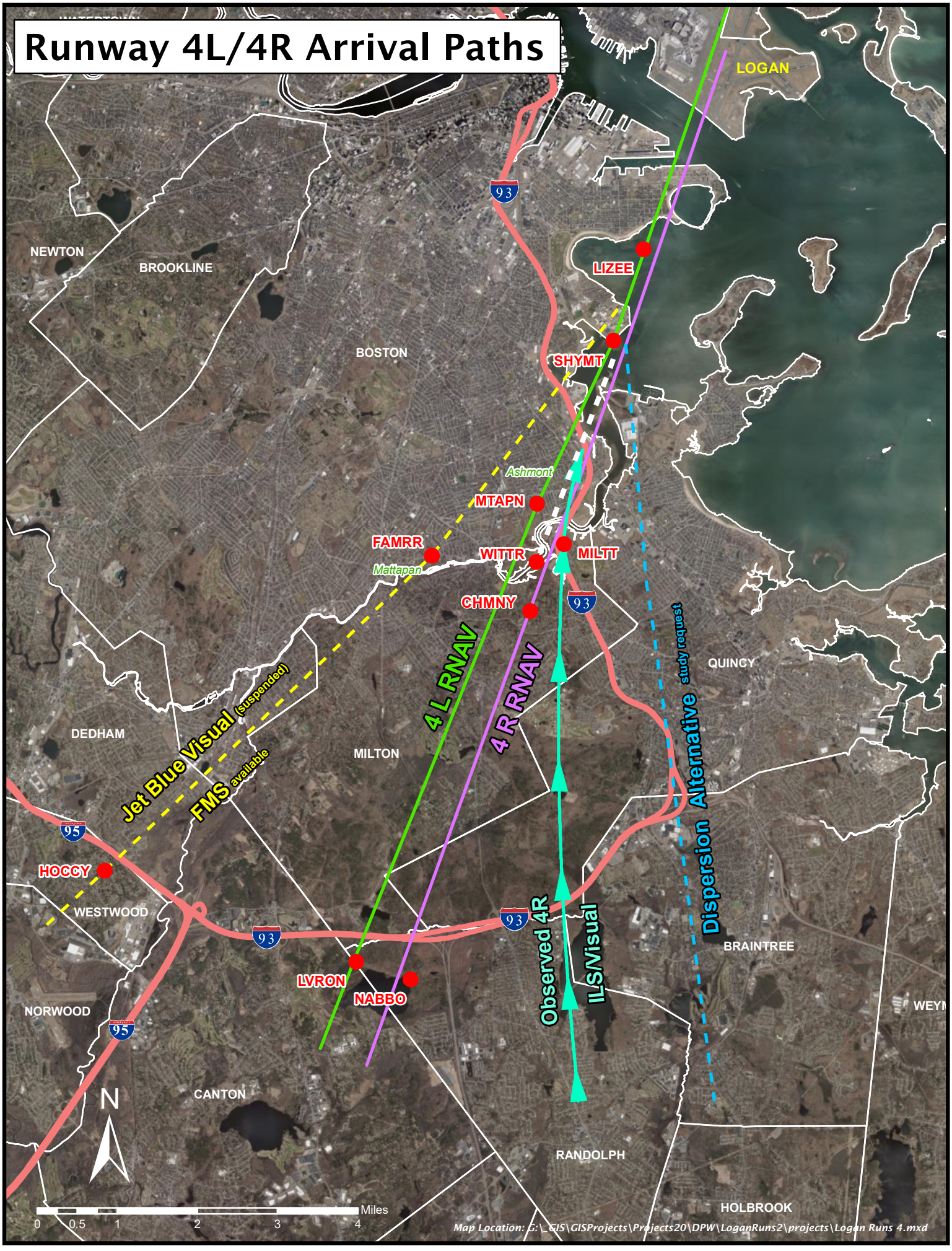
Runway 4L/4R Arrival Paths
LOGAN
NEWTON
BROOKLINE
BOSTON
LIZEE
SHYMT
Ashmont
MTAPN
FAMRR
Mattapan
WITTR
MILTT
CHMNY
93
4 L RNAV
4 R RNAV
study request
Alternative
Dispersion
QUINCY
DEDHAM
MILTON
Jet Blue Visual (suspended)
FMS available
95
HOCCY
WESTWOOD
Observed 4R
ILS/Visual
BRAINTREE
LVRON
NABBO
NORWOOD
CANTON
RANDOLPH
HOLBROOK
N
0 0.5 1 2 3 4 Miles
Map Location: G:_GIS\GISProjects\Projects20\DPW\LoganRuns2\projects\Logan Runs 4.mxd

MIT
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Air Transportation

Logan Airport Community Noise Reduction
Block 2 Procedures Discussion

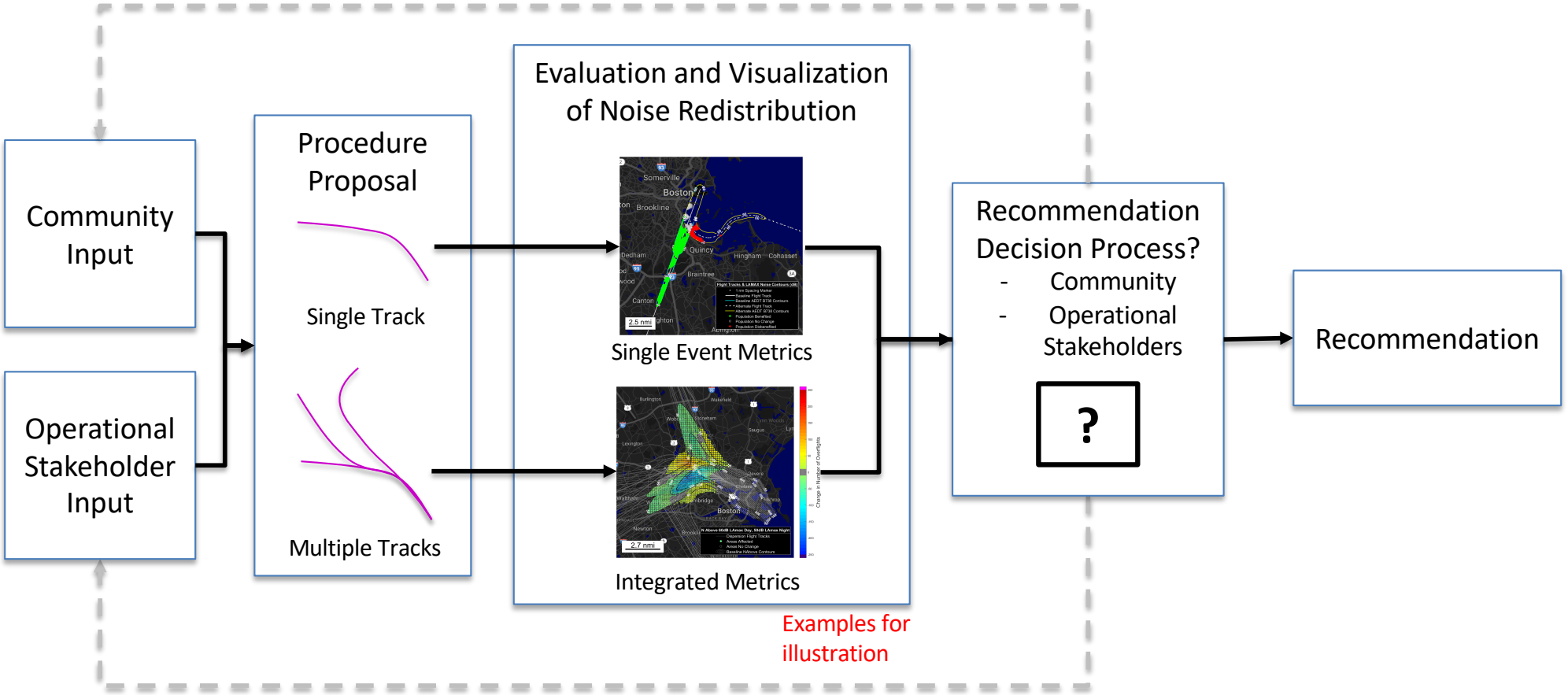
R. John Hansman
rjhans@mit.edu

Technical support from MIT ICAT students, HMMH, and Massport

REVIEW DRAFT – NOT FOR PUBLIC RELEASE

Please note that Dr. Hansman continually reviews his analysis and these slides may be updated in future.

Need for Community Decision Process for Procedures with Noise Redistribution



Analysis Thresholds

Single event metrics: $L_{A,max}$ = 60dB during the day, 50dB during the night

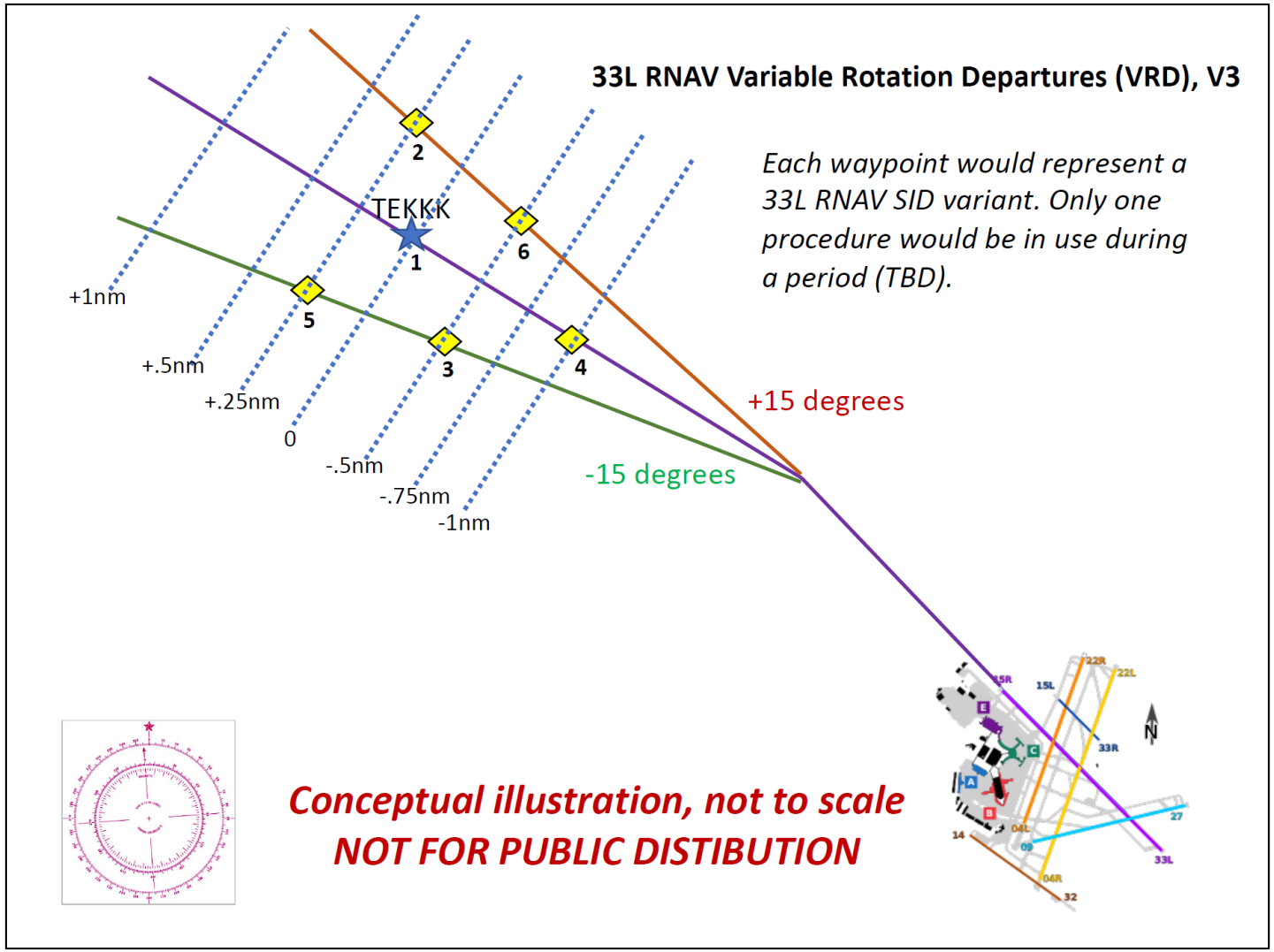
Integrated metrics: N_{60} greater than 50 events per peak day

Block 2

More complex due to potential operational/technical barriers or equity issues

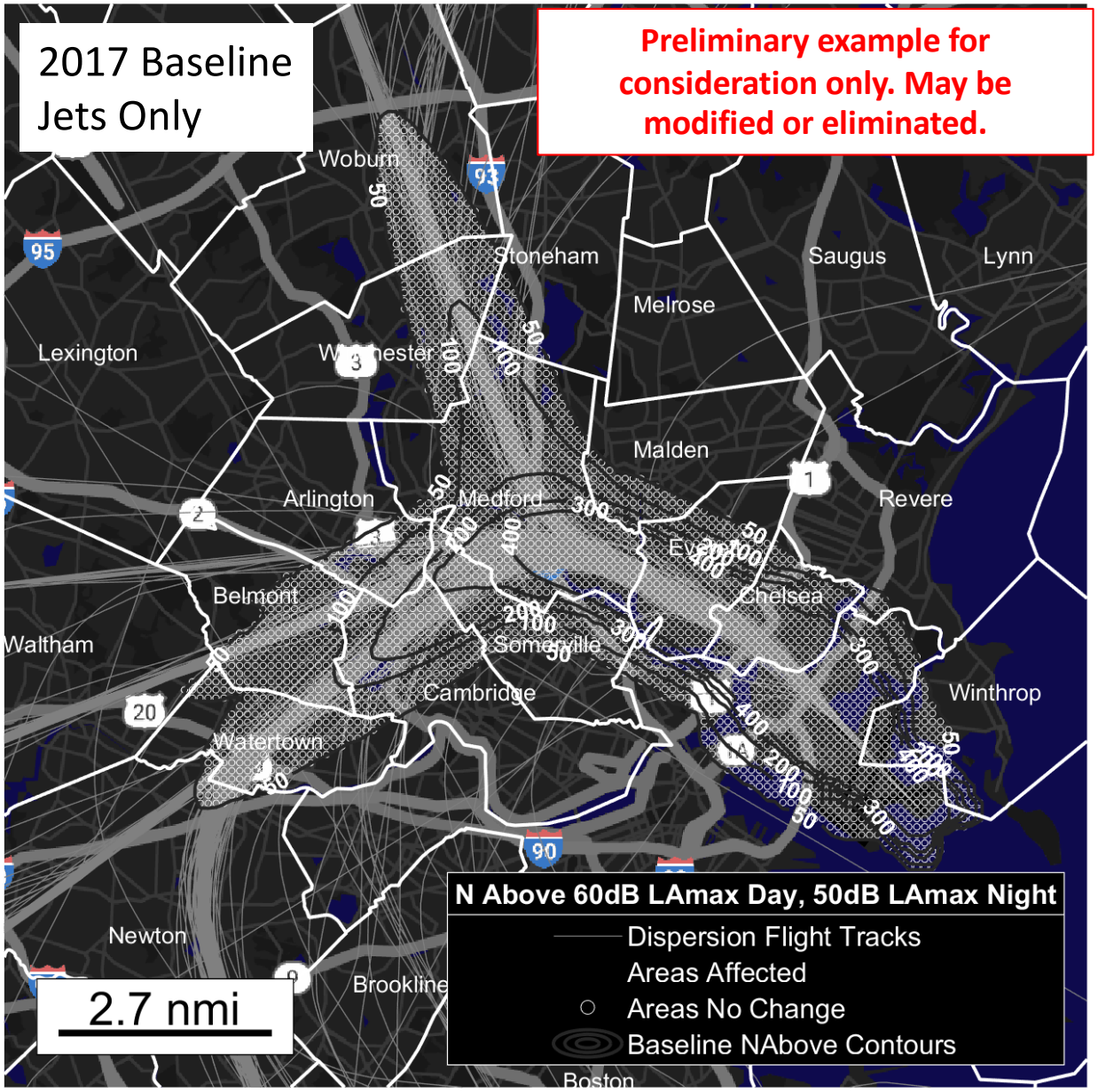
Community Dispersion Suggestion Variable Rotation Departures (VRD)

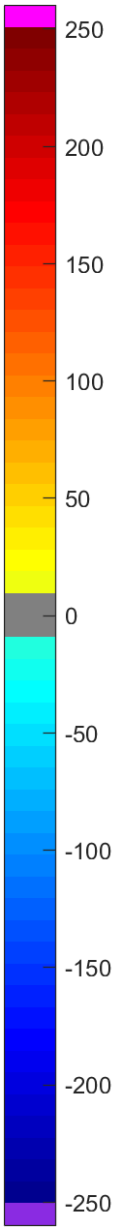
Analysis done on full peak day of operation using a single waypoint
Other rotations possible.



- Complex procedures for ATC and Pilots
- Requires numerous procedures in the Flight Management System
- Rotating between waypoints from day to day does not take advantage of the separation requirements satisfied by divergent headings

33L Departures VRD Waypoint #1 Change in N_{60} Compared to 2017

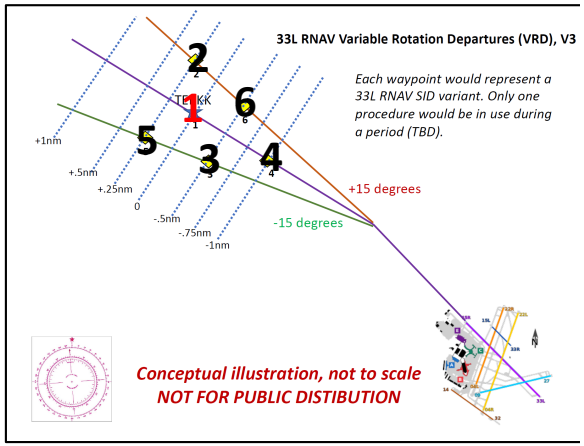




Population Exposure

N_{60}	50x
Baseline 2017	335,823
Dispersion	335,823
Baseline - Dispersion	0

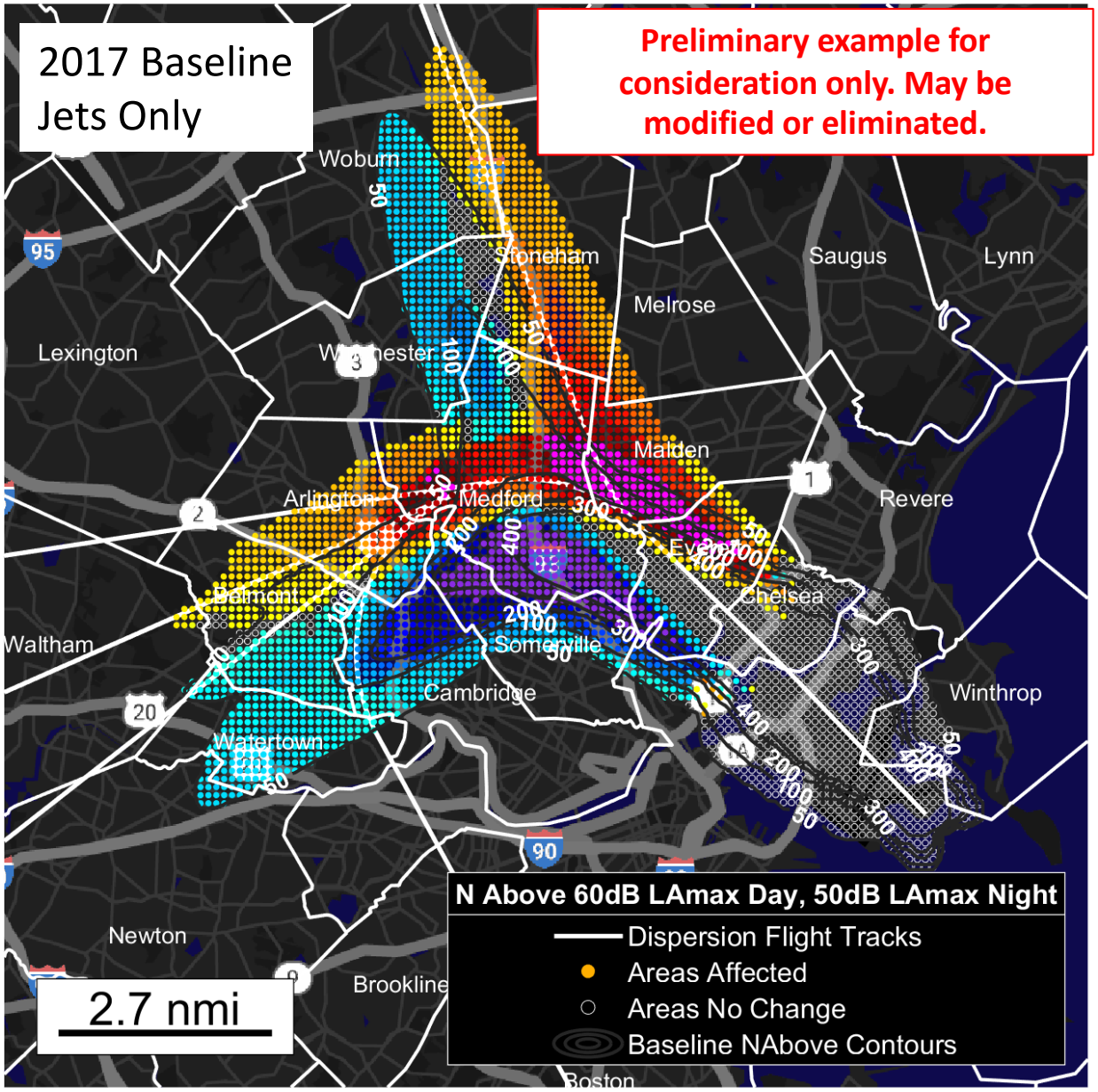
Analysis updated Oct. 17 2019 to remove Turboprops and refine lateral tracks
Modeling/Discretization effects near airport removed

