018 through October 31, 2019 as the baseline year rather than the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?
   (B) Is it correct that the Draft EA does not measure the noise impacts of consolidating the JetBlue Special procedure with the 4L Visual path into a single RNAV path?
   (C) Is it correct that the Draft EA only measures the noise impact of incremental 4L arrivals due to implementation of RNAV capability to use 4L in IMC circumstances?
   (D) Is the FAA going to keep the additional 4L JetBlue RNAV path (which it "suspended" in 2019) as an "Advisory" path?

4. Noise Contours: For the present Noise Visualization and the added 4R RNAV path noise visualizations in questions 2 and 3, please provide graphically the noise contours of aircraft traveling those paths so that residents can answer the questions: how far from each side of the parallel paths aircraft noise extends; and what overlaps exist of noise from the two parallel 4L and 4R paths.

5. Nabove 25 Lmax peak day 60/50 [day/night] noise measurement method: On the present FAA Noise Visualization and on each of the two additional versions requested above, or in another format, show what the Nabove 25 Lmax peak day 60/50 [day/night] noise measurements at locations affected solely by the 4L and 4R RNAV paths are respectively, as well as at those locations affected by both paths' noise, using different a color for each of these three indications, or other differentiating means. For the Nabove 25 Lmax peak day 60/50 [day/night noise measurement method, we refer you to Data-Driven Flight Procedure Simulation and Noise Analysis in a Large-Scale Air Transportation System June 2018 by Luke L. Jensen and R. John Hansman "The

analysis in this thesis uses an annoyance threshold of 25 daily flights at the 60dB (day) and 50dB (night) level." (Section 2.8, page 59 referencing Logan runway 4L/4R arrivals)
https://pdfs.semanticscholar.org/6322/03aecd9d9a55136e8bc9e105b1e4bbc8ca93.pdf

6. Does the FAA acknowledge that the triangle formed by Beth Israel, St Elizabeth's and Milton Academy is a Noise Sensitive Area for which FAA should use a peak-day Noise Above measurement?

DAlessandro, Colleen (FAA) Colleen.DAlessandro@faa.gov

To **tdprojects@aol.com** tdprojects@aol.com

Tom – I've attached the attachments here in a single file, but the file is quite large, so I am not sure it will go through the email system. I am working to get them posted. Let me know if the file didn't come through on this message. If it didn't, I'll let you know when it is posted.

Regards, Colleen

From: tdprojects@aol.com <tdprojects@aol.com>
Sent: Thursday, February 6, 2020 6:38 AM
To: DAlessandro, Colleen (FAA) <Colleen.DAlessandro@faa.gov>
Subject: Re: Questions regarding the Logan 4L EA process

1. Colleen,
2. Thanks very much. Here is the link. This has the IER summary text that refers to to the 4 Attachments, but does not have the Attachments. Tom
3. Air Traffic Initial Environmental Review (I E R) for Boston Consolidated TRACON (A90) / Boston Logan Airport (BOS) R NAV (G P S) R W Y 4 L Procedure and BOS R NAV (G P S) R W Y 4 R Amendment, 20 March 2017 (PDF)www.faa.gov/airports/new_england/environmental/media/IER-BOS-RNAV-GPS-RWY-4L-4R-Amendment-20170327.pdf

Apr 12, 2017 - ... (IER)
Boston Consolidated TRACON (A90) / Boston Logan Airport (BOS) RNAV (GPS) RWY 4L Procedure and BOS RNAV (GPS) RWY 4R Amendment

...

Facility/Office: **Boston Consolidated TRACON A90** Date: March 20, 2017 Prepared by: Clifford R. Baird, Support Manager ... Facility/Office: **Boston Consolidated TRACON** Telephone: (603) 594-5516 Specific Area of Responsibility: Air Traffic ...

Hillary Waite hwaite@townofmilton.org Hide

T **lorna.christian@faa.gov** lorna.christian@faa.gov, **colleen.dalessandro@faa.gov**
o colleen.dalessandro@faa.gov
C **Michael D. Dennehy** mdennehy@townofmilton.org, **SB** SB@townofmilton.org,
c **tdprojects@aol.com** tdprojects@aol.com, **stephen.lynch@mail.house.gov** stephen.lynch@mail.house.gov, **Barnes, Shaynah** Shaynah.Barnes@mail.house.gov, **Timilty, Walter (SEN)** Walter.Timilty@masenate.gov, **hannah.buntich@masenate.gov** hannah.buntich@masenate.gov

Dear Regional Administrator D'Alessandro and Supervisory Senior Advisor Christian,

Please see the attached letter from the Milton Select Board with technical questions pertaining to the Logan Runway 4L Environmental Assessment.

Thank you for your attention to this matter.

If I can provide any additional information, please contact me or Michael Dennehy, Town Administrator, at 617-898-4845 or mdennehy@townofmilton.org .

Best,

Hillary Waite
Executive Administrative Assistant
Town of Milton, MA
525 Canton Avenue
Milton, MA 02186
617-898-4843

COMMONWEALTH OF MASSACHUSETTS
TOWN OF MILTON
OFFICE OF SELECT BOARD
525 CANTON AVENUE, MILTON, MA 02186
Telephone: 617-698-4843
Fax: 617-698-6741

MICHAEL D. DENNEHY
TOWN ADMINISTRATOR

SELECT BOARD
MELINDA A. COLLINS
CHAIR
KATHLEEN M. CONLON
VICE CHAIR
ARTHUR J. DOYLE
SECRETARY
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MEMBER
MICHAEL F. ZULLAS
MEMBER

Colleen D'Alessandro, ANE-1
New England Regional Administrator
Federal Aviation Administration
1200 District Avenue
Burlington, MA 01803-5299

Lorna Christian
Supervisory Senior Advisor, ANE
Office of the Regional Administrator
Federal Aviation Administration
1200 District Avenue
Burlington, MA 01803-5299

via email

October 7, 2020

RE: Logan Runway 4L Environmental Assessment Technical Questions

Dear Administrator D'Alessandro:

This letter follows up on your statement during the September 21, 2020 Zoom session regarding the Logan Runway 4L Environmental Assessment (EA) that elected officials may submit technical questions.

We respectfully request that the following technical questions be addressed. The FAA's inclusion of these matters in its presentations will help residents understand and evaluate the draft EA.

We understand that these technical questions have also been submitted to you by United States Congressman Stephen Lynch and Massachusetts State Senator Walter J. Timilty, as well as by Massachusetts State Representative William J. Driscoll.

1

We appreciate your attention to this matter.

The technical questions are attached.

Sincerely,

Melinda A. Collins, Chair

Kathleen M. Conlon, Vice Chair

Arthur J. Doyle, Secretary

Richard G. Wells, Jr.

Michael F. Zullas

Milton Select Board

cc (via email):
Congressman Stephen Lynch
Massachusetts State Senator Walter J. Timilty
Massachusetts State Representative William J. Driscoll

2

1. **Jet Blue Special Procedure:** Will aircraft with the 4L JetBlue Special procedure recorded in their FMS be allowed to request to use that procedure and to use it, or will the FAA state that the 4L RNAV will be the only arrival path to Runway 4L? With regard to that question, please also state:
    A. The number of arrivals in the baseline year on the 4L JetBlue Special procedure path;
    B. The number of arrival aircraft expected to use the 4L RNAV path in its first year of use that otherwise would have been expected to use the JetBlue Special procedure;
    C. The number of arrival aircraft, if any, expected to use the JetBlue Special procedure in the first year of implementation of the 4L RNAV path; and
    D. Provide a table, in format similar to Table 8 of Appendix A to the Draft EA, stating the Estimated Annual Use of 4L RNAV Approaches, on the basis of Cleared IMC, Cleared VMC, Advisory IMC (if any), Advisory VMC and Total Cleared+Advisory use while including, listed separately, as in Table 8, any RVFP use, in each of those categories.

2. **4R RNAV Path on Noise Visualization:** Please promptly provide a version of the Noise Visualization on the same FAA website that adds the position of the Runway 4R RNAV path so that users can find answers to these questions: their location in relation to each of the closely spaced parallel runways; the combined noise impact on their location of the proposed RNAV 4L procedure and the existing 4R RNAV procedure; and compare that noise impact level to noise impact levels at other locations.

3. **Baseline Year:** Please provide a version of the Noise Visualization as in question 2 for the baseline year. With regard to the baseline year, please also explain:

    A. On what basis has the FAA used November 1 2018 through October 31, 2019 as the baseline year rather than the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?
    B. Is it correct that the Draft EA does not measure the noise impacts of consolidating the JetBlue Special procedure with the 4L Visual path into a single RNAV path?
    C. Is it correct that the Draft EA only measures the noise impact of incremental 4L arrivals due to implementation of RNAV capability to use 4L in IMC circumstances?
    D. Is it therefore correct that this EA will not address whether implementation of the 4L RNAV procedure will have significant or reportable noise impacts under Order 1050.1f compared with the baseline year, not the baseline year used in its March 23, 2016 IER, contained in Appendix A to the draft EA?

4. **Noise Contours:** For the present Noise Visualization and the added 4R RNAV path noise visualizations in questions 2 and 3, please provide graphically the noise contours of aircraft traveling those paths so that residents can answer the questions: how far from each side of the parallel paths aircraft noise extends; and what overlaps exist of noise from the two parallel 4L and 4R paths.

3

5. **Nabove 25 Lmax peak day 60/50 [day/night] noise measurement:** On the present FAA Noise Visualization and on each of the two additional versions requested above, or in another format, show what the Nabove 25 Lmax peak day 60/50 [day/night] noise measurements at locations affected solely by the 4L and 4R RNAV paths are respectively, as well as at those locations affected by both paths' noise, using different a color for each of these three indications, or other differentiating means.

