# Massachusetts Port Authority January Board Meeting

January 18, 2018

MASSACHUSETTS PORT AUTHORITY

# CEO REPORT

## BOARD MEETING
## JANUARY 18, 2018

## THOMAS P. GLYNN, PhD

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# WTS-Boston Woman of the Year

- Secretary Stephanie Pollack: 2018 Woman of the Year
- Massport: 2018 Employer of the Year
- Sarah Dennechuk
  - Senior Project Manager, Capital Programs
  - Registered Professional Engineer
  - 2018 WTS-Boston Vice President

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# Agenda

- January 4th Winter Storm: Logan vs. JFK
- Safety and Security
- Aviation
  - Worcester Regional Airport
- Maritime
- Real Estate
- Infrastructure Finance
- Community

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# JANUARY 4TH WINTER STORM

## LOGAN VS JFK

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# JFK Airport Aftermath
# January 4th Winter Storm

## *At J.F.K. Airport, the Planes Just Wouldn't Stop Coming*

By MICHAEL WILSON and PATRICK McGEEHAN JAN. 8, 2018

The New York Times

Passengers waded through a sea of bags from delayed flights at Terminal 4 at Kennedy International Airport on Sunday. Yana Paskova for The New York Times

The harsh winter storm had passed. In its aftermath, parts of the airport were overloaded, jammed with planes that had been kept on the ground during the storm. But screens showed bright yellow airplane icons — incoming flights — approaching, with many more on the way.

One by one they landed. Unused runways became parking lots, with planes waiting for gates.

And still they kept coming. Hours and hours passed.

It was the failure to stop them, experts said, that turned a chaotic but manageable winter-storm episode into an airport delay for the ages.



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# Environmental Factors
# January 4th Winter Storm

| | Logan | JFK |
|---|---|---|
| **Predicted Snow** | 4 – 8’’ | 5 – 8’’ |
| **Actual Snow** | 14’’ | 8” |
| **Wind** | 60 mph | 55 mph |
| **Predicted Flooding** | 0 | 0 |
| **Actual Flooding** | 15.1 ft (Historic Level) | – |
| **Water Main Break** | 0 | Terminal 4 – Sunday 3’’ of Water |
| **Power Shut Off** | 0 | X |

*These facts and figures were obtained from public sources: New York Times and CNBC reporting

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# Impacts
# January 4th Winter Storm

| | Logan | JFK |
|---|---|---|
| **Cancellations** | 700 – Thursday | 829 |
| **Diversional Delays** | 280 – Saturday | 230 |
| **Tarmac Delays** | 0 | 7 hours |
| **Gate Shortage** | 0 | X |
| **Deboarding Boarded Flights** | 0 | X |
| **Lost Bags** | 0 | 5,000 |
| **Premature Reopening on Thursday night and Friday** | 0 | X |

*These facts and figures were obtained from public sources: New York Times and CNBC reporting



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# Management Structure
# January 4th Winter Storm

| | Logan | JFK |
|---|---|---|
| **8:30 AM Coordination** | ✓ | 0 |
| **Control of Terminals** | ✓ | 0 |
| **Continuous Feedback to Airlines** | ✓ | 0 |
| **Diversions/ Redirected** | ✓ | – |
| **Investigation** | 0 | X |

*These facts and figures were obtained from public sources: New York Times and CNBC reporting

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# SAFETY AND SECURITY

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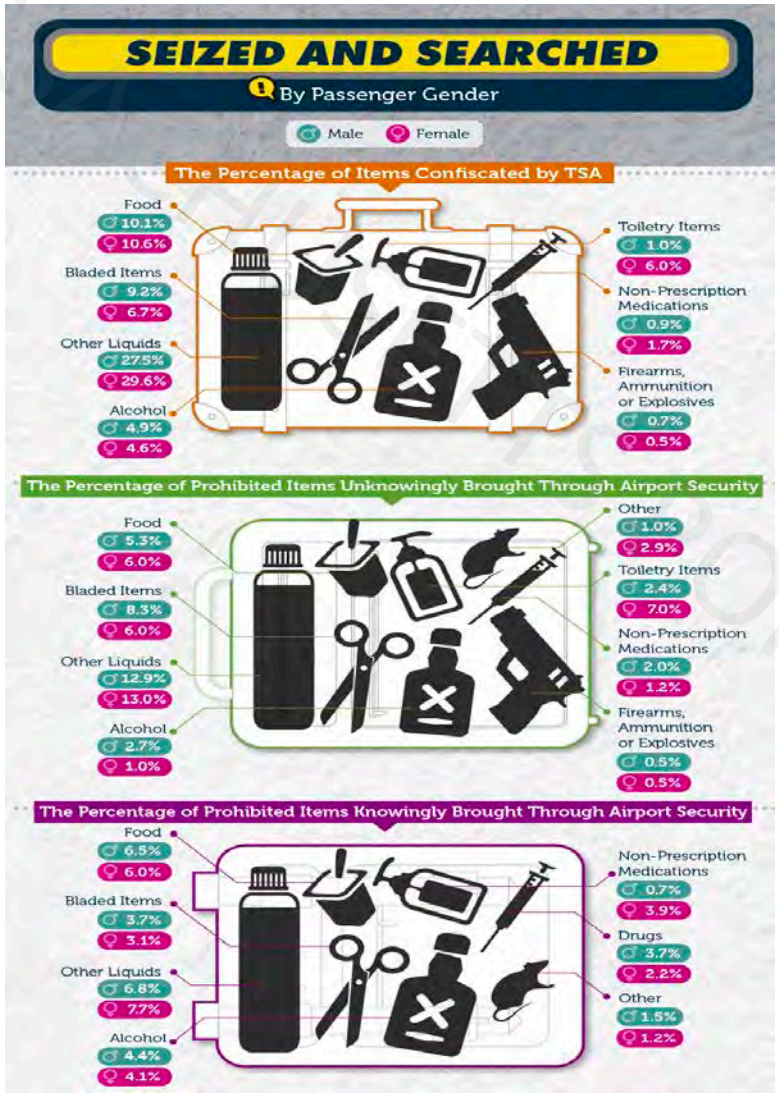
# Knowingly or unknowingly, passengers continue to bring prohibited items to airport




- **"According to the TSA, a record 3,391 guns were confiscated from airports in 2016"**
- **"More than 8 percent of men and 6 percent of women admitted to unknowingly carrying bladed items onto an airplane"**
- **"millennials were more likely than Gen Xers to disregard the rules for security screenings"**

# AVIATION

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# Number of domestic flights has been increasing at Logan Airport

NEWS HUB

ROUTES

## Delta continues Boston expansion with more flights to top destinations

By Staff Writer • posted Jan. 16, 2018 12:18 pm

DELTA

Delta, Boston's top global airline, will give Boston customers more flights and enhanced service in 2018, with new daily service to Charleston, S.C. as well as additional flights to four top business markets beginning June 8. New Saturday seasonal service to Aruba will also begin June 9.

"This summer, Delta will proudly offer Bostonians more options with 113 daily departures to 44 top business and leisure destinations said, Joe Esposito, Delta's Vice President — Network Planning, Americas." Delta people have been hard at work during the last two years to give our Boston customers the global airline they deserve and we're looking forward to continuing these expansions and enhancements for our Boston customers in 2018 and beyond."

"Delta continues to be a great partner at Logan International Airport and they have had incredible growth over the last decade," said Massport CEO Thomas P. Glynn. "Millions travel through Logan each year, many on Delta flights, and we look forward to offering more choices for our passengers."

- **"Recent Boston service investments bring Delta to 113 peak-day departures by this summer, an increase of 20 departures compared with summer 2017 and 30 departures over summer 2016"**
- **"Delta and its partners serve 50 total destinations from Boston, including 18 international destinations and the largest transatlantic network"**

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# First Lady Lauren Baker participates in Children's Literacy Event at Logan Airport

## Bay State authors/illustrators exhibit opens at Logan Airport

JOHN GILLOOLY/PEI

**Massachusetts first lady Lauren Baker at the opening of the new children's literature exhibit at Logan Airport.**

By Mark Shanahan

GLOBE STAFF JANUARY 12, 2018

Clifford the Big Red Dog, the fictional canine created by the late **Norman Bridwell**, was hard to miss at the opening of a new exhibit at Logan Airport devoted to some of the children's lit authors and illustrators who call the Commonwealth home.

First came
Jack
02128
WHERE IMAGINATION COMES TO LIFE.
MASSACHUSETTS
boston logan

# AVIATION

## WORCESTER REGIONAL AIRPORT

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# USA Today

## Worcester thinking big with new JetBlue route to New York JFK

USA TODAY

TODAY IN THE SKY (//WWW.USATODAY.COM/TRAVEL/TODAYINTHESKY/)

Ben Mutzabaugh (http://www.usatoday.com/staff/2339/ben-mutzabaugh/), USA TODAY  Published 7:34 a.m. ET Dec. 12, 2017 | Updated 7:38 a.m. ET Dec.

JetBlue provided this undated photo of an Embraer E190 painted in the carrier's new "Blueprint" special livery. *(Photo: JetBlue)*

The future of passenger airline service in the Massachusetts city of Worcester just got a big lift with JetBlue's latest route.

That will come May 3, when New York JFK will become JetBlue's third non-stop destination (http://otp.investis.com/clients/us/jetblue_airways/usn/usnews-story.aspx?cid=981&newsid=50364) from the Worcester Regional Airport (http://www.massport.com/worcester-airport/). JetBlue announced its intention to add the route (/story/travel/flights/todayinthesky/2017/02/28/jetblue-plans-expand-worcester/98526912/) in February, but made the service official with an announcement last week.

JetBlue already had put Worcester back on the U.S. aviation map (/story/todayinthesky/2013/11/11/jetblue-puts-worcester-back-on-the-usas-flight-map/3490843/) in November 2013, when it launched non-stop service to the Florida cities (/story/todayinthesky/2013/11/11/jetblue-puts-worcester-back-on-the-usas-flight-map/3490843/) of Fort Lauderdale and Orlando. There were no other airlines flying from the airport at the time, and JetBlue's arrival gave the central Massachusetts city its first regularly scheduled commercial airline flights in nearly two years.

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# JetBlue CEO, Robin Hayes, visits Worcester Airport to tout new route

## JetBlue CEO: Worcester-NYC flights will begin in May

By Cyrus Moulton Telegram & Gazette Staff
telegram.com | Jan 11 at 10:41 AM

TELEGRAM & GAZETTE

WORCESTER - If you can make it there, you can make it anywhere ... and Worcester travelers can make it to New York and beyond on JetBlue beginning May 3, the airline's CEO and President Robin Hayes announced Thursday at the Worcester Regional Chamber of Commerce breakfast meeting.

"Finally, it's official; it's what we've been waiting for," said Worcester County Sheriff Lewis G. Evangelidis, the chairman of the Massachusetts Port Authority. "I think it is a big step in making the airport successful and connecting us to the world."

And to sweeten the deal, those who book Thursday or Friday can get a one-way ticket for $29.

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# New snow clearing equipment tested at Worcester Airport

## Equipment Will Allow Planes to Land in Near Zero Visibility

Snow clearing equipment was tested at Worcester Regional Airport on Wednesday, as the airport also nears completion of new landing technology that will allow planes to land in near zero visibility. (Published Wednesday, Nov 29, 2017)

# MARITIME

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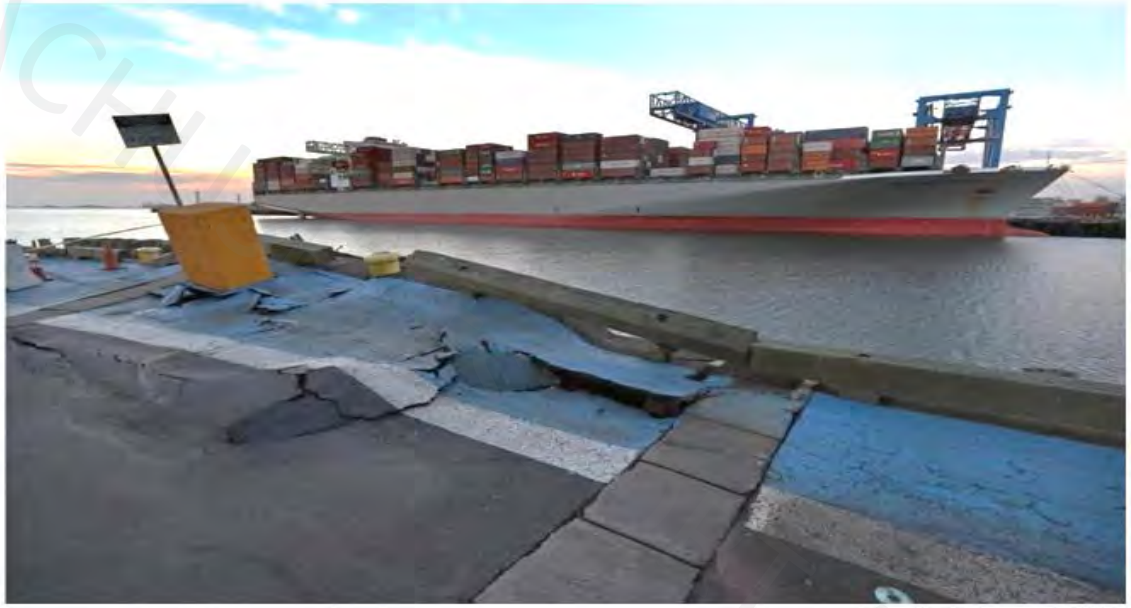
# Helsinki Bridge Container Ship Incident

The Boston Globe

## The Helsinki Bridge has landed



DAVID L. RYAN/GLOBE STAFF

**The Helsinki Bridge container ship was back in port Friday.**

By Emily Sweeney

GLOBE STAFF DECEMBER 08, 2017

The massive container ship that drifted away from its mooring Wednesday has returned to the Paul W. Conley Container Terminal in South Boston.

The US Coast Guard said the Helsinki Bridge broke free from its mooring at the terminal around 12:45 a.m Wednesday.



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# REAL ESTATE

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# Massport recognized for diversity criteria/scoring for Omni Hotel RFP

BOSTON. RACISM. IMAGE. REALITY. SEAPORT

## A BRAND NEW BOSTON, EVEN WHITER THAN THE OLD

THE SPOTLIGHT TEAM MONDAY, DECEMBER 11, 2017

*The series was reported by Andrew Ryan, Nicole Dungca, Akilah Johnson, Liz Kowalczyk, Adrian Walker, Todd Wallack, and editor Patricia Wen. Today's story was written by Ryan.*

### Some signs of potential

Massport and L. Duane Jackson are trying to make a difference in the Seaport.

He is a black real estate investor with advanced architectural and city planning degrees from MIT. Despite his local stature and the fact he's lived here for nearly a half century, Jackson still does not consider Boston his home. He travels — New York, Miami, Philadelphia — to get his cultural fix because, he said, "there isn't an affinity for me here in Boston."

Too often he has felt the sting of prejudice, most painful when the targets were his sons, both of whom were wrongly detained years ago in separate incidents by local police, Jackson said. Both of his boys are grown and have forged successful careers far from Boston.

Massachusetts Port Authority board member L. Duane Jackson initiated a new policy that made diversity a component of scoring for contract and development bids. "The more we change the public perspective and perception of Boston, particularly as a place to do business...African-Americans and Latinos [will] feel more welcome here," Jackson said. (Craig F. Walker/Globe Staff)

Jackson serves on the board of the Massachusetts Port Authority, which owns big swaths of land in the Seaport. He initiated a sweeping new policy that won unanimous support: Alongside design and financing, diversity now represents 25 percent of an evaluation score for contract and development bids. Instead of setting a minimum benchmark for construction workers, the agency emphasized firms owned by women and people of color.

BOSTON. RACISM. IMAGE. REALITY.

BOSTON. RACISM. IMAGE. REALITY. SOLUTIONS

# A BETTER BOSTON? THE CHOICE IS OURS

THE SPOTLIGHT TEAM

SATURDAY, DECEMBER 16, 2017

*The series was reported by Andrew Ryan, Nicole Dungca, Akilah Johnson, Liz Kowalczyk, Adrian Walker, Todd Wallack, and editor Patricia Wen.*

*Illustrations by Jawaan Burge*

## 5. Set tough diversity goals, and enforce them

*By Andrew Ryan and Akilah Johnson*

Diversity doesn't happen by accident — or with merely good intentions.

Real change requires teeth.

But if you look around the city, there are glimmers of progress.

Massport did more than talk about diversity. The port authority went beyond a minimum hiring benchmark for workers. It made diversity 25 percent of the evaluation score for development bids on Massport-owned land, making it a key part of whether a firm won the award. The sweeping new policy emphasizes firms owned by women and people of color.

"This is larger than some quota on a job," said Massport board member L. Duane Jackson, who spearheaded the initiative. "This is a game changer. It says to the rest of the world, if you want to develop some of the most valuable real estate in this country, then you have to consider diversity as a component of your team."

Often, goals requiring "women-owned" or "minority-owned" firms have been window dressing that have had little real effect. But at Massport, the first project — a 1,000-plus room Omni hotel — involves black investors, black architects, a black-owned construction firm, and other companies owned by women and people of color. The

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# INFRASTRUCTURE FINANCE

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# U.S. airports have committed large amounts of funding for infrastructure investments

| Airports | Investment |
|---|---|
| **Salt Lake City** | $3.6B |
| **Atlanta** | $12B (2012) |
| **Los Angeles** | $14B |
| **LaGuardia** | $8B |
| **Newark** | $2.4B |
| **JFK** | $10B |
| **Seattle-Tacoma** | $800M |
| **New Orleans** | $807M |
| **Orlando** | $1.1B |

*These facts and figures were obtained from public sources, such as newspaper reporting and airport public releases



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# Airports are investing heavily in expansion and modernization to meet anticipated demand

**NJBIZ** - njbiz.com

**Transportation**

## Port Authority approves $750m in projects tied to Newark Liberty Airport expansion

By **Vince Calio**, December 11, 2017 at 10:52 AM

A rendering of Newark Liberty International Airport's new Terminal A, to be opened in 2021 - (Port Authority of New York and New Jersey)

Board members of the **Port Authority of New York and New Jersey** have approved a nearly $500 million in additional spending on the $2.3 billion Terminal A Redevelopment Program at **Newark Liberty International Airport**.

The board also approved the spending of $250 million on two new projects: a $175 million to pave 40 airside acres to create needed aircraft parking positions, and a $75 million project for foundation work on new terminal frontage to accommodate a future AirTrain alignment. The projects will be implemented by program contractors concurrent with the Terminal A air side and land side work.

An $8 million study was also given the green light to analyze the feasibility of consolidating rental car facilities (CONRAC) to centralize operations of all rental agencies serving the airport, as well as the design and construction of a new 3,000-space public parking garage that would help serve Terminal One and could be integrated into the CONRAC facility. Pending the outcome of the feasibility study, a development agreement could come later next year.