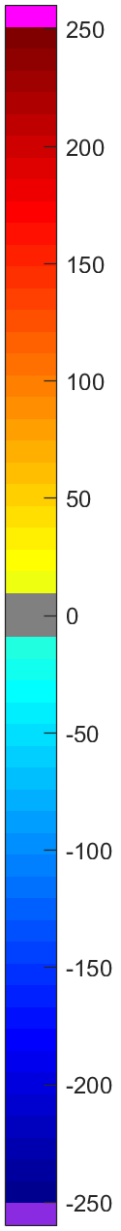


Analysis based on peak day operations; only includes 33L departures

N_{60} Thresholds:
60dB $L_{A,max}$ Day, 50dB $L_{A,max}$ Night

33L Departures VRD Waypoint #2 Change in N_{60} Compared to 2017

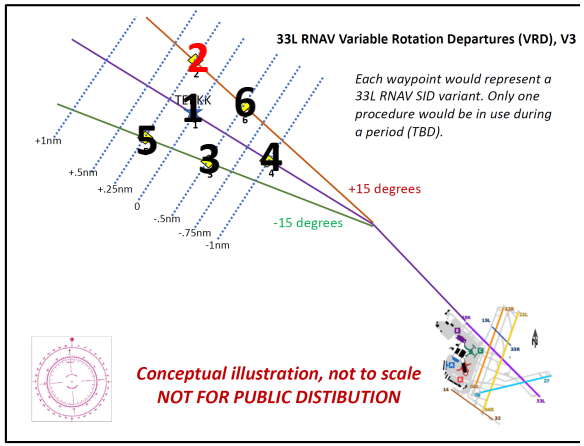




Population Exposure

N_{60}	50x
Baseline 2017	335,823
Dispersion	269,491
Baseline - Dispersion	66,332

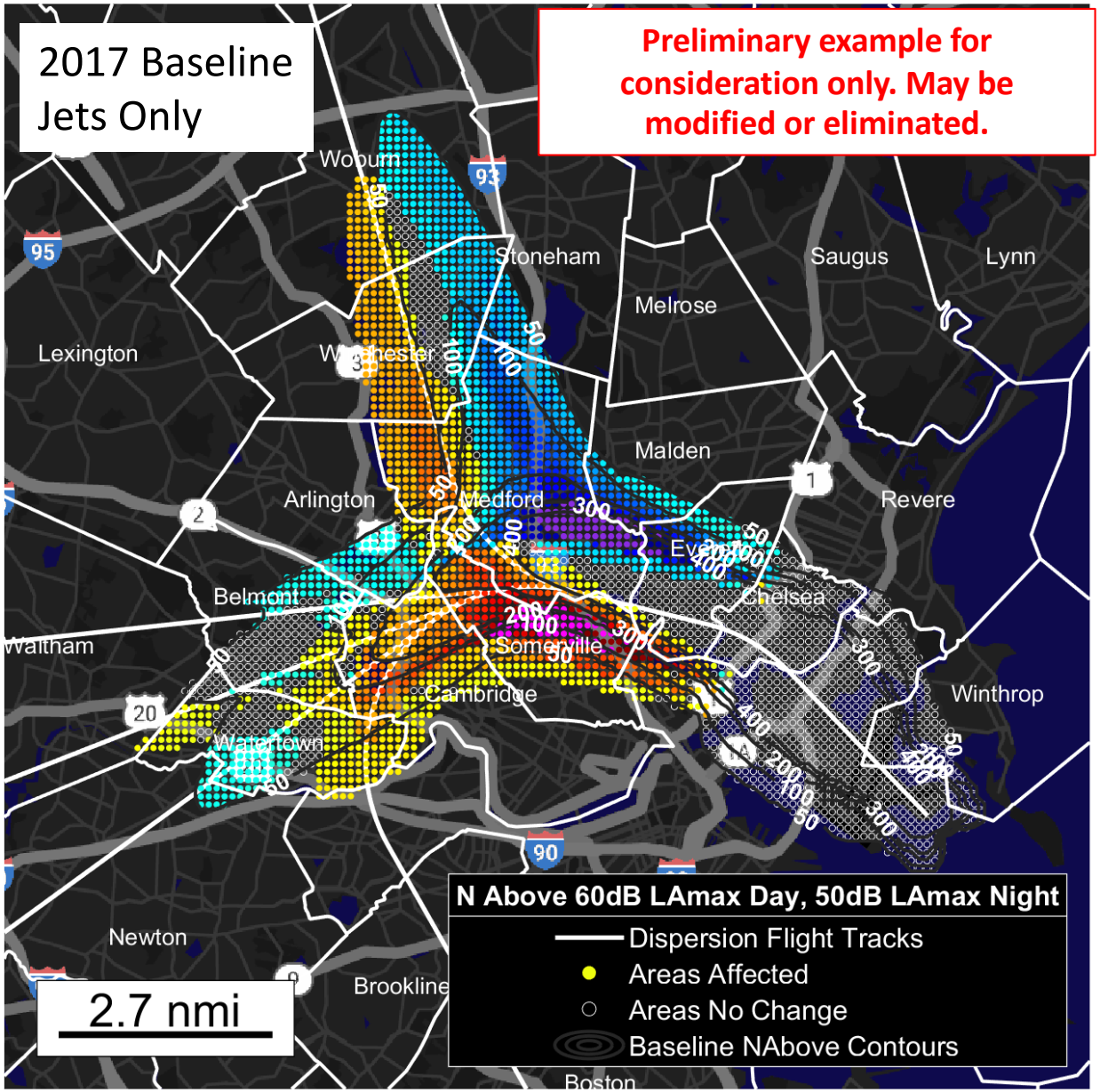
Analysis updated Oct. 17 2019 to remove Turboprops and refine lateral tracks
Modeling/Discretization effects near airport removed

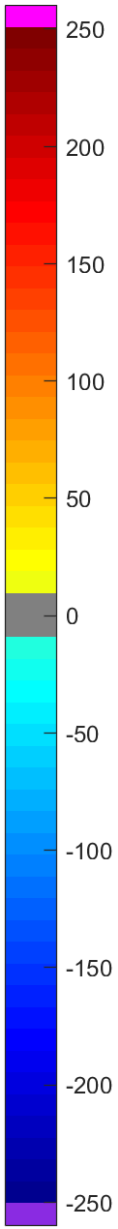


N_{60} Thresholds:
60dB $L_{A,max}$ Day, 50dB $L_{A,max}$ Night

Analysis based on peak day operations; only includes 33L departures

33L Departures VRD Waypoint #3 Change in N_{60} Compared to 2017

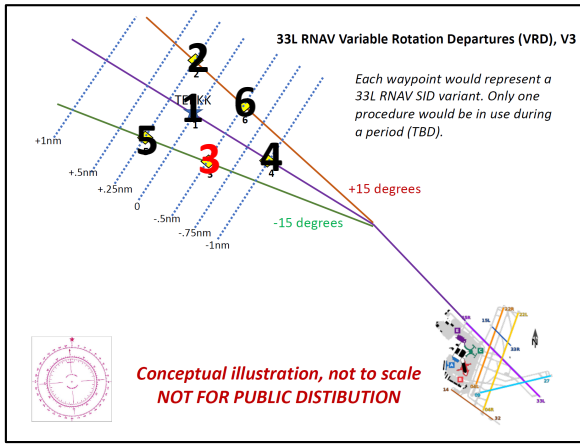




Population Exposure

N_{60}	50x
Baseline 2017	335,823
Dispersion	334,570
Baseline - Dispersion	1,253

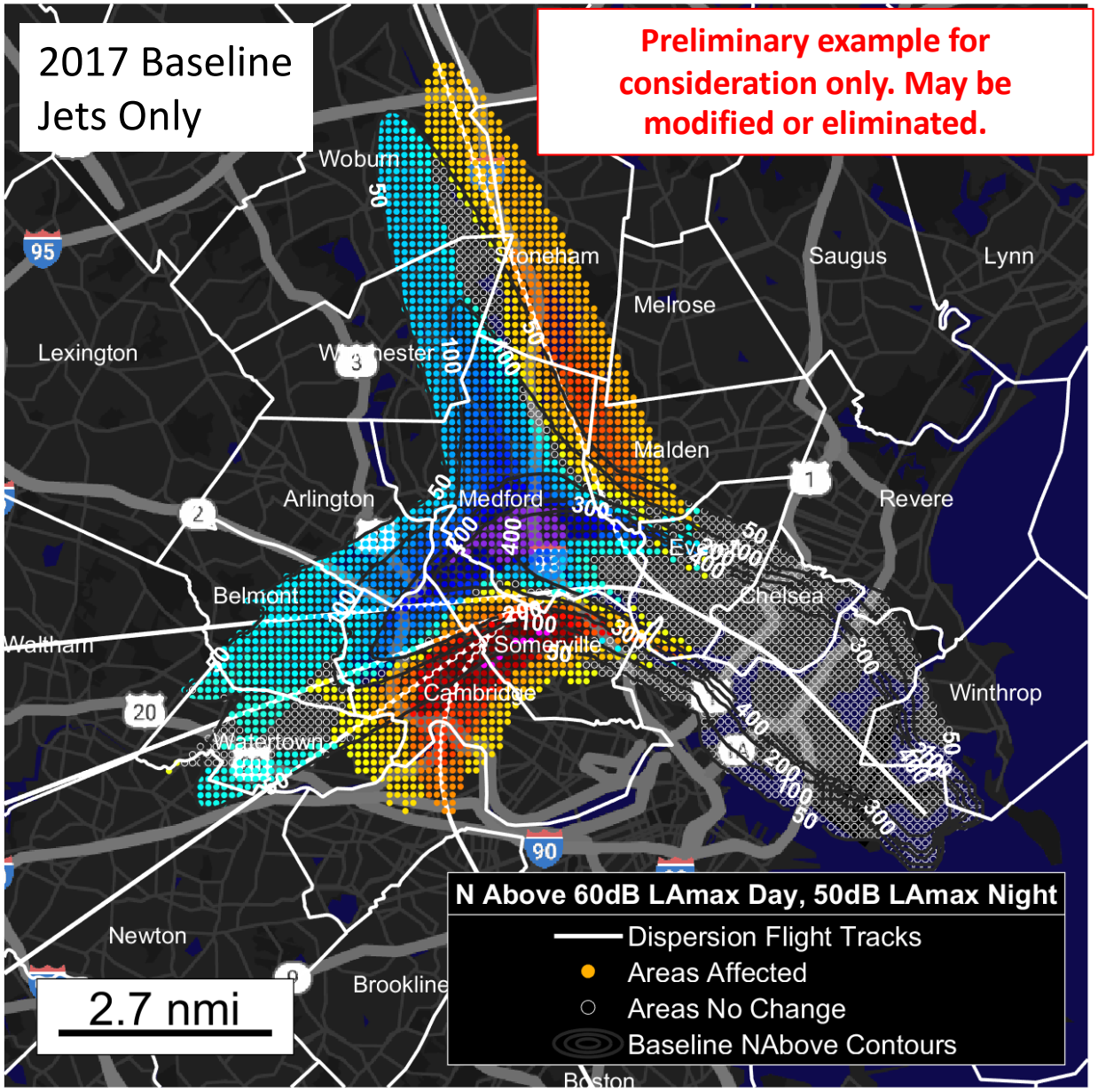
Analysis updated Oct. 17 2019 to remove Turboprops and refine lateral tracks
Modeling/Discretization effects near airport removed

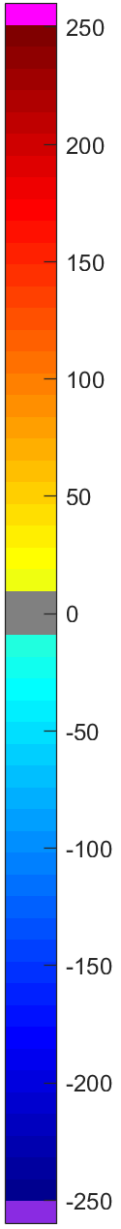


Analysis based on peak day operations; only includes 33L departures

N_{60} Thresholds:
60dB $L_{A,max}$ Day, 50dB $L_{A,max}$ Night

33L Departures VRD Waypoint #4 Change in N_{60} Compared to 2017

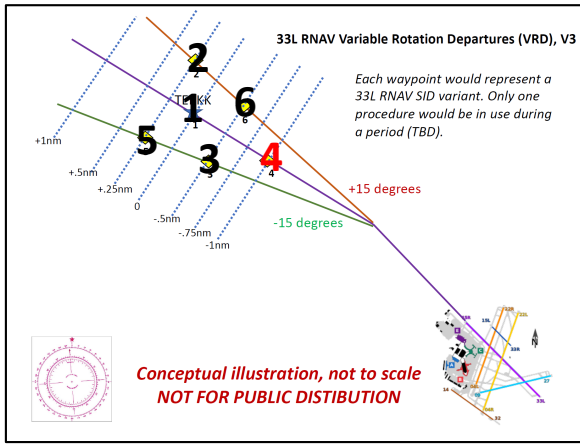




Population Exposure

N_{60}	50x
Baseline 2017	335,823
Dispersion	345,368
Baseline - Dispersion	-9,545

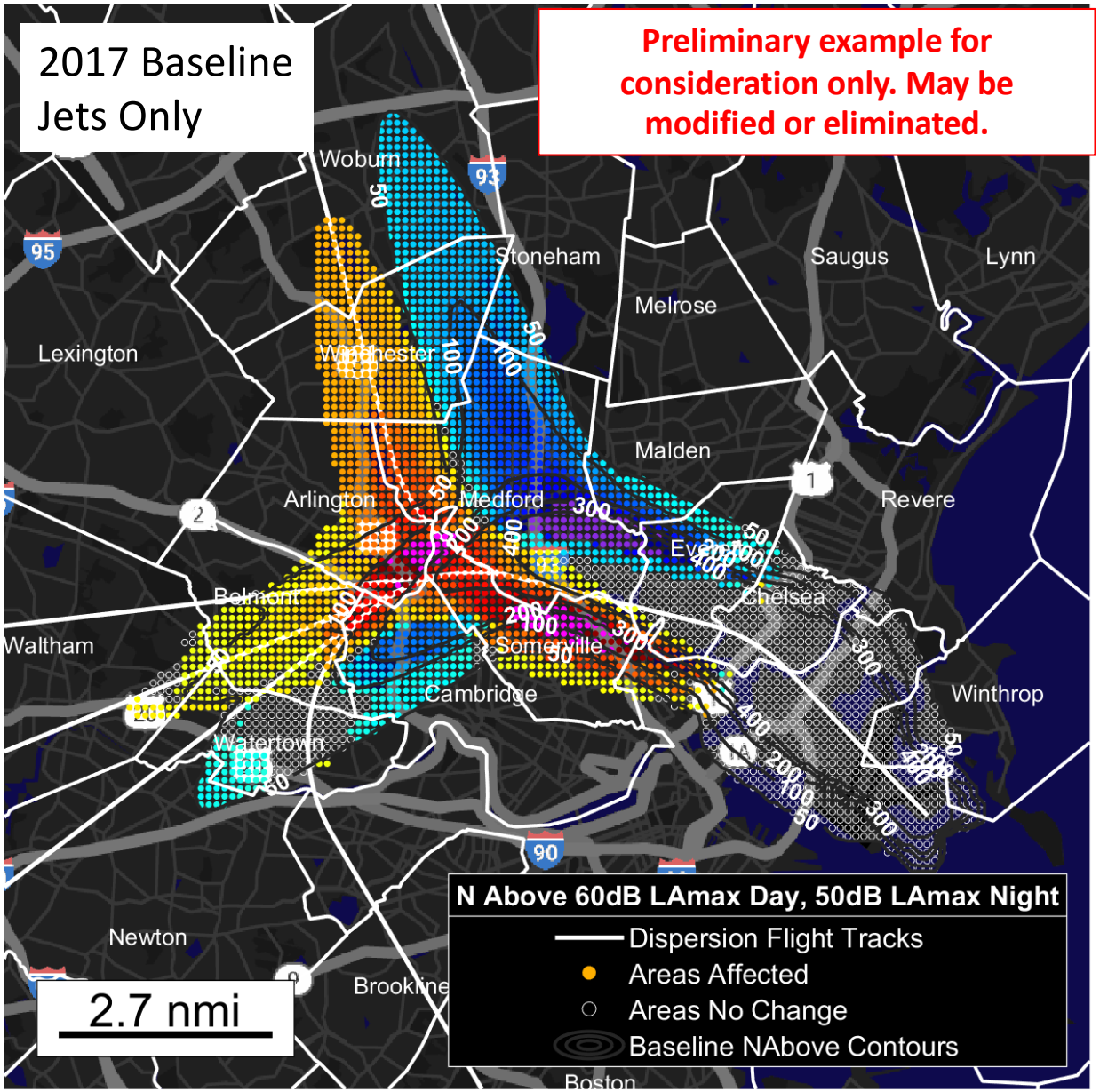
Analysis updated Oct. 17 2019 to remove Turboprops and refine lateral tracks
Modeling/Discretization effects near airport removed

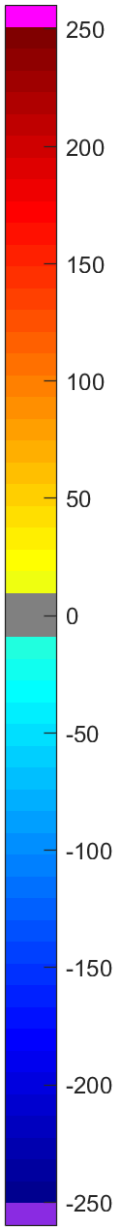


Analysis based on peak day operations; only includes 33L departures

N_{60} Thresholds:
60dB $L_{A,max}$ Day, 50dB $L_{A,max}$ Night

33L Departures VRD Waypoint #5 Change in N_{60} Compared to 2017

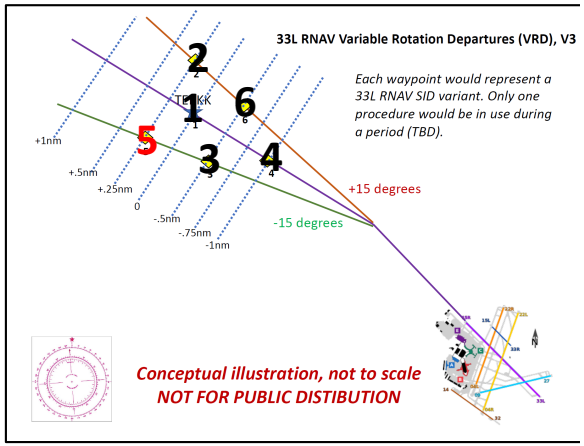




Population Exposure

N_{60}	50x
Baseline 2017	335,823
Dispersion	321,688
Baseline - Dispersion	14,135

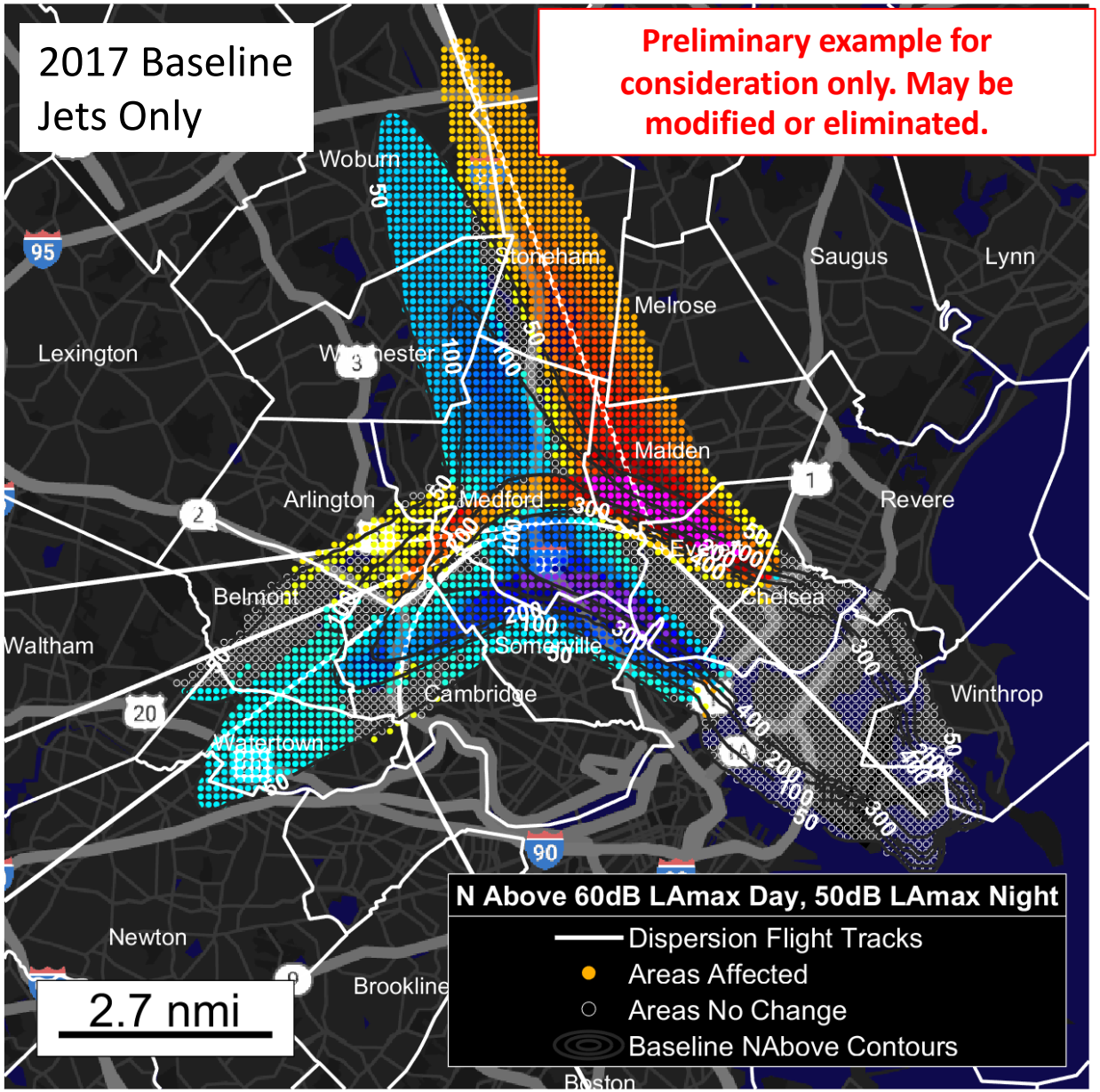
Analysis updated Oct. 17 2019 to remove Turboprops and refine lateral tracks
Modeling/Discretization effects near airport removed