   For the Nabove 25 Lmax peak day 60/50 [day/night] noise measurement method, we refer you to Data-Driven Flight Procedure Simulation and Noise Analysis in a Large-Scale Air Transportation System June 2018 by Luke L. Jensen and R. John Hansman "The analysis in this thesis uses an annoyance threshold of 25 daily flights at the 60dB (day) and 50dB (night) level." (Section 2.8, page 59 referencing Logan runway 4L/4R arrivals)

https://pdfs.semanticscholar.org/6322/03accd9d9a55136e8bc9e105b1e4bbc8ca93.pdf

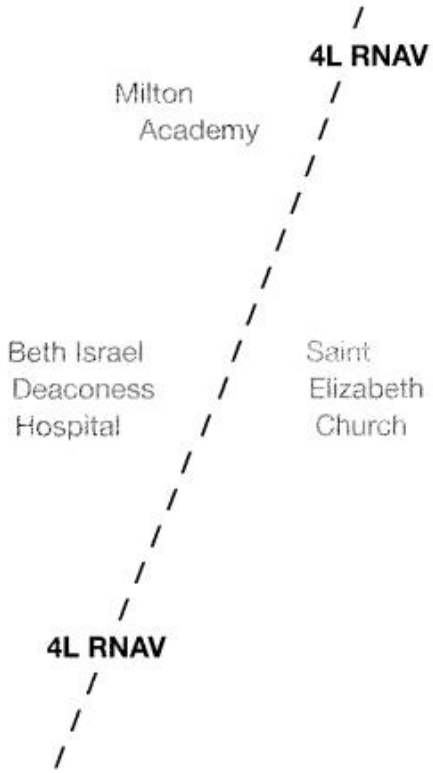
6. See the attached diagram illustrating that based on the Draft 4L EA Visualization the proposed 4L RNAV path will overfly the triangular areas formed by three noise sensitive areas, namely hospital center, church and rectory, and a 13-year school campus. In light of this, provide the Nabove 25 Lmax peak day 60/50 [day/night] noise measurement, and corresponding DNL measurement, for each of those three locations.

4

"NOISE SENSITIVE AREAS"

4L RUNS DIRECTLY THROUGH THE **N.S.A. TRIANGLE:**

HOSPITAL, CHURCH, SCHOOL -- **EACH** IS A N.S.A.



The Commonwealth of Massachusetts
MASSACHUSETTS SENATE

SENATOR WALTER F. TIMILTY
Norfolk, Bristol and Plymouth District

State House, Room 213-B
Boston, MA 02133-1053

tel. (617) 722-1643
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Walter.Timilty@MASenate.gov
www.MASenate.gov

Chair
Joint Committee on Veterans and Federal Affairs

Vice Chair
Joint Committee on Environment, Natural Resources and Agriculture

Joint Committee on Economic Development and Emerging Technologies

Joint Committee on Mental Health, Substance Use and Recovery

Joint Committee on Public Service

Senate Committee on Bonding, Capital Expenditures and State Assets

October 15, 2020

Colleen D'Alessandro, ANE-1
New England Regional Administrator
Federal Aviation Administration (FAA)
VIA EMAIL: Colleen.DAlessandro@faa.gov

RE: Logan Runway 4L Environmental Assessment Technical Questions

Dear Administrator D'Alessandro:

In response to our letter dated October 2, 2020, Ms. Christian sent an email stating that our "questions will be addressed during the Boston public workshops." That response is, at best, woefully inadequate, and, at worst, an affront to the offices that we hold. During the September 21st Zoom session with elected officials, regarding the Logan Runway 4L Environmental Assessment, we were told that elected officials may submit technical questions to you. It was our collective understanding that in submitting these questions directly to you, that we would be provided with answers to said questions. Instead, what we received was an invitation to register for a public workshop that is more than 10 days from now.

It is our firm believe that we, along with our constituents, deserve written responses to those questions as soon as is practicable, and not halfway through the comment period and as part of workshops intended for the public.

In addition, our requests included that:

(i) The FAA visualization website be "promptly" revised to include the 4R RNAV path on the visualization so that residents now can use the FAA visualization to see their residence in the actual 4L/4R paths setting;

(ii) Residents know prior to the public workshops the Nabove Lmax 60/50 (Day/Nght) alternative noise readings so they can ask questions about it;

(iii) The FAA add to the EA Draft an updated statement addressing the other technical questions (including the Noise Sensitive Area (Hospital/Church/School) impacts prior to the public workshops so residents can ask about it and the Nabove Lmax noise impacts; and

(iv) The FAA address prior to the public workshops the "Advisory" use of the proposed RNAV path by planes (for example) that had been on the JetBlue RNAV path previously, and any other Advisory use of the former JetBlue path, or any use of any Visual 4R path.

We look forward to receiving your responses to these and all the questions included in our prior letter **on or before October 20, 2020**.

Sincerely,

Senator Walter F. Timilty
Norfolk, Bristol and Plymouth

Congressman Stephen F. Lynch
8th District of Massachusetts

-----Original Message-----
From: DAlessandro, Colleen (FAA) <Colleen.DAlessandro@faa.gov>
To: tdprojects@aol.com <tdprojects@aol.com>
Sent: Wed, Feb 5, 2020 8:43 pm
Subject: Re: Questions regarding the Logan 4L EA process
Hi Tom, sure, let me investigate. Can you send me the link where you found the IER? Ultimately I would like to post the attachments in the same place so everyone can access them.

Thanks, Colleen
Sent from my iPhone

On Feb 5, 2020, at 6:07 PM, "tdprojects@aol.com" <tdprojects@aol.com> wrote:

Ms D'Alessandro,
Thanks very much for the responses. Matt Romero forwarded them to me. I distributed them to the Town of Milton elected officials and interested residents and will be discussing them with those folks.
Here is a related question:
I have not been able to locate on the FAA website, or elsewhere, the attachments to the 2017 IER concerning runway 4L RNAV GPS and 4R. The IER that is on the FAA website is attached to this email. You'll see that the IER
itself refers to the following 4 Attachments (listed below). Could you please ask the applicable FAA person to send me each of these?
I and residents here wish to read them as background in connection with/preparation for our 4L EA review.
Thank you again for the responses to my questions.
Best Regards,
Tom Dougherty

From: Christian, Lorna (FAA) <lorna.christian@faa.gov>
Date: Tuesday, October 20, 2020 at 12:26 PM
To: Timilty, Walter (SEN) <Walter.Timilty@masenate.gov>, DAlessandro, Colleen (FAA) <Colleen.DAlessandro@faa.gov>
Cc: Congressman Lynch Stephen (Stehphen.Lynch@mail.house.gov) <Stehphen.Lynch@mail.house.gov>, shaynah.barnes@mail.house.gov <shaynah.barnes@mail.house.gov>, Buntich, Hannah (SEN) <Hannah.Buntich@masenate.gov>, Donnelly, John (FAA) <john.donnelly@faa.gov>, Stephen Goetzinger <SGoetzinger@esassoc.com>, Davis, Reginald E (FAA) <Reginald.E.Davis@faa.gov>, Johnson, Veronda (FAA) <Veronda.Johnson@faa.gov>
Subject: [External]: RE: Questions regarding Logan Airport's Environmental Assessment

Dear Senator Timilty,

Thank you for your questions regarding the Boston Logan Environmental Assessment. We look forward to your participation in the upcoming workshops.
One of your questions addressed a visualization of the RNAV path for 4R so users can find their location in relation to each of the parallel runways.

The RNAV path for the 4R procedure has been added as a "layer" to the noise visualization page.

Please visit the faabostonworkshops.com site to view the changes.

Thank you,
Lorna Christian
Supervisory Senior Advisor, ANE
Office of the Regional Administrator
Federal Aviation Administration

Office: (781) 238-7224
Mobile: (781) 496-7512
Email: Lorna.Christian@faa.gov

TOWN OF MILTON
BOARD OF HEALTH
525 Canton Avenue
Milton, MA 02186

Public Health

Board of Health

Caroline A. Kinsella, BSN, RN, RS
Health Director

Tel: (617)898-4886
Fax: (617)696-5172
www.townofmilton.org

Laura T. Richards, Esq., Chair
Mary F. Stenson, RN, BSN, Secretary
Roxanne Musto, RN-C, MS, ANP, Member
Anthony Compagnone, M.D., Medical Advisor

TO: Milton Select Board members

FROM: Milton Board of Health

DATE: October 6, 2020

RE: Detrimental Health Effects of RNAV Plane Flights over the Town of Milton

The Milton Board of Health strongly opposes the proposed 4L RNAV and 4L visual approach RNAV. We strongly urge the FAA to halt any further implementation of these RNAV's.

The Town of Milton is 13.3 square miles in area, and is already experiencing an unfair distribution of flights compared to other surrounding communities. Milton residents have the highest number of complaints compared to all other communities.

The Town has experienced an exponential increase in RNAV's. As you know these RNAV's are highways in the sky: they are narrow concentrated paths for the airplanes to fly along. We are very concerned about the potential health risks associated with repeat exposure. Already residents have told us about their worries, including soot falling on their cars, homes, lawns and gardens from the airplanes fine particulate matter. These airplanes are lower also, many are flying less than 3000 feet.

According to a LAX study, fine particulate matter can cause blocked coronary arteries as well as worsen respiratory diseases like asthma. Those with underlying conditions like asthma who also contract COVID-19 may develop more severe respiratory symptoms.
It should be noted that the LAX study authors stated that their findings could apply to any other large airport. In addition, other studies have demonstrated increases in blood pressure for those bothered by noise from aircraft while they were sleeping.