# LaGuardia, JFK, and Newark are taking on very large and costly capital improvements

POLICY, TRANSPORTATION

## Port Authority approves more than $1B for construction at NYC airports

POSTED ON FRI, DECEMBER 8, 2017 BY DEVIN GANNON

*Interior rendering of LaGuardia Airport, via Governor Andrew Cuomo on Flickr*

With the approval of its $8 billion 2018 budget on Thursday, the Port Authority of New York and New Jersey plans to spend more than $1 billion on major redevelopment projects at LaGuardia, Newark Liberty International and JFK Airports next year. The agency's board of commissioners approved a budget that allocates $3.2 billion for operating expenses and $3.4 billion for capital expenses. According to the Wall Street Journal, $578 million will be put toward the $8 billion redevelopment of LaGuardia and $167 million toward a $2.3 billion redevelopment plan of Newark's Terminal A.

Visual Materials for Massachusetts Port Authority Board Meeting January 18, 2018

# Bayonne Bridge project for larger container ships faced unforeseen challenges and cost overruns

## Bayonne Bridge project praised, but $350 million over budget

AP

Originally published December 7, 2017 at 10:18 pm *Updated December 8, 2017 at 6:15 am*

File- This May 2, 2017, file photo shows the Bayonne Bridge prior to a news conference announcing the bridge project completion, seen from Elizabeth, N.J. The elevation of the Bayonne Bridge was projected to cost about $1.3 billion before construction began more than four years ago. This week, the Port Authority of New York and New Jersey, which owns and operates the bridge, approved allocating between $350 million and $400 million more, an overrun of more than 25 percent. (AP Photo/Julio Cortez, File)

By DAVID PORTER
*The Associated Press*

JERSEY CITY, N.J. (AP) — It was the first project of its kind in the country — elevating a massive steel bridge without lengthy closures to auto traffic.

The goal was to allow larger cargo ships to pass under the Bayonne Bridge and gain access to the ports of New York and New Jersey.

- **"The project had a cost overrun of more than 25 percent"**
- **"Citing "multiple complexities and construction challenges," the Port Authority of New York and New Jersey…..approved an additional $350 million to $400 million, bringing the initial $1.3 billion price tag to nearly $1.7 billion"**
- **"The most valuable lesson is having more scrutiny on our part"**

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# Amtrak Northeast Corridor faces urgent need for capital improvements and large expenditures

REUTERS

## New York, New Jersey commit $3.65 billion to fund tunnel project

Stephanie Kelly

NEW YORK (Reuters) - New York and New Jersey on Thursday committed $1.75 billion and $1.9 billion, respectively, to fund a new rail tunnel underneath New York's Hudson River, part of an urgent program to expand and renovate Amtrak's aging and heavily traveled Northeast Corridor line.

The announcement by New York Governor Andrew Cuomo and outgoing New Jersey Governor Chris Christie resolves questions about how the states would fulfill a promise to provide half of the funds toward the $12.7 billion Gateway Hudson Tunnel Project, among the country's largest infrastructure programs.

SPONSORED

New York said it would raise its portion through bond offerings while New Jersey would hike charges on NJ Transit rail passenger trips across the Hudson.

The Port Authority of New York and New Jersey will commit an additional $1.9 billion, the states said in a joint statement.

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# Massport December Flash Report

## Highlights

Preliminary commercial parking revenue for December is $11.5 million, which is slightly higher than budget, and 5.7% higher than last December

Conley processed 13,793 containers on 18 vessels in December, which is 24.5% more than budget and 13.1% higher than last December

Cruise Season 2017 ended in November with a record setting 388,222 passengers and 150 ships in port

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# COMMUNITY

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# Deconstructing Stigma:
# A Change in Thought Can Change a Life

# This exhibit has won ten awards

**Platinum PR award**

1. For Cause Related Marketing
2. For Visual Story Telling
3. For Public Affairs

**Publicity Club of New England**

1. Bell Ringer Award

**American Foundation for Suicide Prevention**

1. Lifesaver Award

**American Business Association/Stevie Award**

1. Gold Award for Healthcare Campaign of the Year

**eHealthcare Leadership Award**

1. Gold Award for Best Marketing Campaign
2. Platinum Award for best campaign website design

**Ragan Health Care Awards**

1. Honorable Mention for Community Outreach
2. Grand Prize for Campaign of the Year

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# 2017 Gold Stevie Award Winner
# Logan Airport's Partnership with McLean Hospital

- The **Stevie Awards** are the world's premier business awards. They were created in 2002 to honor and generate public recognition of the achievements and positive contributions of organizations and working professionals worldwide

- Logan Airport’s partnership with McLean Hospital on *Deconstructing Stigma* was named the **Winner of a Gold Stevie Award in the Healthcare Campaign of the Year** award

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# MA State Police Troop F provided relief work in Puerto Rico

The Boston Globe

## Trip to help in Puerto Rico was emotional for Mass. state troopers

RICARDO ARDUENGO/AFP/GETTY IMAGES/FILE 2017

**Massachusetts state troopers did relief work to help Puerto Rico recover from Hurricane Maria, which struck in September.**

By Laura Crimaldi

GLOBE STAFF DECEMBER 12, 2017

After a morning of directing traffic in 90-degree heat in Carolina, Puerto Rico, Massachusetts State Police Trooper Eugene Lawrence returned to his cruiser and found a note.

# Strategic Plan Implementation

January 2018 Board Update

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# STRATEGIC PLAN I OVERVIEW

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# Massport Strategic Plan I Timeline

- September 2012: Board appoints Thomas P. Glynn as Chief Executive Officer, commencing November 1, 2012
  - Strategic Plan a priority in search process
- November 2012: Strategic Plan Framework presented to Massport Board
- June 2013, November 2013, July 2014: Board meets to discuss Strategic Plan Topics
- November 2014: Board adopts Strategic Plan

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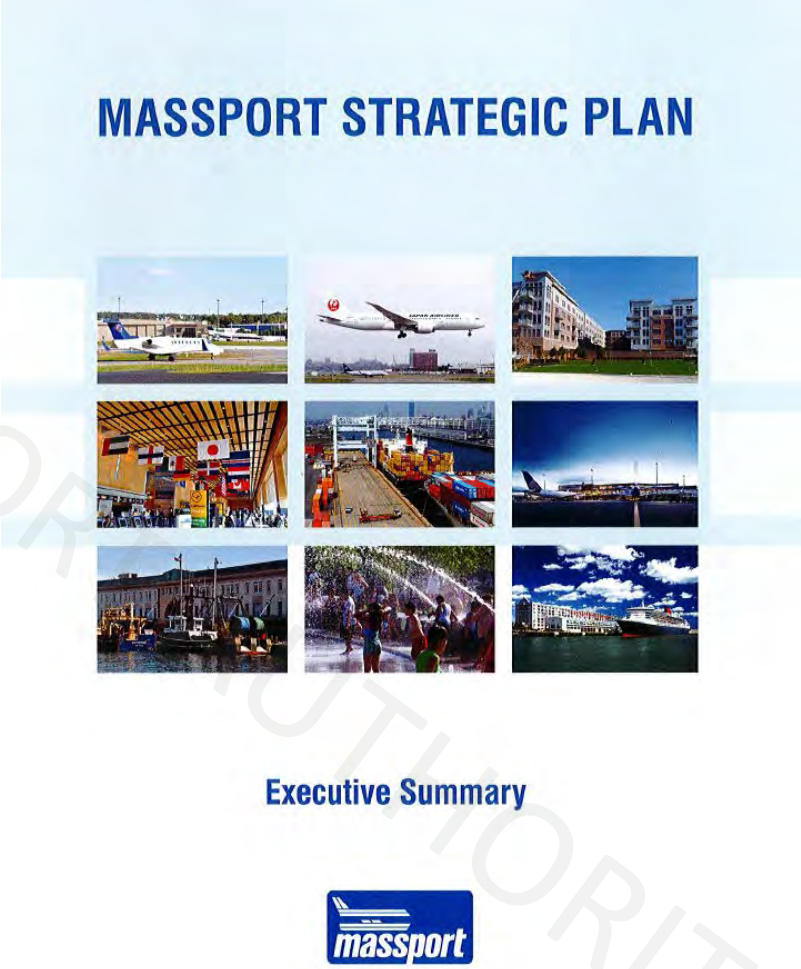
# Massport Strategic Vision – Connecting Massachusetts and New England to the World's Economic Engine

- All Massport Business Units
- Investing in Massport's Airports
- Revitalizing the Maritime Mission
- Developing and Protecting Massport's Real Estate Assets to Advance Massport's Maritime Mission
- Continued Commitment to Our Communities
- Promotion of Diversity and Inclusion

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# MASSPORT GOALS - 2018

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# FY 18 Top 10 Goals

1. Safety & Security at All Facilities
2. Customer Service
3. Employee Morale including Diversity & Inclusion
4. Worcester Regional Airport
5. Economic Engine
6. Maritime Mission
7. Community Collaboration – Good Neighbor
8. Hanscom Airport
9. Strategic Plan Implementation
10. Financial Health & Internal Controls

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# STRATEGIC PLAN II AGENDA

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# Strategic Plan II - 2027

- Technology
  - Disrupters over next 10 years (TNC, AV, Drones, etc.)
  - Customer Service App Integration
  - TSA Passenger Screening Processes

- Logan – 3% vs. 7%
  - Short Term
    - Terminal Connections
    - Roadway and Curb
    - Terminal E
    - Parking
    - APM Planning, Options, Decision
  - Long-Term
    - Roadway
    - Satellite Locations
    - Parking
    - Curb
    - APM?
    - Steve Van Beek

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# Strategic Plan II – 2027

- Worcester Regional Airport
  - Marketing of JetBlue JFK
  - Additional Flights
  - Massport Fire
- Maritime
  - Cranes and Backlands
    - 4 years finance vs. 6 years
    - COSCO Investment
  - Flynn Cruiseport Boston
    - Prep for bigger ships and more passengers
- Real Estate
  - Parcels A-2, H, D-3
  - Public Realm in Seaport
    - Community
    - Destination – Ferris Wheel
    - Boston Public Market
    - Summer Street
- Diversity
  - Pipeline Management
- Safety and Security
  - Lessons from LEAP
  - Lessons from Fort Lauderdale Airport (FLL)

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# SP II Outside Consultants

**Jim Cash**

- HBS IT Leader
- Board Member of Microsoft, GE and Walmart
- Technology White Paper
- April 5th Senior Staff Session

**Steve Van Beek**

- Consultant – Steer Davies Gleave
- Nationally Recognized Aviation Industry Expert
- Worked on SP I

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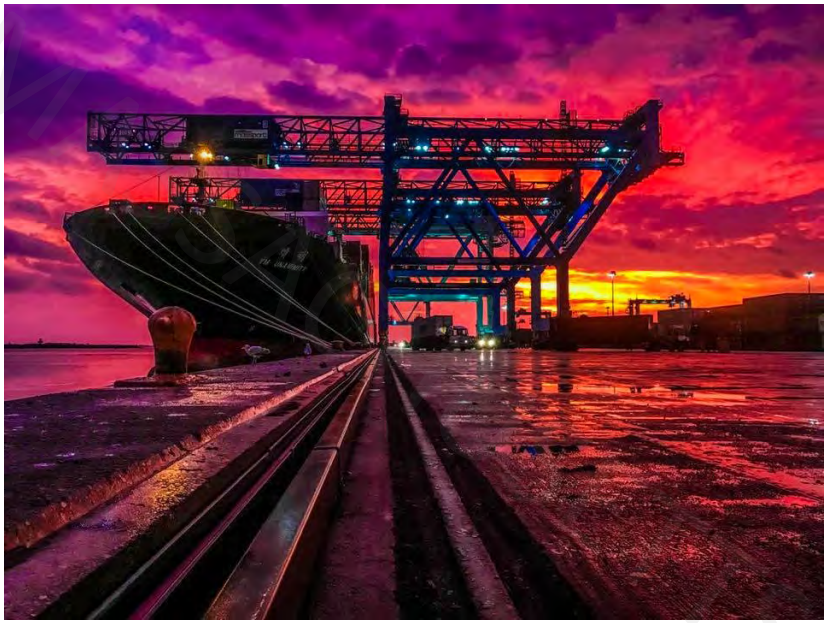

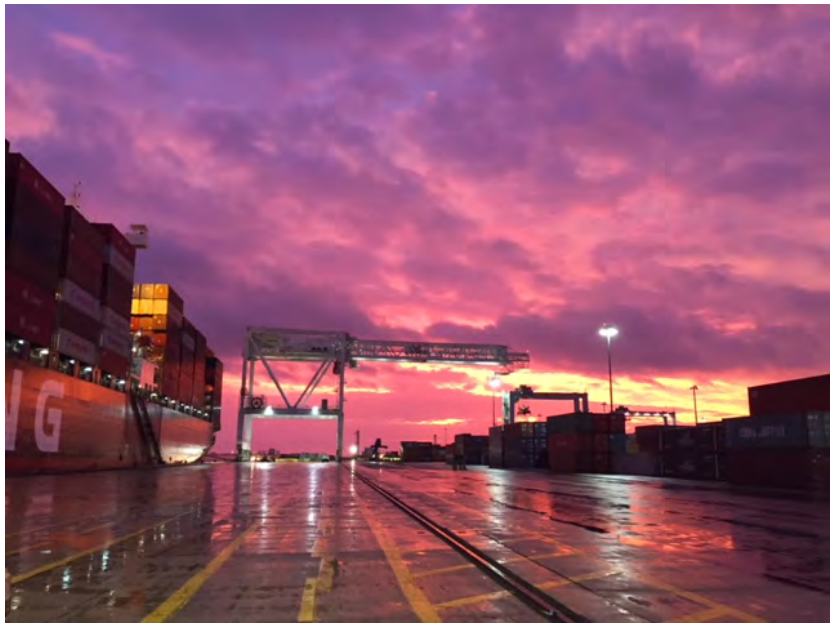

# Maritime Strategy Update

Board Meeting

January 18, 2018

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# Agenda

- Market Trends
- Maritime is Massport Mission
- 2014 Strategic Plan 1 Results to Date
- Strategic Challenges Ahead – Bridging and Budget Implications

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# Summary from Conley Discussion at November Board Meeting

- Strategic Plan I implementation has lead to a successful Conley Terminal, with expanding customer base and record breaking volumes
- Growth at Conley has resulted in improved financial performance and greater economic impact to the Commonwealth
- However, industry consolidation and emerging shipping alliances are spurring the rapid deployment of larger vessels to the US East Coast, straining Conley's infrastructure
- Plans are in the works to accelerate Conley's Big Ship Capabilities
- Beyond infrastructure we are focused on emerging business models and new technologies as opportunities to enhance Conley's value proposition

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# Strategic Challenges Ahead

| Conley | Cruise | Seafood | Autoport |
|---|---|---|---|
| • Accelerating generational investments<br>• Managing customer relationships and growth during infrastructure buildout<br>• Evolving shipping line and port alliances<br>• Emerging supply chain models<br>• Competitive advantage/ Differentiation | • Preparing for larger homeport and port of call ships<br>• Partnership opportunities with cruise lines to ensure success of new itineraries<br>• Opportunities for revenue growth | • Sufficient and modern facilities for seafood processing<br>• Fish Pier 3rd floor leasing opportunities | • Capitalize on regulatory approvals for new building<br>• Adequate space for growth<br>• Commercial development in Charlestown |

Preservation and enhancement of freight corridors

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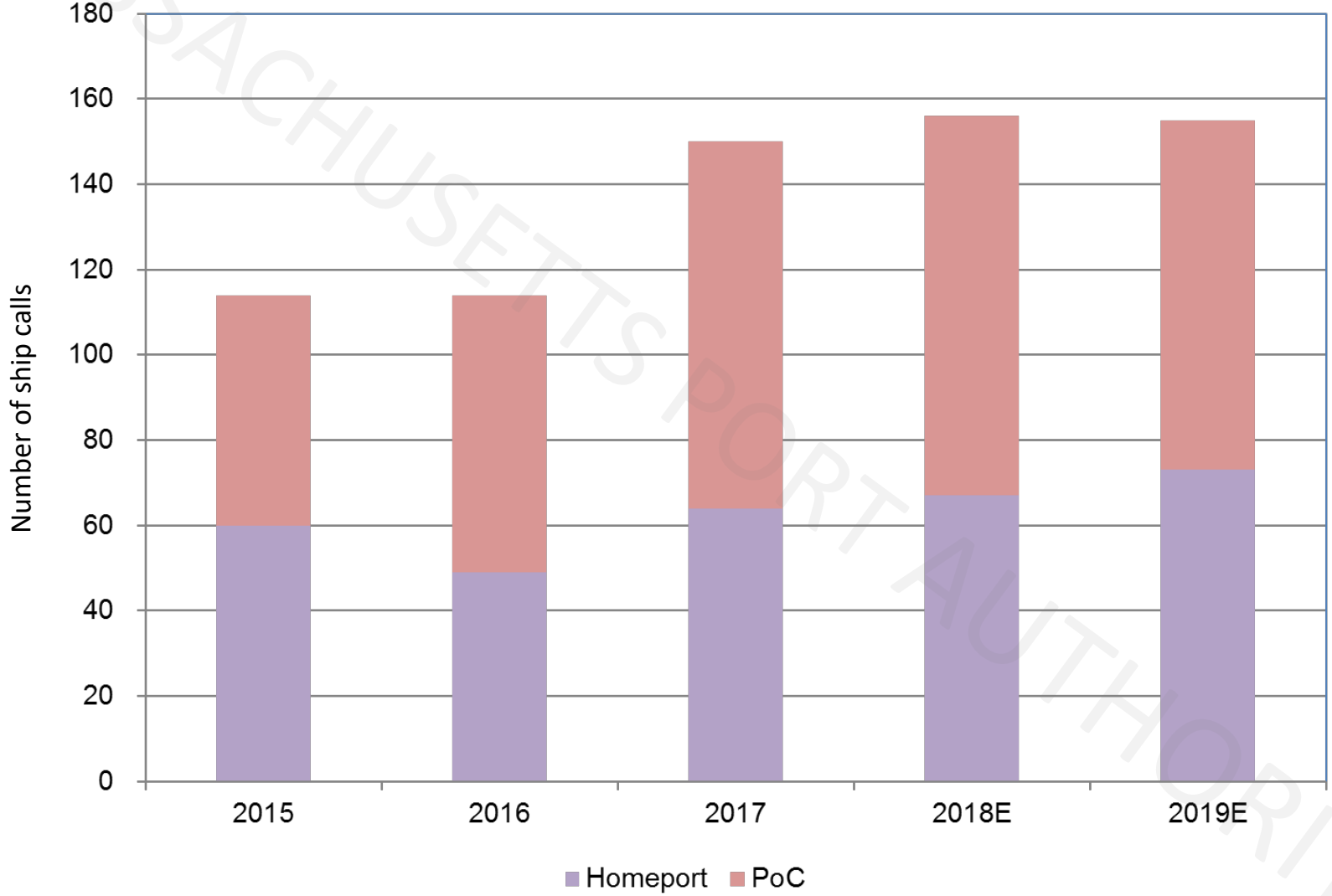
# Ship calls were up 30% in Cruise Season 2017 versus last year