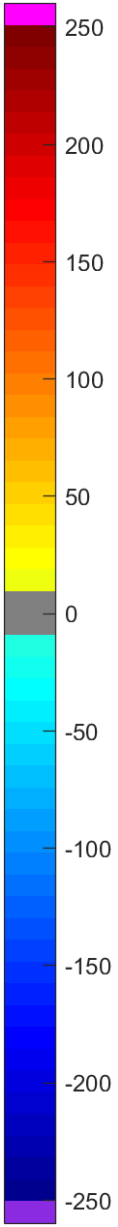


N_{60} Thresholds:
60dB $L_{A,max}$ Day, 50dB $L_{A,max}$ Night

Analysis based on peak day operations; only includes 33L departures

33L Departures VRD Waypoint #6 Change in N_{60} Compared to 2017

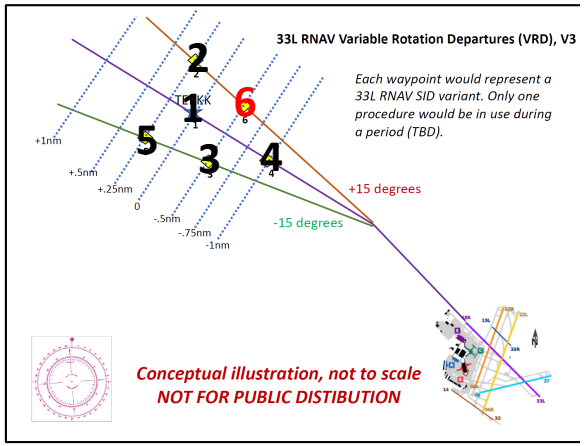




Population Exposure

N_{60}	50x
Baseline 2017	335,823
Dispersion	319,040
Baseline - Dispersion	16,783

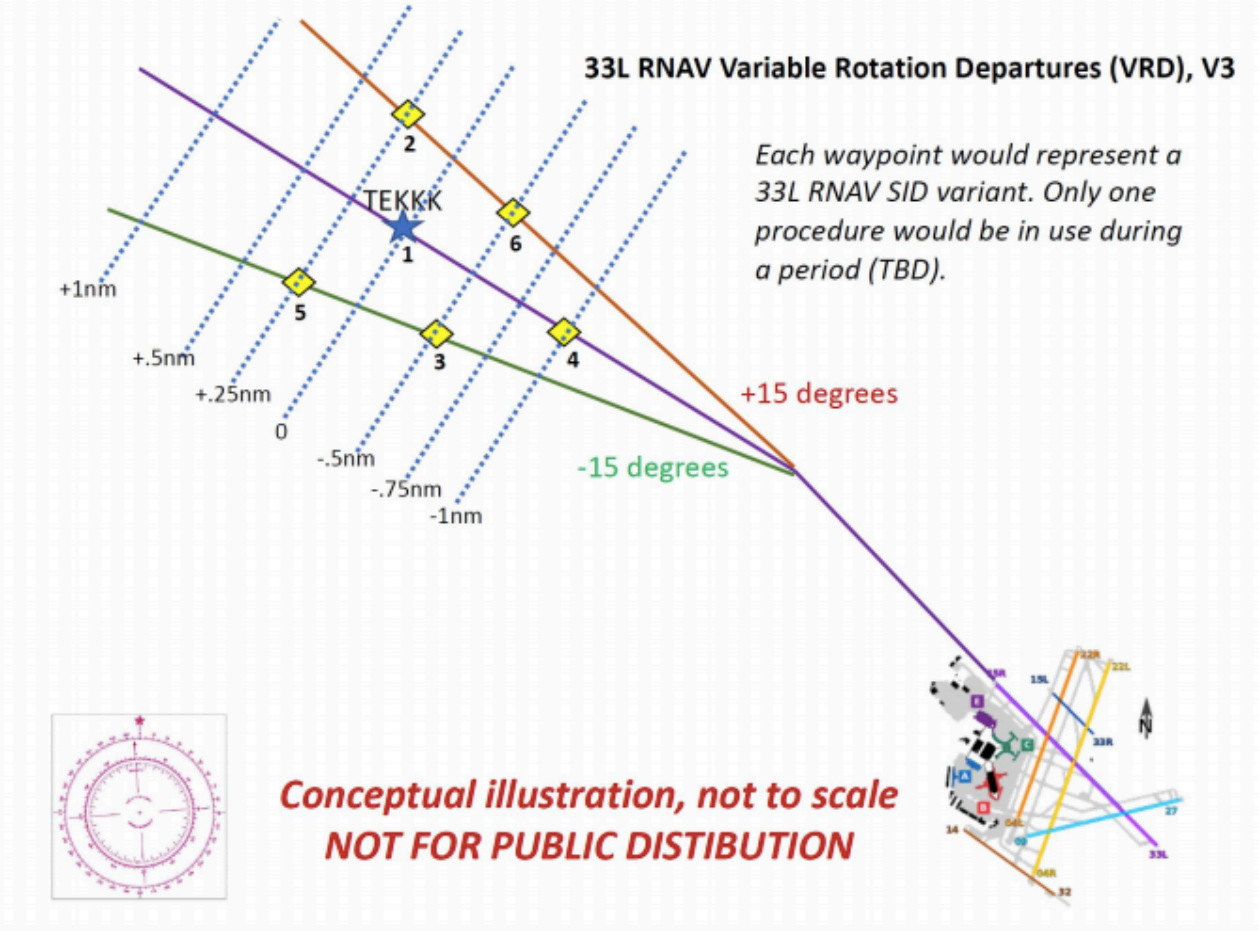
Analysis updated Oct. 17 2019 to remove Turboprops and refine lateral tracks
Modeling/Discretization effects near airport removed



Analysis based on peak day operations; only includes 33L departures

N_{60} Thresholds:
60dB $L_{A,max}$ Day, 50dB $L_{A,max}$ Night

Community-suggested Variable Rotation Departures (VRD)



- Presents SID naming issues discussed for RWY 22 idea.
- Would require up 48 new procedures (6 “TEKKK” locations x 8 existing RNAV end fixes)
- How would rotation be managed (eg by day of significant 33 operation)

RWY 4L/R APPROACH

MIT
International Center for
Air Transportation

Field Observations of 4R Approaches August 1, 2019

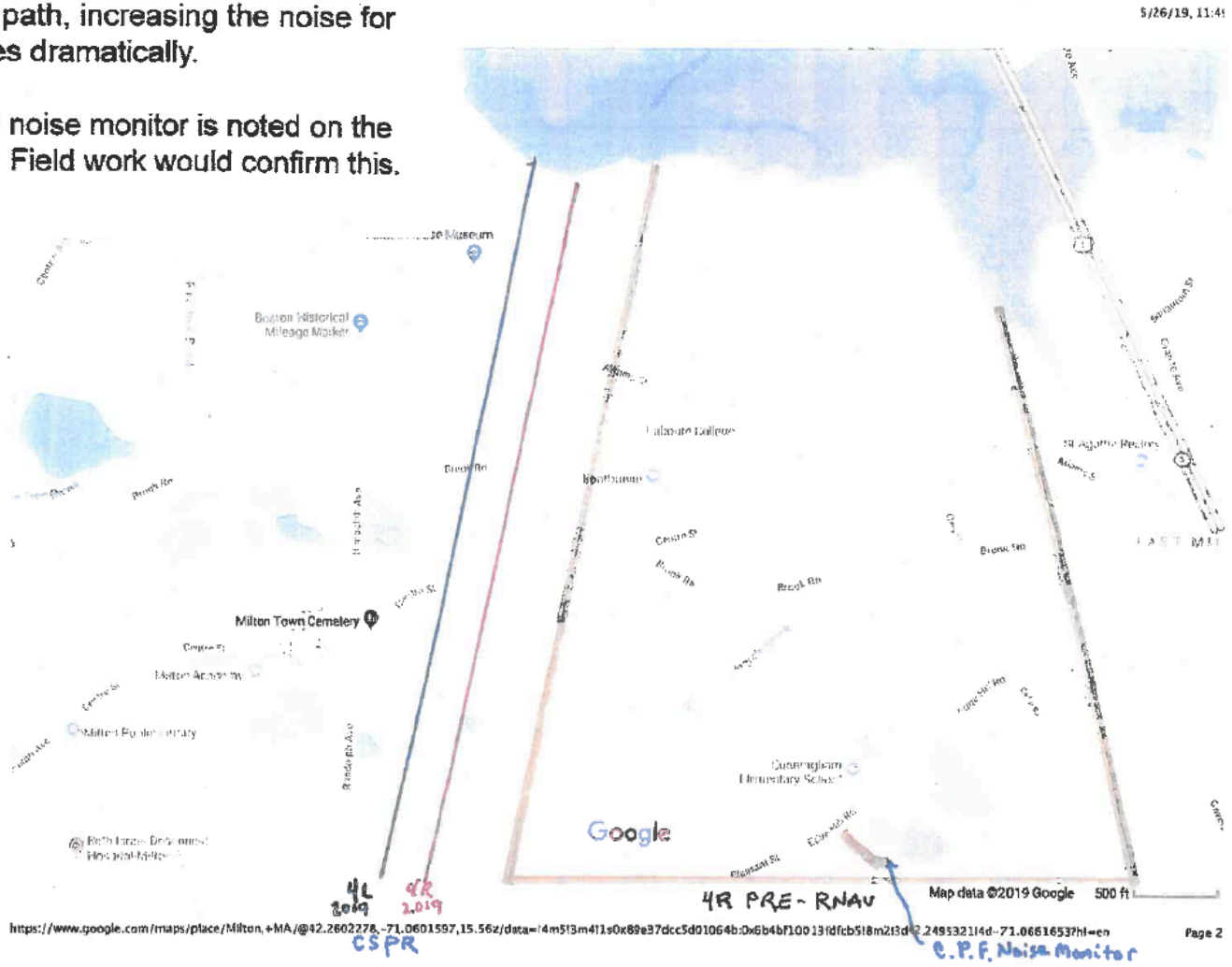
MIT ICAT

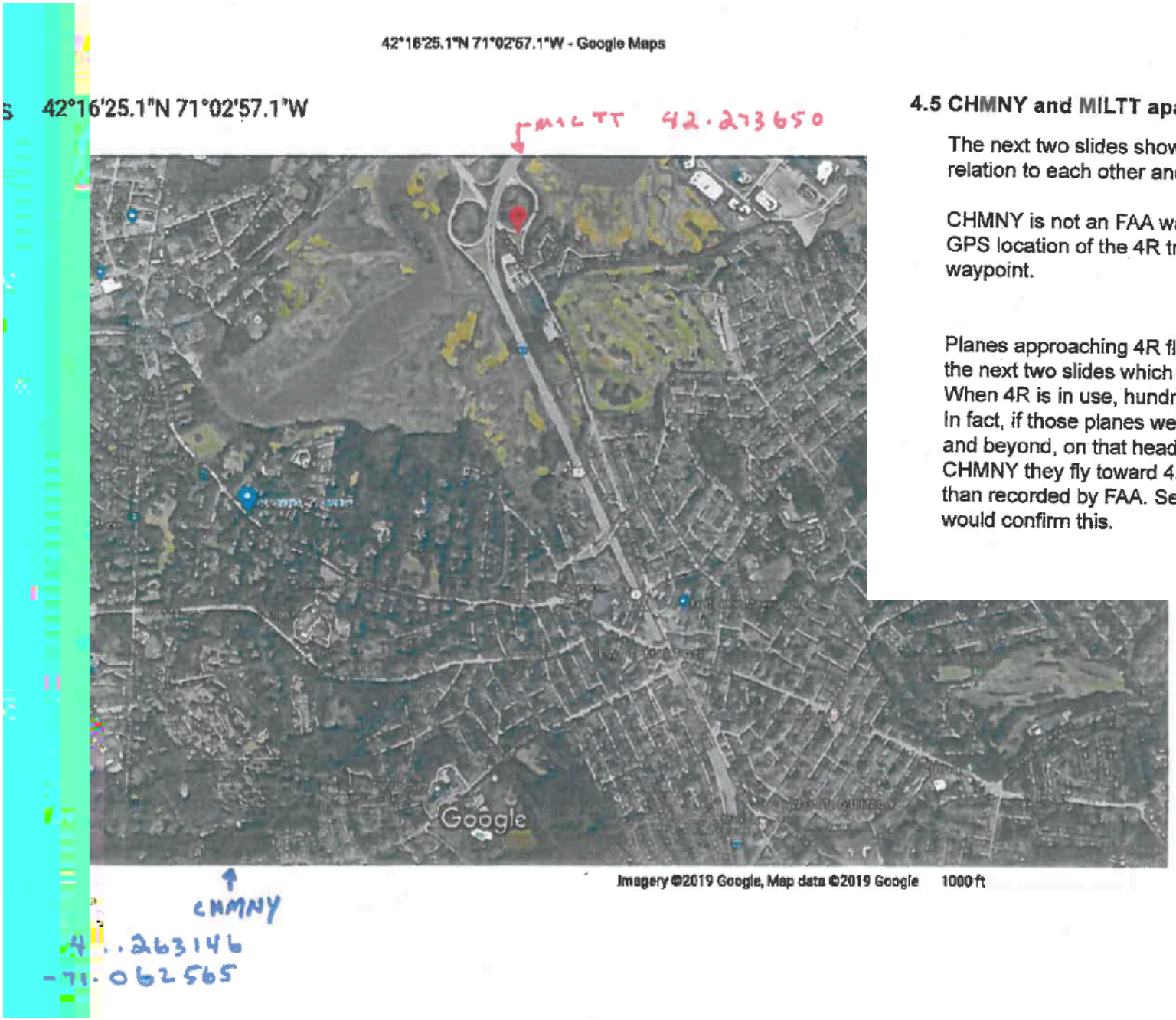
4.4 Recognize the westward shift of the CSPR skyrails:

The first of the following slides illustrates the significant westward shift of the 4L/4R flight path center lines.

The CSPR center flight lines, as flown, are to the west of the pre-RNAV dispersed 4R flight path, increasing the noise for residents under the CSPR lines dramatically.

The Cunningham Park-Fullers End noise monitor is noted on the slide. It is far from the noise center. Field work would confirm this.





4.5 CHMNY and MILTT apart and in relation to Logan

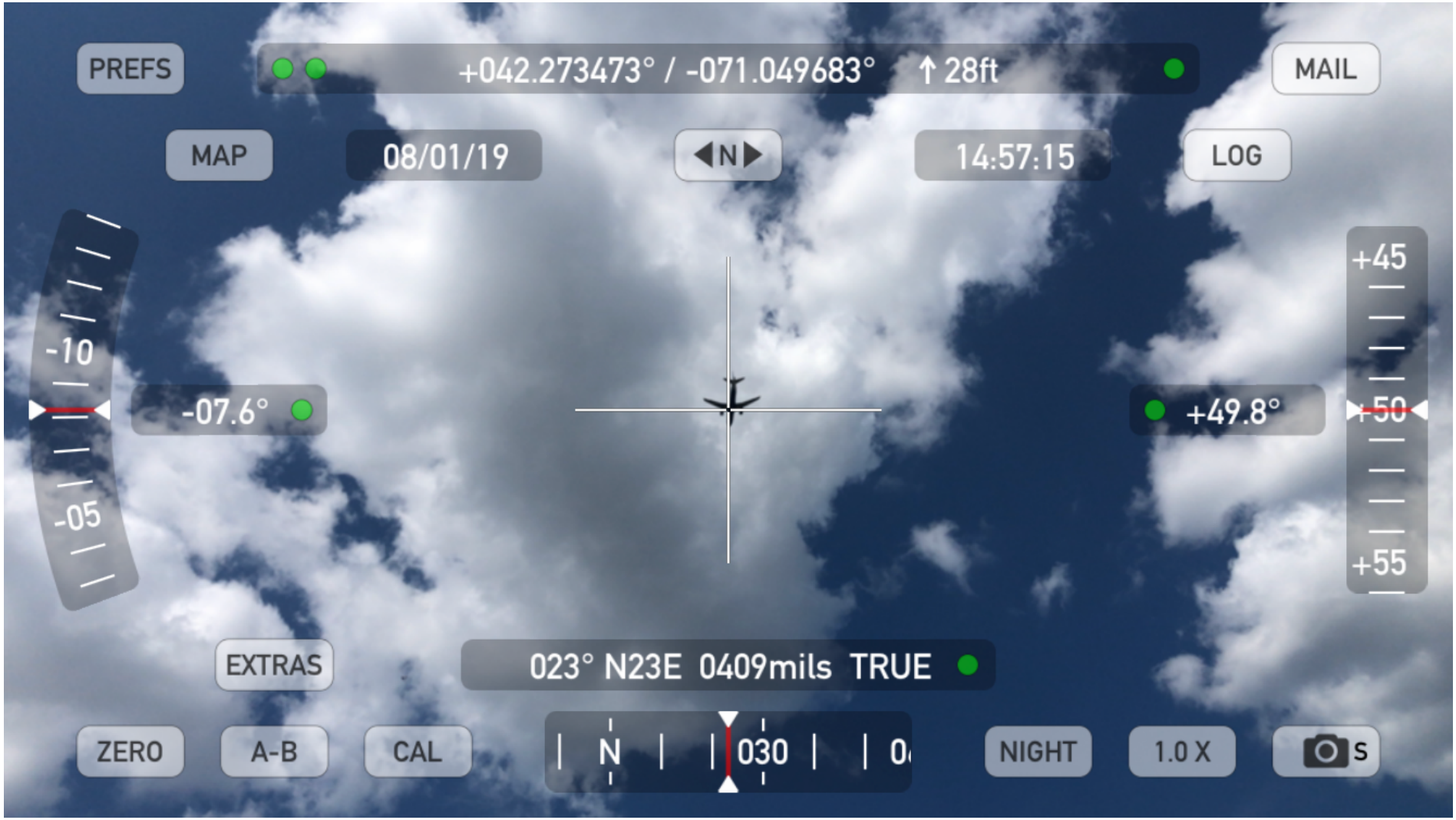
The next two slides show CHMNY (blue) and MILTT (red) in relation to each other and then in relation to Logan.

CHMNY is not an FAA waypoint. We use it to mark the actual GPS location of the 4R track which is west of the MILTT FAA waypoint.

Planes approaching 4R fly over the point labeled CHMNY on the next two slides which is to the west of the waypoint MILTT. When 4R is in use, hundreds of flights a day fly over CHMNY. In fact, if those planes were to head from CHMNY to MILTT and beyond, on that heading they would head out to sea. From CHMNY they fly toward 4R over areas closer to 4L overflights than recorded by FAA. See Section 4.4 above. Field work would confirm this.