TOWN OF MILTON
BOARD OF HEALTH
525 Canton Avenue
Milton, MA 02186

Public Health

Board of Health

Caroline A. Kinsella, BSN, RN, RS
Health Director

Tel: (617)898-4886
Fax: (617)696-5172
www.townofmilton.org

Laura T. Richards, Esq., Chair
Mary F. Stenson, RN, BSN, Secretary
Roxanne Musto, RN-C, MS, ANP, Member
Anthony Compagnone, M.D., Medical Advisor

The residents in Milton will be put at a higher risk for illnesses if these proposed changes occur. Additionally, the location of these RNAV's would affect some of the most vulnerable populations including: elderly residents of Fuller Village, Milton Health Care nursing home facility, college students-Curry College, young children- Thatcher Montessori school, Delphi academy, Tucker Elementary School, just to name a few.

In the past, routes have gone out over the water, and not over populated communities and residential areas. These proposed changes will be going over residential areas and effecting homeowners and residents that never previously had routes over their homes.

We ask the Select Board to urge the FAA to consider the above factors and stop the implementation of these proposed RNAV's.

Respectfully,

Caroline A Kinsella B.S.N RN

Caroline Kinsella, BSN, RN, RS
Milton Health Director

U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Regional Administrator
New England Region

1200 District Avenue
Burlington, MA 01803

November 10, 2020

The Honorable William J. Driscoll, Jr.
Office of State Representative 7th Norfolk District
Commonwealth of Massachusetts
24 Beacon Street, RM 446
Boston, MA 02133

Dear Representative Driscoll,

Thank you for your interest in the Boston Logan Runway 4L RNAV Draft Environmental Assessment. The questions that were submitted by your office were addressed during the public workshops and I invite you to refer to the workshop recordings for the answers you need. Your questions will be considered as formal comments, and will be responded to in the Final Environmental Assessment. The Noise Visualization page has been modified to include the overlay of the 4R RNAV path as requested.

Please refer to the website at https://faabostonworkshops.com/.

Sincerely,

COLLEEN M D'ALESSANDRO Digitally signed by COLLEEN M D'ALESSANDRO Date: 2020.11.10 15:22:36 -05'00'

Colleen M. D'Alessandro
New England Regional Administrator

STEPHEN F. LYNCH
8TH DISTRICT, MASSACHUSETTS

COMMITTEE ON FINANCIAL SERVICES

COMMITTEE ON OVERSIGHT AND REFORM
CHAIRMAN, SUBCOMMITTEE ON NATIONAL SECURITY

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

ASSISTANT DEMOCRATIC WHIP

Congress of the United States
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Washington, DC 20515-2108

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QUINCY, MA 02169
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LYNCH.HOUSE.GOV

VIA EMAIL AND VIA OVERNIGHT MAIL **November 19th, 2020**

FAABostonWorkshops@esassoc.com
ATTN: Lorna Christian, Supervisory Senior Advisor, ANE

and

Environmental Science Associates
c\o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress St
Suite 450
Tampa, FL 33607

RE: Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport

To Whom It May Concern:

The undersigned joins in providing these consolidated Comments on the Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport.

Best regards,

Congressman Stephen F. Lynch
8th District of Massachusetts

The Commonwealth of Massachusetts
MASSACHUSETTS SENATE

SENATOR WALTER F. TIMILTY
NORFOLK, BRISTOL AND PLYMOUTH DISTRICT

STATE HOUSE, ROOM 213-B
BOSTON, MA 02133-1053

TEL. (617) 722-1643
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WALTER.TIMILTY@MASENATE.GOV
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CHAIR
JOINT COMMITTEE ON VETERANS AND FEDERAL AFFAIRS

VICE CHAIR
JOINT COMMITTEE ON ENVIRONMENT, NATURAL RESOURCES AND AGRICULTURE

JOINT COMMITTEE ON ECONOMIC DEVELOPMENT AND EMERGING TECHNOLOGIES

JOINT COMMITTEE ON MENTAL HEALTH, SUBSTANCE USE AND RECOVERY

JOINT COMMITTEE ON PUBLIC SERVICE

SENATE COMMITTEE ON BODING, CAPITAL EXPENDITURES AND STATE ASSETS

November 12, 2020

VIA EMAIL AND VIA OVERNIGHT MAIL

FAABostonWorkshops@esassoc.com
ATTN: Lorna Christian, Supervisory Senior Advisor, ANE
and
Environmental Science Associates
c\o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress St
Suite 450
Tampa, FL 33607

RE: Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport

To Whom It May Concern:

The undersigned joins in providing these consolidated Comments on the Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport.

Sincerely,

Senator Walter F. Timilty
Norfolk, Bristol and Plymouth

The Commonwealth of Massachusetts

HOUSE OF REPRESENTATIVES
STATE HOUSE, BOSTON 02133-1054

WILLIAM J. DRISCOLL, JR.
STATE REPRESENTATIVE
7TH NORFOLK DISTRICT

STATE HOUSE, ROOM 443
BOSTON, MA 02133-1053

TEL.(617) 722-2460
William.Driscoll@MAhouse.gov

Vice Chair of the Joint Committee
on Election Laws
Joint Committee on Healthcare Financing

Joint Committee on Consumer Protection
and Professional Licensure

House Committee on Post Audit
and Oversight

November 16, 2020

VIA EMAIL AND VIA OVERNIGHT MAIL

FAABostonWorkshops@esassoc.com
ATTN: Lorna Christian, Supervisory Senior Advisor, ANE

and

Environmental Science Associates
c\o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress St
Suite 450
Tampa, FL 33607

RE: Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport

To Whom It May Concern:

The undersigned joins in providing these consolidated Comments on the Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport.

Best regards,

William J. Driscoll, Jr.
State Representative, 7th Norfolk District

ANDREA J. CAMPBELL
BOSTON CITY COUNCILOR
DISTRICT 4

VIA EMAIL AND VIA OVERNIGHT MAIL **November 12, 2020**

FAABostonWorkshops@esassoc.com
ATTN: Lorna Christian, Supervisory Senior Advisor, ANE

and

Environmental Science Associates
c\o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress St
Suite 450
Tampa, FL 33607

RE: Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport

To Whom It May Concern:

The undersigned joins in providing these consolidated Comments on the Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport.

Best regards,

Andrea J. Campbell
Boston City Councilor, District 4

OFFICE OF

RICARDO ARROYO

BOSTON CITY COUNCILOR
DISTRICT 5

VIA EMAIL AND VIA OVERNIGHT MAIL **November 18, 2020**

FAABostonWorkshops@esassoc.com
ATTN: Lorna Christian, Supervisory Senior Advisor, ANE

and

Environmental Science Associates
c\o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress St
Suite 450
Tampa, FL 33607

RE: Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport

To Whom It May Concern:

The undersigned joins in providing these consolidated Comments on the Draft Environmental Assessment for a Proposed New Approach Procedure to Runway 4-Left at Boston Logan International Airport.

Best regards,

Ricardo Arroyo
Boston City Councilor, District 5

Attachment 1: FAA, Flight Standards Service (AFS), *RNAV (GPS) RWY 4L and RNAV (GPS) RWY 4R Prototype Approach Plates*, February 2017.
Attachment 2: Proposed Action TARGETS AEDT Noise Modeling Report
Attachment 3: RNAV (GPS) RWY 4L and RNAV (GPS) RWY 4R Flight Tracks
Attachment 4: Proposed Action Environmental Justice

-----Original Message-----

COMMONWEALTH OF MASSACHUSETTS
TOWN OF MILTON
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MICHAEL D. DENNEHY
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RICHARD G. WELLS, JR.
MEMBER
MICHAEL F. ZULLAS
MEMBER

VIA EMAIL AND VIA OVERNIGHT MAIL

FAABostonWorkshops@esassoc.com
ATTN: Lorna Christian, Supervisory Senior Advisor, ANE

and

Environmental Science Associates
c\o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress St
Suite 450
Tampa, FL 33607

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To Whom It May Concern:

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Best regards,

Melinda A. Collins, Chair

Kathleen M. Conlon, Vice Chair

Arthur J. Doyle, Secretary

Richard G. Wells, Jr.

Michael F. Zullas

Milton Select Board

-----Original Message-----
From: DAlessandro, Colleen (FAA) <Colleen.DAlessandro@faa.gov>
To: tdprojects@aol.com <tdprojects@aol.com>
Sent: Wed, Mar 4, 2020 1:51 pm
Subject: RE: Logan 4L EA waypoints

Hi Tom – sorry for taking so long to get back to you. I wanted to ensure we had all the right FAA POCs weigh in on your questions. Below are the answers.

1) which (if any) of these are the IF and FAF for the path that the EA will address;

· ***FAA Response: LVRON (IF), MTAPN (FAF)***

2) what the five letter IF and FAF labels are for the path that the EA will address, if different;

· ***FAA Response: See response to question 1***

3) the respective latitude and longitude of the IF and FAF to be used; and

· ***FAA Response: LVRON (IF) 42°11'55.240" N/ 071°05'58.920" W; MTAPN (FAF) 42°16'51.53" N/ 071°03'20.40" W***

4) if a visual path is to be retained, its IF and FAF labels and the respective latitude and longitude of its IF and FAF.