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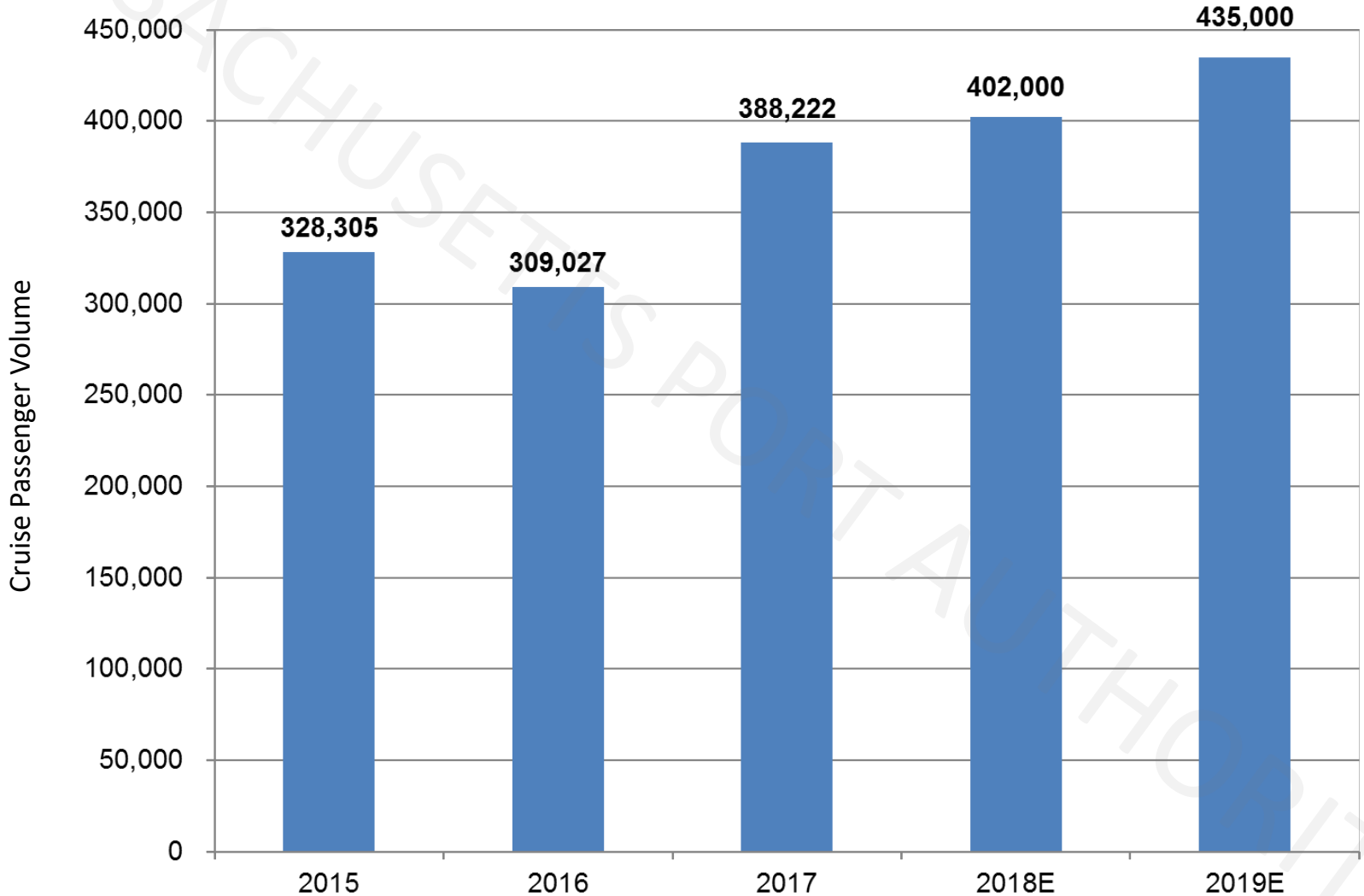
# Based on current ship calls, we expect record breaking passengers in three consecutive cruise seasons

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# 2018 Cruise Lines Calling Boston

AIDA CRUISES
Celebrity Cruises®
CRYSTAL CRUISES
CUNARD
Holland America Line® SAVOR THE JOURNEY
HURTIGRUTEN
NCL NORWEGIAN CRUISE LINE®
NYK LINE NIPPON YUSEN KAISHA
NOBLE CALEDONIA
OCEANIA CRUISES℠
P&O CRUISES
PHOENIX REISEN GMBH BONN
PRINCESS CRUISES
Regent SEVEN SEAS CRUISES
RoyalCaribbean® INTERNATIONAL
SEABOURN
SILVERSEA
TUI Cruises
VIKING OCEAN CRUISES Exploring the World in Comfort®
WINDSTAR CRUISES

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# New itineraries planned in 2018 to Cuba, the Caribbean and Bermuda

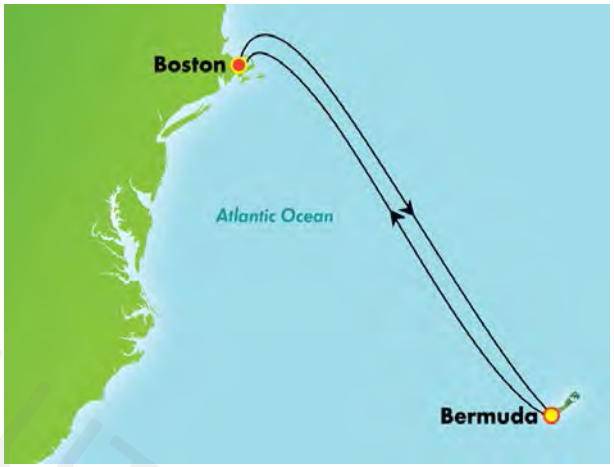
**Cuba**

*Holland America*

**Caribbean**

*Norwegian*

**Bermuda**




*Royal Caribbean*

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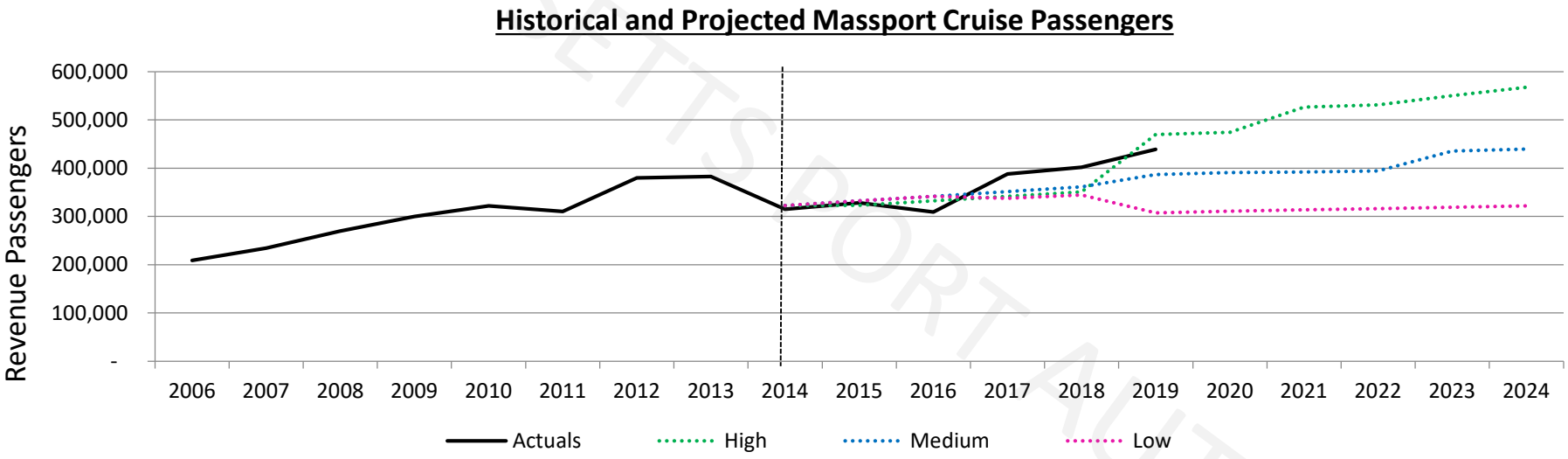
# Strategic Plan 1 Cruise Forecast: Cruise Passenger Volume is Trending Between Medium and High Projection




**CAGR 2014-2024**

**High: 5.8%** **Medium: 3.2%** **Low: 0%**

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# Larger cruise ships present operational challenges

| Ship | PAX | Sq ft for baggage | Stores trucks | Seating required |
|---|---|---|---|---|
| HAL Maasdam | 1400 | 3,322 | 12 | 700 |
| RCCL Anthem | 4200 | 9,966 | 25 | 2100 |

* 3.39 sq/ft per bag / 30% express debark / 1 bag pp



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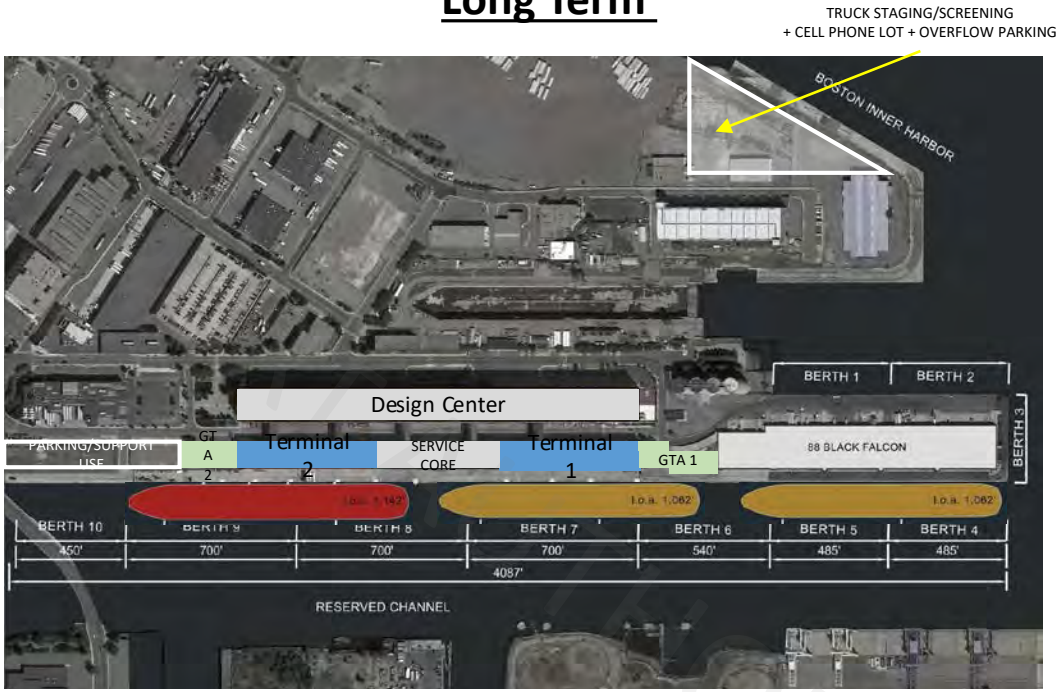
# If Massport is going to serve these larger cruise ships, additional investments are needed

## Near Term

- ✓ New FMT – Spring 2019
- Expanded seating area T2
- Baggage laydown area expansion
- Baggage receiving area relocated
- Offsite taxi dispatch
- Ticketing counter expanded/reconfigured
- Security queuing/processing area reconfigured

## Long Term



# Additional revenue opportunities being pursued to help fund capital needs

- ✔ Rates/Tariff Items → Raised rates approximately 20% in conjunction with Incentive Program
- ✔ Licensing Fees → Implemented licensing fees for entities doing business at the cruise terminal
- ✓ Special Events → Increased marketing of cruise terminal for other uses
- ✓ Parking → Opportunity to capture cruise passenger parking in new SBWTC or at MMT
- Other → ?

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# Strategic Challenges Ahead

| Conley | Cruise | Seafood | Autoport |
|---|---|---|---|
| • Accelerating generational investments<br>• Managing customer relationships and growth during infrastructure buildout<br>• Evolving shipping line and port alliances<br>• Emerging supply chain models<br>• Competitive advantage/ Differentiation | • Preparing for larger homeport and port of call ships<br>• Partnership opportunities with cruise lines to ensure success of new itineraries<br>• Opportunities for revenue growth | • Sufficient and modern facilities for seafood processing<br>• Fish Pier 3rd floor leasing opportunities | • Capitalize on regulatory approvals for new building<br>• Adequate space for growth<br>• Commercial development in Charlestown |
| Preservation and enhancement of freight corridors | | | |

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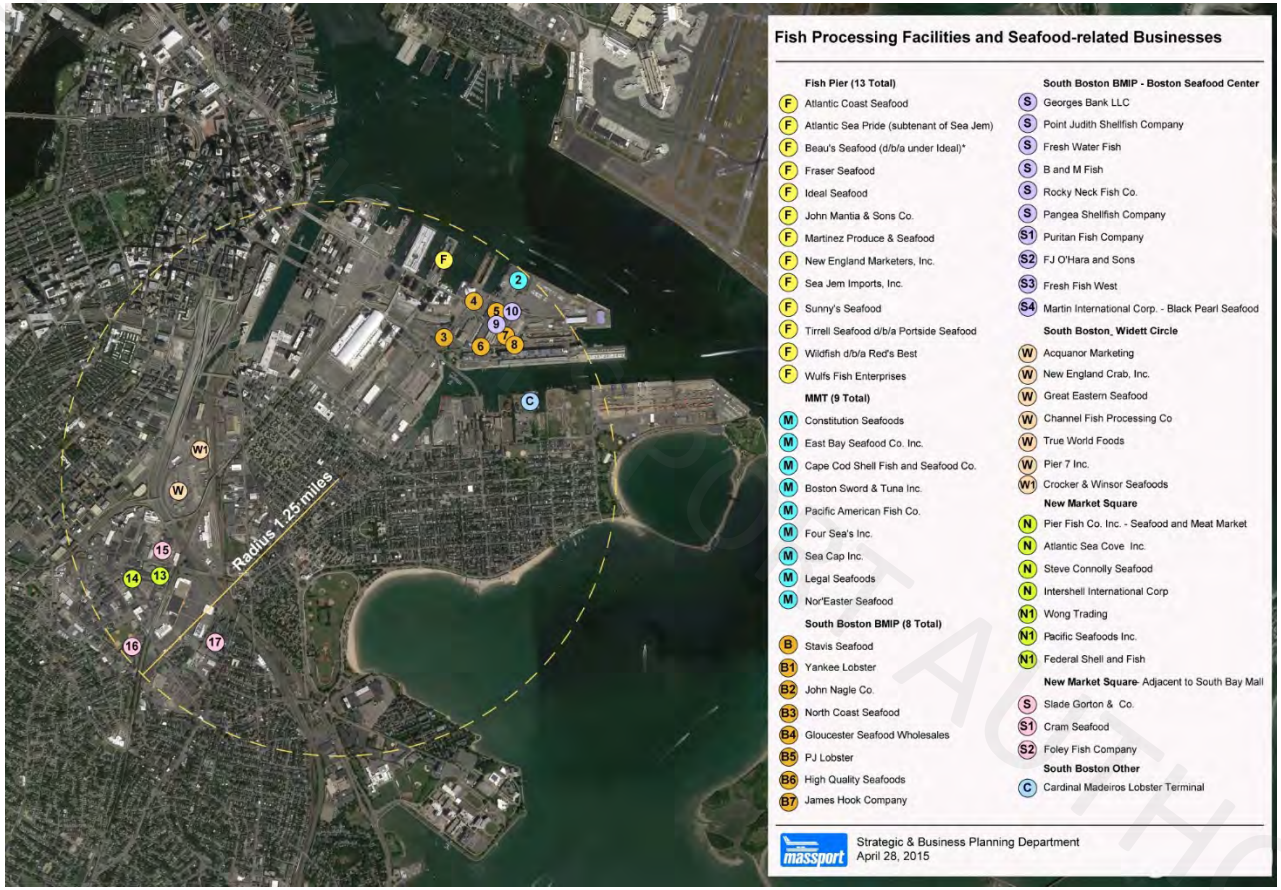
# Seafood Study revealed growing and thriving seafood processing cluster in S. Boston




BOSTON – CONCENTRATION OF SEAFOOD BUSINESSES
60 Seafood Businesses within a 1.25 Mile Radius

# Diverse Mix of New and Established Tenants at the Boston Fish Pier

- 100% of seafood space leased
- Mix of business types, sizes, specialties create B2B synergies
  - Traditional ground fish, sustainable catch, shellfish
  - Brokers/distributors, processors, and specialists
- Expanding value added cutting/seafood product lines
- Increasing global accounts, with local/regional/national
- Expansion of prepared foods and mail order customers
- Working with tenants to explore retail sales options at FP 'Industrial tourism'
  - Potential test kitchen, display space, seafood history/education

- Beau's Seafood
- Ideal Seafood
- John Mantia & Sons
- Portside Seafood
- Seaport Ice
- Stavis Seafoods

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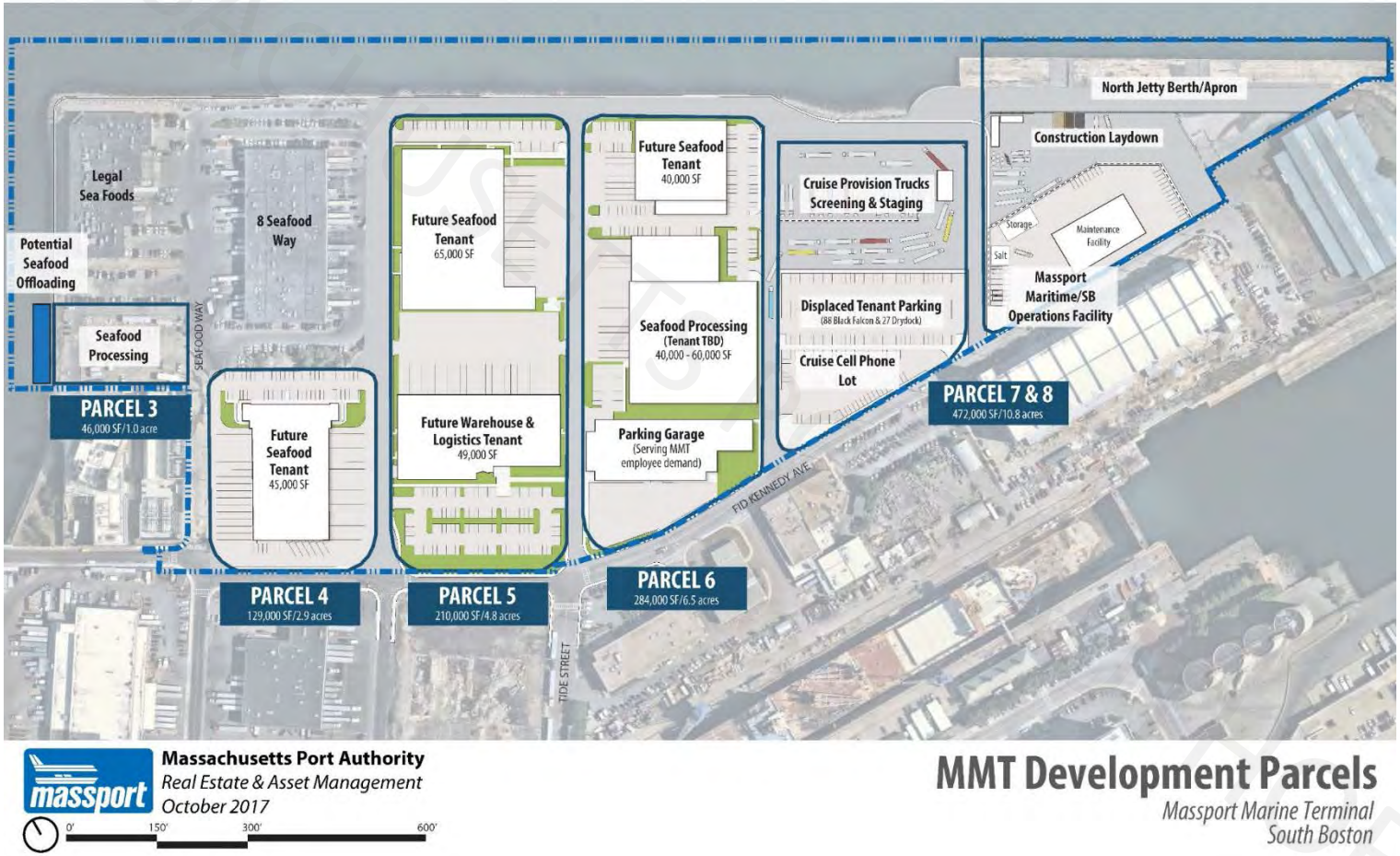
# MMT Scenario Site Plan



The Boston Globe

# Big new seafood processing plant planned for Seaport

GLOBE STAFF/FILE

**Flashing knives made quick work of farm-raised salmon in the fillet room of the North Coast Seafood fish processing plant in South Boston.**

**By Jon Chesto** | GLOBE STAFF DECEMBER 31, 2017

Don't tell Eden Milroy that the local seafood industry is dying.