MILTT Rotary

MILTT Rotary



Governor Hutchinson's Field

Governor Hutchinson's Field

RWY 4L/R Arrivals

- Objective: Reduce Exposure to Highly Impacted Communities (requested by Communities)
- Block 2 Options Active:
  - RNAV/RNP-Enabled Lateral Modifications
  - Increased use of Continuous Descent Approaches
  - Delayed Deceleration Approaches
- Block 2 Options Evaluated and Rejected:
  - Steep Approaches
  - Delayed Gear Extension

RWY 4L/R Arrivals

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  - Steep Approaches
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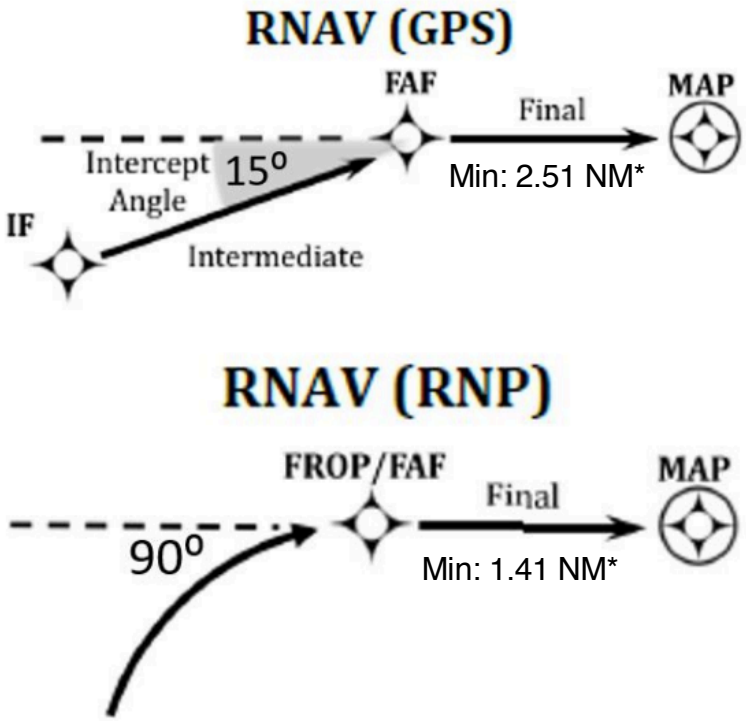
RNAV/RNP Approach Limits



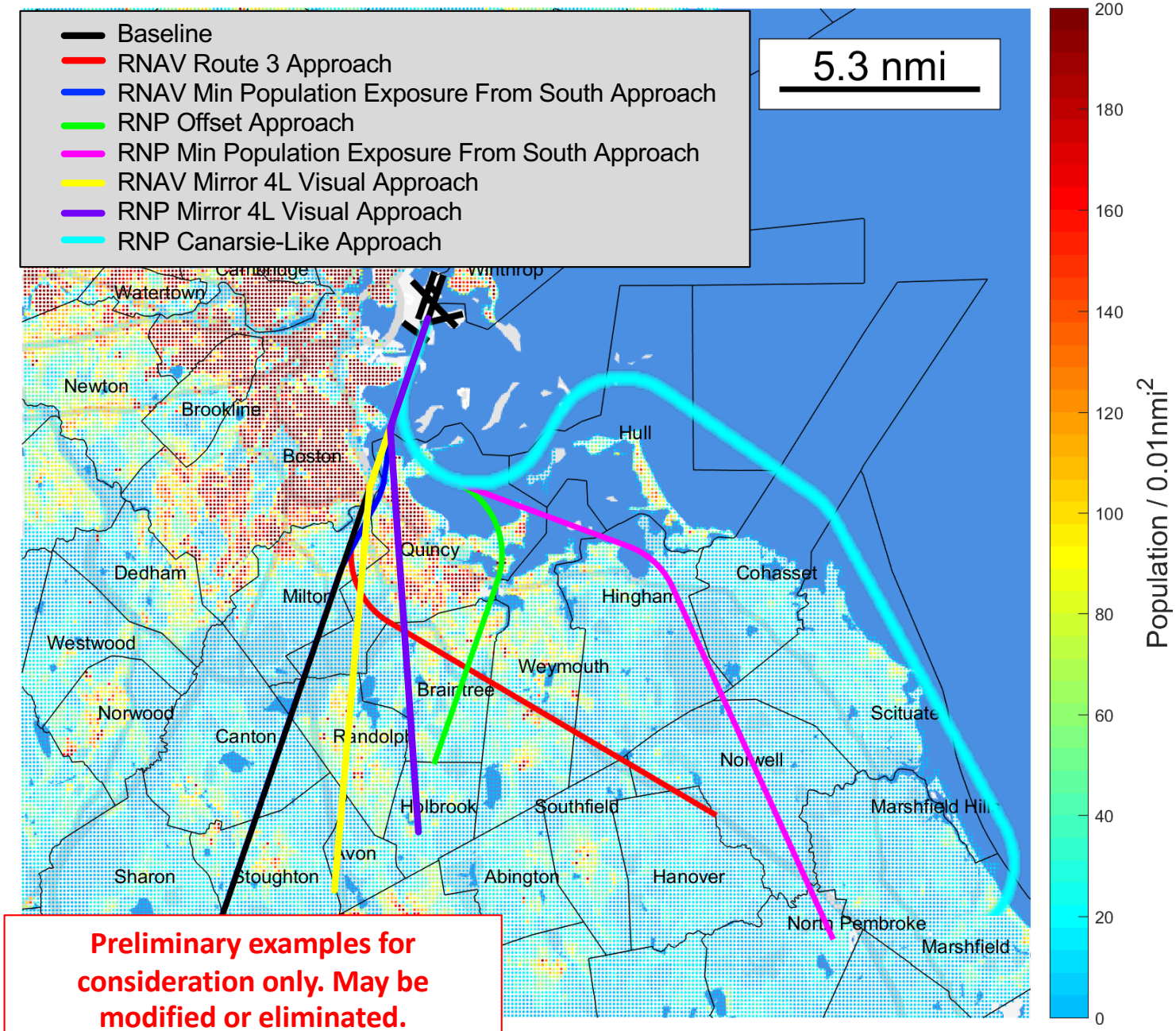
*Assumes an 800 ft PFAF altitude, which is only possible for runway ends without significant obstacle constraints along the first 3 miles of the extended runway centerline.

Source: FAA Orders 8260.3D and 8260.58A

RWY 4L/R
RNAV/RNP Enabled Lateral Modifications

- RNAV Options Evaluated
  - Route 3 Overflight
  - Minimum Population Exposure (from South)
  - Converging Late Intercept (requested by Communities)
- RNP Options Evaluated
  - Minimum Population Exposure (from South)
  - Canarsie-like Late Intercept (opposed by Hull)
  - 4 Mile Offset with Late Intercept
  - Converging Late Intercept

Example 4R RNAV and RNP Approaches

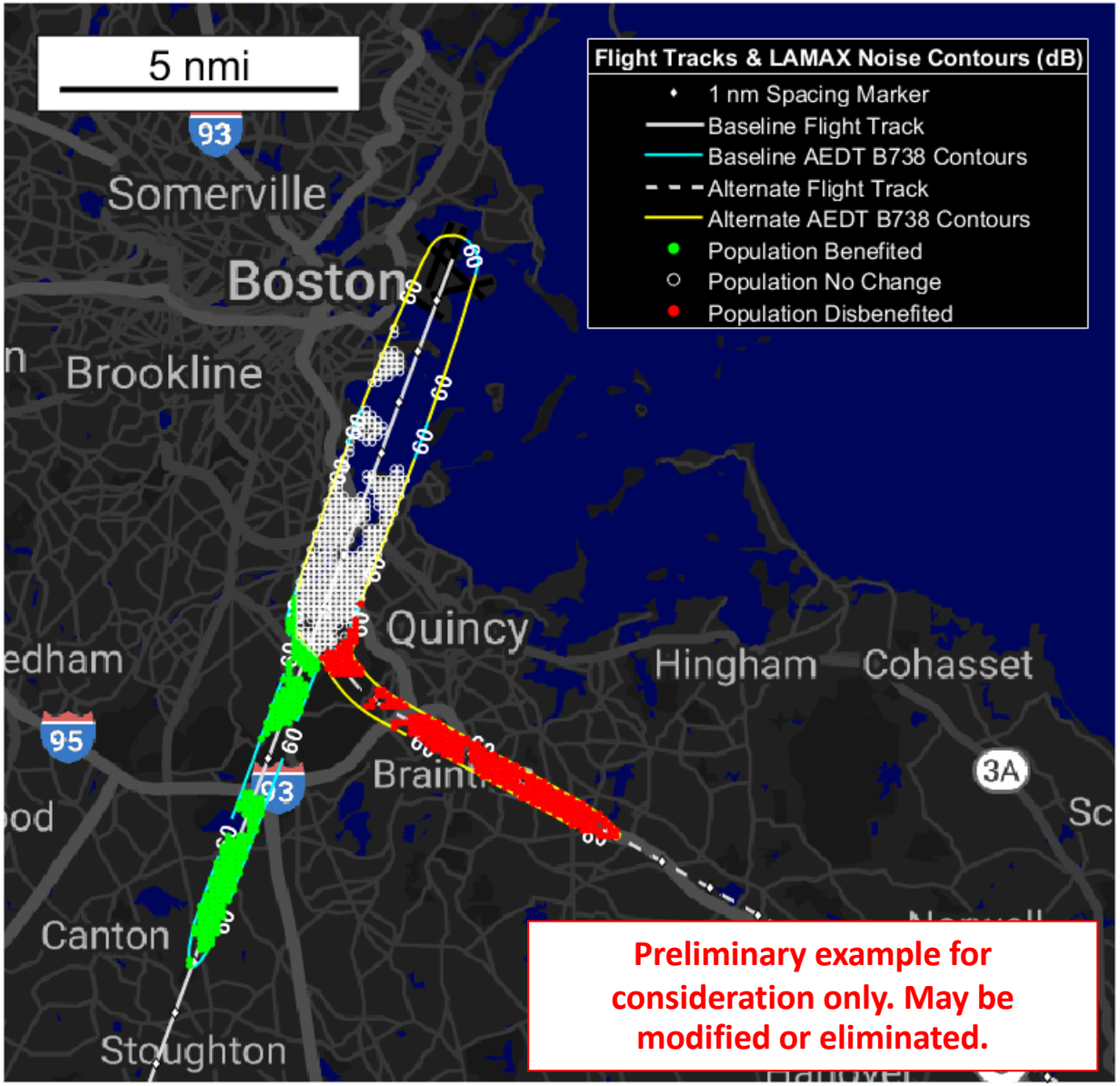


Preliminary examples for consideration only. May be modified or eliminated.

- Several approaches to 4R shown as examples
- RNP technology allows approach to be kept overwater near final approach

4R RNAV Approach – Route 3 Initial

B737-800 60dB $L_{A,max}$ Noise Exposure



B737-800
Population Exposure ($L_{A,MAX}$)

	60dB
Straight In	32,232
RNP	38,353
Difference (Straight In – RNP)	-6,121

5.5nmi final segment
80^{o} 2nmi radius-to-fix turn

Population exposure calculations do not take advantage of noise masking

- Procedure within RNAV criteria.
- Air traffic control concerns with merging with straight-in flight track.
- Community support unclear.

4R RNAV Approach – Minimum Population Exposure From South

B737-800 60dB $L_{A,max}$ Noise Exposure

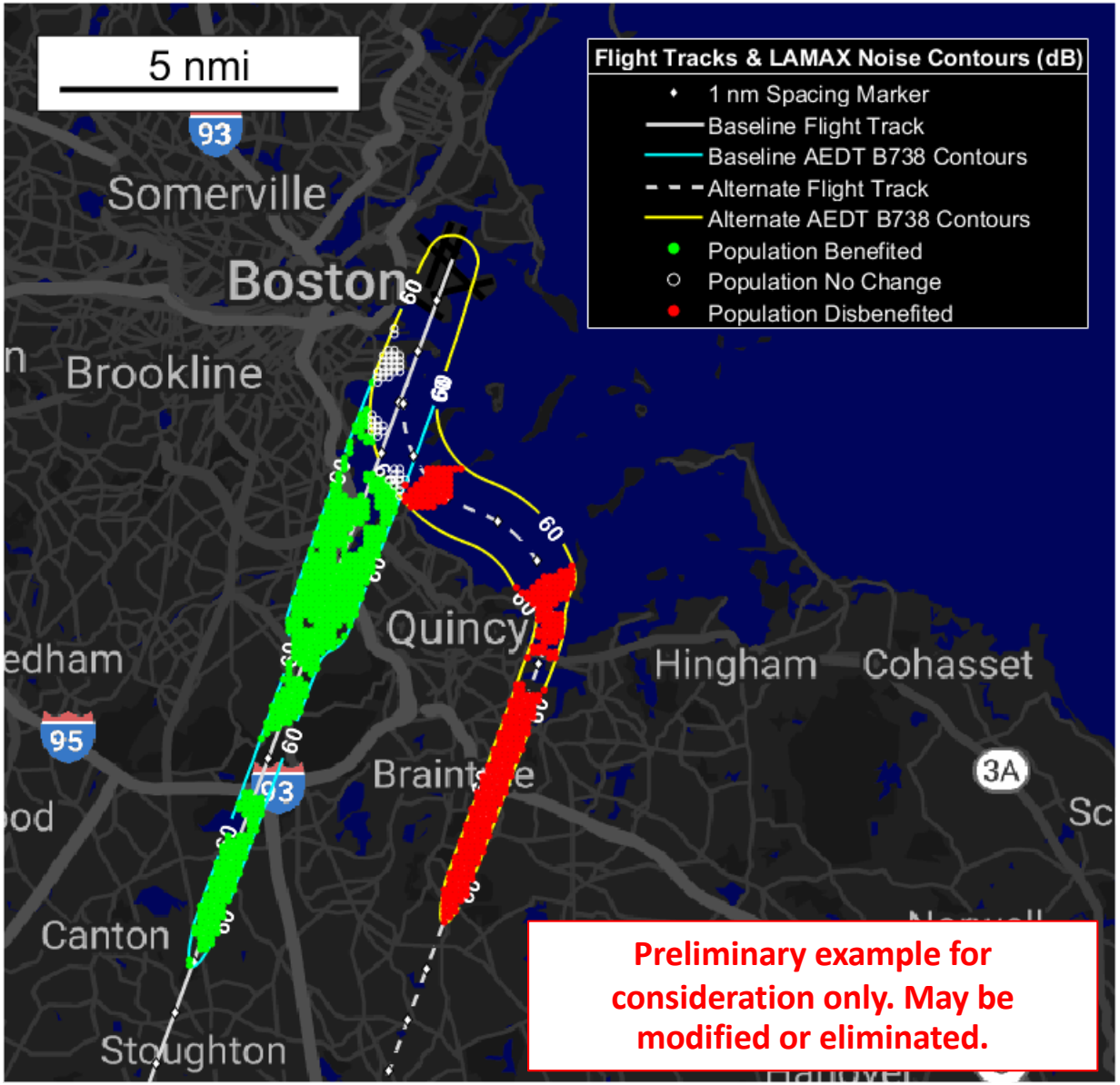
B737-800
Population Exposure ($L_{A,MAX}$)

	60dB
Straight In	32,232
RNP	32,018
Difference (Straight In – RNP)	214

- Procedure within RNAV criteria.
- Community support unclear.
- Limited noise benefit

4R RNP Approach – 4 Mile Offset Initial

B737-800 60dB $L_{A,max}$ Noise Exposure



B737-800
Population Exposure ($L_{A,MAX}$)

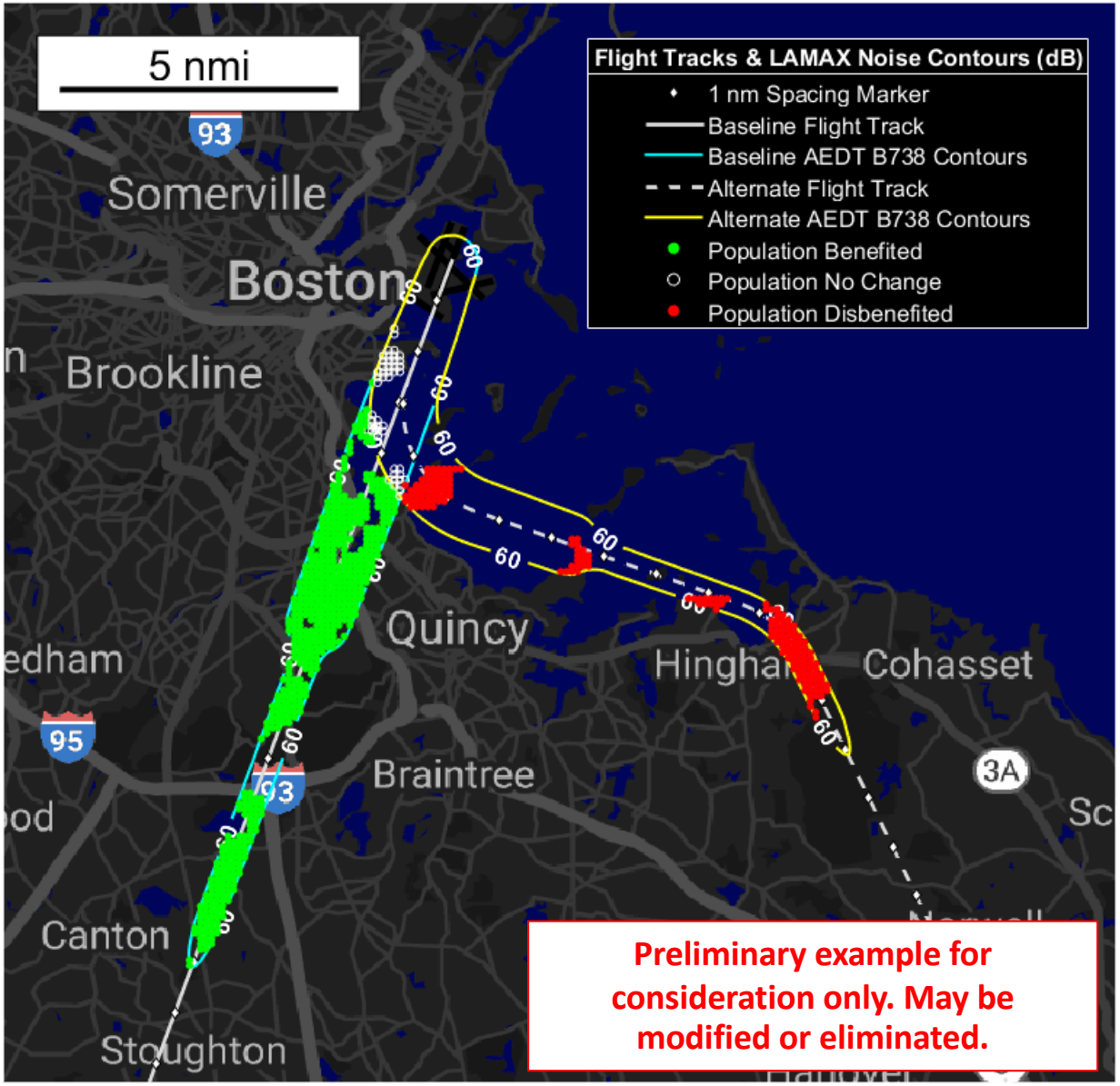
	60dB
Straight In	32,232
RNP	25,106
Difference (Straight In – RNP)	7,126

1.5nmi final segment
90^o 2nmi radius-to-fix turn
90^o 2nmi radius-to-fix turn

- Procedure within RNP criteria.
- Community support unclear.