· ***FAA Response: Currently, Runway 4L does not have an instrument approach procedure associated with it. We use a Visual Approach (no course or vertical guidance). When weather goes below a 3000ft. ceiling we can make an instrument approach to Runway 4R and circle to Runway 4L. We also can conduct an ILS approach to Runway 15R and when the pilot reports BOS in sight, the Tower clears the aircraft for a Visual Approach over the harbor to Runway 4L. The 15R situation is only good down to weather conditions of 1500ft. ceiling and 5 miles visibility. When circling from Runway 4R we can use about an 800ft. ceiling and 2 miles visibility. When pilots are aware that they will be getting a Visual Approach to Runway 4L, they have the ability in their FMS to build a course and artificial glide slope if they choose. It would all depend on workload and Company requirements. Other than the proposed RNAV RWY 4L, there are no other procedures planned. The old JetBlue visual procedure is no longer authorized.***

Regards,
Colleen

Colleen D'Alessandro, ANE-1
New England Regional Administrator

May 18, 2020

(VIA ELECTRONIC MAIL)
Colleen D'Alessandro, ANE-1, FAA New England Regional Administrator
Colleen.Dalessandro@faa.gov

RE: Proposed Runway 4L Environmental Assessment Timeline and Process

Dear Ms. D'Alessandro:

Thank you for your continued engagement with the Massport Community Advisory Committee (MCAC), as well as the participation of your fellow colleagues at the Federal Aviation Administration (FAA), especially during these extraordinary circumstances. Due to this unprecedented health crisis and the resulting changes in standard business practices across the nation, I have been asked to request that FAA delay an upcoming environmental review process.

As you presented at our MCAC General Meeting in January, the FAA had tentatively scheduled the Environmental Assessment (EA) process for the proposed Boston Logan International (Logan) Airport Runway 4 Left (4L) Approach Procedure for the third quarter of calendar year 2020. This proposed process included a draft EA 30-day public comment period during which the FAA would hold two public workshops. Furthermore, FAA staff proposed to hold a public workshop separate from and prior to the formal public workshops following an MCAC General Meeting. We discussed the issue with our membership and determined that while a workshop prior to the formal EA comment period was important, a more appropriate venue would be within the communities and neighborhoods affected by this proposed change. The MCAC membership also expressed reservations at the FAA's proposed use of a workshop format versus a formal public hearing and questioned the ability of commenters to effect any meaningful change on a proposed procedure. In response to a request for an update on the timeline for the 4L EA process, you indicated on May 6, 2020 that the FAA is tentatively planning to begin the 30-day public comment period on September 21, 2020.

On May 14, 2020, the MCAC's Milton representative, Tom Dougherty, brought forward the request to delay the 4L EA process citing three main reasons:

First, the neighborhoods impacted by the proposed 4L RNAV flight path include two densely populated areas – Mattapan (82% African American) and Dorchester (43% African American) – where residents are dealing with high incidence of COVID-19 health and economic impacts. There are many working in the area – healthcare workers at Carney Hospital, a COVID-19 dedicated facility, mass transit employees – that are essential employees working to provide basic services to the region. Other families are dealing with unemployment, small business loss, food stamp needs, and home childcare issues. These families need to focus on these urgent needs.

Second, due to the COVID-19 restrictions related to group gatherings and urging social distancing, residents have been unable to have their own preparatory meetings among affected community members to address and ready collective thought on the EA issues.

The 4L EA has previously been deferred by FAA for several years for other reasons. The need for safety review of a 4L RNAV track is less at present given the very few flights occurring. For those reasons, awaiting a time when such preparatory meetings can occur would be advisable.

Third, residents likely will not be in a position to do the field work and analyses for which they have engaged an independent consultant because so few planes are flying now. That field work and analyses will aim to compare actual flight activity with FAA model assumptions over the course of the 4L arrival path.

As you and I have discussed over email, there are serious equity concerns over the use of virtual meetings with residents in lieu of the originally planned in-person public meetings. Virtual meetings are especially problematic for low income communities whose residents may lack the resources to participate; moreover, there is ongoing debate about whether a virtual meeting would be an adequate substitute for a community gathering such as this.

At a virtual meeting on May 14, 2020, the MCAC Executive Committee directed me to request that the FAA defer the 4L EA process until the later of either January 1, 2021 or two months after flights to and from Logan Airport resume with volume and frequency similar to what can be expected in future years.

As previously mentioned, at the January 2020 MCAC meeting, we requested that the FAA meet with 4L EA affected residents prior to the comment period to provide information (such as the EA Documentation itself and Volpe Center or other analyses) and to allow residents to provide input before FAA finalizes and submits its EA for public comment. We reiterate that request, adding now that considering the COVID-19 guidelines, such pre-comment period meetings should occur at the start of the deferred schedule as proposed above.

We appreciate the FAA's commitment to conduct a full Environmental Assessment process after the initial 2015 public meeting on this proposal and its recognition that conducting this enhanced review process properly and thoroughly will provide a meaningful benefit to the affected communities, businesses, and residents.

I look forward to working with you on this matter moving forward.

Sincerely,

Matthew A. Romero
Massport CAC Executive Director

cc: David Carlon, MCAC Chairman
Thomas Dougherty, MCAC Milton Representative and Treasurer
Flavio Leo, Massport Director of Aviation Planning and Strategy
Anthony Gallagher, Massport Community Relations

RESPONSE

The above letters represent previous correspondence between local and state officials and FAA New England Region officials regarding the RNAV (GPS) RWY 4L Draft EA, including additional correspondence where necessary to provide additional context. These inquiries have been previously responded to by FAA New England Region officials and are provided only for informational purposes.

WEBSITE-1

COMMENT

Website-1-1

To all,

As a Milton resident whose property is adversely impacted by incoming flights that use runway 4L, I am disturbed by the premise that GPS will be used to further concentrate this flight path over the town Milton. The health and Safety of all Milton residents is at stake. Th flight path travels directly over a school (Milton Academy) and preschools (Carriage House School and the Village School). Milton residents are adversely impacted by flight noise and pollution, and have been overburdened for decades. So too have residents of Dorchester, MA. The FAA and Massport should be focused on more evenly and fairly spreading out approach pathways and noise / particulate pollution. That is, on minimizing flight path concentration in an effort to share the burden. While Milton residents understand that fligh traffic is here to stay, we object to the the unfair burden imposed on our community.

I urge you to explore the concept of spreading out the 4L approach flight pathways for the health and safety of our community. Our children depend on it.

Thank you,

Jeff Marr

617 438 6772

40 Marine Rd (Formerly 245 Highland St.)

Milton, MA

RESPONSE

WEBSITE-1-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). The addition of an Area Navigation (RNAV) Global Positioning System (GPS) procedure into Runway 4L will enhance the safety of operations at Boston Logan International Airport (the Airport) as described in the Purpose & Need for the procedure, which is fully described in Section 1.2 of the 2020 Draft Environmental Assessment (2020 Draft EA). The environmental impact on sites near the flight path is an important aspect of the 2020 Draft EA; the three schools mentioned are all within the General Study Area (GSA) and were assessed as part of the environmental analysis.

The specific noise impact of the Proposed Action on Milton Academy can be found in the 2020 Draft EA and on the project website (*https://faabostonworkshops.com/noise-visualization/*) as the Milton Academy buildings are considered historical resources.

The RNAV (GPS) RWY 4L procedure will generally be in use only during poor or marginal weather and is anticipated to result in an additional 255 flights per year that were previously delayed or canceled during poor weather conditions as well as 104 arrivals that would shift from Runway 4R due to reduced delays on Runway 4L during IMC. Additionally, the RNAV (GPS) RWY 4L procedure is anticipated to serve those flights that currently use the ILS RWY 15R approach to transition to a left downwind for Runway 4L in marginal weather conditions. These 594 annual flights already use Runway 4L but are anticipated to use the RNAV (GPS) RWY 4L procedure in the future during marginal weather conditions. None of these changes are expected to cause a significant noise increase under the requirements given in FAA Order 1050.1F.

The addition of dispersed arrivals was not an alternative that was considered as part of the 2020 Draft EA, as the purpose of the Proposed Action is limited to addressing the specific needs addressed in chapter 1 of the Final EA and is not expected to be used often. However, recommendations of this nature are being discussed by the Massachusetts Port Authority (Massport) Community Advisory Committee (CAC) in their ongoing work with the Massachusetts Institute of Technology (MIT) International Center for Air Transportation. Your comment on exploring this concept may be useful as they work to develop proposed changes to the Airport's airspace.

WEBSITE-2

COMMENT

Website-2-1

Since I moved to my current home in East Arlington in 1992, air traffic noise has increased exponentially. There were occasions when jets were so loud over my house that it felt like they'd land on my roof, but those were rare and limited to windy days when the wind blew from the north.

Now, I am awakened by air noise nearly every single morning at 6 a.m., sometimes earlier, and it is often constant all day and well into the night. Even with all my windows closed, I g air noise so loud as to override other sounds in my house. I've had to close the windows on beautiful days so as not to be deafened by the noise. I can't get a full eight hours of sleep many nights.

More than once, I've stood in my driveway and watched plane after plane after plane fly right over my property, roaring past so low that I can see what airline or cargo service it is. I use the airnoise.io app, and I have tracked the activity for many hours of many days. Bas on your own noise data on this very website, it's like having a machine running in my hous all day every day.

Environmental noise pollution like that caused by air traffic is a health hazard, just as much as dirty air or dirty water. This is well documented. By allowing this noise to continue, or by increasing the noise impact, you are worsening a public health issue. This is just plain wron No law requires airlines to be favored over people who live in their wake. I love to travel, bu my health should not be subsidizing an airline's profits.

I should not have to lose my hearing, wear noise-damping headphones, or wear ear plugs i my own home every day. I shouldn't be subjected to a major health issue. The airlines have the capability of changing their equipment and their flight paths to lessen the potential harm, and you have an obligation to American taxpayers and residents to hold them to tha instead of allowing them to make things worse.