Milroy is making a big bet on its future in Boston: a 200,000-square-foot seafood processing complex in the marine industrial park in South Boston. This project is but one of several

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# Strategic Challenges Ahead

| Conley | Cruise | Seafood | Autoport |
|---|---|---|---|
| • Accelerating generational investments<br>• Managing customer relationships and growth during infrastructure buildout<br>• Evolving shipping line and port alliances<br>• Emerging supply chain models<br>• Competitive advantage/ Differentiation | • Preparing for larger homeport and port of call ships<br>• Partnership opportunities with cruise lines to ensure success of new itineraries<br>• Opportunities for revenue growth | • Sufficient and modern facilities for seafood processing<br>• Fish Pier 3rd floor leasing opportunities | • Capitalize on regulatory approvals for new building<br>• Adequate space for growth<br>• Commercial development in Charlestown |
| Preservation and enhancement of freight corridors | | | |

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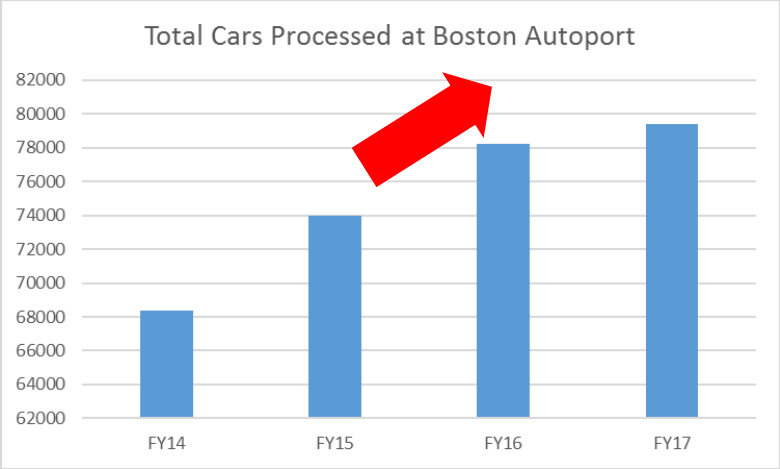
# Boston Autoport

# Boston Autoport is successful, growing, and helping to improve Maritime's financial performance

- Nearly 80,000 cars are processed at the Boston Autoport
- Also home to 10 other maritime/ industrial businesses and 500 employees
- $4M in annual revenue
- Seeking Ch. 91 license for Mystic Pier mezzanine space



# Summary

- Actions taken under the 2014 Strategic Plan are fulfilling Massport's Maritime mission to ensure the economic vitality of the working Port of Boston

- But growth in our core container and cruise businesses is outpacing original projections, putting increased pressure on operations and commercial relationships until infrastructure build-out is complete

- Looking ahead, Massport will need to adapt and optimize our strategy around emerging technologies and new business models

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# Aviation Industry Trends and Massport Aviation Strategic Plan Update

Board Meeting

January 18, 2018

# Agenda

- Aviation Industry Trends
- Moving People and Goods: Logan Airport Update
- 2014 Massport Aviation Strategic Plan I Results to Date
- Responding to Trends: Massport Strategic Plan II

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# Aviation Industry

Commercial Air Service

Corporate/General Aviation

Cargo

# Aviation Industry Trends

| | |
|---|---|
| **Safety and Security** | Geopolitical Changes: Impact on international air travel; Terrorism: Adapting to new terrorism techniques, Homegrown Violent Extremists, aviation continues to be soft target |
| **Increased Demand** | Strong US economy and growing economies globally, growing populations, reduced prices |
| **Cargo** | Rebounding market, particularly in Asia |
| **Airline Economics** | Decline of fuel/energy prices, industry consolidation, high load factors and capacity growth in ASMs (available seat miles) |
| **Reduced Ticket Prices For Passengers** | Airline cost reductions, Low Cost Carriers (LCCs) / Ultra Low Cost Carriers (ULCCs) driving down base fares, hub and spoke model |
| **Technology** | Enhancing customer service, new and more efficient aircraft, navigation, security/cybersecurity |
| **Airport Access Landside Trends** | Introduction of TNCs and EVs, and future AVs |

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# Safety and Security

- Terrorism
  - Safety and security at airports globally: airports are soft targets
  - Increased security requirements globally
  - Threats diversifying
    - Homegrown Violent Extremism (HVE)
    - Active Shooter/Hostile Events
    - Vehicles as Weapons

- Geopolitics
  - Impacts of protectionist policies and travel restrictions: Brexit, US Electronic Ban, US Executive Order
  - Impact of global conflicts

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# Increased Demand

- Air traffic growth is strong globally, FAA predicts moderate 2 to 3% annual increase through 2037

- Commercial growth (2016):
  - Global Passenger Growth: 7.3%
  - Total US Passenger Growth: 3.1%
  - US Domestic Passenger Growth: 3.3%
  - US International Passenger Growth: 1.7%

- North America is the busiest region in the world, handling more than 1/3 of all aircraft movements globally.
  - Northeast Corridor a major contributor

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# Cargo

- Global cargo is experiencing revival, with strong growth of 2.4% in 2016, surpassed pre-recession performance

AIR CARGO

Air cargo experienced rapid expansion and revival in the second half of 2016, surpassing 2.6 million metric tonnes per month, the last peak before the Great Recession.

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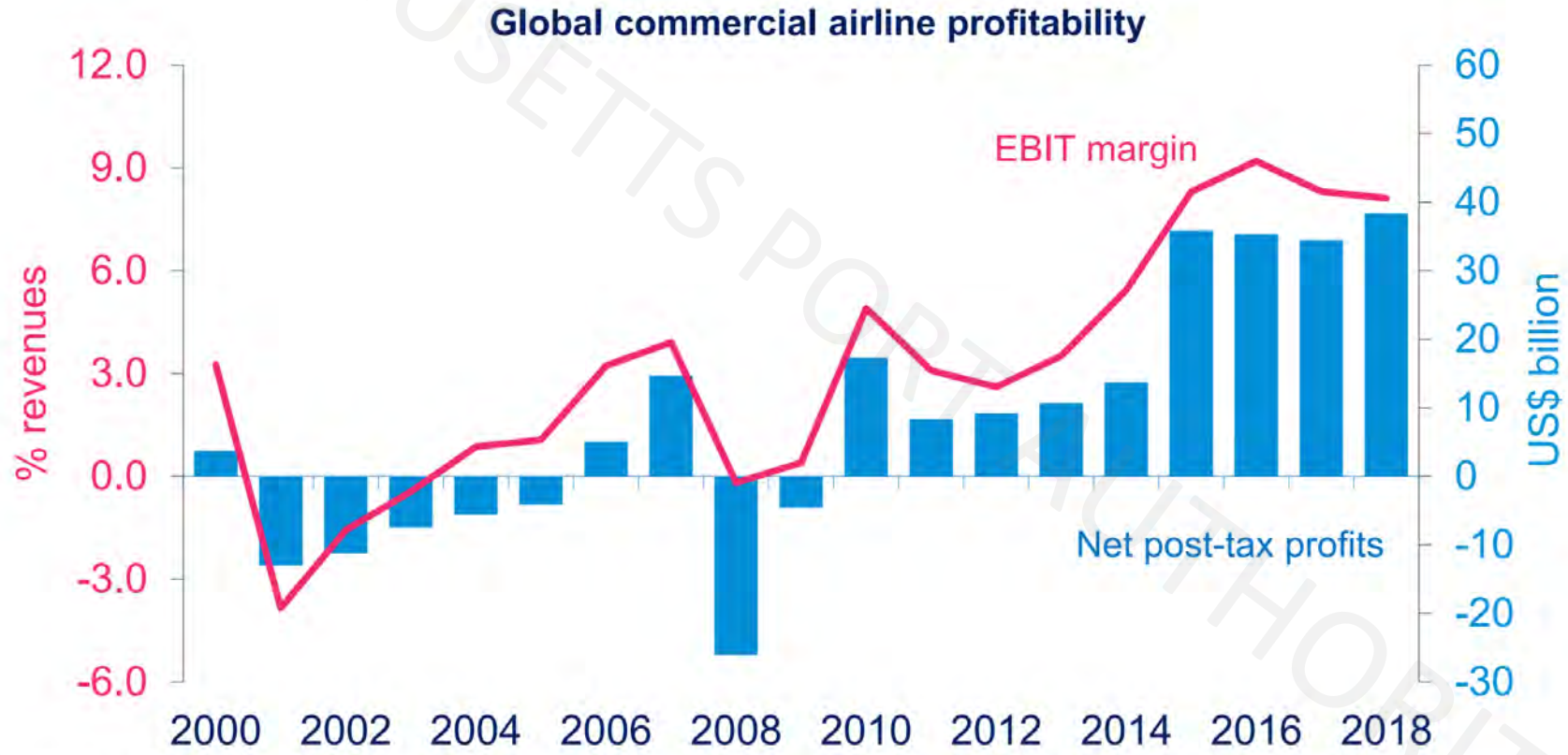
# Airline Economics

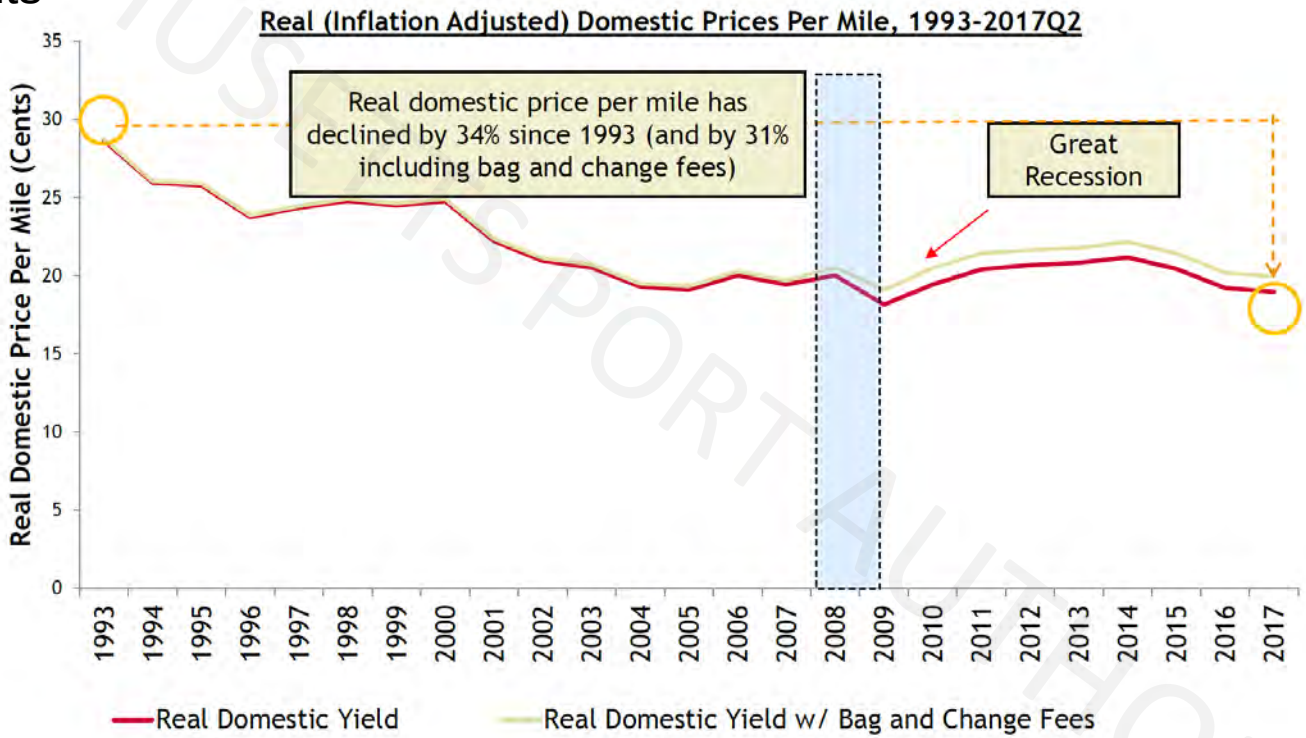
- Airlines have seen increased profitability with higher load factors, higher seat density and added capacity, increasing supply for growing demand.
- Cost reduction trends may be lessened in coming years: fuel prices, aging aircraft and labor costs are trending upward.




Source: IATA Economics using data from ICAO, IATA estimates and forecasts

# Reduced Ticket Prices For Passengers

- Ticket prices for passengers at or near historical lows:
  - Low Cost Carriers (LCC) and Ultra Low-Cost Carriers (ULCC): Impact on legacy carriers matching fare, product, embedded LCC/ULCC model
  - Airline profits




Sources: U.S. DOT DB1B; U.S. Department of Labor Bureau of Labor Statistics; U.S. EIA.
Notes: 2017 Dollars. Prices include taxes and passenger facility charges. Real domestic price per mile is stage-length adjusted to 2017 average length of haul (nonstop distance) of 1,134 miles. Bag and change fees are domestic unadjusted for distance.

5

# Influence of Technology – Passenger Processing

- Customer service and passenger process – Airport Operators and Airlines
  - Emerging technologies for automated processes such self check-in on mobile devices and kiosks for bag tags—reducing processing time by up to 30 percent
  - Integrating flow of information to and from stakeholders (such as reserving parking) – importance of cybersecurity
- Security Aspects – TSA Passenger/Baggage Screening
  - Automated Screening Lanes (ASLs) and explosive detection integration (CT Scanner)
  - Biometrics to automate verification (piloting)

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# Influence of Technology – Aircraft and Equipment

- The aviation industry is embracing technology and it is improving what is being flown and how:
  - Aircraft
    - Longer range
    - Quieter
    - Lower emissions
    - Right-size seat capacity for market
    - Opens new markets
    - Lower threshold for profit
  - Navigation

| Modern, Efficient Aircraft |
|---|
| C-Series |
| 737-MAX |
| A321-NEO |
| A350 |
| 777 |
| 787 |

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# Agenda

- Aviation Industry Trends
- Moving People and Goods: Logan Airport Update
- 2014 Massport Aviation Strategic Plan I Results to Date
- Responding to Trends: Massport Strategic Plan II

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# Moving People and Goods: Logan Airport Update

- Logan is experiencing and responding to the changes occurring in the Aviation industry.

| | |
|---|---|
| **Safety and Security** | Terrorism: Daily Security Meeting, JTTF, LEAP Drill, ASHE Drill; Geopolitical Changes: Electronic Ban response, non-significant impact of Executive Order |
| **Increased Demand** | Over 38 Million passengers in CY2017, 7th record year in a row |
| **Cargo** | Moving goods by air and sea |
| **Airline Economics** | ASMs increased significantly, High Load Factors (many in 90% range) |
| **Reduced Ticket Prices For Passengers** | Mix of Legacy and LCCs/ULCCs with low fares keeping all fares down, including Legacies |
| **Technology** | ASLs, Facial Recognition, Quieter and More Fuel Efficient Aircraft, Navigation |
| **Airport Access Landside Trends** | Introduction of TNCs at Logan, increasingly popular option for passengers |

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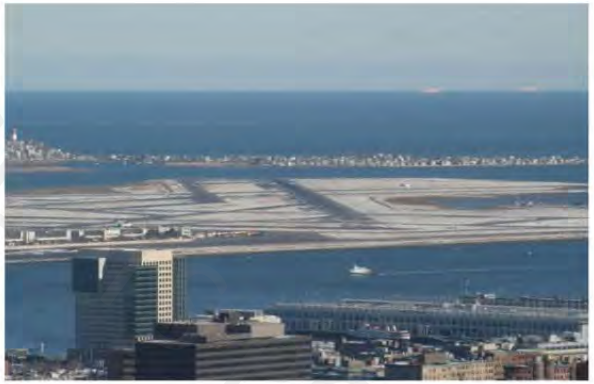
# Safety And Security Is The Number One Priority At Logan Airport

BOSTON NEWS - MASSLIVE.COM

## Boston Logan one of the safest airports, TSA director says

Comment Posted on August 18, 2017 at 7:03 AM



(Wikimedia)

110
shares

By **Michelle Williams**, Michelle.Williams@masslive.com

Safety is the top priority for Transportation Security Administration employees and Boston is doing well, according to the new director of the TSA.