4R RNP Approach – Min Population Exposure from South

B737-800 60dB $L_{A,max}$ Noise Exposure



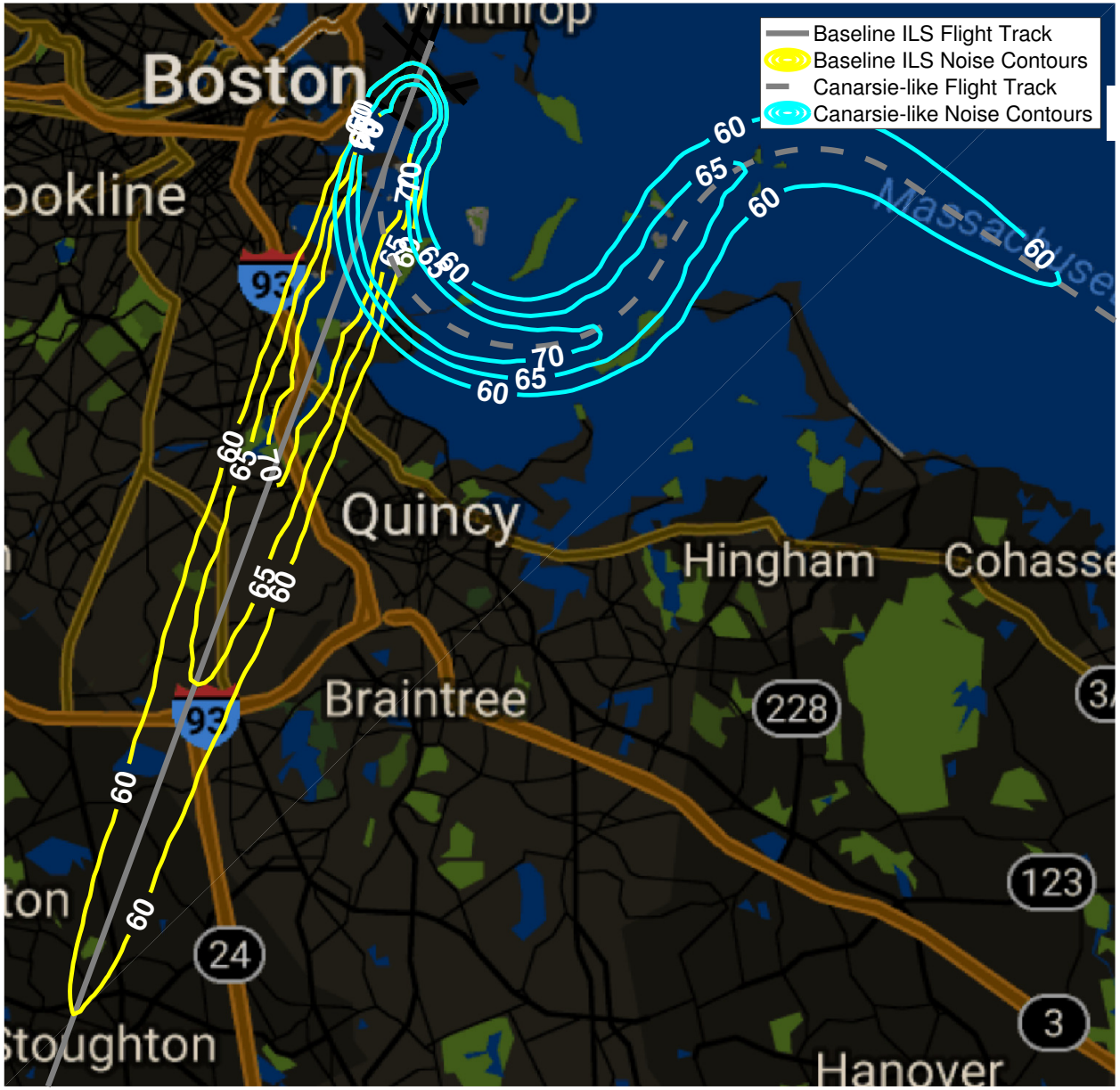
B737-800
Population Exposure ($L_{A,MAX}$)

	60dB
Straight In	32,232
RNP	11,682
Difference (Straight In – RNP)	20,550

1.5nmi final segment
90^o 2nmi radius-to-fix turn
5nmi straight segment
45^o 2nmi radius-to-fix turn

- Procedure within RNP criteria.
- Community support unclear.
- Possible flyability issues need to be tested.
- Air traffic merging concern with straight-in traffic.

4R RNP Approach – Canarsie-like



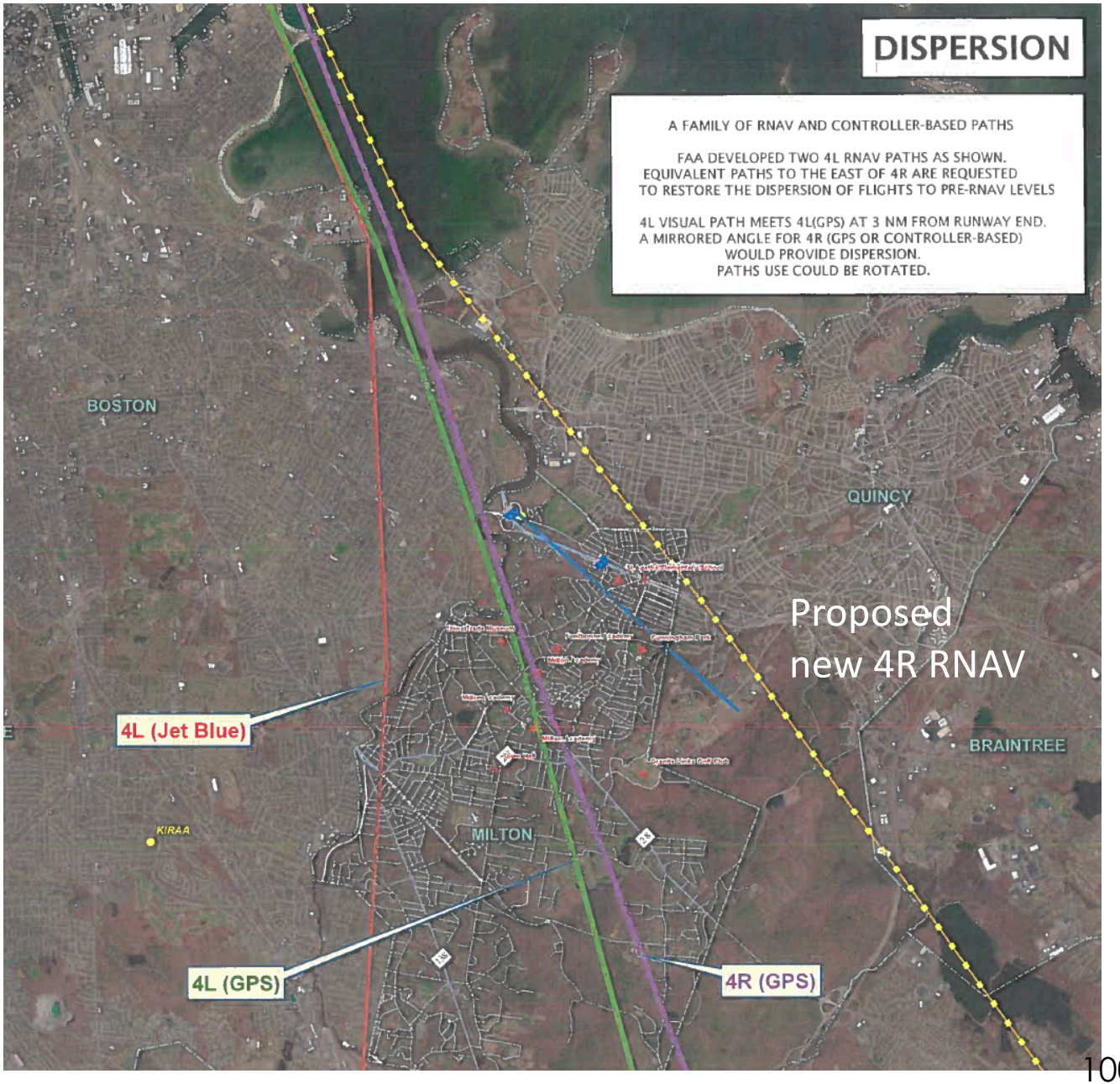
B737-800
Population Exposure ($L_{A,MAX}$)

	60dB
Straight In	46,039
RNP	7,137
Difference (Straight In – RNP)	38,902

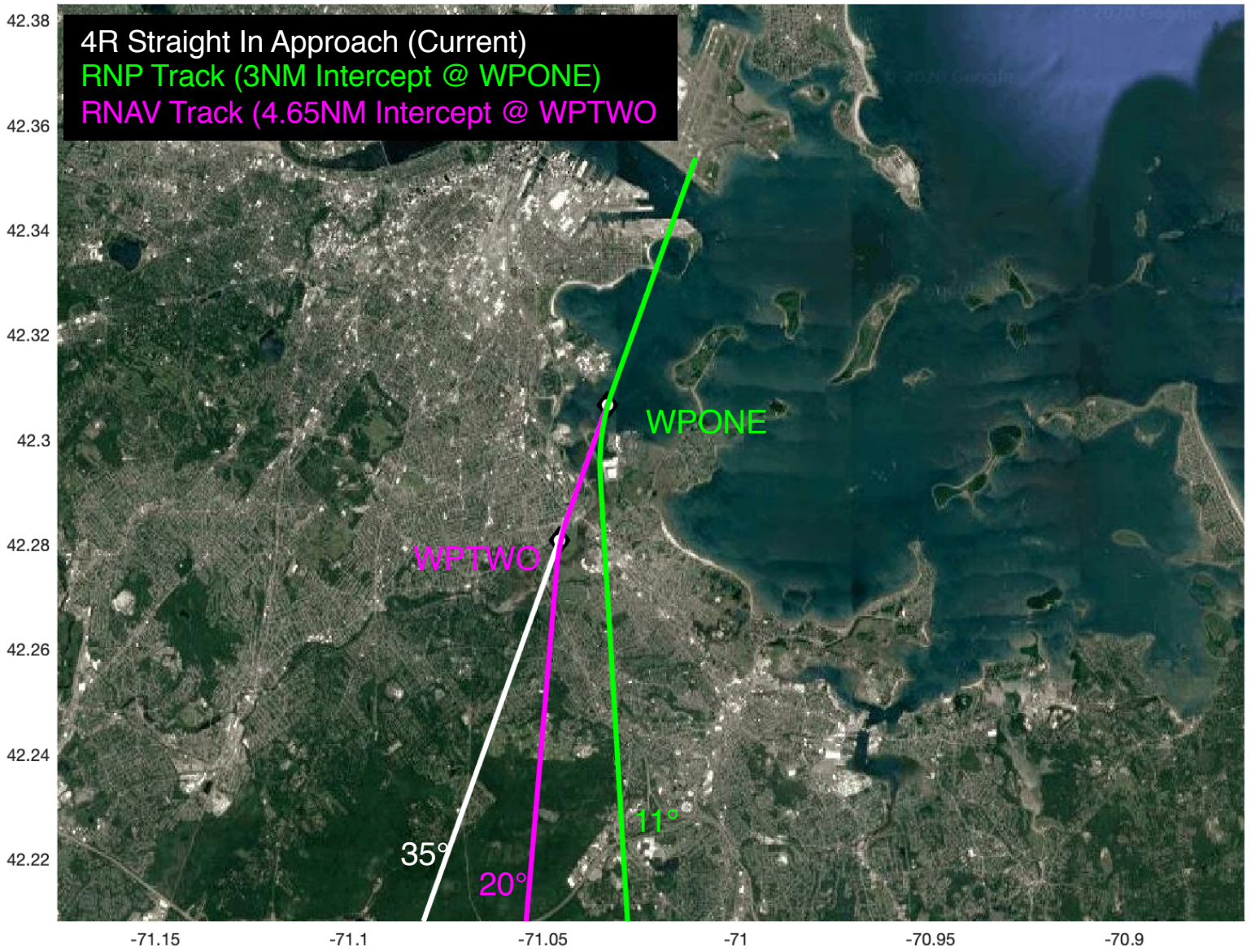
- Rejected by Communities
- Additional Path Length and Final Merge Issues

4R RNAV Analysis Request from Milton

The town of Milton requested that an additional dispersion option be considered that mirrored the 4L JetBlue RNAV Visual approach, which resulted in two additional procedures that were analyzed – one procedure within RNAV criteria and the other within RNP criteria.



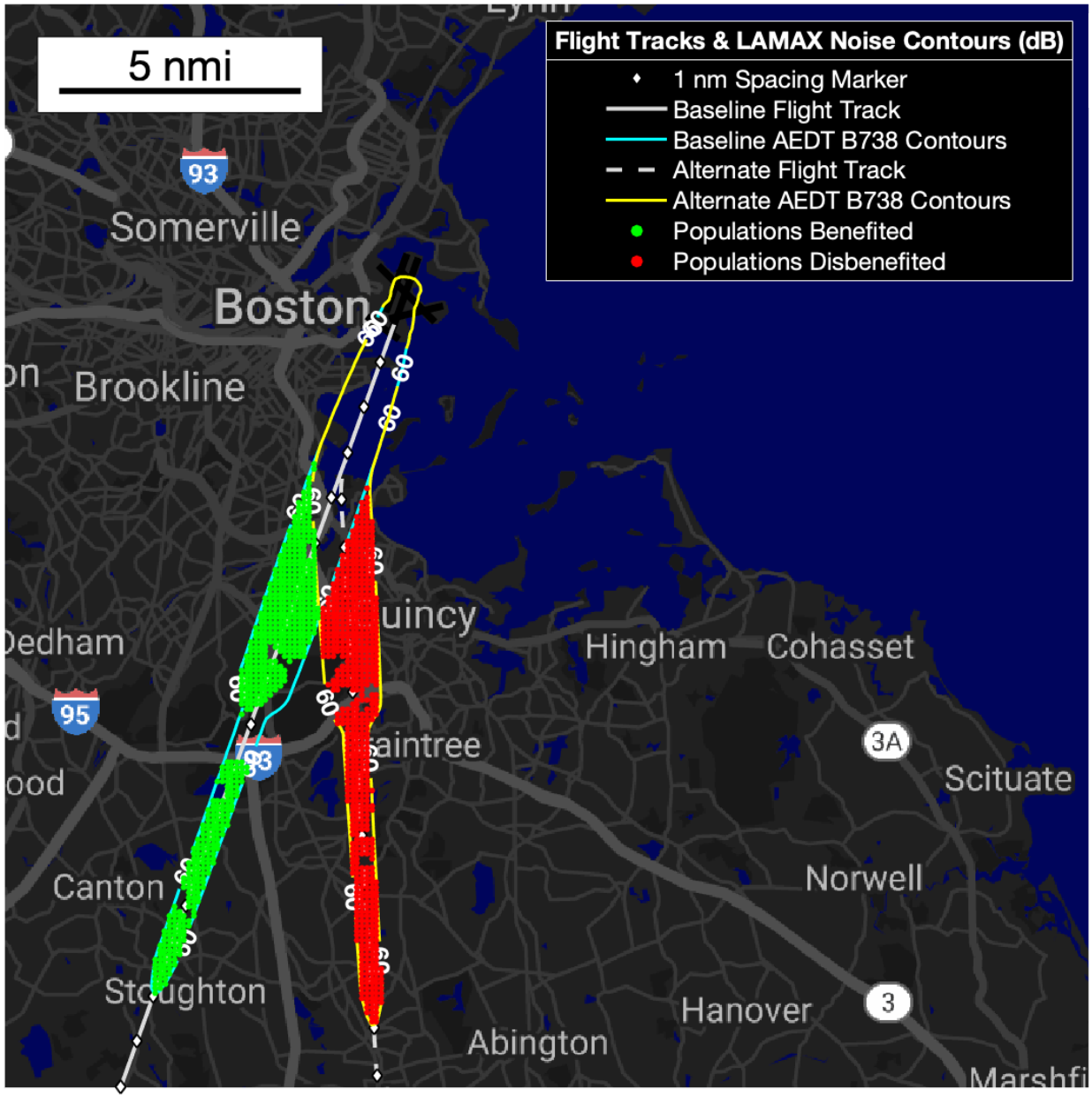
Feasible 4R Tracks based on Milton Request



The RNP track (green) is the route requested for analysis by Milton and mirrors the JetBlue Visual RNAV. It does not meet criteria for RNAV procedures, and could only be implemented as an RNP procedure. An alternative track that does meet RNAV criteria is shown in magenta.

4R RNP Approach – Milton Request

B737-800 60dB $L_{A,max}$ Noise Exposure



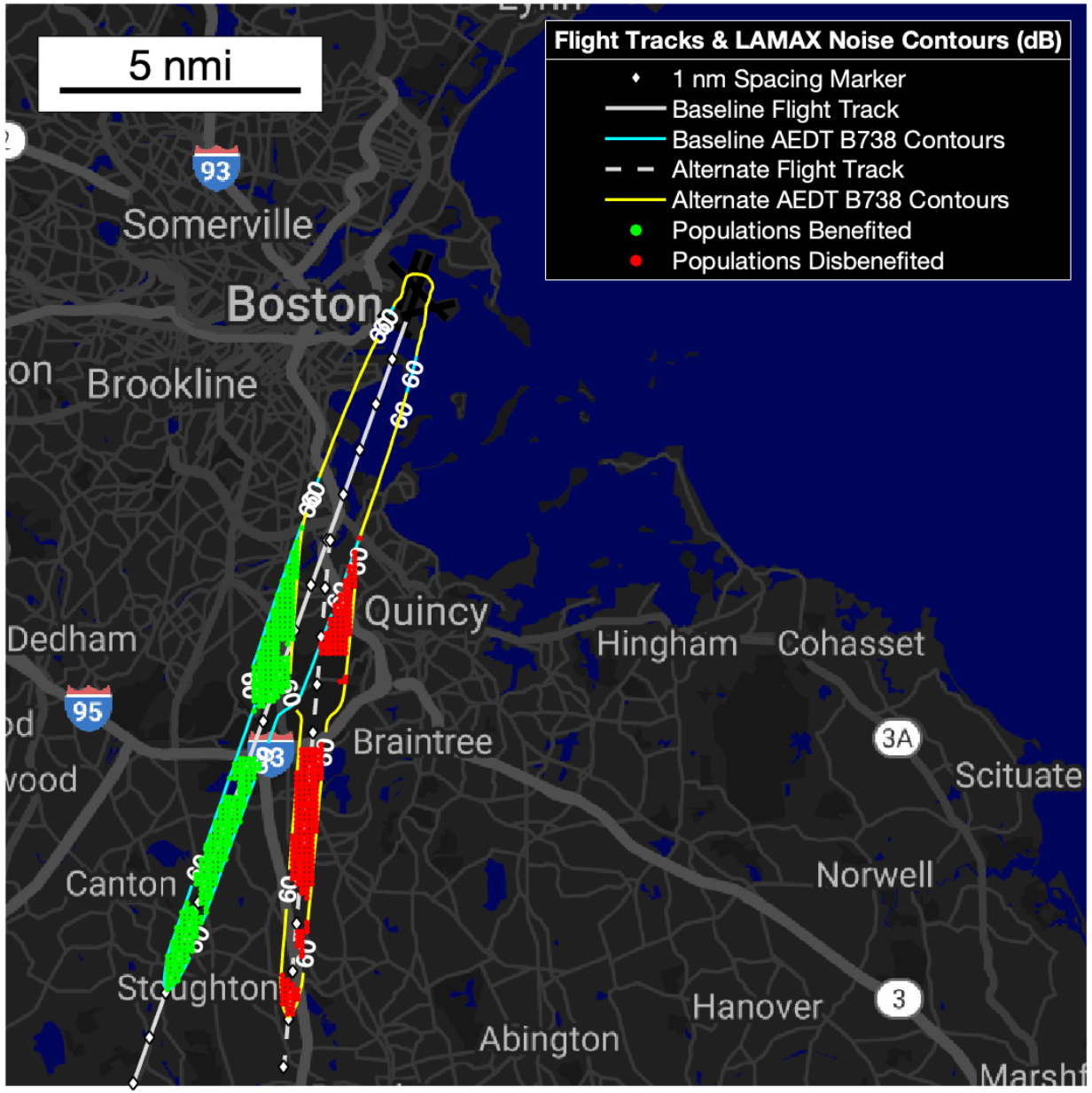
B737-800
Population Exposure ($L_{A,MAX}$)

	60dB
Straight In	34,567
RNP	53,271
Difference (Straight In – RNP)	-18,704

3nmi final segment
24^{o} turn to final

- Procedure within RNP criteria.
- Concerns with merging tracks

4R RNAV Approach – Milton Request



B737-800
Population Exposure ($L_{A,MAX}$)

	60dB
Straight In	34,567
RNP	40,459
Difference (Straight In – RNP)	-5,892

4.6 nmi final segment
15^{o} turn to final

- Procedure within RNAV criteria. Concerns with merging tracks.