RESPONSE

WEBSITE-2-1

As part of the Environmental Assessment (EA), the noise impact of the Proposed Action was analyzed and was found to not have a significant impact in accordance with the guidance spelled out in Federal Aviation Administration (FAA) Order 1050.1F. The noise impact was calculated per the requirement in the regulations at census block locations throughout the General Study Area (GSA).[1] These calculated values for the No Action and Proposed Action Alternatives can be reviewed on the Noise Visualization tab of the project website at *FAABostonWorkshops.com*.

[1] FAA Order 1050.1F, B-1.4, Environmental Consequences, https://www.faa.gov/documentLibrary/media/Order/FAA_Order_1050_1F.pdf,

At all the points across the GSA there were no significant or reportable noise impacts as spelled out in FAA Order 1050.1F. For more details on the noise modeling process, please consult the Noise Modeling Technical Report in the Appendix the 2020 Draft EA.

WEBSITE-3

COMMENT

Website-3-1	Health hazards of aircraft noise: https://knops.co/magazine/noise-pollution-planes/

RESPONSE

WEBSITE-3-1

As part of this environmental assessment, the noise impact of the Proposed Action was analyzed using the DNL metric and was found to not have a significant impact in accordance with the guidance spelled out in FAA Order 1050.1F. For more details on the noise modeling process and detailed methodology, please consult the Noise Modeling Technical Report in the Appendix of the 2020 Draft EA.

WEBSITE-4

COMMENT

Website-4-1	The DNL metric is not an appropriate measure of the noise effects of RNAV flight paths. I liv under the 33L flight path & my once peaceful home is now bombarded with flights roaring over head often 1-2 minutes apart, creating a constant roar. It is a significant impact on those of us unlucky enough to be located under these narrow flight paths. Logan should b acting in good faith working toward dispersing flights, so the noise burden is shared, not adding new narrow flight paths.

RESPONSE

WEBSITE-4-1

Day-Night Average Sound Level (DNL) is the noise metric required by the Federal Aviation Administration (FAA) for National Environmental Policy Act (NEPA) studies. This metric includes the cumulative noise generated by the average aircraft operations across an entire year with an additional weighting for operations occurring at night (10 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night.

The results of the noise analysis completed for the Environmental Assessment (EA) indicate that there would be no significant noise impact as a result of implementing the Proposed Action. For more details on the noise modeling process and detailed methodology, please consult the Noise Modeling Technical Report in the Appendix of the 2020 Draft EA.

WEBSITE-5

COMMENT

Website-5-1

Basic flaws with ALL FAA EA"s evaluating NextGen procedures:

1) Fails to take into account the high risk of health damage from ultrafine particle (UFP) emissions from overhead landing aircraft for 10 miles from runway ends.

2) Fails to consider these UFP infiltrate homes, schools, playfields, nursing homes where th most vulnerable are exposed

3) Fails to consider the cumulative impact of health risks from the combined effects of simultaneous aviation noise and emissions which have overlapping effects on pre-term birtl birth weight, cognitive function, metabolic, heart and lung effects

4) Fails to consider the increased health risks associated with concentrated air toxics and criteria emissions on exposed populations under the 3,000 foot level of overhead aircraft

5) Fails to consider the current urgent recognized need to upgrade and retrofit failing past noise mitigation measures.

What does all this mean? It means that in many areas affected by aircraft overflights there are vulnerable populations with less ability to challenge the industry. These populations hav less access to healthcare, language barriers and resource dependence that puts them at much greater risk of health and welfare impacts. Although it may not be FAA's role to asses health, those responsible for that task are studying the health impacts of many forms of aviation impacts including but not limited to noise and emissions.

For any federal agency to ignore emerging science and set aside bodies of evidence of risk and potential risk is irresponsible. Process violations of many chapters of NEPA are regularly occurring as a result of setting aside public health in favor of increasing airline profits.

Last, the premise of NextGen is flawed. Its purpose was to increase efficiency which can be translated, the most hourly operations possible within acceptable levels of risk. Increasing frequency with technology actually has the opposite effect of reducing fuel burn because it allows more operations.. Without NextGen, airports would be limited and constrained making it impossible to increase hourly throughput while maintaining safety.

Show your work-the public has a right to know these facts which reside behind various information requests that admit there are other alternatives to NextGen such as airlines controlling scheduling, peak hour demand pricing, eliminating competition between carrie for slot preference, etc.

RESPONSE

WEBSITE-5-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). To that end, an environmental assessment has been conducted in accordance with the guidance in FAA Order 1050.1F. The purpose of this environmental assessment is to evaluate environmental changes attributable to implementing the RNAV (GPS) RWY 4L procedure at an airport with a considerable amount of existing traffic. That existing traffic is used to establish a baseline scenario with which to compare the effects of implementing the new procedure. However, the FAA does not control scheduling at the Airport which is not currently constrained or slot-controlled based on sufficient runway capacity. The airlines control scheduling and typically adjust it based on demand. Until the Airport is constrained in terms of runway capacity and ground infrastructure as demand continues to rise, airlines and other non-airline users will be able to freely add flights if desired.

Consistent with the FAA's mission to provide the safest, most efficient aerospace system in the world, as well as to satisfy the need to provide vertical and horizontal guidance to the runway, another purpose of this project is to enhance safety. The implementation of the RNAV (GPS) RWY 4L procedure will enhance safety by providing vertical and lateral guidance to the runway and is not intended to change the distribution of aircraft arriving to Runway 4L.

WEBSITE-6

COMMENT

Website-6-1	Overall, more care needs to be taken into the true environmental impact of anything FAA-related in the Boston area- specifically, the noise pollution that comes with these flight paths and their so-called 'improvements'. Why isn't more being done to mitigate the noise Boston-area residents need to deal with on a daily and sometimes hourly basis? Especially for those of us who don't even live near Logan- we never could have anticipated dealing wi the relentless overhead noise, and as we all know, plane noise is both near-impossible to drown out or mitigate, and a proven danger to both individual health and public health as whole. Something clearly needs to be done to mitigate these effects. Thank you.

RESPONSE

WEBSITE-6-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). The purpose of this environmental assessment is to evaluate the implementation of the RNAV (GPS) RWY 4L approach at the Airport and compare noise exposure with this procedure active to noise exposure as it exists today. As described in the Purpose and Need chapter, this procedure is needed to enhance the safety of

operations at the Airport. This environmental assessment is of limited scope – the evaluation of noise impacts is limited to those that would not be there in the absence of the proposed procedure. Noise and air quality evaluations show that there are not any impacts associated with this procedure reaching (or even approaching) thresholds of significance or reportability as defined in FAA Order 1050.1F.

WEBSITE-7

COMMENT

Website-7-1

The absence of a defined lateral and vertical path increases pilot workload during a critical phase of flight. Safety departments in multiple air carriers have proven time and time agai the safest path to complete a flight is by meeting certain stabilized approach criteria. A procedure like one contained in this EA, supports the tenants of stabilized approach criteri and significantly increases the likelihood of a safe landing on the first approach attempt. Furthermore, it provides redundancy by increasing the number of available landing runwa with instrument approaches for arrival into KBOS in the case of a runway closure or IMC/wind event. Please consider this procedure as a layer of protection, ensuring the airspace remains as safe as possible during all conditions.

RESPONSE

WEBSITE-7-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). Consistent with the FAA's mission to provide the safest, most efficient aerospace system in the world, as well as to satisfy the need to provide vertical and horizontal guidance to the runway, another purpose of this project is to enhance safety. The implementation of the RNAV (GPS) RWY 4L procedure will enhance safety by providing vertical and lateral guidance to the runway and is not intended to change the distribution of aircraft arriving to Runway 4L nor will it appreciably change the availability of Runway 4L for landings, except during periods of Instrument Meteorological Conditions (IMC) when the Airport is in the Northeast configuration.

WEBSITE-8

COMMENT

Thomas P. Koch
Mayor
Frank A. Tramontozzi, PE
Director of Infrastructure

City of Quincy, Massachusetts
Office of the Mayor

City Hall
1305 Hancock Street
Quincy, MA 02169
Tel: 617-376-1990
Fax: 617-376-1995
ftramontozzi@quincyma.gov

November 18, 2020

Environmental Science Associates
c/o Boston Logan RNAV (GPS) Approach EA
4299 West Cypress Street, Suite 450
Tampa, FL 33607

To whom it may concern;

Subject: Comments to the Draft Environmental Assessment, Runway 4L, Boston's Logan International Airport, upgrade for instrument approach procedures.

The FAA is proposing to introduce a new instrument approach procedure for Runway 4L to enhance safety for aircraft as well as the ability to operate more efficiently under poor weather conditions. We are in favor of safer operations in poor weather conditions, so the addition of instrument approach procedures is desirable. Since the existing parallel runway 4R is already equipped for instrument approach procedures, providing the same to the parallel 4L runway is desirable.

Website-8-1

We believe that by providing instrument procedure capability to the 4L runway, with the existing instrument procedure capability provided for runway 4R, that this could help distribute the load of approaching aircraft by splitting up the usage of these two runways. During 2019, the number of 4R runway jet approaches exceeded 4L jet approaches by a factor of 9 to 1.

However, adding capacity to accommodate more aircraft using the 4L and 4R runways is not desirable. Therefore, enhancing safety by equipping 4L with instrument procedure capabilities is favored provided there is no net increase in the number of flights landing at Boston Logan Airport on runways 4L and 4R.

We also encourage the use of runway 4L for uncharted left downwind transition that could help to reduce the excessive number of approaches to runway 4R. Although we found no information about this in the Draft Environmental Assessment, perhaps this issue could be addressed in the Final Environmental Assessment.

Thank you for the opportunity to participate in this NEPA process.