David Pekoske visited Boston Logan International Airport on Thursday.

Airport security effectiveness is our number one job," he told Boston 25, a job Boston officials are doing well.

"Boston has a long history of being on the leading edge of security and being one of our very best airports for partnerships across the board," he told the television station.

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# Safety and Security

- Safety and Security at Logan is innovative and continually advancing
- Spend ~$93M a year to keep Logan safe and secure
- Logan is early adopter of security solutions and pilots
- Continuous safety and security enhancement plan

## After Fla. shooting, Logan security increased

MATTHEW J. LEE/GLOBE STAFF

State Police Trooper Albert Manzi Jr. got a thumbs up from Xavier Melo at Boston's Logan Airport.

**By Jacob Geanous** GLOBE CORRESPONDENT JANUARY 06, 2017

Passengers and visitors to Logan Airport in Boston were met with heightened security measures in the wake of the deadly mass shooting Friday afternoon at Fort Lauderdale-Hollywood International Airport.

Massport and the State Police implemented a "multilayered and rigorous security plan" at Logan moments shortly after gunfire broke out at in a baggage claim area of the south Florida airport.

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# Recent Technology-Based Security Enhancements at Logan

- Aviation industry is countering new challenges and threats with advanced technology and techniques, many piloted at Logan:
  - Automated Screening Lanes (ASLs) and CT screening of carryon bags (TSA Pilot)
  - November ’17: TSA approves Logan as Innovation Task Force site to test emerging security technologies
  - First airport in US with inline checked baggage screening system
  - Mobile Passport
  - One Stop CBP process
  - Interactive Electronic Information Screens/Center

The Boston Globe

**New security checkpoint lanes aim to reduce wait times at Logan Airport**

DAVID L RYAN/GLOBE STAFF

**Officials from the Transportation Security Administration and Massport have introduced the new automated screening lanes at Logan Airport’s terminal C.**

**By Ben Thompson**

GLOBE CORRESPONDENT DECEMBER 20, 2017

# Looking to Technology that Creates an End-to-End Passenger Experience

- Customer-centric technology provides passengers with actionable information when and how they want it:
  - Mobile, Contactless Parking Payments
  - Reservation Systems for Parking
  - Single-function app with comprehensive real time information
  - Remote Screening / Satellite Terminal
  - Granular traffic information for public and private transportation
  - Security wait times by terminal/checkpoint for TSA and CBP

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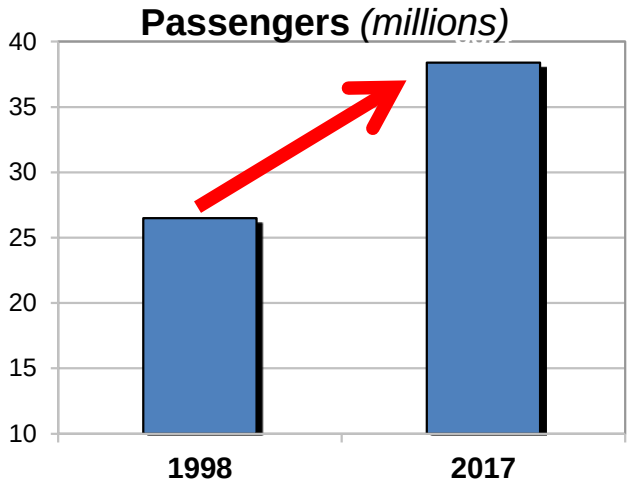
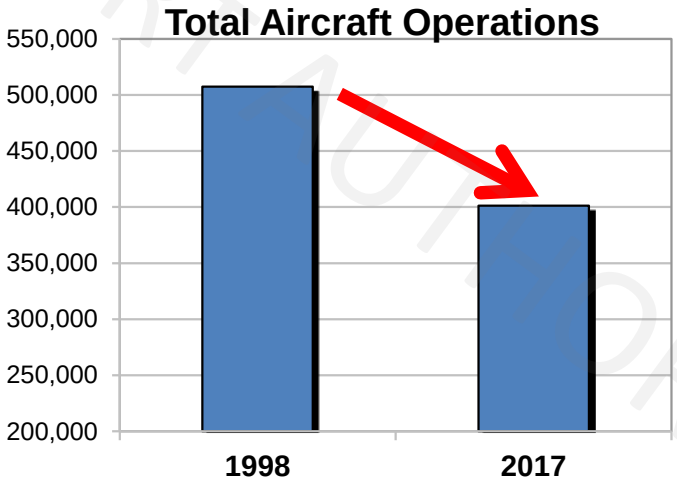
# Increased Demand: Passenger Growth Robust, Competitive Distribution of Market Share for Carriers

- In 2016, we had record 36.3 million passengers—final results for 2017 is another record for the 7th year in a row with 38.4 million passengers, 2.1 million passengers more than our record in 2016.
  - International traffic grew to 19% of total passengers in CY2017, up over 9% compared to CY2016.
  - In 2017, we had 114 passengers per operation with a load factor of 84%, up from 78 passengers per operation with a 77% load factor in 2011.
- Over the long term, Logan is serving more passengers on fewer flights.
- Massport is partnering with the FAA to implement strategies identified by MIT that address the concentration of flights.



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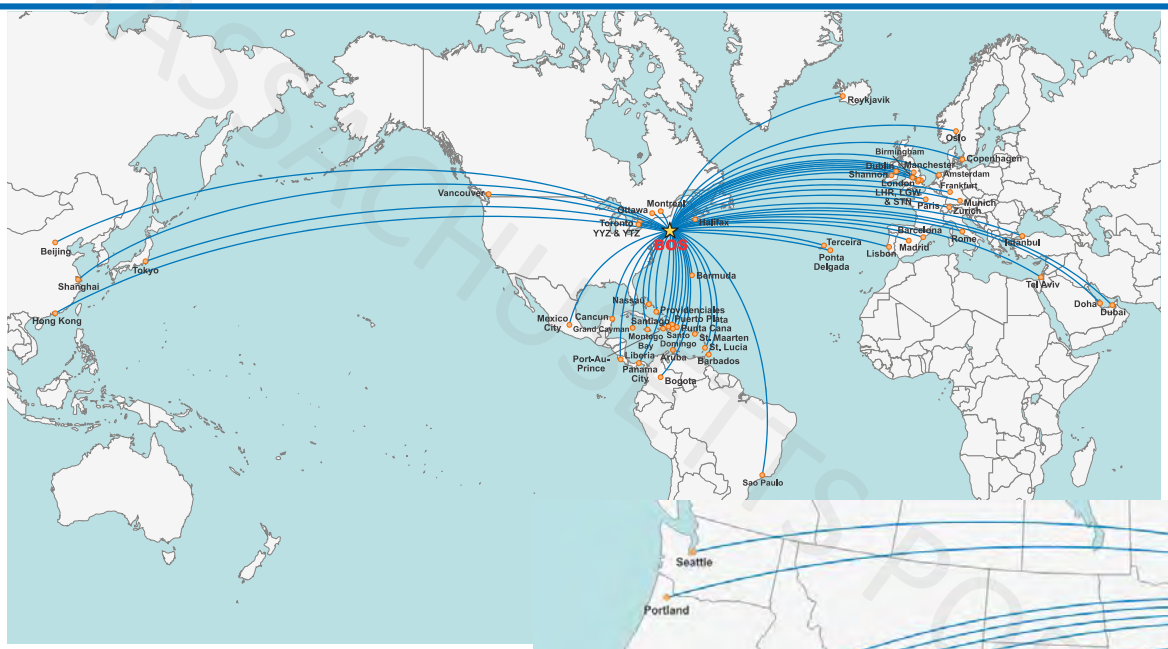
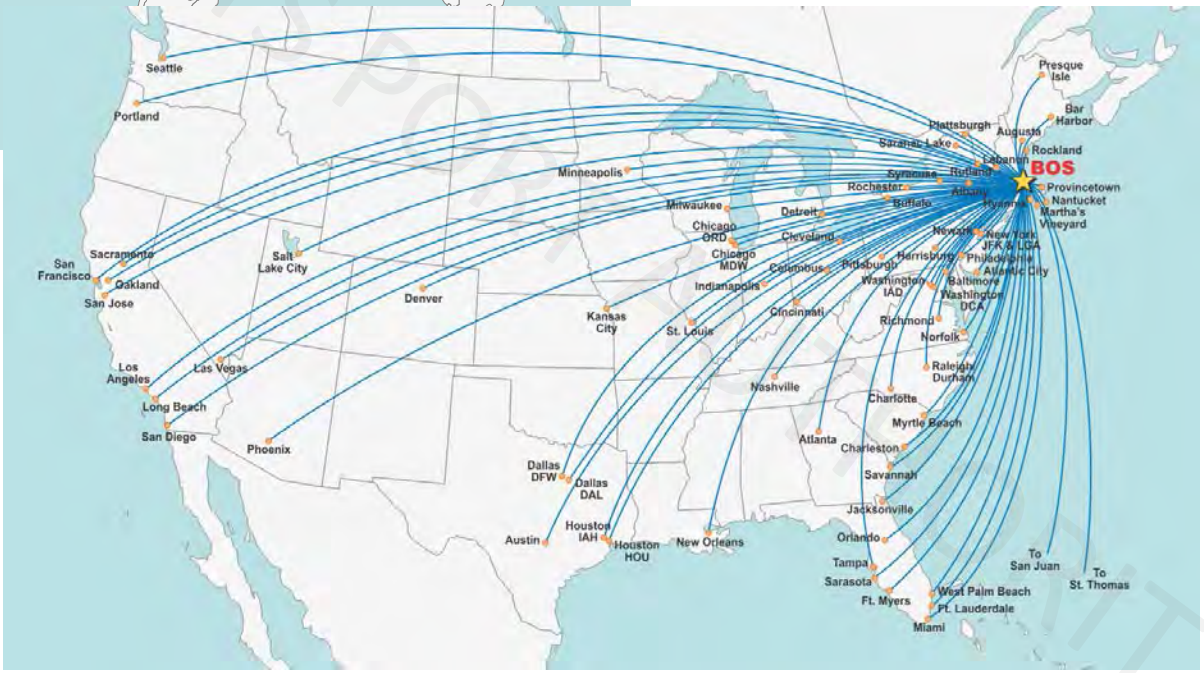
# Continued Growth of Service & Cargo: 75 Domestic Nonstop and 55 International Nonstop Destinations




## 2017



# Recent Service Additions and New Service at Logan

## 2015

### Domestic

**jetBlue**
**Cleveland** *(April)*
**Sacramento** *(June)*

**spirit airlines**
**Cleveland** *(April)*
**Detroit** *(April)*
**Atlanta** *(September)*

**Southwest**
**Milwaukee** *(June)*
**Indianapolis** *(June)*
**Columbus** *(August)*
**Dallas-Love** *(August)*
**Austin** *(November)*

### International

**jetBlue**
**Port au Prince** *(June)*
**Barbados** *(November)*

**AEROMEXICO**
**Mexico City** *(June)*

**HAINAN AIRLINES**
**Shanghai** *(June)*

**EL AL**
**Tel Aviv** *(June)*

**CATHAY PACIFIC**
**Hong Kong** *(May)*

**wow air**
**Reykyavik** *(March)*

**norwegian**
**Fort de France** *(December)* [1]
**Pointe A Pitre** *(December)* [1]

## 2016

### Domestic

**spirit airlines**
**Orlando** *(October)*
**Minneapolis** *(April)*
**Ft Meyers** *(November)*

**jetBlue**
**New York- LGA** *(October)*
**Salt Lake City** *(May)*

**DELTA**
**Seattle** *(April)*
**Nashville** *(November)*

### International

**norwegian**
**London Gatwick** *(March)*
**Oslo** *(April)*
**Copenhagen** *(May)*

**airberlin**
**Dusseldorf** *(May)* [1]

**Eurowings**
**Cologne** *(June)*[1]

**SAS**
**Copenhagen** *(March)*

**QATAR AIRWAYS**
**Doha** *(March)*

**TAP PORTUGAL**
**Lisbon** *(June)*

**DELTA**
**Montenegro Bay** *(December)*
***Punta Cana*** *(December)*

**Thomas Cook Airlines**
**Manchester** *(May)*

**WESTJET**
**Toronto** *(March)*
**Halifax** *(April)*

## 2017

### Domestic

**spirit airlines**
**Tampa** *(February)*
**New Orlean** *(November)*

**jetBlue**
**Atlanta** *(May)*

**DELTA**
**Norfolk** *(September)*
**Jacksonville** *(September)*
**Buffalo** *(September)*
**San Francisco** *(June)*
**Kansas City** *(September)*
**Austin***(September)*
**Tampa** *(February)*
**St. Thomas** *(February)*

### International

**AIR CANADA**
**Vancouver** *(June)*

**virgin atlantic**
**Manchester** *(March)*

**DELTA**
**Dublin** *(May)*

**WESTJET**
**Montreal** *(October)*

**AirEuropa**
**Madrid** *(June)*

**Avianca**
**Bogota** *(June)*

## 2018

**LEVEL**
**Barcelona** *(March)*

**Primera Air**
**Birmingham** *(May)*,
**London-Stansted** *(June)*
**Paris** *(June)*

**LATAM AIRLINES**
**Sao Paulo** *(July)*

**norwegian**
**Paris** *(May)*

*Sources: Massport; ICF Report*
*[1] Destination cancelled in September 2016*

# Agenda

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# What's Next: Updated Plan to Reflect the Changing Aviation Industry

- Massport has made significant efforts and investments to fulfill the major recommendations from the 2014 Strategic Plan.
- Actions taken under the 2014 Strategic Plan are fulfilling Massport's commitment to moving passengers and goods.
- 2012-2014 Strategic Plan for Aviation focused on strong market, predicted healthy future demand.
- The Aviation industry is changing rapidly, continuing to undergo systemic, technical and passenger expectation changes.
- Massport is adapting to these changes and devising a new set of priorities that reflect industry trends and Logan needs.

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# Agenda

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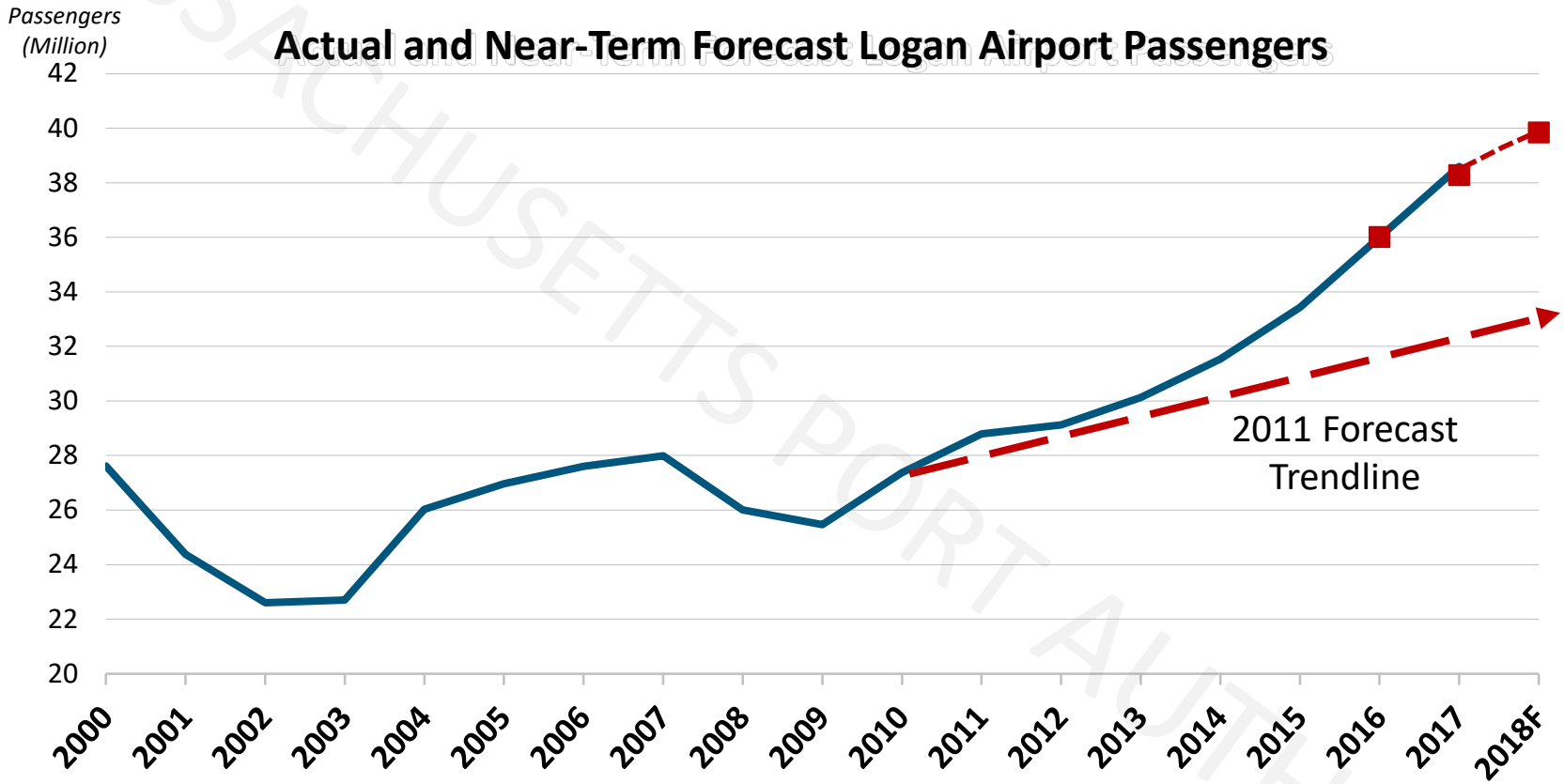
# Competitive Air Service at Logan Due to Increasing Passenger Demand, Growing Faster Than Forecasted




Source: Massport and InterVISTAS forecast

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# Strategic Plan II Will Address Impacts of Increased Demand on Operations And Infrastructure

- Customer service is a priority at Logan, with 76 percent of passengers having a favorable opinion of Logan *(Mass Insight),* but continued growth within a constrained footprint puts increased pressure on operations and infrastructure.
- In response, Massport is developing a Strategic Plan II to address these challenges.
- Requires accelerated capital commitments to expedite solutions.