NOVEMBER 14, 2019
PRESENTATION TO SELECT BOARD
DISPERSION SLIDE
4R MIRROR IMAGE OF 4L JETBLUE PATH

REQUESTS AND RECOMMENDATIONS FOR BLOCK 2

DISPERSED RUNWAY 4L AND 4R ARRIVAL PATH TESTS

CONTENTS

1.0 PREFACE
2.0 KEY CONSIDERATIONS
3.0 PRIOR REQUESTS AND FAA RESPONSES
4.0 DISPERSION REQUEST AND TEST ELEMENTS
  4.1 AUTOMATE DISPERSION
  4.2 USE MULTIPLE FLIGHT PATHS
  4.3 USE CHARTED VISUAL FLIGHT PROCEDURES
  4.4 RECOGNIZE WESTWARD SHIFT OF CSPR SKYRAILS
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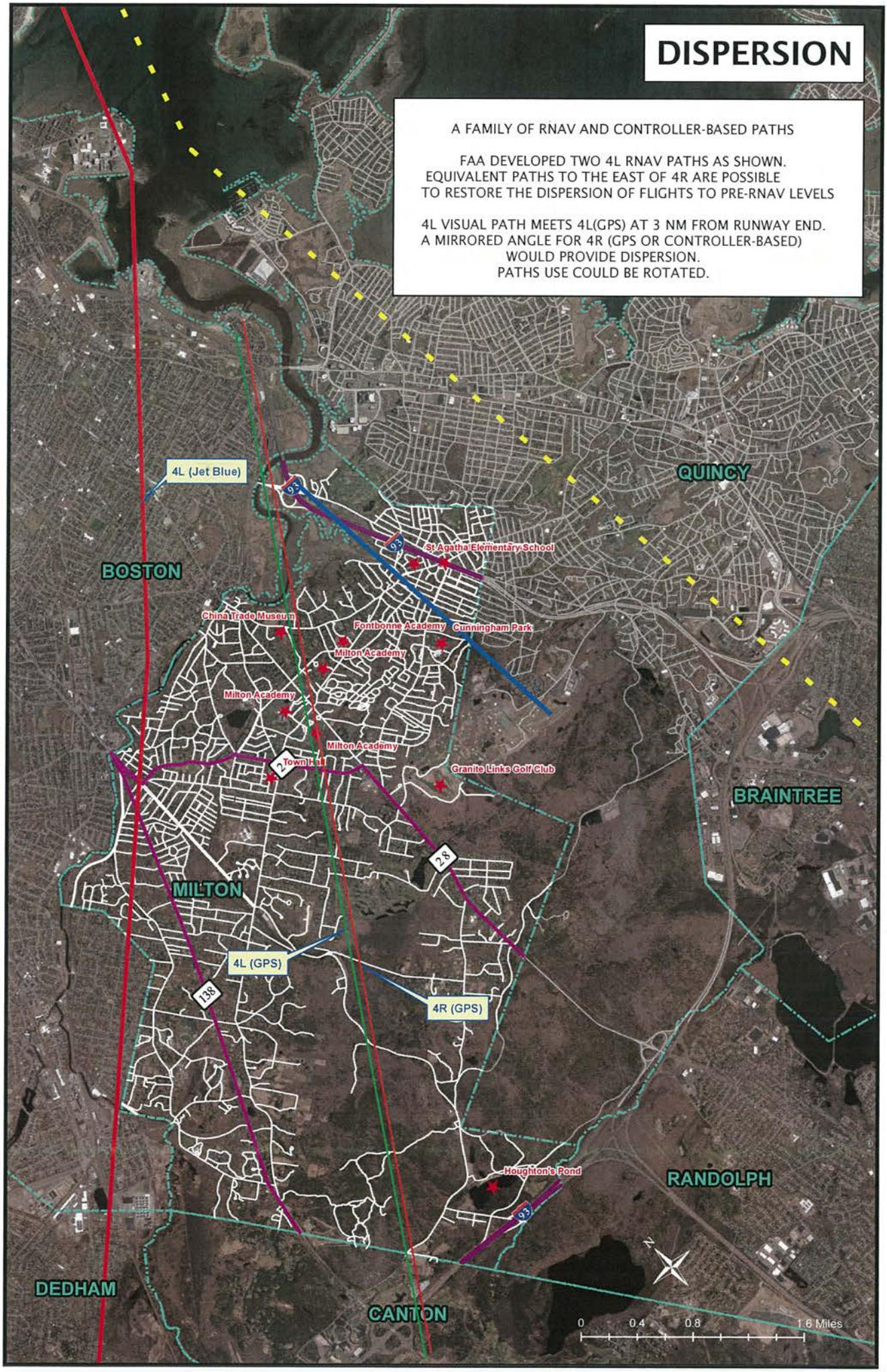
6.0 27 DEPARTURES WAYPOINT RELOCATION
7.0 FIELDWORK TO CONFIRM REALITIES/POSSIBILITIES
8.0 DWELL AND PERSISTENCE REQUIRE SIMILAR ACTION


DISPERSION
A FAMILY OF RNAV AND CONTROLLER-BASED PATHS
FAA DEVELOPED TWO 4L RNAV PATHS AS SHOWN.
EQUIVALENT PATHS TO THE EAST OF 4R ARE POSSIBLE
TO RESTORE THE DISPERSION OF FLIGHTS TO PRE-RNAV LEVELS
4L VISUAL PATH MEETS 4L(GPS) AT 3 NM FROM RUNWAY END.
A MIRRORED ANGLE FOR 4R (GPS OR CONTROLLER-BASED)
WOULD PROVIDE DISPERSION.
PATHS USE COULD BE ROTATED.
4L (Jet Blue)
QUINCY
BOSTON
St Agatha Elementary School
China Trade Museum
Fontbonne Academy
Cunningham Park
Milton Academy
Milton Academy
Milton Academy
Town Hall
Granite Links Golf Club
BRAINTREE
MILTON
4L (GPS)
4R (GPS)
Houghton's Pond
RANDOLPH
DEDHAM
CANTON
0
0.4
0.8
1.6 Miles

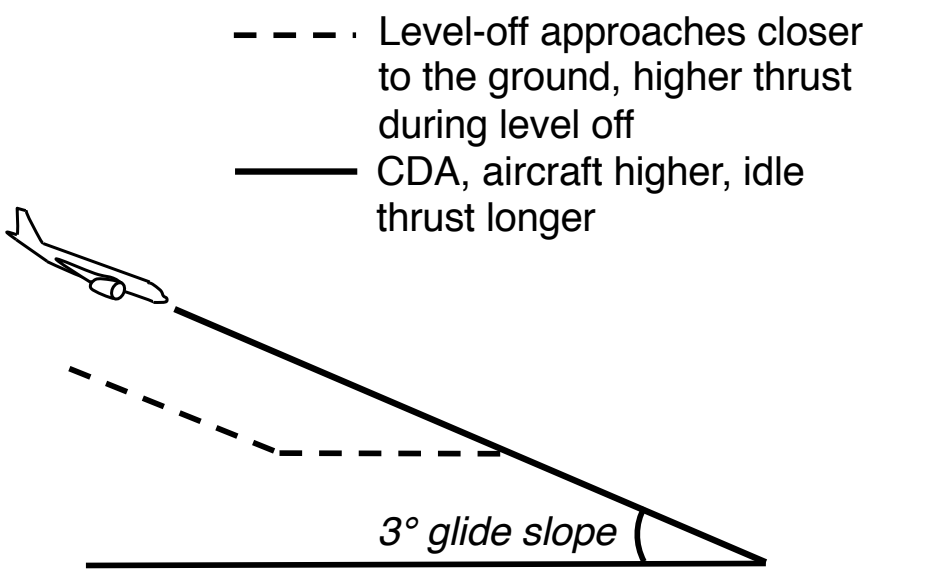
RWY 4L/R Arrivals

- Objective: Reduce Exposure to Highly Impacted Communities (requested by Communities)
- Block 2 Options Active:
  - RNAV/RNP-Enabled Lateral Modifications
  - Increased use of Continuous Descent Approaches
  - Delayed Deceleration Approaches
- Block 2 Options Evaluated and Rejected:
  - Steep Approaches
  - Delayed Gear Extension

Continuous Descent Approaches

- Reduce noise by removing level-off segment
  - Reduces thrust
  - Aircraft at a higher altitude for more of the procedure
- Continuous descent approaches could be achieved through RNAV procedures or RNP procedures

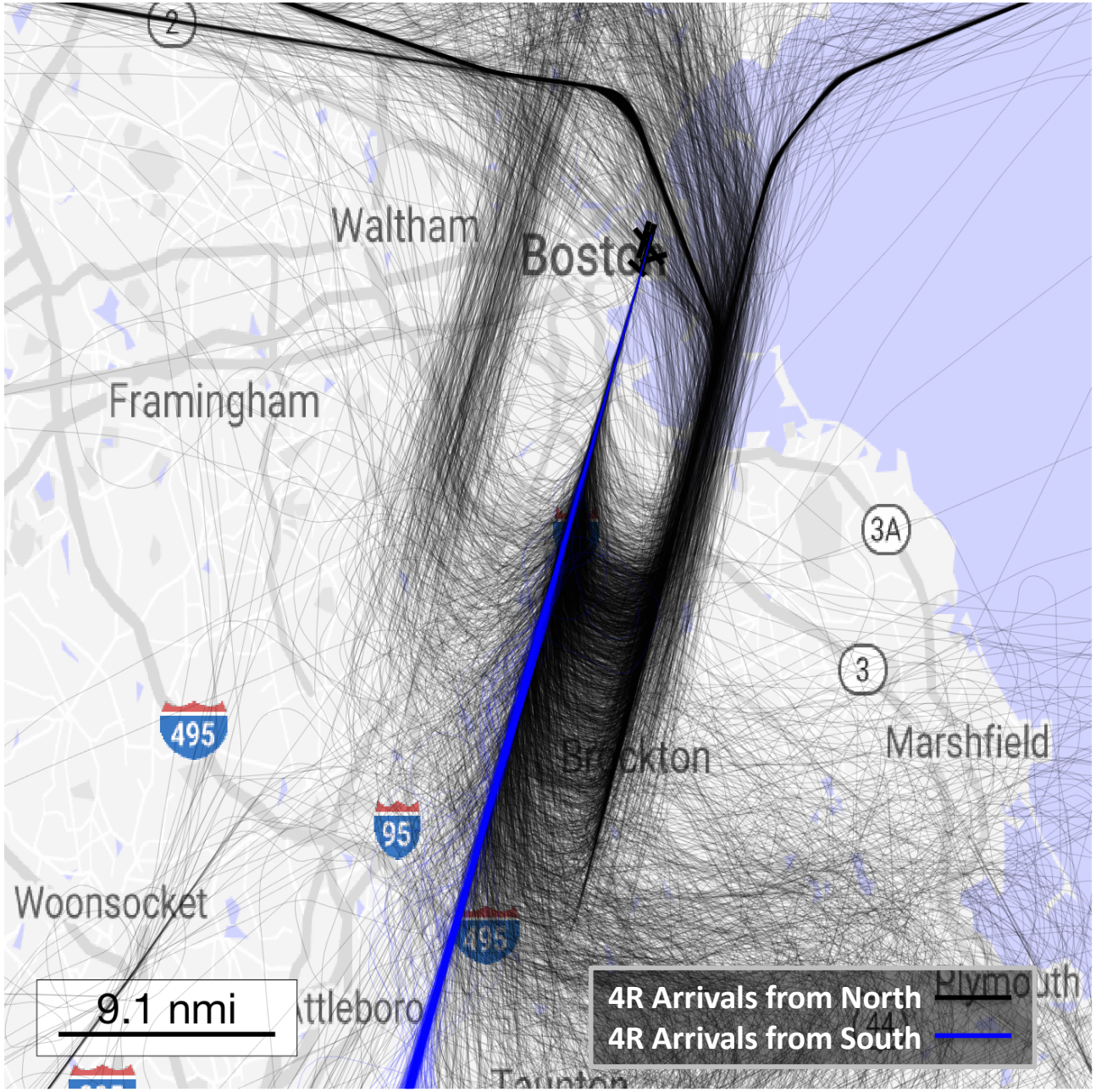
Continuous Descent Approaches (CDA)



- Difficult for vectored procedures where distance to go is ambiguous e.g. trombone downwind.
- Potential ATC workload for merging procedures

Preliminary example for consideration only. May be modified or eliminated.

2017 Arrivals to Runway 4L and 4R



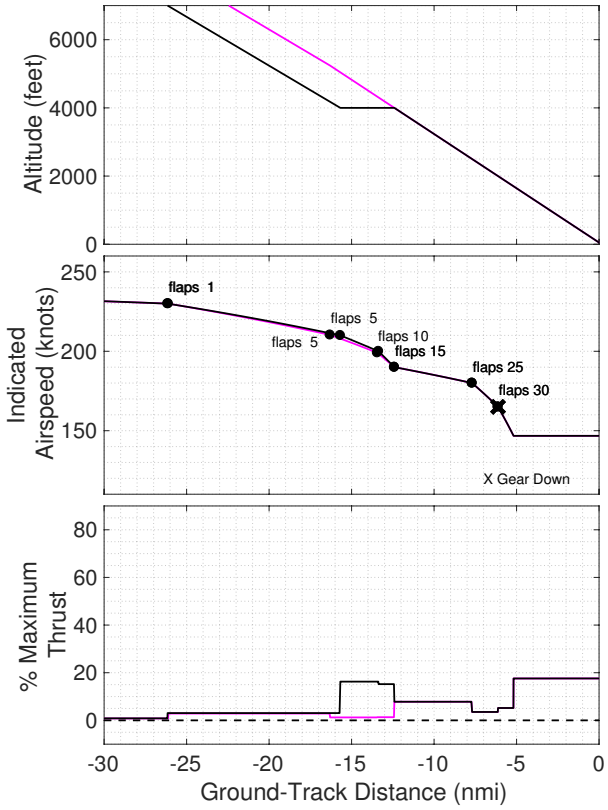
Notes:

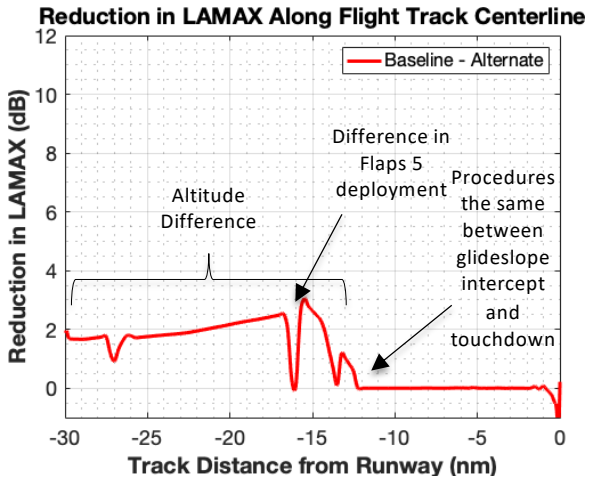
- 39,615 Arrivals to Rwy 4R in 2017 (jet & prop):
- Figure shows 10% of all 2017 arrivals selected at random
- Data Source: Flight Tracks, Massport Noise and Operations Management System (NOMS)

- **51%** of Rwy4R arrivals came from south on a 2017 peak day

Altitude Profiles	Arrivals from South	Arrivals from North
% Continuous Descent Profiles	38%	6%
Median level-off altitude (Non-Continuous Descent Profiles)	4,000 ft	3,000 ft

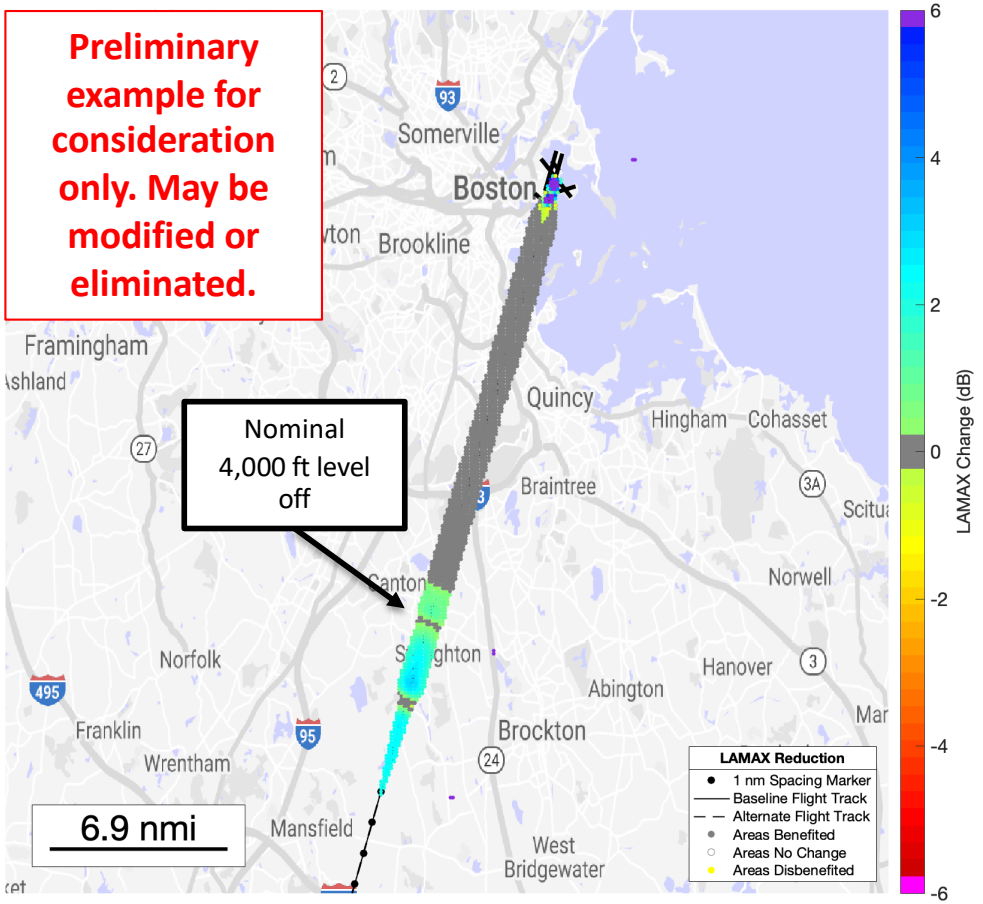
CDA vs Standard Approach into BOS RWY 4R, B737-800





LAMAX Delta at 60 dB Contour

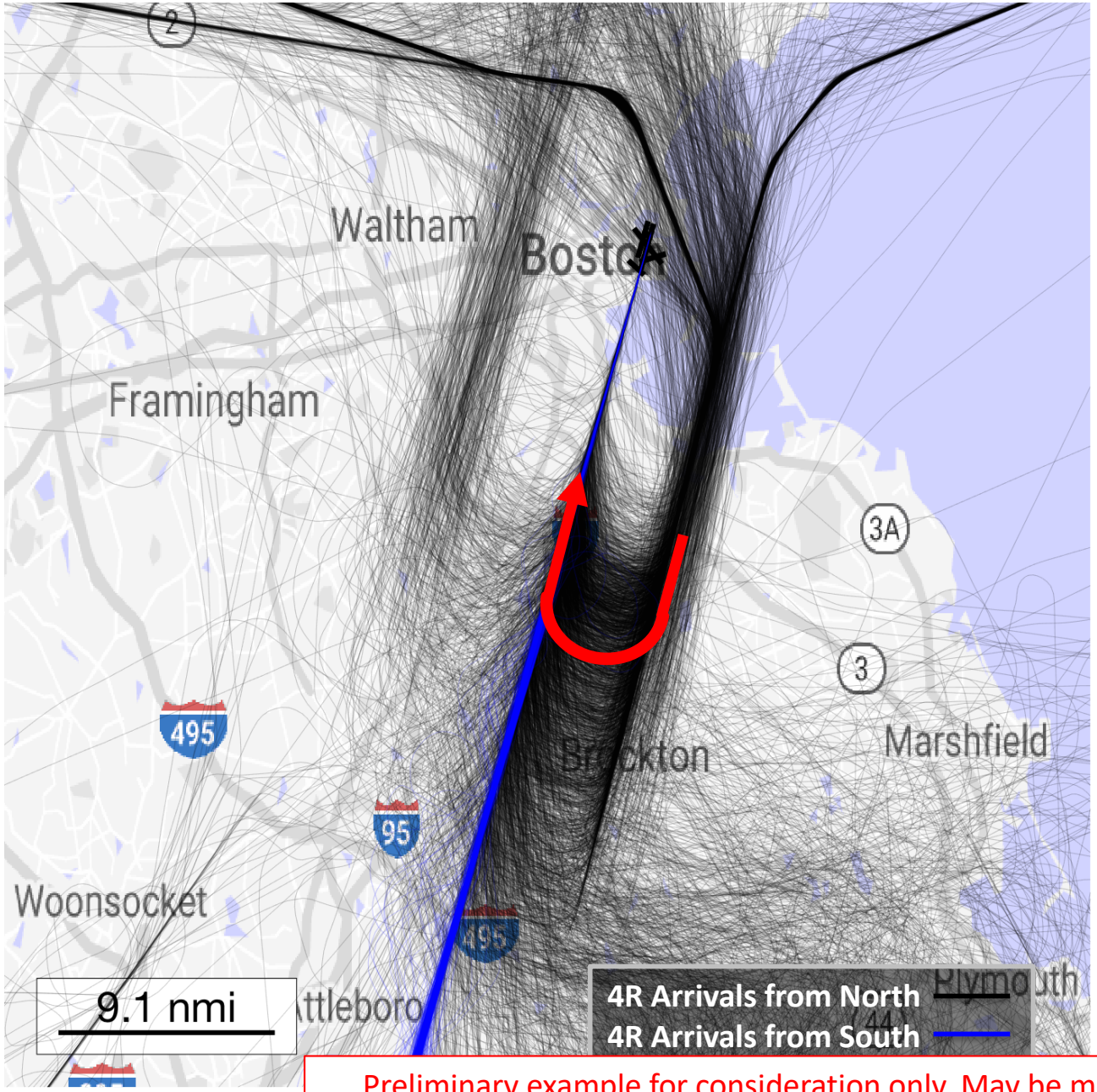
Preliminary example for consideration only. May be modified or eliminated.