Sincerely,
City of Quincy:

Frank A. Tramontozzi, PE

RESPONSE

WEBSITE-8-1

The Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport) The implementation of the RNAV (GPS) RWY 4L procedure will allow a small number of additional arrivals to Runway 4L as it will now be able to handle aircraft during Instrument Meteorological Conditions (IMC), which it cannot today. However, the Airport only experiences IMC a small percentage of the time - when the airport is experiencing Visual Meteorological Conditions (VMC) the operational regime will remain identical to today. It is anticipated that only a small number of aircraft will shift to Runway 4L from Runway 4R.

The Runway 4L left downwind approach during VMC is only assigned when required operationally. The implementation of the RNAV (GPS) RWY 4L procedure is not expected to appreciably change this operational regime. The Proposed Action is anticipated to result in a net increase in arrivals, as approximately 255 fewer scheduled arrivals will need to be cancelled when the 4L RNAV procedure is implemented. Please see Appendix B of the 2020 Draft EA for additional information regarding expected operational changes associated with the Proposed Action.

WEBSITE-9

COMMENT

Website-9-1 Living in Medford my whole life, it has been terrible with noise and low flying aircraft since you went to RNAV. Including low flying APPROACHES to runway 33. I understand Medford and MIT put a study together to combat these issues and the FAA and Massport outright dismissed it! To save some airplane fuel you are ruining lives on the ground on a daily basis Do something for the people on the ground first. Otherwise known as the taxpayers.

RESPONSE

WEBSITE-9-1

The purpose of this environmental assessment is to evaluate the implementation of the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport) and compare noise exposure with this procedure active to noise exposure as it exists today. As described in the Purpose and Need chapter of 2020 Draft EA this procedure is needed to enhance the safety of operations at the Airport.

WEBSITE-10

COMMENT

Website-10-1 Our family lives under where 4R and 4L intersect. We are asking FAA to use 4L to disperse the many from approaches on the 4R RNAV, use the leftdown-wind transition for all arrivals from the north and evaluate at a 15-degree offset to the 4L path.cities and towns including Dorchester, Quincy, Milton, and others impacted by approaches to 4R deserve restrictions that are equal to those protecting communities from excessive aviation noise and pollution.

RESPONSE

WEBSITE-10-1

The purpose of the Federal Aviation Administration (FAA) developing this procedure at Boston Logan International Airport (the Airport) is to meet the need of providing vertical and horizontal guidance to aircraft arriving on Runway 4L, as it is one of the few runways at a major hub airport in the United States that does not have this safety-enhancing capability. Implementing the RNAV (GPS) RWY 4L procedure will not result in a large number of arrivals moving from Runway 4R to Runway 4L--the only difference that is planned with respect to today's operations is that during times of poor weather, Runway 4L will not be closed to traffic as it is today. As a result, an additional 359 aircraft per year are anticipated to use Runway 4L for arrivals when compared with today, 104 of which would have previously used Runway 4R after a delay or would have previously been canceled outright.

During good weather, the left downwind approach to Runway 4L is regularly used, but to use it for all aircraft arriving from the north would be unnecessarily complex operationally particularly during gusty conditions.

Regarding utilizing a 15-degree offset angle, FAA Order 8260.58B, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, allows for an approach course to be offset between a Precision Final Approach Fix (PFAF) and the Landing Threshold Point (LTP)/Fictitious Threshold Point (FTP).

A 15-degree offset is allowed for an approach that has Lateral Navigation with Vertical Guidance (LNAV/VNAV) approach minimums. The limits to this are that the approach course does not line up with the centerline of the runway causing increased weather minimums. The approach course must cross the runway centerline at least 3,000 feet and no more than 5,200 feet prior to the LTP.

Additionally, the Obstacle Evaluation Area (OEA) for this segment of the approach would encroach closer to city buildings, potentially causing higher weather minimums. The OEA inside of the PFAF is 1.8 nautical miles wide.

The FAA intends to create the most effective approach possible with the lowest weather minimums allowed by criteria that all pilots are capable of flying. In this case it is an Area Navigation (RNAV) (GPS) approach that has Localizer Performance with Vertical Guidance (LPV). An approach course with LPV minimums is allowed to have a course offset of up to 3.0 degrees.

To be more effective, the ability to use the RNAV (GPS) RWY 4L procedure while conducting ILS RWY 4R approaches has been explored. Up until 2008, centerlines of parallel runways were required to be separated by at least 2,500 feet for aircraft to conduct simultaneous approaches to those runways. Runway 4R and Runway 4L are separated by only 1,500 feet at the Airport.

In 2008, the FAA implemented procedures for conducting simultaneous approaches to closely spaced parallel runways (CSPR), defined as runways with centerlines that are separated by less than 2,500 feet. Since then, procedures have been written to conduct Simultaneous Offset Instrument Approaches (SOIA) to reduce the potential for wake turbulence encounters with aircraft conducting approaches to the parallel runway. The allowed offset for SOIA is up to 3.0 degrees.

While studying all the requirements for conducting approaches to CSPR and SOIA, it was determined that using 2.0 degrees would allow for wake turbulence avoidance and limit the amount of compression that would be experienced when the aircraft conducting the approach to Runway 4L at the Airport was making up the extra distance to the runway caused by the offset angle. Thus, 2.0 degrees was chosen as the offset angle for the RNAV (GPS) RWY 4L approach.

WEBSITE-11

COMMENT

Website-11-1

RNAVs inflict a lot of excessive noise on the people living near or under them and Milton, Mattapan, and Dorchester already have more than three disturbing RNAVs going over them and we have been battling the existing ones (especially the arrival path to runway 4R & departures from runways 27 & 33) since they were implemented in 2013-14. RNAVs are inherently unfair by burdening small numbers of people with excessive concentrated noise and do not fairly distribute the noise burden caused by Logan Airport flights to all the communities and populations that are benefiting from being near the airport. Putting as many flights as possible over the water and then dispersing the remaining flights broadly across all communities would also hopefully spread the noise level out and reduce it to tolerable levels.

I absolutely object to the proposed new RNAV (GPS) RWY 4L. Please do not unfairly burden my town and neighborhood with even more noise pollution.

Rebecca Kenney

RESPONSE

WEBSITE-11-1

The operational regime of Boston Logan International Airport (the Airport) is not expected to change at all when there is good weather at the Airport. The only change will happen when weather is marginal or poor (and the Airport is in the Northeast configuration) and the availability of the RNAV (GPS) RWY 4L procedure will enable arrivals to that runway. This does not happen particularly often, and the Federal Aviation Administration (FAA) has estimated that this will result in an additional 359 arrivals per year to Runway 4L, or an average of less than one per day.

The purpose of the FAA developing this procedure is to meet the need of providing vertical and horizontal guidance to aircraft arriving on Runway 4L, as it is one of the few runways at a major hub airport in the United States that does not have this safety-enhancing capability. Attempting to route additional flights over water, particularly in the area surrounding Boston Harbor to the south of Runway 4L and Runway 4R, has multiple potential safety issues including the lack of vertical and horizontal guidance to the runways, the presence of tall vessels in the harbor, additional Air

Traffic Control (ATC) complexity, and the increased low-altitude maneuvering required for large commercial aircraft.

This procedure will not result in changes to traffic patterns to and from other runways at the Airport, including arrivals to Runway 4L and departures from Runway 27 and Runway 33.

WEBSITE-12

COMMENT

Website-12-1	The ONLY good thing about Covid-19 has been the decrease in number of airplanes flying over my head day and night. It's been the first time in years I've been able to sleep. The noise was terrible - and CONSTANT. One plane after another after another. I made daily calls to the noise complaint line. There were times I called in tears, I was so tired and frustrated. Please do not add another flight path here. Our lives are already impaired enough by what you have.

RESPONSE

WEBSITE-12-1

The implementation of the proposed RNAV (GPS) RWY 4L procedure is anticipated to result in 359 additional arrivals per year to Runway 4L, or an average of less than one per day. Additionally, the FAA is not adding another distinct flight path. Consistent with the FAA's mission to provide the safest, most efficient aerospace system in the world, as well as to satisfy the need to provide vertical and horizontal guidance to the runway, the purpose of this project is to enhance safety. The implementation of the RNAV (GPS) RWY 4L procedure will enhance safety by providing predictable instrument guidance to the runway. Areas near the Airport that underlie the Runway 4L approach path are already being heavily overflown by both arrivals and departures, and other than the additional 255 arrival operations that are estimated to use Runway 4L annually (as well as their corresponding departures), the Airport is expected to operate largely as it does today.

WEBSITE-14

COMMENT

November 19, 2020

Environmental Science Associates
c/o Boston Logan RNAV (GPS) Approach EA
4200 West Cypress Street, Suite 450
Tampa, FL 33607

Re: Opposition to Proposed 4L RNAV

Dear Madam/Sir:

The FAA's proposed 4L RNAV procedure is based on arbitrary and capricious assertion and assumptions, and an actual environmental impact study would reveal that the propose 4L RNAV would be overly burdensome to the Town of Milton residents given the cumulative impact of the thousands of arrival and departures the town presently endures. Furthermon during your October 28, 2020 Workshop, your presenter's claim that- the 4L RNAV is need for "safety." This assertion is both unconvincing and an obvious pretext to create yet another superhighway RNAV that would allow for increased air traffic capacity at Logan International Airport.