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# Strategies to Address Challenges Resulting from Accelerated Growth

| Challenges | Potential Solutions | | |
|---|---|---|---|
| | Immediate | Mid-Term | Long-Term |
| On-Airport Roadways | De-conflict Terminal B/C; HOV | Roadway Reconfiguration; HOV; APM | Roadway Reconfiguration; HOV; APM |
| Terminal Curbs | Curb Reconfiguration; HOV | Curb Reconfiguration; HOV; APM | Curb Reconfiguration; HOV; APM |
| RONs | Improved Management and Efficiency of Locations | Replacing Aging Infrastructure with Additional Locations | Consider Locations as Needed |
| Gates/Gate Management | Gate Utilization Management; Terminal Connectivity | Gate Relocations and Additions; Terminal Connectivity; Terminal Capacity | Terminal Connectivity; Terminal Capacity |

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# Outlook: Capital Commitments Must Enable Logan to Meet Current and Future Passenger Growth

- **Potential Airside Improvements:**
  - Accommodate international passenger growth with improved gates in Terminal E
  - Optimize Terminal B to accommodate airline consolidation and improve passenger flow
  - Enable Authority to better manage our aircraft gate demand (terminal connections, gate reconfiguration, gate additions)
  - Improve airfield through North Service and North Cargo Area Plan that advances safety, increases number of RONs and accommodates Airfield Maintenance and GSE/SRE needs
- **Potential Landside Improvements:**
  - Upgrade roadways to de-conflict and improve traffic conditions
  - Improve terminal curb capacity
  - Increase HOV seats
  - Automated People Mover
  - Capacity to accommodate additional parking

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# Ensure Logan Airport Continues to be a Vital Economic Engine into the Future

**Potential Cost of Inaction**

- Negatively impact the Authority's funding
- Loss of air carriers and service
- Potentially reduce global outreach and competiveness
- Diminished customer service and reputation
- Potentially depressed economic impact, creating regional repercussions
- Severe congestion and delays

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# Human Resources

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# DISADVANTAGED BUSINESS ENTERPRISE ("DBE") REPORT

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# DISADVANTAGED BUSINESS ENTERPRISE ("DBE") PARTICIPATION ACCOMPLISHMENT REPORT FEDERAL FISCAL YEAR 2017 (October 1, 2016 - September 30, 2017)

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## I. BACKGROUND:

- Massport has a Disadvantaged Business Enterprise ("DBE") Program, established in accordance with U.S. Department of Transportation requirements set forth in 49 CFR Part 26.

- As part of the DBE Program, Massport is required to submit to the Federal Aviation Administration its DBE accomplishments for federal fiscal year 2017 for Boston-Logan International Airport, L. G. Hanscom Field, and Worcester Regional Airport.

# DISADVANTAGED BUSINESS ENTERPRISE ("DBE") PARTICIPATION ACCOMPLISHMENT REPORT FEDERAL FISCAL YEAR 2017 (October 1, 2016 - September 30, 2017) *Cont'd*

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## II. DBE PARTICIPATION GOALS & ACCOMPLISHMENTS:

- Massport exceeded the overall goal for all three (3) Airports for FFY2017
  - Boston-Logan International Airport
    - DBE overall goal: 11.6%
    - DBE participation: 20.4%
  - L. G. Hanscom Field
    - DBE overall goal: 10.9%
    - DBE participation: 30.6%
  - Worcester Regional Airport
    - DBE overall goal: 9.3%
    - DBE participation: 15.1%

# Community Outreach

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# MASSPORT CAC UPDATE

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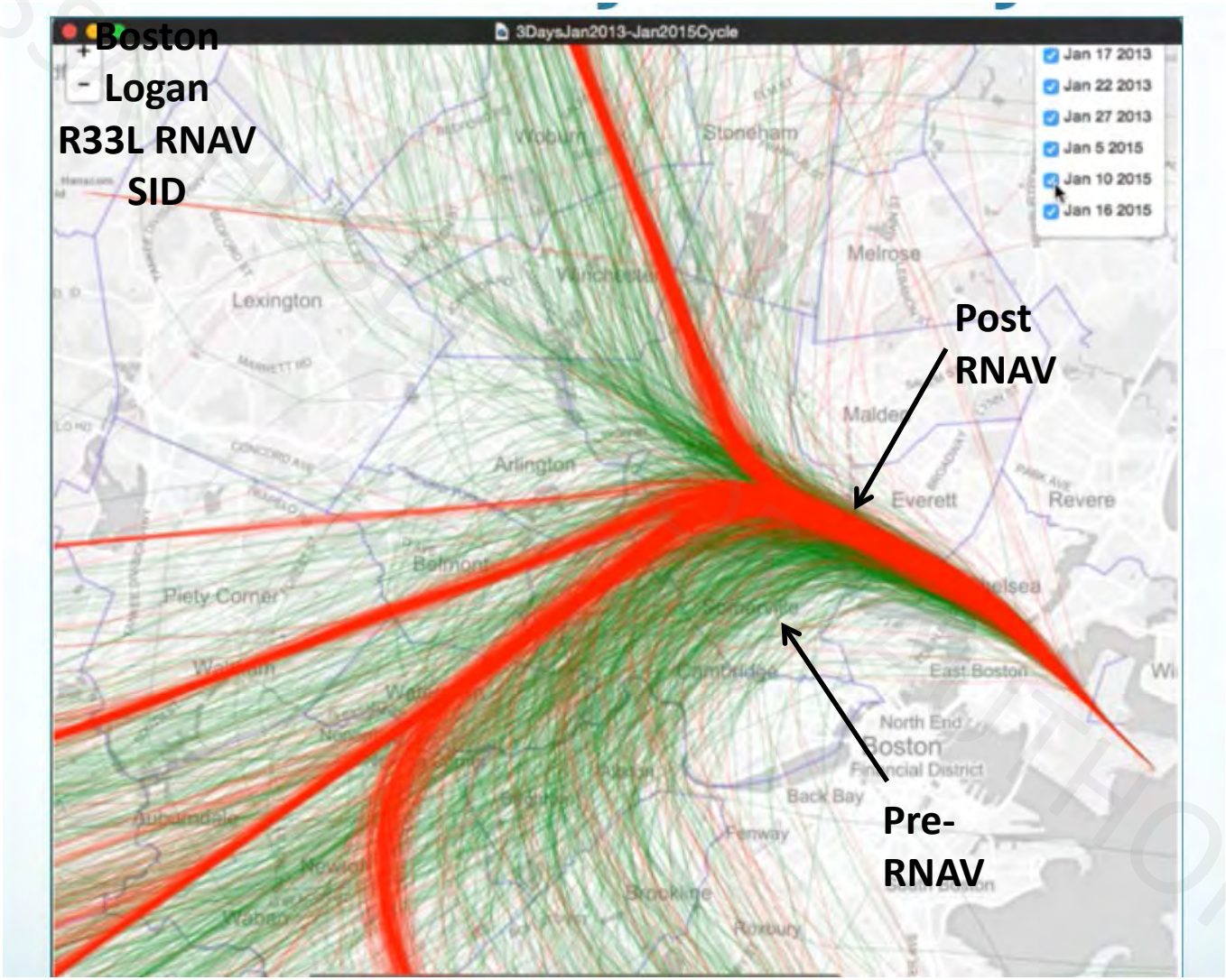
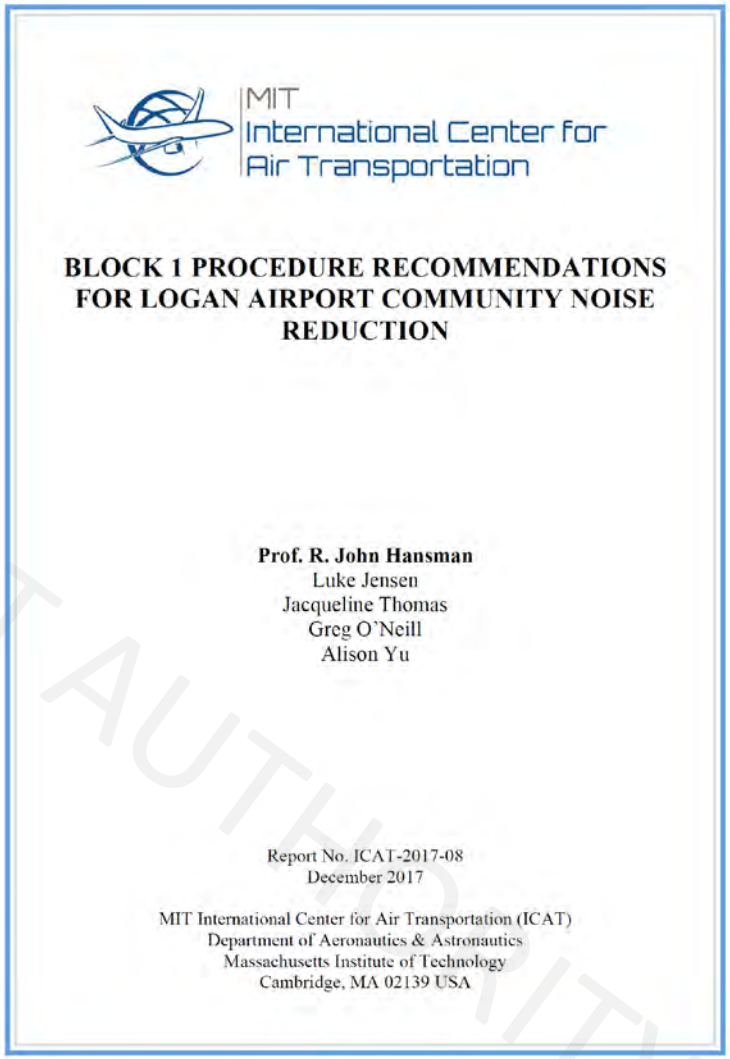
One result of FAA's implementation of NextGen procedures including RNAV concentration of flights. To address this issue Massport and the FAA agreed to the RNAV Study with MIT as the technical lead



# In December, the RNAV Study work on Block 1 procedure recommendations was completed:

- MIT issued its final report to Massport and the FAA on Block 1 recommendations (12/2017)
- Massport/FAA presented at the Massport CAC meeting (12/7)
- Massport CAC voted to support Block 1 (12/7)
- Massport submitted formal request to FAA for review and implementation of Block 1 (12/20)
- FAA currently reviewing
- Work on Block 2 ideas is underway



MIT International Center for Air Transportation

**BLOCK 1 PROCEDURE RECOMMENDATIONS FOR LOGAN AIRPORT COMMUNITY NOISE REDUCTION**

**Prof. R. John Hansman**
Luke Jensen
Jacqueline Thomas
Greg O'Neill
Alison Yu

Report No. ICAT-2017-08
December 2017

MIT International Center for Air Transportation (ICAT)
Department of Aeronautics & Astronautics
Massachusetts Institute of Technology
Cambridge, MA 02139 USA

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# Overview of Block 1 procedures forwarded by Massport to FAA for review and implementation

**Block 1 Procedure Recommendations**

| Proc. ID D = Dep. A = Arr. | Procedure | Primary Benefits |
|---|---|---|
| 1-D1 | Restrict target climb speed for jet departures from Runways 33L and 27 to 220 knots or minimum safe airspeed in clean configuration, whichever is higher. | Reduced airframe and total noise during climb below 10,000 ft (beyond immediate airport vicinity) |
| 1-D2 | Modify RNAV SID from Runway 15R to move tracks further to the north away from populated areas. | Departure flight paths moved north away from Hull |
| 1-D3 | Modify RNAV SID from Runway 22L and 22R to initiate turns sooner after takeoff and move tracks further to the north away from populated areas. | Departure flight paths moved north away from Hull and South Boston |
| 1-D3a | *Option A*: Climb to intercept course (VI-CF) procedure | |
| 1-D3b | *Option B*: Climb to altitude, then direct (VA-DF) procedure | |
| 1-D3c | *Option C*: Heading-based procedure | |
| 1-A1 | Implement an overwater RNAV approach procedure with RNP overlay to Runway 33L that follows the ground track of the jetBlue RNAV Visual procedure as closely as possible. | Arrival flight paths moved overwater instead of over the Hull peninsula and points further south |
| 1-A1a | *Option A*: Published instrument approach procedure | |
| 1-A1b | *Option B*: Public distribution of RNAV Visual procedure | |

Source: MIT

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# FAA/CITY OF PHOENIX LITIGATION

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# Phoenix Decision – Settlement Update

- City of Phoenix and residents sued FAA challenging its implementation of RNAV routes at Phoenix Sky Harbor International Airport.

- D.C. Circuit Court of Appeals held in August 2017 that FAA's RNAV order was arbitrary and capricious because the FAA had failed to follow procedures required by three federal statutes. Court also noted that FAA deviated from its own standards of review which it used in implementing RNAV at other airports, including in Boston, Atlanta, Charlotte and Northern California.

- FAA and Phoenix filed a proposed settlement agreement on November 30, 2017, which is broader than the Court Order. The court has not yet approved the settlement agreement. The proposed settlement would:
  - Allow FAA to keep the RNAV routes temporarily, thereby avoiding safety risks and efficiency concerns, while affording the FAA time to comply with the public process requirements of the statutes.
  - Require that FAA suspend certain routes that were particularly concerning to the community.
  - Engage in community outreach while creating temporary departure procedures. FAA would then develop new procedures for certain departures and engage in the public process required by the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA), and the Transportation Act.
  - Correct the overly broad court order, which vacated all 17 of the RNAV routes although only 9 RNAV routes had been challenged.

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# VORTEX GENERATOR UPDATE

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# Vortex Generator Usage

- Vast majority of aircraft operating at Logan meet the strictest noise standards – 98% Stage 4 or better
- Vortex Generators fix a fuselage noise issue related to a vent that equalizes pressure in fuel tanks on the Airbus A320 family of aircraft
- Beginning in 2014, all new A319, 320, and 321 aircraft are equipped with Vortex Generators
- Pre-2014 aircraft can be fitted with Vortex Generators during major maintenance
  - This schedule varies by airline (e.g annually)
- Massport has submitted written requests to airlines advocating that airlines install the Vortex Generator fix on pre-2014 aircraft during major maintenance when least disruptive and minimizing cost

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# Massport has submitted letters to airlines advocating for retrofit of A320 family of aircraft

Massachusetts Port Authority
One Harborside Drive
East Boston, MA 02128-2909
Telephone (617) 568-5000
www.massport.com

To: Boston Airline Committee

From: Edward C. Freni
Director of Aviation

Date: May 18, 2016

RE: Single/Reduced-Engine Taxiing and Other Strategies to Reduce Aircraft- Generated Emissions and Noise at Boston Logan

As an important user of Boston-Logan International Airport ("Boston Logan"), you are an essential partner in our efforts to ensure that Boston Logan operates in the safest, most dependable and environmentally responsible manner feasible. Our success in implementing physical and technological improvements and piloting cutting-edge safety enhancements at Boston Logan is based, in part, on continuing to evaluate and promote operational measures with the potential to reduce environmental impacts from various landside and airside operations.

Important measures that have been identified are:

1.) Single/reduced-engine taxiing,
2.) Use of idle-reverse thrust, and
3.) Retrofitting older A320 aircraft with "vortex generators" to reduce aircraft noise.

Based on outreach to the Logan air carrier community, it is clear that single- or reduced-engine taxiing is being voluntarily implemented by the vast majority of air carriers at Boston Logan. I write to you again to encourage your continued use of this fuel-saving emissions reduction strategy, subject to pilot discretion and to the extent consistent with your established operating safety procedures.

I also encourage your use of idle reverse thrust (or minimize the use of reverse thrust) on landing, as a second operational measure, again, only at the discretion of the pilot and only to the extent consistent with your established operational safety procedures. This measure provides noise relief to our nearest neighbors and, at the same time, provides companion benefits to you, such as reducing fuel burn and engine wear. Clearly, the use of this procedure must be consistent with operational conditions at Boston Logan, including runway surface conditions and whether LAHSO is in use.

Finally, I again want to share with you information regarding recent industry efforts to retrofit A320 aircraft with "vortex generators" to reduce airframe noise. Although the A320 is a fully noise-compliant/modern aircraft, this is an excellent example of additional, incremental actions we can take as an industry to reduce operational impacts on the environment. Attached please find more information related to this technology.

Massachusetts Port Authority
One Harborside Drive
East Boston, MA 02128-2909
Telephone (617) 568-5000
www.massport.com

May 1, 2017

Mr. Fran Moran
Spirit Airlines
200 Terminal B
East Boston, MA 02128

RE: Expanding the use of wake vortex generators on the A320 family of aircraft to reduce Logan's noise footprint from overflights

Dear Mr. Moran: Fran

As an important user of Boston Logan International Airport ("Boston Logan"), you are an essential partner in our efforts to operate the safest, most dependable, and environmentally responsible airport for the traveling public and communities impacted by our operations. A critical part of our industry's long term success is to promote practical measures that reduce environmental impacts to nearby communities.

One immediate area of improvement is the retrofitting of the A320 family of aircraft (A319/A320/A321) with wake vortex generators that eliminate the noise signature from the airframe related to the fuel vents. This fix reduces the noise by over 4 decibels in the final approach portion of flight when aircraft are relatively low and transitioning to land. The manufacturer has also stated a larger benefit (up to 9 decibels) at further distances from the airport. Boston Logan, as an urban airport has relatively dense communities under several approach corridors to our runways. A recent analysis shows that the A320 family of aircraft account for about 30% of all Logan's arrivals. Implementing this fix will have a measureable and important benefit to our nearby communities here at Logan and at other airports in your network. It is our understanding that if this retrofit is planned as part of the routine maintenance cycle of the aircraft, the cost, time and impact on the fleet is minimized.

Although we recognize that the A320 is a fully noise-compliant/modern aircraft, this is an excellent example of additional actions we can take as an industry to reduce our environmental footprint. I urge you to consider this request and work with us to reduce impacts from overflight operations.

Thank you for your continued work to enhance Boston Logan's operational safety and efficiency, while improving its environmental footprint. If you have any questions or would like to discuss any aspect of this letter, please feel free to contact me or Todd Smith, Director of Aviation Operations, at 617-568-1018.