Population Exposure

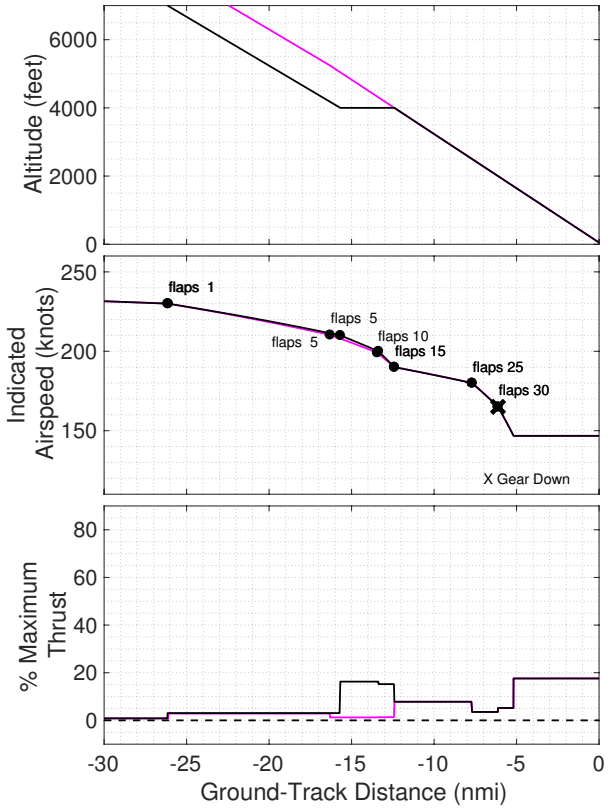
$L_{A,max}$	60 dB	65 dB	70 dB
Standard	37690	12305	3074
DDA	35749	12284	3040
Difference	1941	21	34

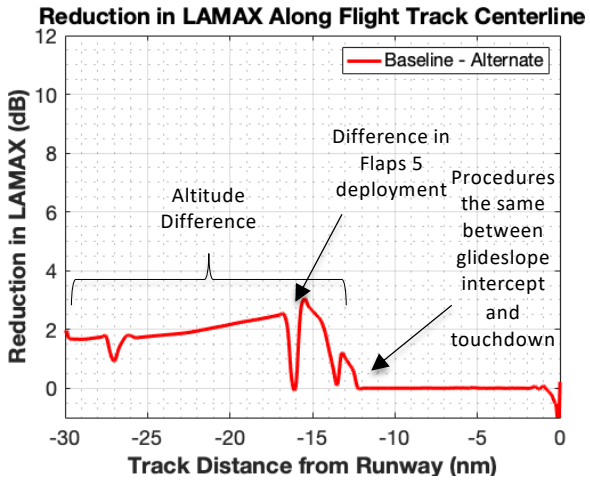
RNAV CDA from North
Example Track

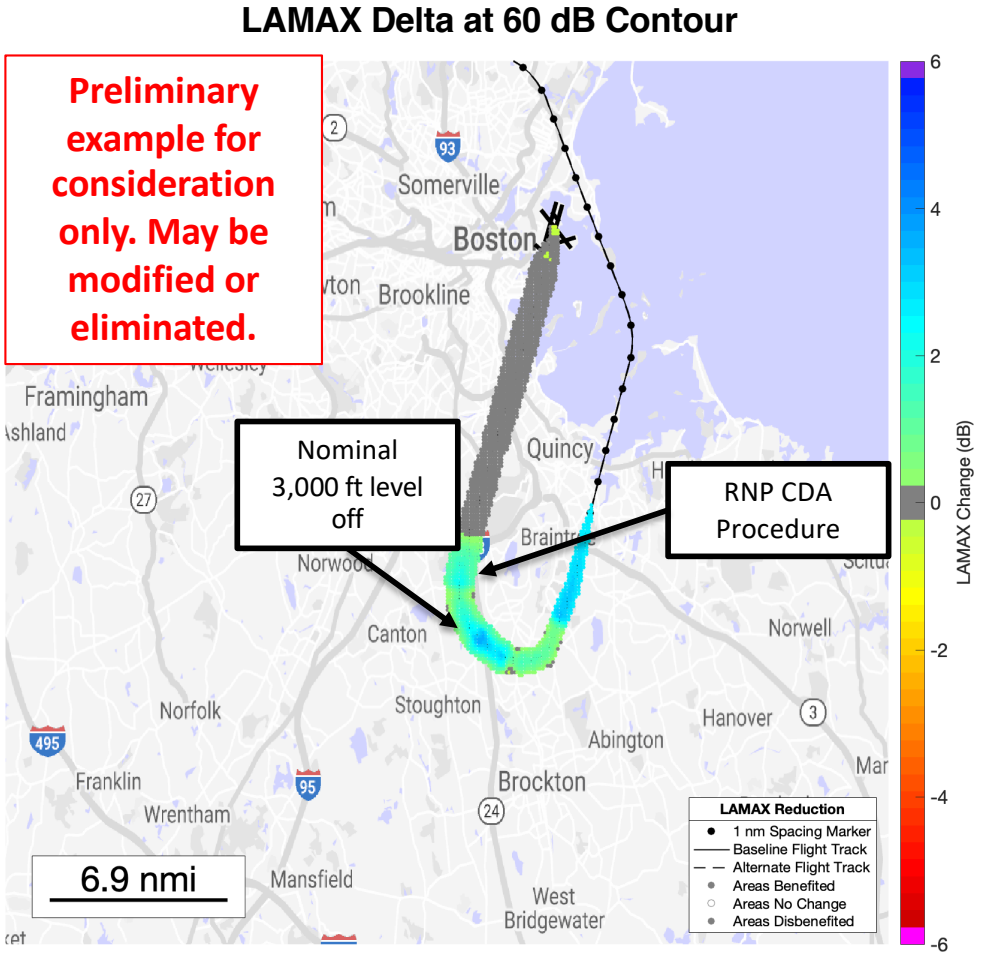


Preliminary example for consideration only. May be modified or eliminated.

CDA vs Standard Approach into BOS RWY 4R, B737-800







Note: Defined track necessary for CDA from north would increase concentration under track

Population Exposure

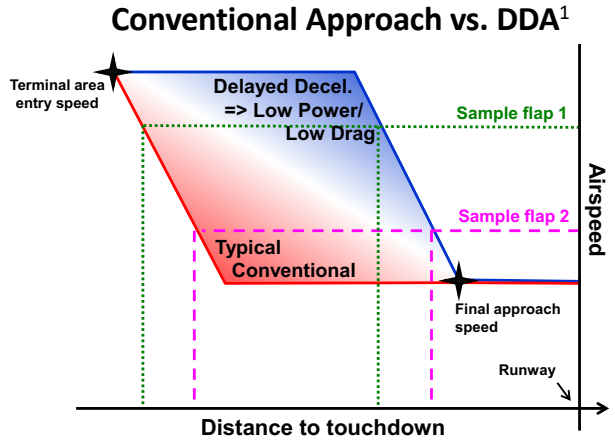
$L_{A,max}$	60 dB	65 dB	70 dB
Standard	43,331	14,052	3,143
DDA	36,937	12,647	3,143
Difference	6,394	1,405	0

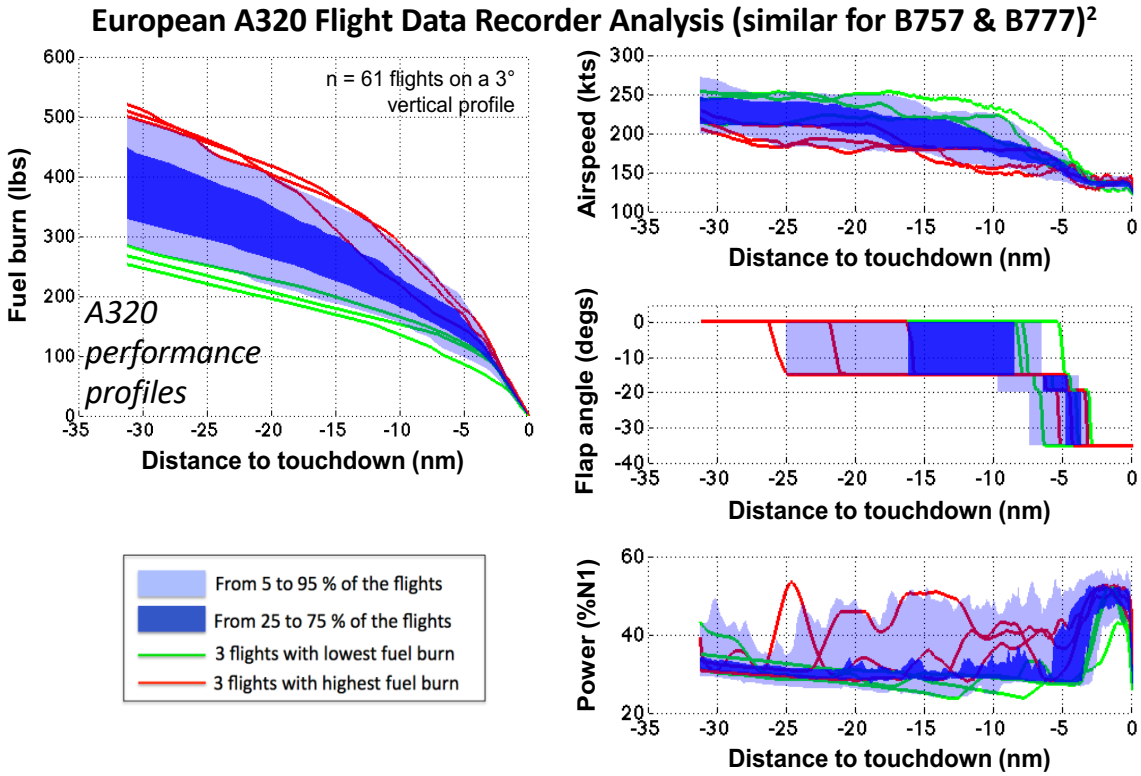
RWY 4L/R Arrivals

- Objective: Reduce Exposure to Highly Impacted Communities (requested by Communities)
- Block 2 Options Active:
  - RNAV/RNP-Enabled Lateral Modifications
  - Increased use of Continuous Descent Approaches
  - Delayed Deceleration Approaches
- Block 2 Options Evaluated and Rejected:
  - Steep Approaches
  - Delayed Gear Extension

Speed Scheduled - Delayed Deceleration Approaches (DDAs)

- In conventional approaches, aircraft decelerate early in the approach
- DDAs provide potential for fuel burn & noise reduction[1]
- In DDAs, initial flap speed velocity maintained to lower drag and thrust requirements
  - Lower thrust levels reduce engine noise
  - Delaying flap/slat deployment reduces flap/slat noise
  - Higher velocities increase airframe noise

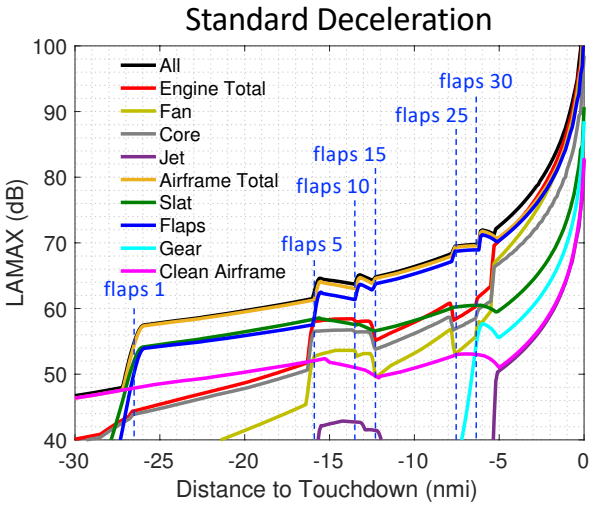


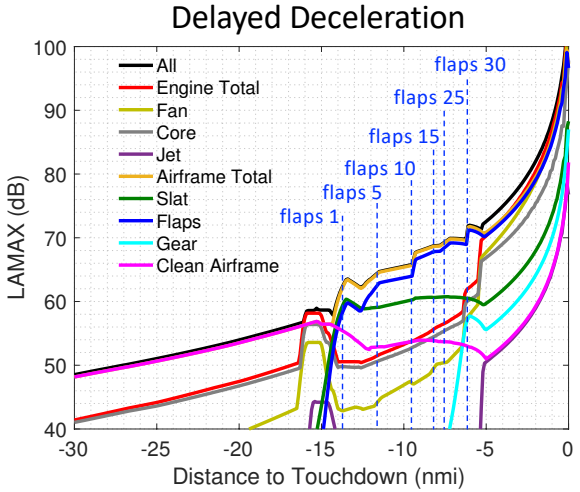


[1] Dumont, J., et al. (2012)
[2] Dumont, J., et al. (2011)

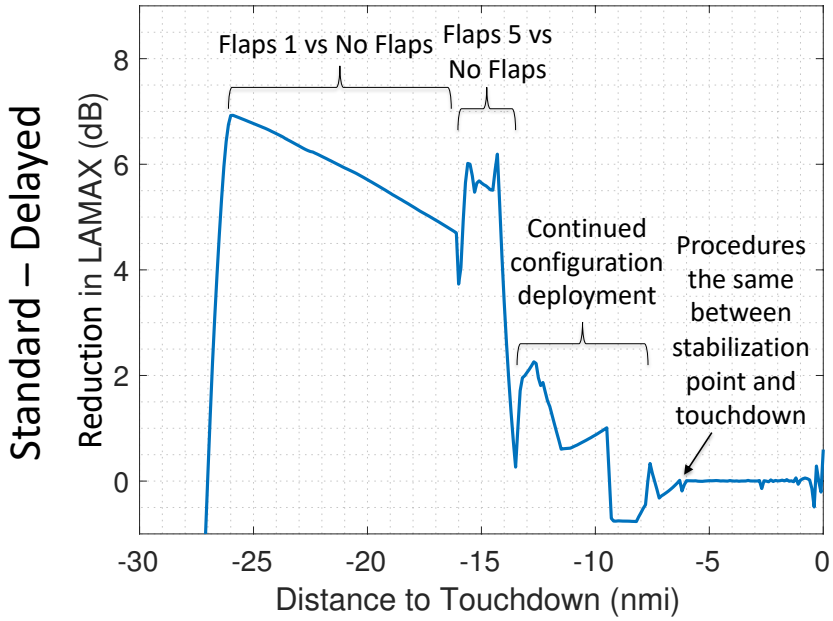
Example Noise Impact of Delayed Deceleration Approaches

LAMAX Under the Flight Track for Boeing 737-800s





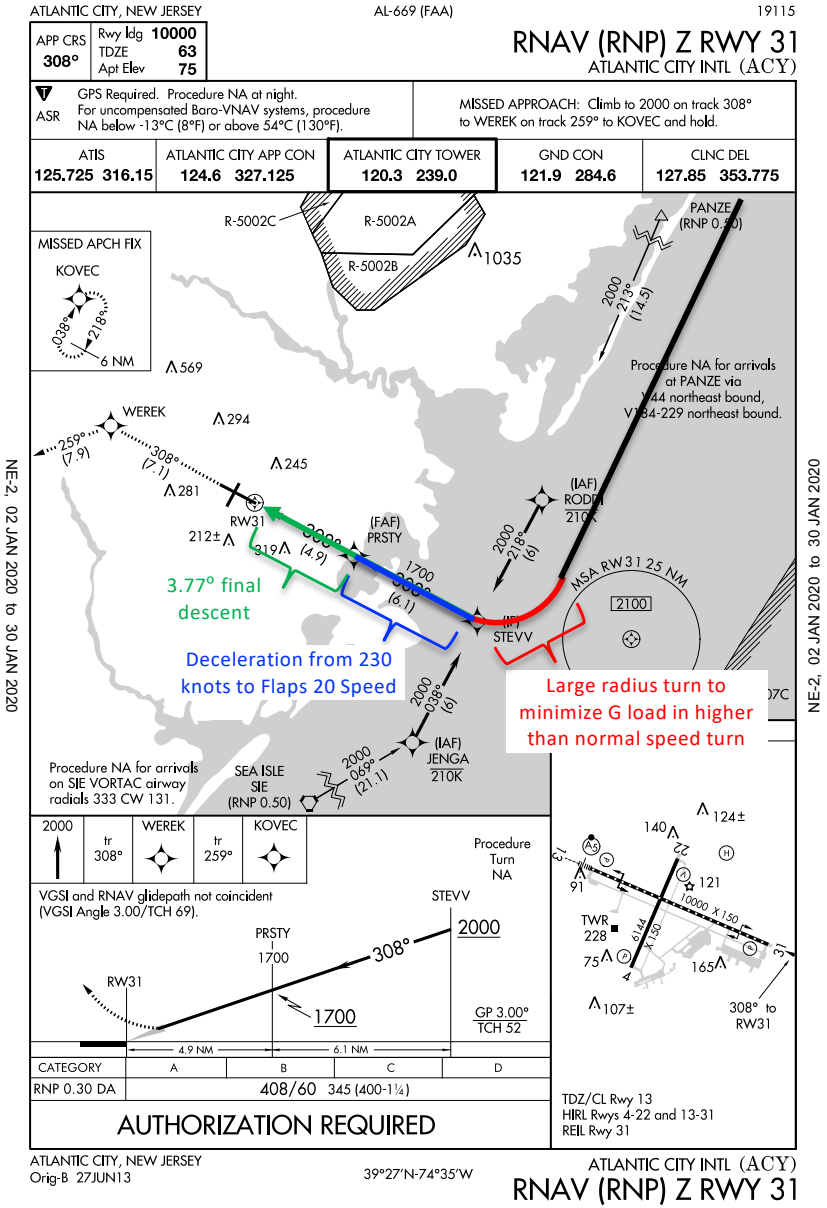
Noise Impact Comparisons

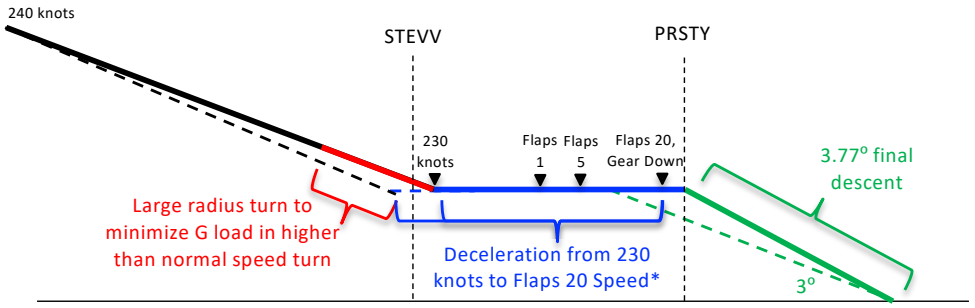


- Reduce noise by delaying deceleration and thus extension of flaps

Boeing ecoDemonstrator Test

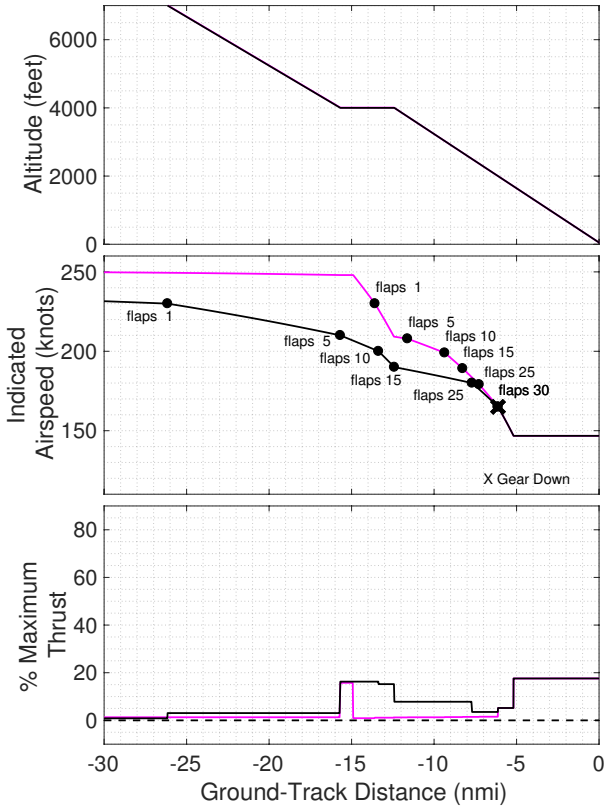
21 NOV 2019 at ACY - DDA Coupled with 3.77° Glide Slope

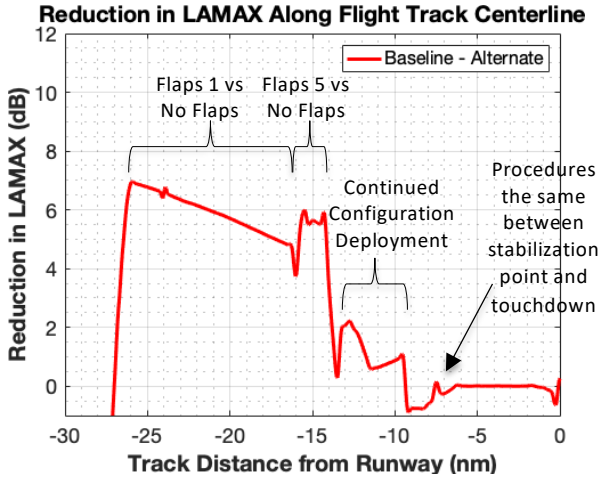




*Length of deceleration segment dependent on aircraft weight, wind, and weather conditions