Website-14-1

During your October 28th Workshop, your panelists chose to ignore the thousands of Milton residents' noise complaints submitted due to low-flying aircraft after the implementation of 4R RNAV in 2012. These thousands of complaints were filed with the quasi-governmental agency, Massport, as urged by our elected federal, state, and local officials in order to create data points which could be used for future environmental impact studies. During your October 28th Workshop you systematically ignored these thousands o complaints, and admittedly failed to utilize the data associated by these first-hand account of noise disturbances. Instead, your panelists read canned responses utilizing the FAA's faulty DNL metrics, which over-extrapolate noise metrics over both time period and distance in order to comport with the FAA's finding that there is no community impact nor will there be if the 4L RNAV is implemented. The FAA's failure to utilize actual first-hand noise-disturbance accounts in its analysis is arbitrary and capricious, and thus, your panelists' assertions that there will be no additional airplane noise impact upon Milton and Boston residents, is baseless. An actual environmental impact study should be conducted.

With respect to the tone of the October 28th Workshop, and the participants' false claims that there will be no measurable airplane noise burden on the Town of Milton, admittedly, and according to your panelists, none has conducted any field-work in Milton when runways 4R and 4L are in use. None has physically been in the "sandwich zone" whe both 4R and 4L runways are being simultaneously utilized. None of your participants has placed any noise monitors or other devices to take actual measurements of plane noise when 4R and 4L is in use. None has contacted any Milton residents in person, via phone or email to follow-up on past noise complaints.

Website-14-2

In sum, no actual scientific or environmental data of any kind has been collected beneath the 4R RNAV nor under the proposed 4L RNAV, nor the "sandwich zone," which encompasses the large area between these the 4L AND 4R RNAV. Instead, your Workshop's panelists chose to ignore thousands of residents' noise complaints, and instead relied on faulty DNL metrics designed to mathematically extrapolate ridiculous distances and time periods to almost make the noise burned non-existent, if not beneficial!!! The panelists FAA's overreliance on mathematical modeling and over-extrapolation of data, undermined the intent of conducting these workshops and public meetings, and is thus, arbitrary and capricious.

When citizens are forced to endure a dog-and-pony show, like your October 28th Workshop, citizens lose confidence in their government and agency employees. The Octob 28th Workshop was reminiscent of some of the early cigarette commercials, where smokin was found to be not bad for your lungs, but actually good for your health! Even though yo have over 500 planes flying over your house daily, no big deal! Don't worry, the FAA's nois metric models say you are experiencing nothing!! A lack of ANY field work, and an over-extrapolation of your DNL metrics is obtuse, and both arbitrary and capricious as well as having the overarching consequence of people losing faith in their government agencie

Website-14-3

And, while airplane noise is the obvious burden, your panelists failed to mention the silent killer- that of small particle pollution, which these RNAVs unfairly expose those beneath these "sky super-highways" to an increased level of small particle pollution at disproportionate shares. Unless I'm mistaken, and that's fairy dust that the planes emittin the small particle pollution has not been properly studied. Small particle pollution has bee linked to many childhood and adult diseases such as asthma and cancer. This small partic pollution caused by airplane emissions should be studied by scientists, and not agency personnel utilizing mathematical models. Failure to not properly study small particle pollution beneath the existing and proposed RNAVs in Milton is arbitrary and capricious.

Website-14-4

In sum, I implore your agency to do the right thing and conduct an actual environmental impact study. I also urge agency to immediately implement simple measure that would drastically reduce the impact to sufferers on the ground, i.e.; requiring vortex generators on all aircraft- a very simple and cheap partial solution; directing aircraft to fly a a higher altitude upon approach- local commercial pilots have indicated that this is absolutely feasible; and lastly, requiring that aircraft lower landing gear closer to the destination, as opposed to six to ten miles away. These simple changes would drastically reduce Milton's immediate noise burden.

In this age of division and mistrust of government, your October 28th Workshop was classic example of an arbitrary and capricious process using "safety" as a pretext for the FAA's forced implementation of an RNAV superhighway over Milton and Boston. If your agency truly cares about the impact on communities, it would work to formulate a regiona approach of burden-sharing for all the towns surrounding Logan International Airport. As t FAA is well aware, approval of the 4L

RNAV is only to placate the airline industry at the expense of those who live under and around these superhighways in the sky, and not for any safety concerns. Flying planes at hundreds of feet apart, and less than a thousand feet in altitude at six miles before landing is the real safety concern.

For the above-set forth reasons, I urge you to not approve the 4L RNAV. At a minimur I implore your agency to conduct an actual environmental impact study.

Respectfully,

Catherine Sheedy-McGonagle

cc.

Congressperson Stephen Lynch
Congressperson Ayaan Pressley
U.S. Senator Edward Markey
U.S. Senator Elizabeth Warren
Milton's Selectperson Melinda Collins

RESPONSE

WEBSITE-14-1

The activity on Runways 4L and 4R was considered and simulated as part of the noise analysis in this environmental assessment. When considering the environmental impact of the Proposed Action, two alternatives were prepared: a No-Action Alternative and a Proposed Action Alternative. Both alternatives include the activity on all runways at the Airport with the Proposed Action Alternative only adding activity resulting from the Proposed Action to the environmental analysis. The Proposed Action Alternative considers the impact of the Proposed Action in addition to the already existing activity at the Airport.

The cumulative impacts section was written to identify and analyze projects that would possibly have a collectively significant impact when considered together with the Proposed Action. An analysis of the noise generated by aircraft since the implementation of RNAV procedures implemented in 2012 was not within the scope of this environmental assessment.

DNL is the noise metric required by the FAA for NEPA studies. DNL includes the cumulative noise generated by multiple aircraft operations, with an additional weighting for operations occurring at night (10:00:00 pm to 6:59:59 am) to account for the increased sensitivity of communities to noise occurring at night. DNL analysis may also be supplemented on a case-by-case basis to better characterize specific noise impacts, but the analysis showed that the Proposed Action does not have an appreciable effect in the noise exposure ranges associated with local communities. The data supporting this statement can be found in Table 4.6-3 of the 2020 Draft EA.

WEBSITE-14-2

Noise modeling allows the FAA to estimate noise levels over a wide geographic area. Modeling also allows the FAA to estimate noise levels of future aircraft operations. The FAA is required to use noise modeling, rather than noise measurements, per FAA Order 1050.1F. To simulate the same fidelity of modeling using noise monitors, one would need thousands of noise monitors across the GSA. Further information about the complete noise analysis can be found in the Noise Modeling Technical Report contained in the 2020 Draft EA Appendix.

WEBSITE-14-3

Fine particulate matter ($PM_{2.5}$), consists of fine inhalable particles with diameters that are generally 2.5 microns and smaller. Exposure to such particles can affect human cardiovascular and respiratory systems. The counties within the GSA are found to be in Attainment with the current $PM_{2.5}$ standard. (Environmental Protection Agency Greenbook, 2020). The Air Quality section of the 2020 Draft EA identifies the emissions for the No Action Alternative and Proposed Action Alternative up to the mixing height in accordance with FAA regulations--mixing height is the top of the vertical region of the atmosphere in which pollutant mixing occurs and affects ground level concentrations. The net change in $PM_{2.5}$ emissions between the No Action and Proposed Action Alternatives is due to the small increase in net annual operations modeled as part of the Proposed Action.

WEBSITE-14-4

The purpose of the environmental assessment is to evaluate the impacts of implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). Based on reasonable assumptions to how this implementation would affect existing air traffic at the Airport, it was found that a comparatively low number of flights will be newly using this procedure because it will only be assigned during times of marginal Visual Meteorological Conditions (marginal VMC) or Instrument Meteorological Conditions (IMC). The only other aircraft that will be using this procedure are those that currently use the ILS RWY 15R procedure and then transition to a left-downwind approach to Runway 4L. Everything else will be using the current procedures - the operations will not change during VMC that occur at the Airport the most time.

Modeling associated with this procedure showed very little change in Day-Night Average Sound Level (DNL) exposure at any of the population centroids within the General Study Area (GSA). If the model had showed significant or reportable impacts, or if any centroids had even approached the thresholds of significance or reportability, a case for an Environmental Impact Statement (EIS) might be considered. This study did not meet either of those criteria.

Aerodynamic improvements that could reduce noise exposure have other impacts which must be considered before FAA would take action and are beyond the scope of this environmental assessment.

Aircraft that fly the RNAV (GPS) RWY 4L procedure will usually approach the Airport at a higher altitude than those that use the visual approach to Runway 4L as the former approach has a higher glide path angle (GPA) than the latter. The RNAV (GPS) RWY 4L approach will use a 3.1-degree GPA while visual approach aids to the runway assume a 3.0-degree GPA. While flying a higher approach at times is feasible in VMC, the ability to do so is primarily dictated by individual aircraft performance, weather, and air traffic considerations. Passenger comfort is another factor. Maintaining a stabilized approach to the runway is critical to a safe landing and asking aircraft to fly higher reduces pilot response time and has the potential to introduce additional risk.

The Federal Aviation Administration (FAA) is consistently examining and identifying regulatory and operational changes (i.e. the requirement for vortex generators, altitude changes, etc.) that can be made to promote reductions in aircraft noise and other environmental impacts. However, these regulatory changes are beyond the scope of this EA, which intends to evaluate the environmental effects of implementing the RNAV (GPS) RWY 4L procedure at the Airport.

WEBSITE-15

COMMENT

Website-15-1	JetBlue is in support of the proposed KBOS Boston Logan Airport RNAV(GPS) 4L procedure. This procedure will provide a major safety enhancement to Runway 4L where no procedure with Lateral or Vertical guidance exists today. Data has proven that procedures with this type of guidance will greatly reduce un-stabilized approaches while providing a means for u to efficiently operate to the runway with reduced noise and emissions.

RESPONSE

WEBSITE-15-1

The Federal Aviation Administration (FAA) expects the RNAV (GPS) RWY 4L procedure to have a limited role, as its primary use will be during Instrument Meteorological Conditions (IMC) and only when Boston Logan International Airport (the Airport) is in a Northeast configuration. In these conditions, the procedure will greatly benefit arrival flow at the Airport and reduce delays. While it is not anticipated that the new procedure will reduce noise or emissions, they are not expected to significantly increase due to its implementation.