Sincerely,

Edward C. Freni
Director of Aviation

cc: Tom Glynn, Todd Smith, Flavio Leo

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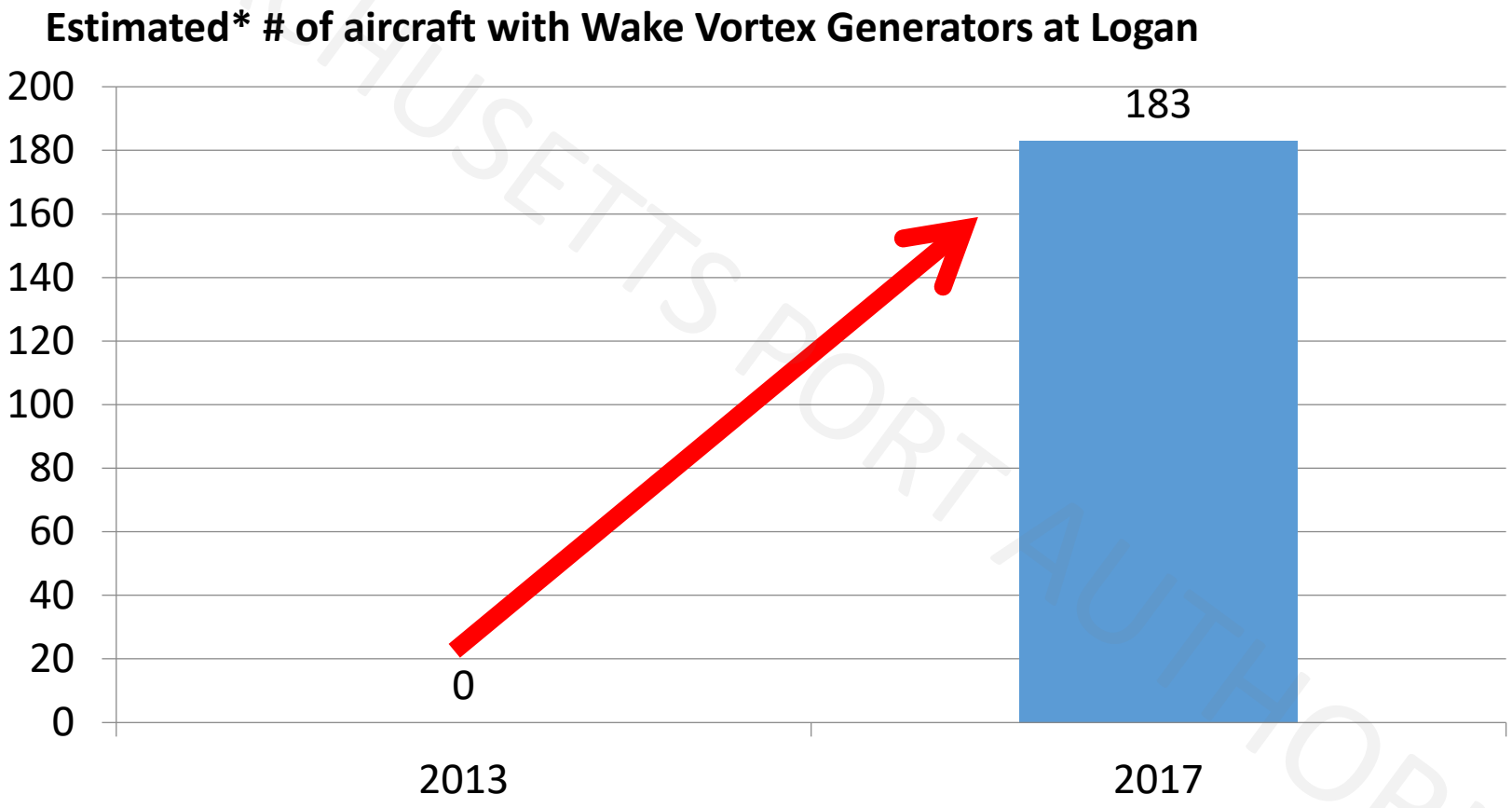
# We estimate that about 183 aircraft that are A320-family are using Logan with wake vortex generators installed or about 20% of the A320-family fleet at Logan




* Based on Airbus information of 2014 or newer aircraft delivery with vortex generator installed.

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# Real Estate

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# PARCEL K

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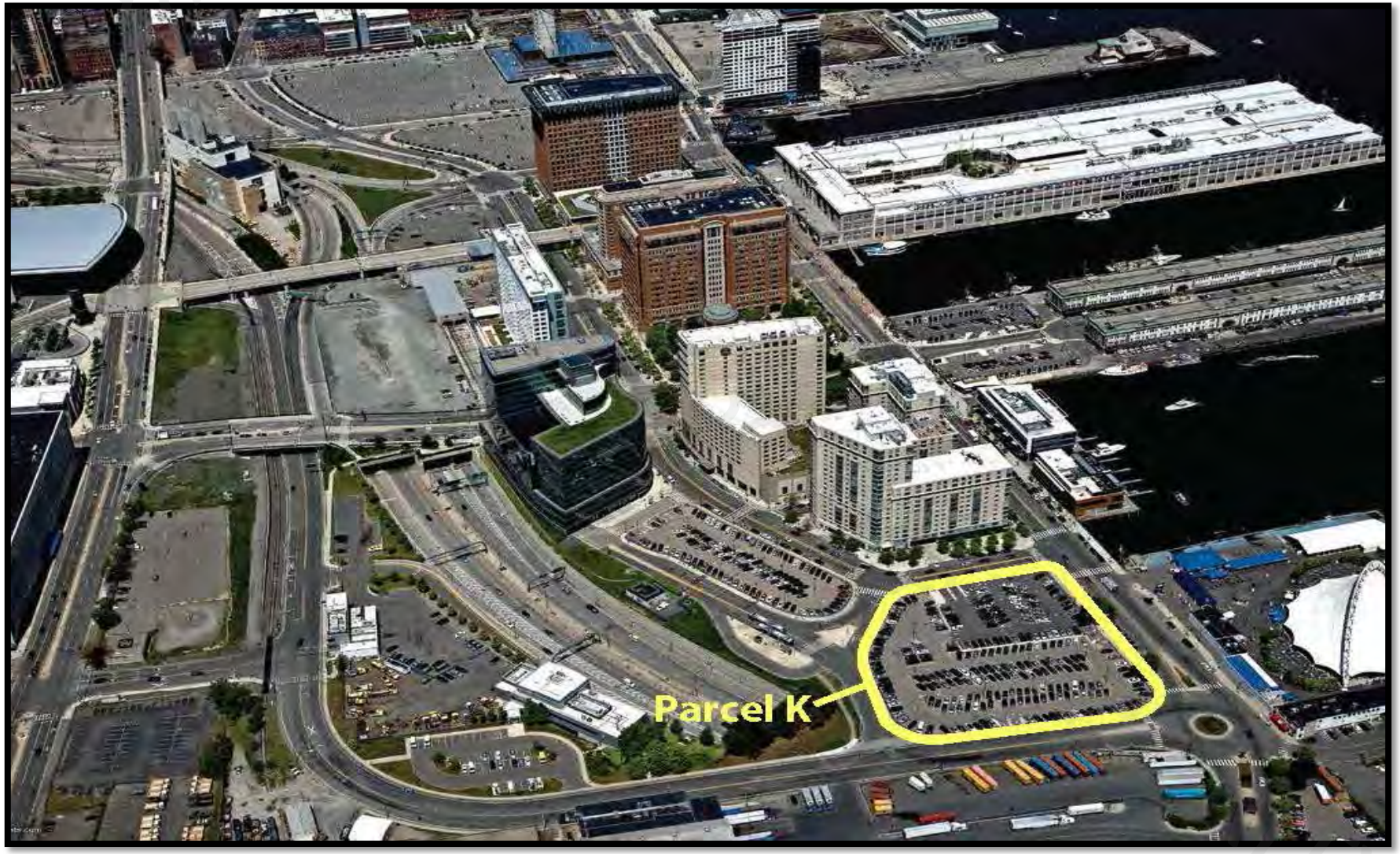
# Parcel K Location



# View from Northern Avenue

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# OMNI HOTEL

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# Omni Hotel – Revised Design

# Omni Hotel – Revised Design

# Facilities and Construction

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# Terminal C Optimization and Terminal C to Terminal B Connector

## Project Overview

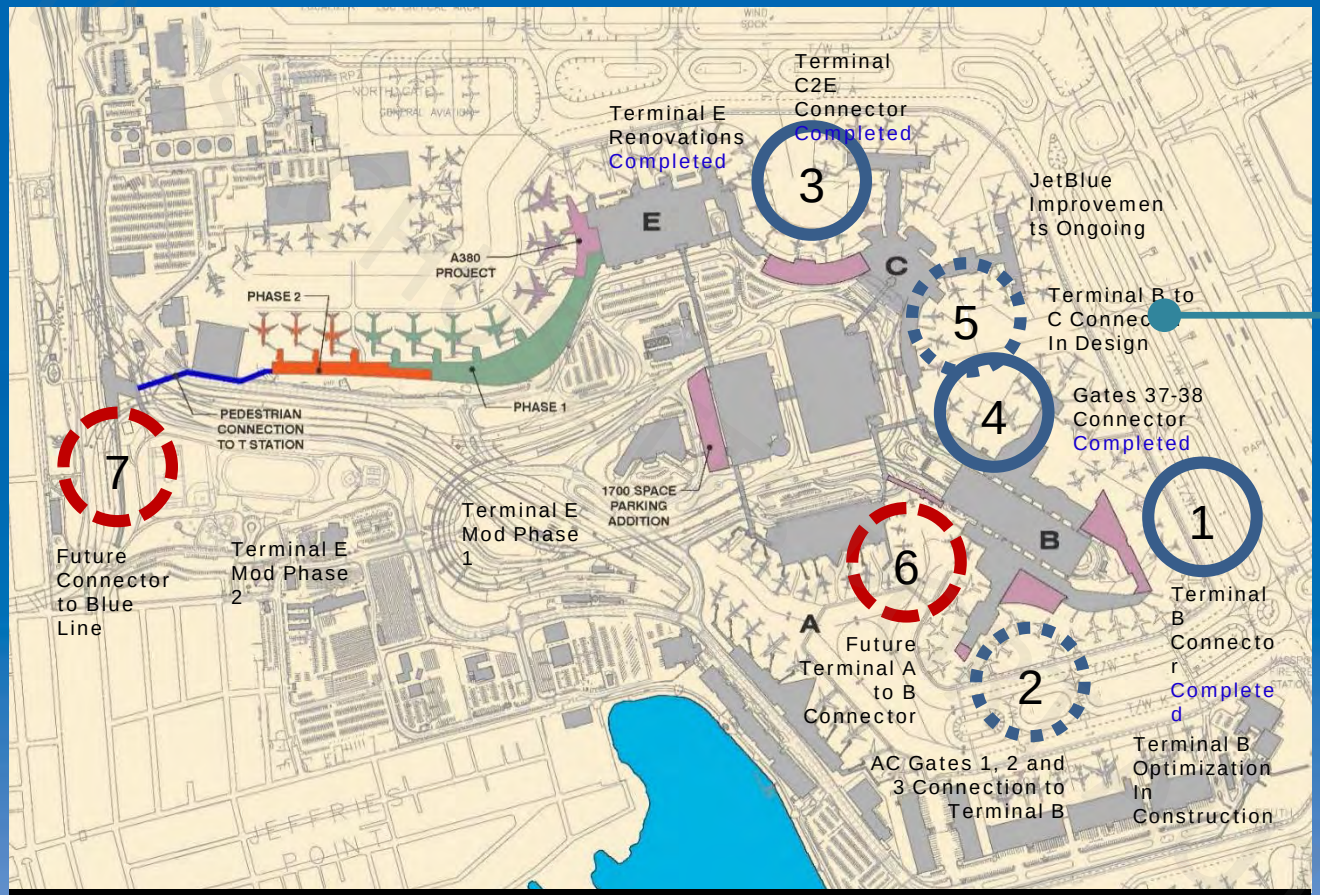
**Presentation for**

**January 18, 2018 Board Meeting**

MASSACHUSETTS PORT AUTHORITY

# Terminal C Optimization and Terminal C to Terminal B Connector

## Making Connections

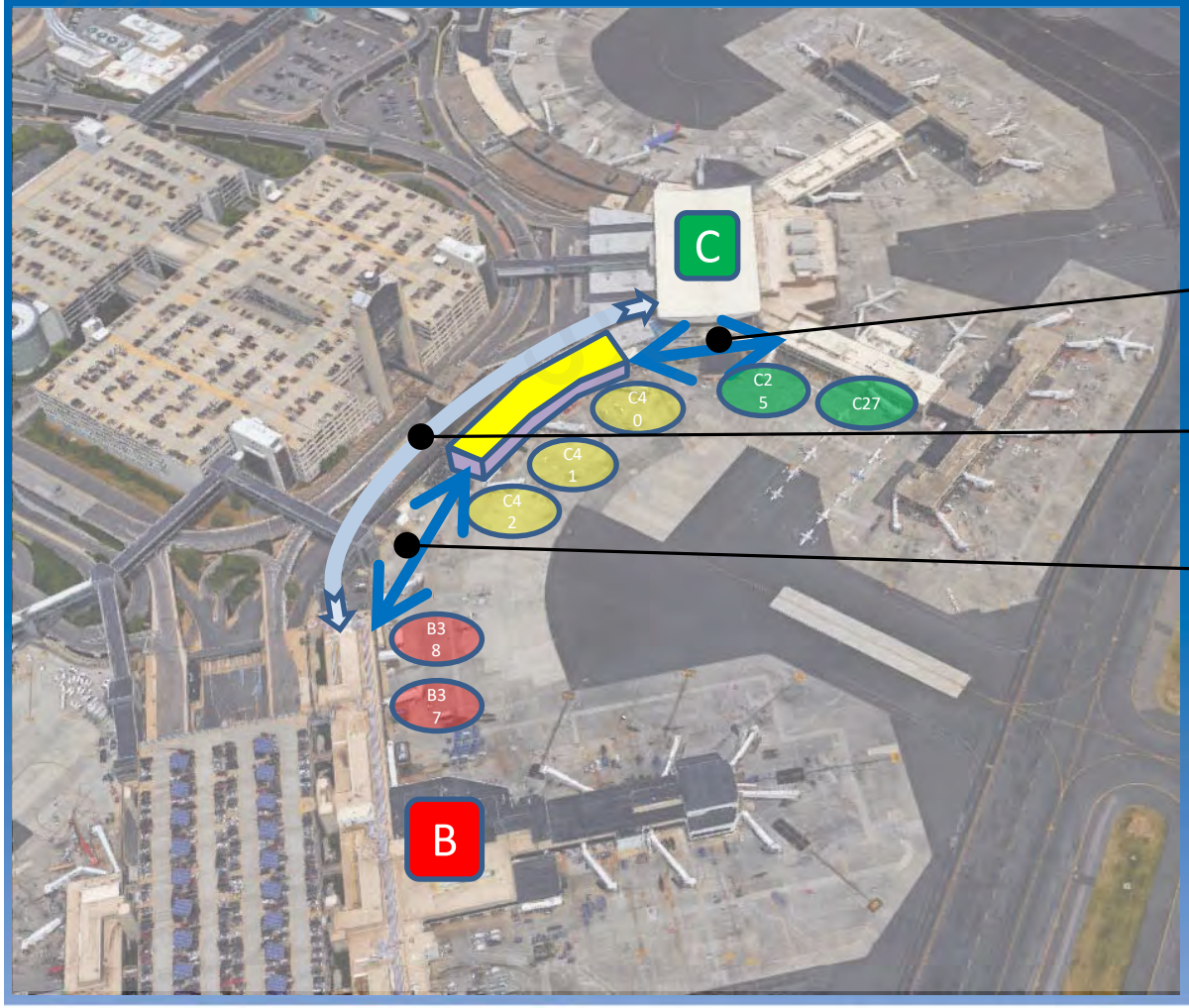



New Terminal C to Terminal B Connector

Aviation Strategic Plan

# Terminal C Optimization and Terminal C to Terminal B Connector

## Making Connections




**Project Connectivity Benefits:**

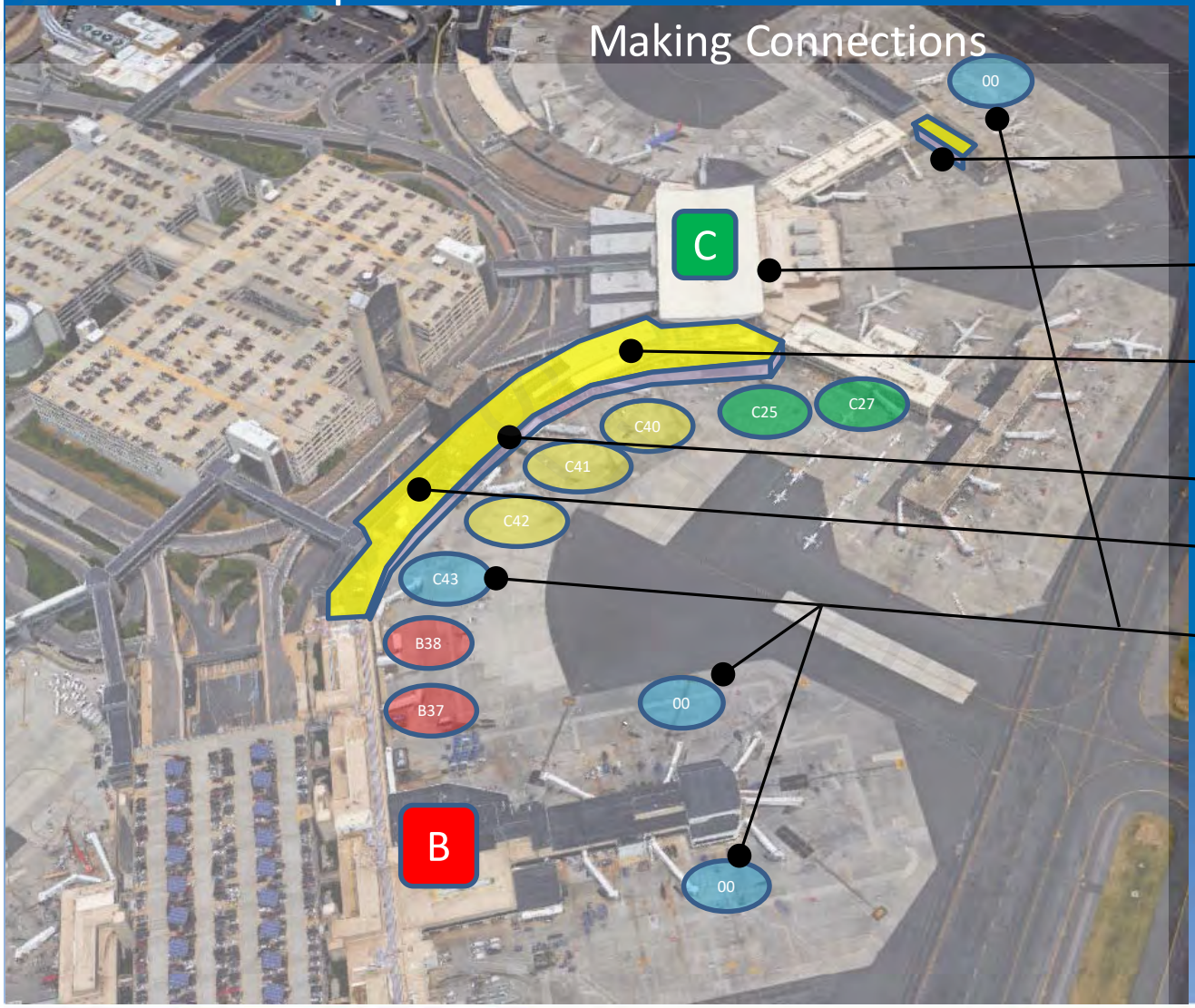
**Provide NEW post-security connection from security checkpoint to existing Gates C40, C41, C42**