DDA vs Standard Approach into BOS RWY 4R, B737-800





LAMAX Delta at 60 dB Contour

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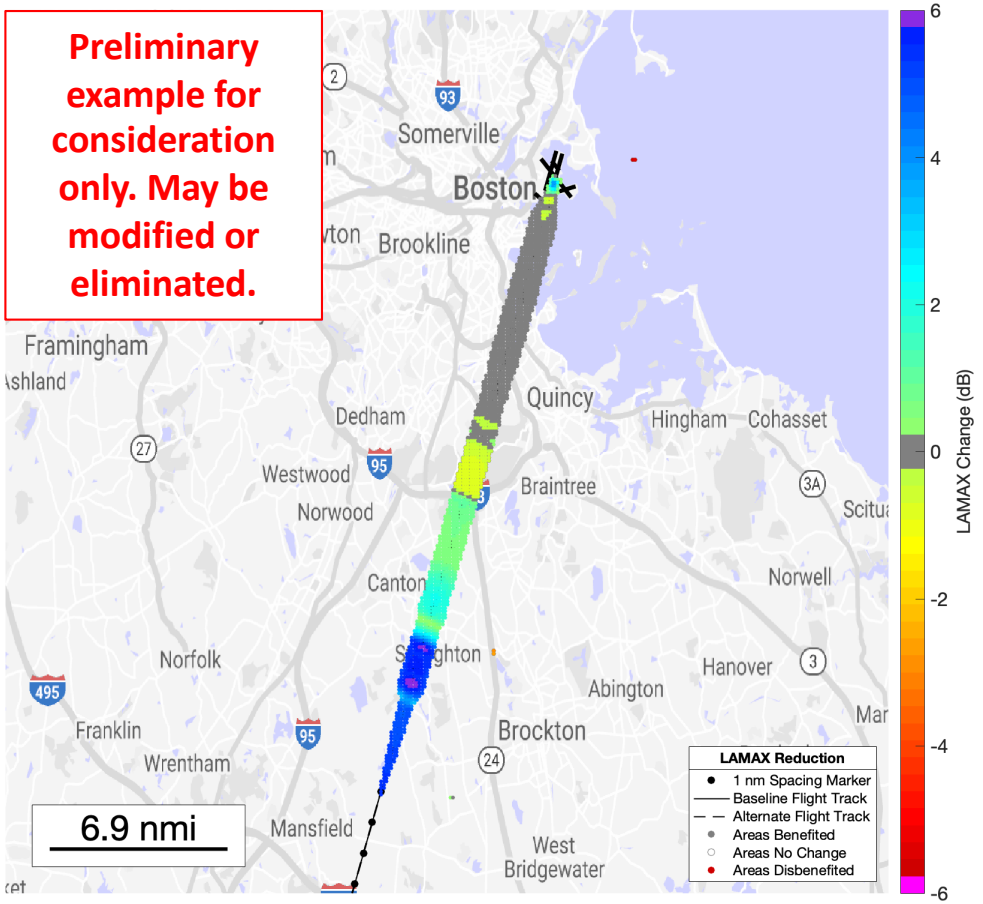

Population Exposure

$L_{A,max}$	60 dB	65 dB	70 dB
Standard	37690	12305	3074
DDA	32389	11944	3074
Difference	5301	361	0

RWY 4L/R Arrivals

- Objective: Reduce Exposure to Highly Impacted Communities (requested by Communities)
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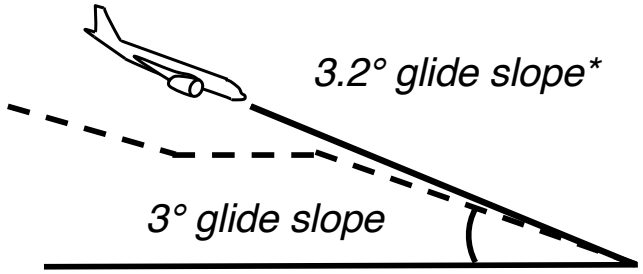
  - Delayed Deceleration Approaches
- Block 2 Options Evaluated and Rejected:
  - Steep Approaches
  - Delayed Gear Extension

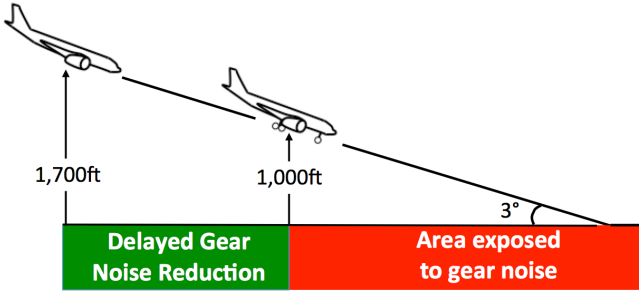
Other Rejected Ideas 4L/R Arrivals

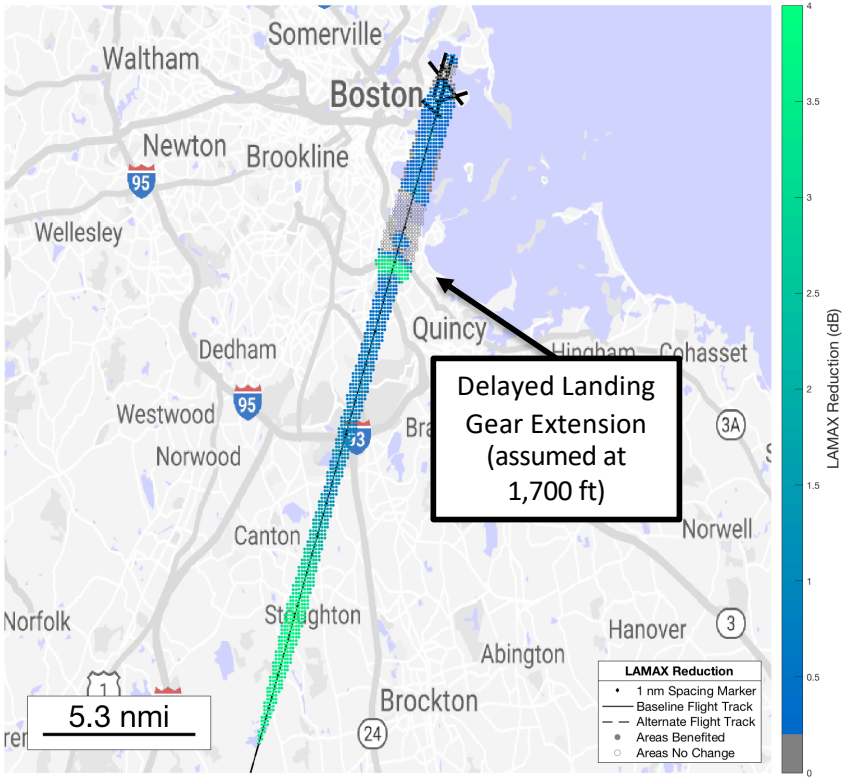
Rejected Ideas 4R/L Arrivals

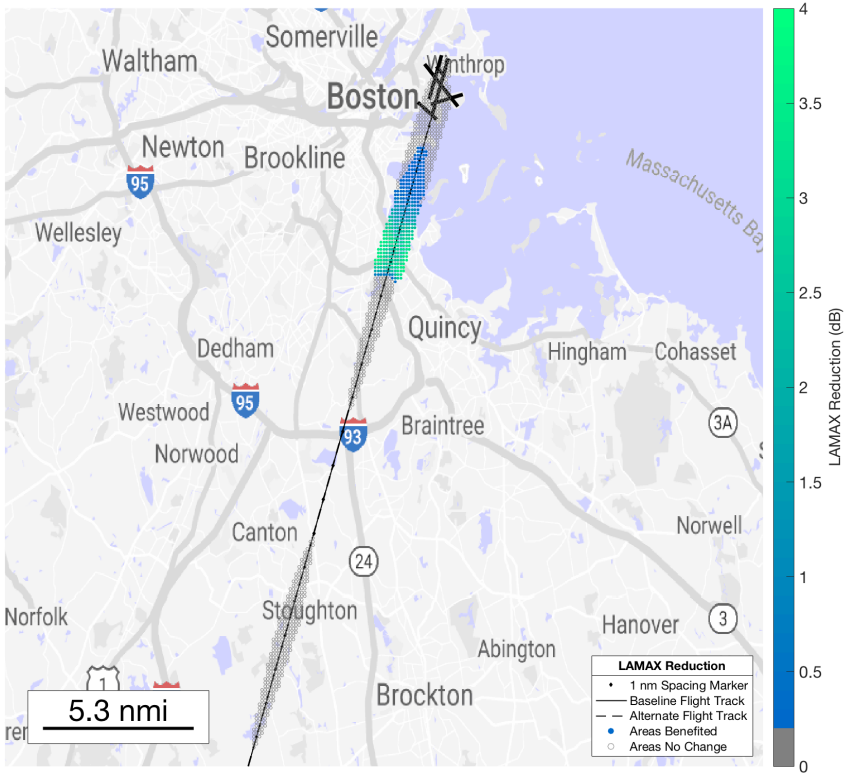
Steeper Descent



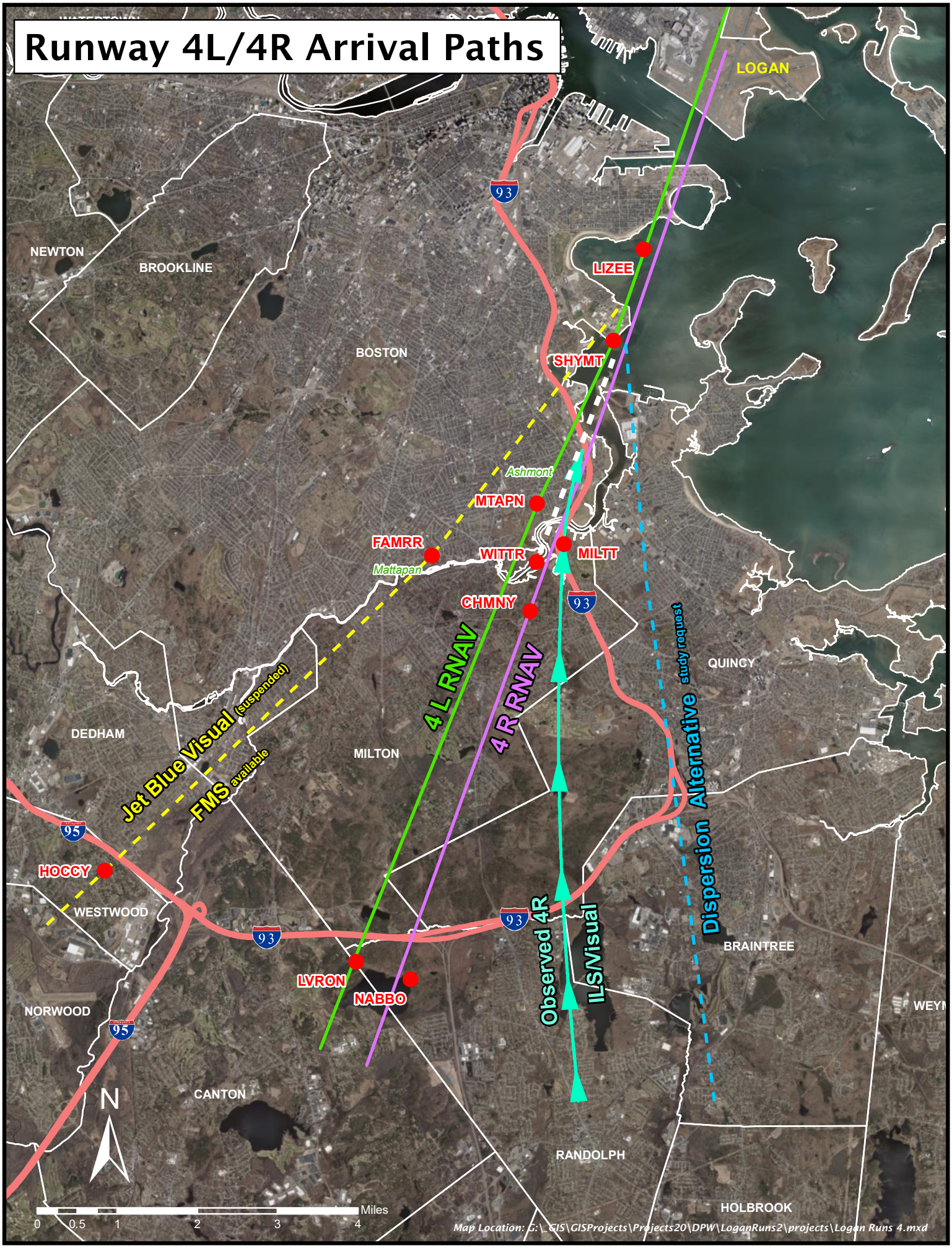
Delayed Gear







Pilots Safety Concerns for Energy Management on High-Energy Approaches


Runway 4L/4R Arrival Paths
LOGAN
NEWTON
BROOKLINE
BOSTON
LIZEE
SHYMT
Ashmont
MTAPN
FAMRR
Mattapan
WITTR
MILTT
CHMNY
93
4 L RNAV
4 R RNAV
study request
Alternative
Dispersion
QUINCY
DEDHAM
MILTON
Jet Blue Visual (suspended)
FMS available
95
HOCCY
WESTWOOD
Observed 4R
ILS/Visual
BRAINTREE
LVRON
NABBO
NORWOOD
CANTON
RANDOLPH
HOLBROOK
N
0 0.5 1 2 3 4 Miles
Map Location: G:_GIS\GISProjects\Projects20\DPW\LoganRuns2\projects\Logan Runs 4.mxd

Massport Community Advisory Committee
One Broadway, 14th Floor
Cambridge, MA 02142

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.

Massport Community Advisory Committee
One Broadway, 14th Floor
Cambridge, MA 02142

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

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

Digitally signed by COLLEEN M D'ALESSANDRO
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.

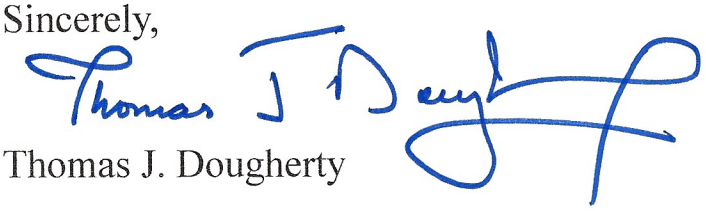
As the MCAC's May 18, 2020 letter requested, 30 days prior to commencement of the public comment period should be at least 30 days before the later of January 1, 2021, or two months after flights to and from Logan Airport resume with volume and frequency similar to what can be expected in future years. 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

Massport Community Advisory Committee
One Broadway, 14th Floor
Cambridge, MA 02142

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.

Massport Community Advisory Committee
One Broadway, 14th Floor
Cambridge, MA 02142

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

Digitally signed by COLLEEN M D'ALESSANDRO
Date: 2020.08.10 09:55:55 -04'00'

Colleen M. D'Alessandro
Regional Administrator, New England Region

CC: Thomas Dougherty

NEXT STEPS

4R MILTON ACTION ITEMS

RANK 4R ADDITIONAL PATH ALTERNATIVES —FOR EXAMPLE:

***Seek an alternate Mirrored 4R RNP Path as shown above.**

*At end of 2017 **62%** of all US air carrier aircraft (including freight) in service were equipped for **RNP** AR operation (MIT report)

* **All** of these are **RNP** equipped: **JetBlue, American, Delta,**
* **Cathay Pacific, Frontier, Southwest, United, Alaska**

JetBlue alone has **125 arrivals per day** from 54 cities and plans to go to **200 arrivals per day** (Jet Blue Annual Report)

* **Merging** with existing 4R paths like the 4L JetBlue path does

-AND-

***Pursue green (over Quincy), magenta (over Hingham) paths**

* **Enlist Political Support: State Sen./Reps, US Rep/Senators**
* **Engage other cities/towns/Massport**
*
* **Federal Legislation if new US Senate majority: to mandate FAA equal protection of communities via required dispersion of flight paths across available space**
* **(HR-4 example: mandate change sponsored in 2018)**

4L RNAV ENVIRONMENTAL ASSESSMENT

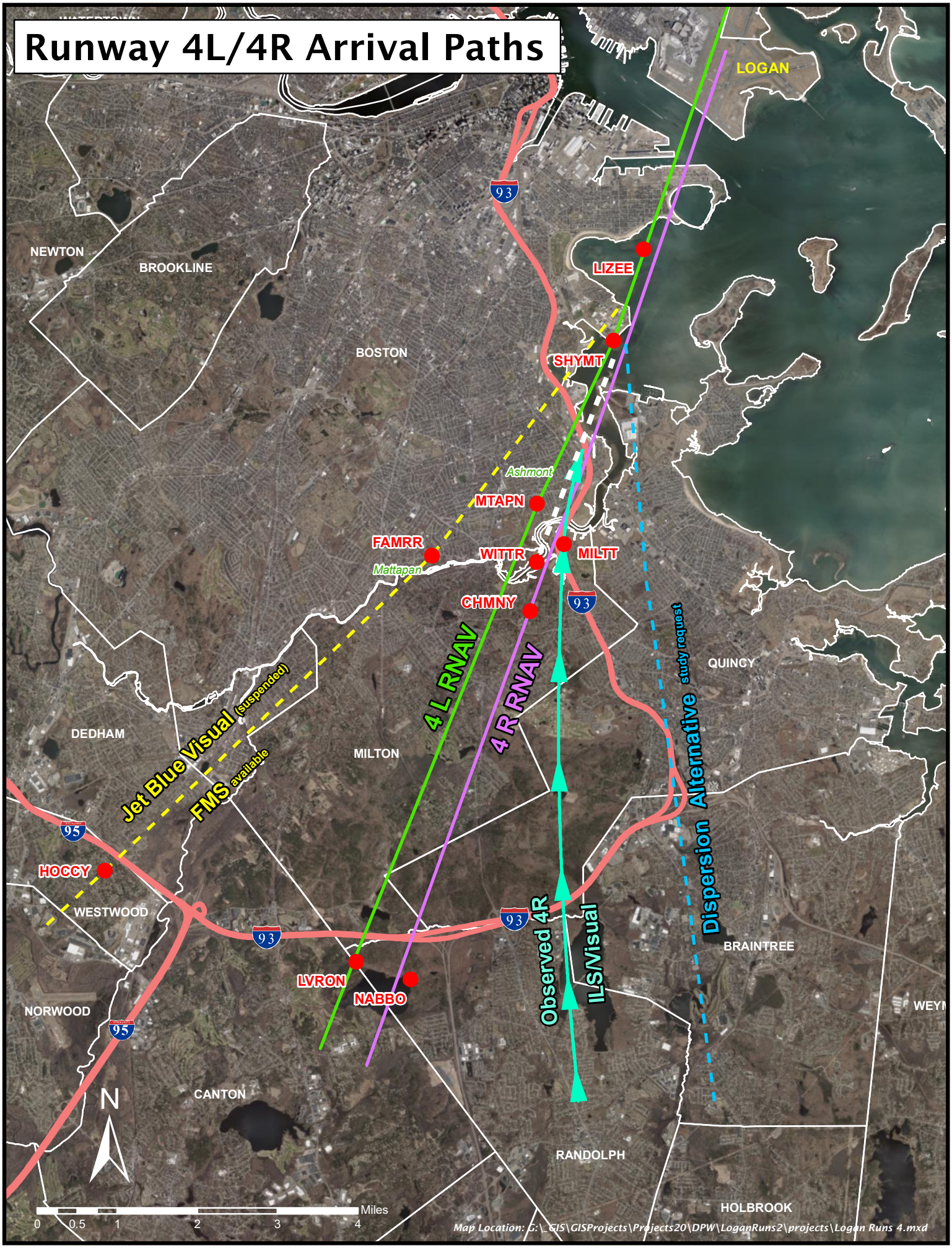
RESERVE OUR OBJECTION TO ANY EA AT THIS TIME

OUTREACH TO MATTAPAN AND DORCHESTER

ANREA CAMPBELL
DORCHESTER REPORTER — MATTAPAN REPORTER
AWARENESS !
ENGAGE 4L RNAV AND JETBLUE PATH RESIDENTS
-BOTH ARE IMPACTED

EA STANDARDS ARE FAA-“DNL-CENTRIC”
CHALLENGE EA BY FINDING DISCONNECTS + MITIGATION

PREPARE FOR EA DRAFT IN UPCOMING WEEKS
PRIVATE CITIZEN EFFORTS—NOT MCAC
PRIVATE CITIZEN EXPERT ANALYSES
60 DAY COMMENT PERIOD


Runway 4L/4R Arrival Paths
LOGAN
NEWTON
BROOKLINE
BOSTON
LIZEE
SHYMT
Ashmont
MTAPN
FAMRR
Mattapan
WITTR
MILTT
CHMNY
93
4 L RNAV
4 R RNAV
study request
Alternative
Dispersion
QUINCY
DEDHAM
MILTON
Jet Blue Visual (suspended)
FMS available
95
HOCCY
WESTWOOD
Observed 4R
ILS/Visual
BRAINTREE
LVRON
NABBO
NORWOOD
CANTON
RANDOLPH
HOLBROOK
N
0 0.5 1 2 3 4 Miles
Map Location: G:_GIS\GISProjects\Projects20\DPW\LoganRuns2\projects\Logan Runs 4.mxd