WEBSITE-16

COMMENT

Website-16-1

We are contacting you on our concern about another flight path going over our neighborhood. We have lived at our home for over 27 years and cannot believe the increas in flight traffic over that time. We are not only concerned about noise but also the environmental impact . Our hard surfaces in the yard and roof are covered with black soot. It is simply unfair to have Milton and our neighbors bear the burden of all this flight traffic.

RESPONSE

WEBSITE-16-1

The Federal Aviation Administration (FAA) does not control the scheduling of flights at Boston Logan International Airport (the Airport), as the Airport is not currently constrained in terms of airspace or runway capacity during normal operations. The implementation of the RNAV (GPS) RWY 4L procedure will reduce delays at the Airport during times of poor weather conditions and when wind conditions dictate a Northeast configuration. In the FAA's Proposed Action Alternative, the noise impact of 359 additional annual arrivals to Runway 4L is modeled. The additional arrivals are as a result of reduced delay in Instrument Meteorological (IMC) conditions as well as 594 arrivals that will utilize the RNAV (GPS) RWY 4L procedure instead of the ILS RWY 15R transition to Runway 4L during marginal Visual Meteorological Conditions (marginal VMC). The 359 annual arrivals include an estimated 255 new arrivals that would have otherwise been canceled as well as 104 arrivals that would shift from Runway 4R due to reduced delays on Runway 4L during IMC. Other than 255 additional departures (to offset additional arrivals), all other traffic is assumed to fly as it does today, as the implementation of this procedure is not anticipated to change anything about the operational regime of the Airport during any other conditions, including VMC and when the Airport is in another airfield (runway use) configuration. In addition, this procedure overlies an area of existing arrivals to Runway 4L and is not expected to result in the overflight of new areas on approach.

WEBSITE-17

COMMENTS

Website-17-1

The proposal to add additional flight paths over Milton is completely unfair and unnecessar Milton is already exposed to disproportionate noise and pollution, which significantly impac quality of life in the town. Better - and more fair and equitable - alternatives are available and should be pursued.

I have no confidence that authorities are taking public comments seriously. But I hope I'm wrong.

RESPONSE

WEBSITE-17-1

At Boston Logan International Airport (the Airport), the area over which the RNAV (GPS) RWY 4L procedure is proposed to be implemented is currently heavily overflown by traffic landing on Runway 4L, and 359 additional annual arrivals to Runway 4L (104 of which are anticipated to consist of aircraft that would currently arrive to Runway 4R but can now use Runway 4L due to a reduction in runway delay) are anticipated to use the new procedure. In the context of the total number of arrivals to Runway 4L and Runway 4R, it is a comparatively small amount, which is reflected by the small changes in total post-implementation noise exposure modeled in the General Study Area (GSA).

Consistent with the Federal Aviation Administration (FAA)'s mission to provide the safest, most efficient aerospace system in the world, as well as to satisfy the need to provide vertical and horizontal guidance to the runway, the primary purpose of this project is to enhance safety. The implementation of the RNAV (GPS) RWY 4L procedure will enhance safety by providing aircraft lateral and vertical navigation to the runway during Instrument Meteorological Conditions (IMC).

WEBSITE-18

COMMENT

Hello,

For last several years representatives of Milton and other affected towns have tried to protect residents from the noise and pollution from aircrafts flying over Milton and landing at Logan Airport. They wrote petitions to FAA, MassPort, and other relevant institutions as well as to Senators and Representatives of the Massachusetts and US in order to modify the NextGen system introduced in 2014.
It seems that all their/our efforts failed.

Instead of dispersing the flights and/or moving airplanes over the ocean before landing, the proposed new procedure plan (related to runways 4L and 4R) presented by FAA will affect even more and constantly the same areas of the Great Boston Area, including Milton, and in Milton the same "corridor" spanning over several streets.

FAA cannot think only about convenience of pilots and efficacy of the airport but should also take under consideration the quality of life of residents living in proximity of the airport.
On some days, sometimes 18 days per month, airplanes fly in a vicinity and/or over my
Website-18-1 house for a whole day and a big part of the night, almost every minut.
We cannot have a proper sleep quality and often wake up due to the noise. On many days cannot enjoy resting outside the house or cannot converse with our guests due to noise pollution.

Does FAA plan to take under consideration voices from the affected by noise and pollution neighborhoods and replace the proposed plan with another one that includes dispersing flights over several towns and more importantly moving majority of landing airplanes over the ocean? We heard at Town meetings that these were suggestions of experts, including those from the MIT. We also were told that air traffic controllers at Boston Logan are able safely direct pilots landing with or without NextGen system.

Sincerely,

Elzbieta Kaczmarek
358 Central Ave
Milton, MA 02186

RESPONSE

WEBSITE-18-1

As part of this environmental assessment, the Federal Aviation Administration (FAA) has committed to determine if there are significant environmental impacts associated with implementing the RNAV (GPS) RWY 4L procedure at Boston Logan International Airport (the Airport). Analysis has shown that there is very little change in noise exposure attributable to the implementation of the Proposed Action. Having the majority of aircraft landing over the ocean is not possible when the Airport is forced to be in the Northeast configuration due to weather and operational considerations, including taxiway geometry and airspace usage issues.

Additionally, the FAA does not control airline scheduling – as the Airport is not slot-controlled, airlines can freely schedule flights based on demand.

WEBSITE-19

COMMENT

I write to strongly oppose the imposition of a concentrated flight path (RNAV) to Logan Airport's runway 4L as well as all the existing concentrated flights paths over Milton, Mattapan, Dorchester, and Hyde Park and urge the FAA to dismantle existing concentrated flight paths to runways 4R, and from runways 27 and 33. Instead, planes should be route over water and not near ANY communities, and then broadly dispersed across multiple communities to ensure that no one community or area suffers an undue noise burden. The should also be restrictions on night flights and special night procedures that avoid all residential areas between 10 pm and 7 am.

The FAA's NextGen program's signature RNAVs represent an environmental injustice and travesty. Everywhere, affected communities have been fighting against the concentrated flight paths the FAA has imposed. Knowing that fierce protests and opposition have been t consistent reaction of communities in greater Boston, Seattle, Phoenix, Chicago, Minneapolis, Washington DC, NYC, and in California and Maryland as well as elsewhere across the country and world to these concentrated flight paths, it is truly surprising that FAA continues to seek to impose them, as is now the case.. This could be construed as a willful disregard for the environmental health, human rights, and well-being of communitie and citizens.

It also leads one to wonder why the FAA is allowed to environmentally assess itself, or hire contractors who would have an inherent bias towards the preferred outcomes of the FAA, a the FAA is paying the bill and the contractors would wish to be hired again. It might be for this reason that the FAA appears to continually find that whatever it wishes to do will have no significant impact. The DNL noise metric used by the FAA has also been debunked as ar antiquated, unrealistic, and a poor indicator of actual noise impact as experienced by peop on the ground. So why it is still being used when better metrics are available?

Concentrating flight paths over residential areas, schools, senior residences, parks, and nature reserves has been demonstrated to be detrimental to the quality of life and overall well-being of residents, students, children, and the elderly seeking to simply enjoy their homes, properties, and local recreational facilities and green spaces and to just work and
Website-19-1 live in peace.

It is shameful for a commercial, profit making enterprise to systematically deprive citizens of their rights in this way. It is particularly concerning to see the high noise levels imposed on area schools as numerous peer-reviewed research studies have demonstrated adverse learning impacts in noisy environments. It is unconscionable to continue these practices. F example, one study found “selective cognitive impairment” in students exposed to aircraft noise.[Haines, M. M., Stansfeld, S. A., Brentnall, S., Head, J., Berry, B., Jiggins, M., & Hygge, (2001). The West London Schools Study: the effects of chronic aircraft noise exposure on child health. Psychological medicine, 31(8), 1385)]. Many other studies confirm this findir and adverse impacts on general health as well.

Furthermore, given that planes can fly anywhere but people’s homes, and schools and par cannot, the FAA must work to ensure that no residential area, school, or green space is affected by disproportionate noise or multiple flight paths--certainly its current plan would exacerbate the existing well-known problems caused by the RNAVs already in our communities. There is absolutely no reason for this to be the case and reflects negligence and apathy on the part of the FAA to protect communities from excessive aircraft noise anc air pollution.

It is critical for the FAA to start to take responsibility for the impacts it is having on the communities on the ground and revise its whole approach to aircraft noise and air pollutior to ensure that air traffic does not adversely impact the health and well-being of people on the ground and their right to the quiet enjoyment of their homes, property, and their community’s public common assets such as schools, parks, and green spaces—including their state parks.

Finally, the staff of the FAA should also recognize their own personal responsibility in perpetrating environmental damage and harm to fellow humans and should not rely on the excuse that they "are just following orders." Thank you for your consideration of these comments.

RESPONSE

WEBSITE-19-1

Operationally, it is not possible to route all traffic over water and avoid communities surrounding Boston Logan International Airport (the Airport). The purpose of this environmental assessment is to evaluate the implementation of the RNAV (GPS) RWY 4L procedure at the Airport and compare noise exposure with this procedure active to noise exposure as it exists today. As described in the Purpose and Need chapter, this procedure is needed to enhance the safety of operations at the Airport. Noise and air quality evaluations show that there are not any impacts associated with this procedure reaching (or even approaching) thresholds of significance or reportability as defined in Federal Aviation Administration (FAA) Order 1050.1F. Dismantling the precision departures and approaches at the Airport, rerouting aircraft, and adding night restrictions are beyond the scope of this environmental assessment.