**Improve and upgrade existing pre-security pedestrian connection**

**Provide NEW post-security connection from existing Gates C40, C41, C42 to Terminal B Gates B37 & B38**

# Terminal C Optimization and Terminal C to Terminal B Connector

## Making Connections




**Proposed optimization benefits:**

**New public restrooms and concession area** to support additional gate

**Maximize security checkpoint capacity** for all C gates

Full service **continuous concourse** and holdrooms with **post-security concessions**

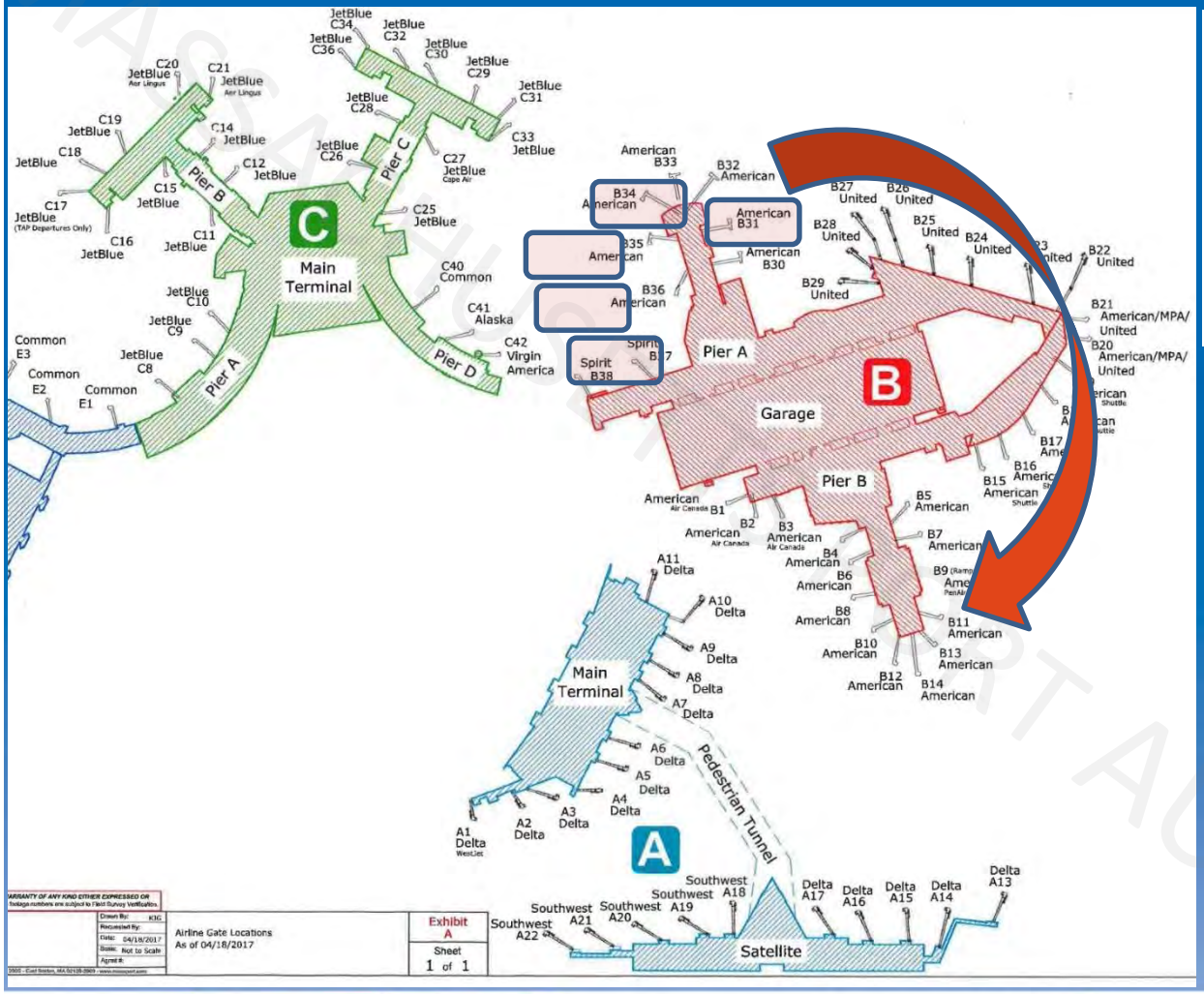
**Decommission** C40/41/42 checkpoint

**New consolidated office space** within mezzanine above connector

**Four (4) new aircraft gates** to accommodate airline needs.

# Terminal C Optimization and Terminal C to Terminal B Connector

## Facilitating airline and passengers needs during construction

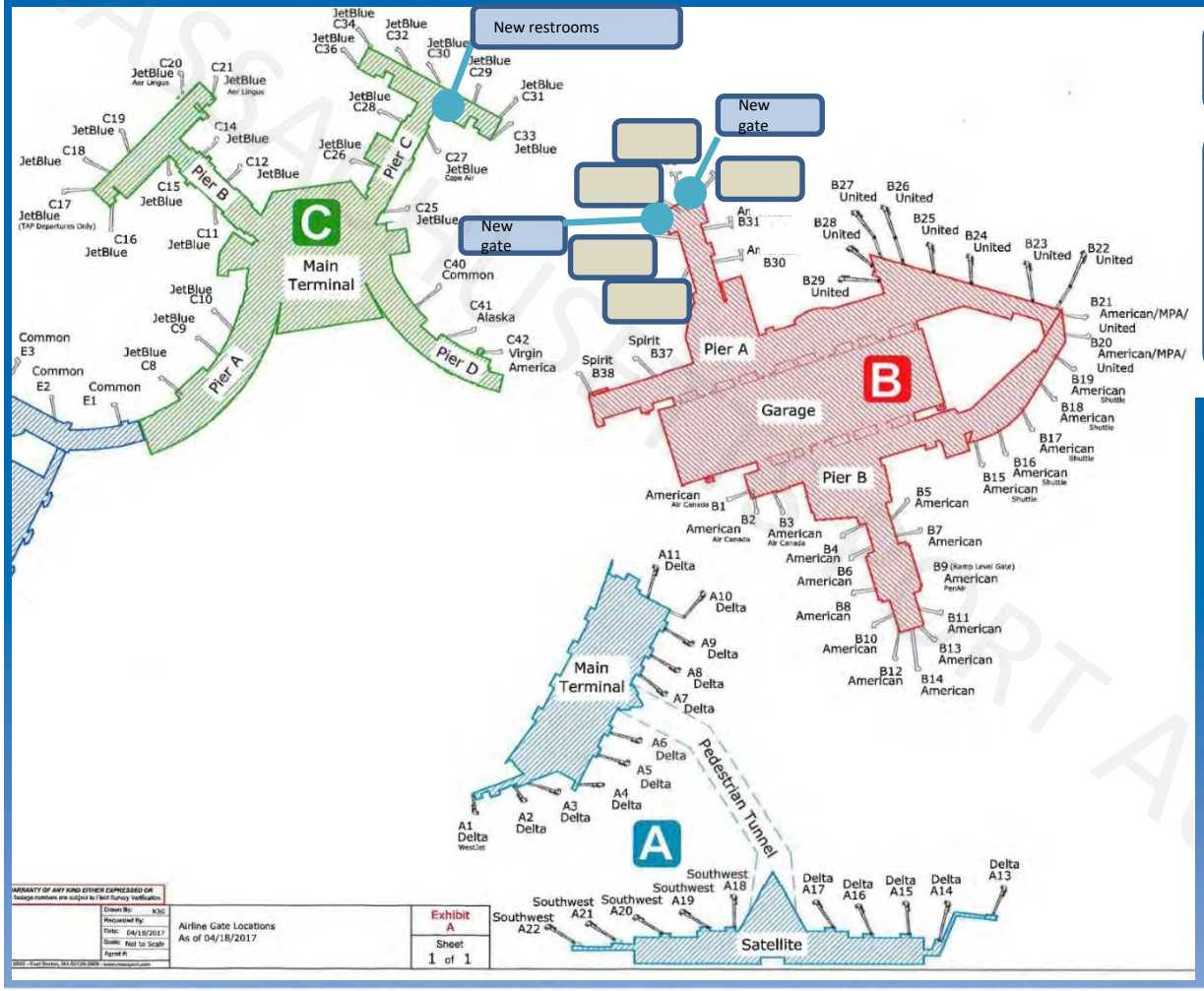



**PHASE 1: AIRLINE RELOCATION**
**January 2019**

**American Airlines**
From: B36-B32
To: Completed Terminal B Pier B Consolidation

# Terminal C Optimization and Terminal C to Terminal B Connector

## Facilitating airline and passengers needs during construction



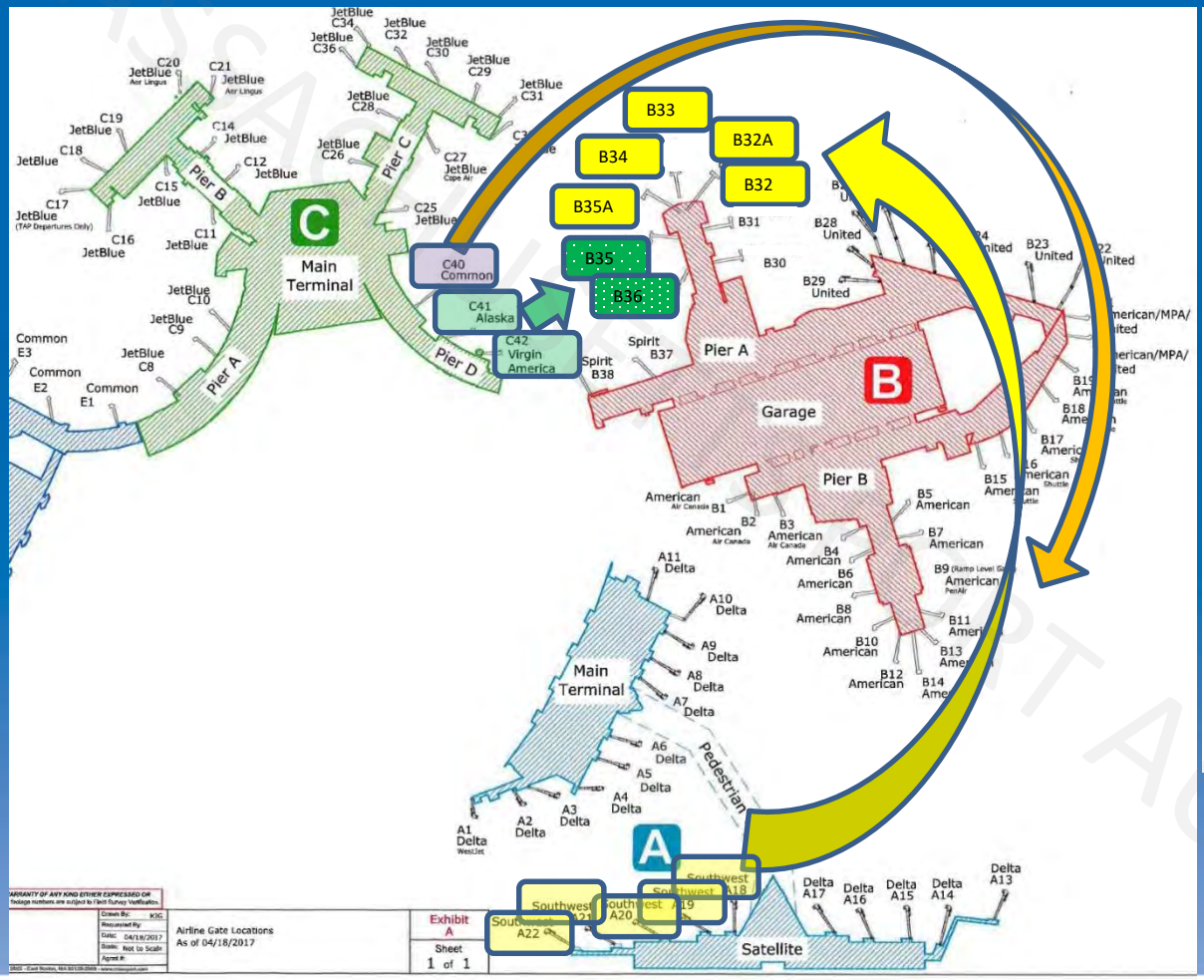

**PHASE 2: INITIAL CONSTRUCTION**
**January 2019 thru June 2019**

MPA Construct two (2) new gates Terminal B Pier A

MPA complete construction of new public restrooms Terminal C Pier C

# Terminal C Optimization and Terminal C to Terminal B Connector

## Facilitating airline and passenger needs during construction




**PHASE 3: AIRLINE RELOCATION**
**June 2019**

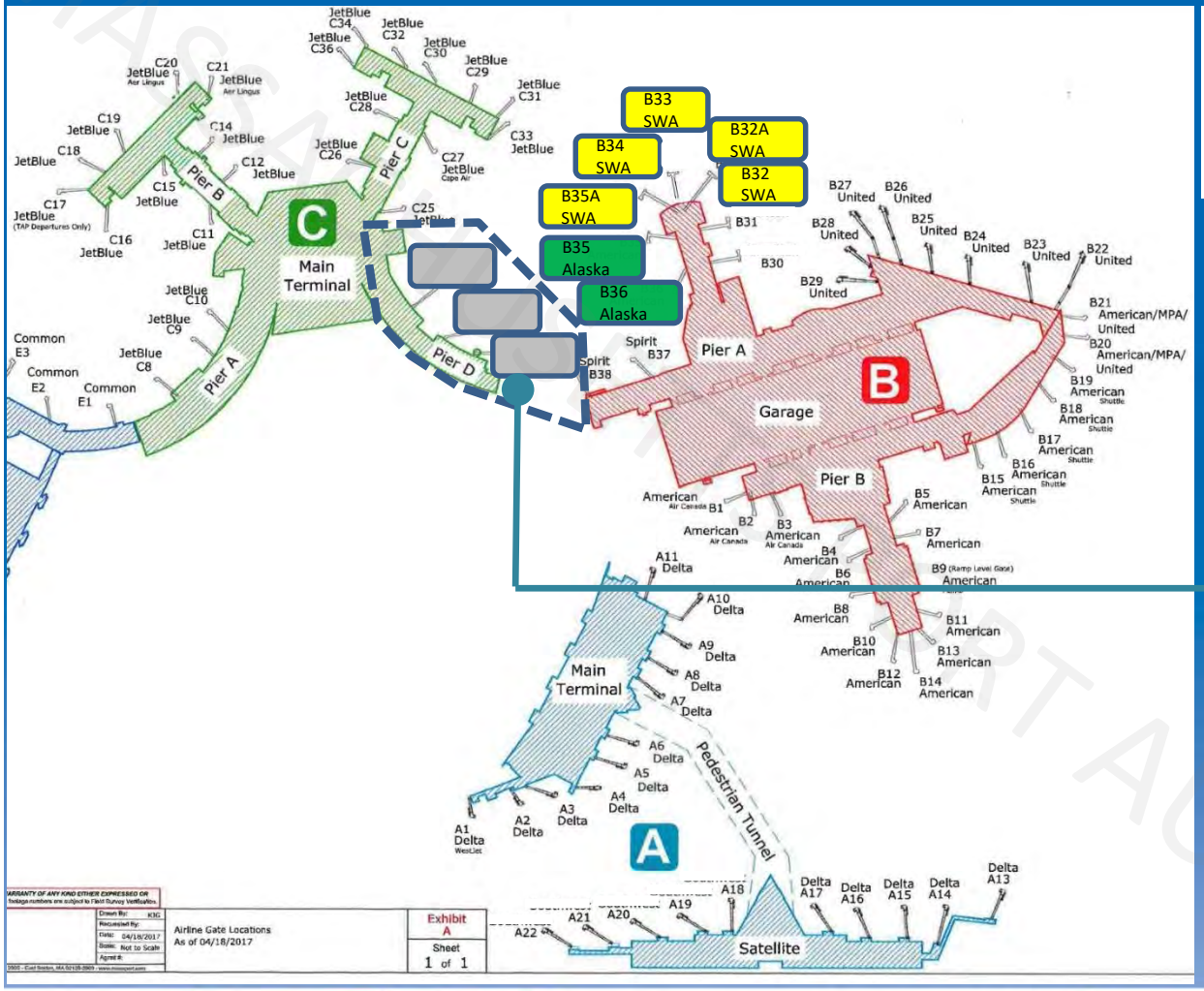
**Sun Country Airlines**
From: C40
To: Completed Terminal B Pier B Consolidation

**Southwest Airlines**
From: Terminal A
To: Terminal B Pier A

**Alaska Airlines**
From: C41, C42
To: Terminal B Pier A

# Terminal C Optimization and Terminal C to Terminal B Connector

## Facilitating airline and passenger needs during construction




**TERMINAL C to TERMINAL B CONNECTOR PROJECT PRIMARY CONSTRUCTION BEGINS June 2019**

New Terminal C to Terminal B Connector Construction Area

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# Terminal B to C Roadway Improvements

**Presentation for**
**January 18, 2018 Board Meeting**

MASSACHUSETTS PORT AUTHORITY

# Terminal B to C Roadway Improvements - Project Scope/Goals

- Project Scope: Replace the 1960's vintage section of Departures Roadway located from Terminal B to Terminal C; Reconfigure Arrivals Roadway
- Project Goals

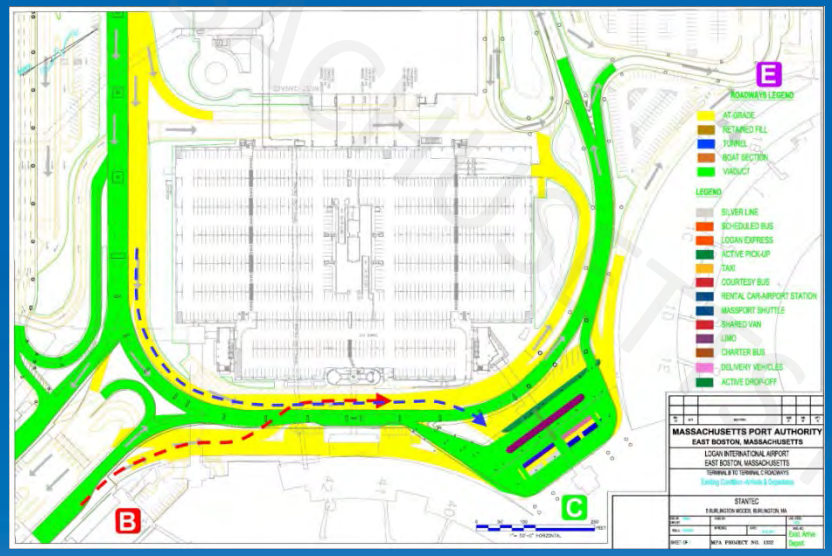
-Improve traffic conditions from Terminals B to C

-Eliminate costly and disruptive maintenance repairs of aging viaduct

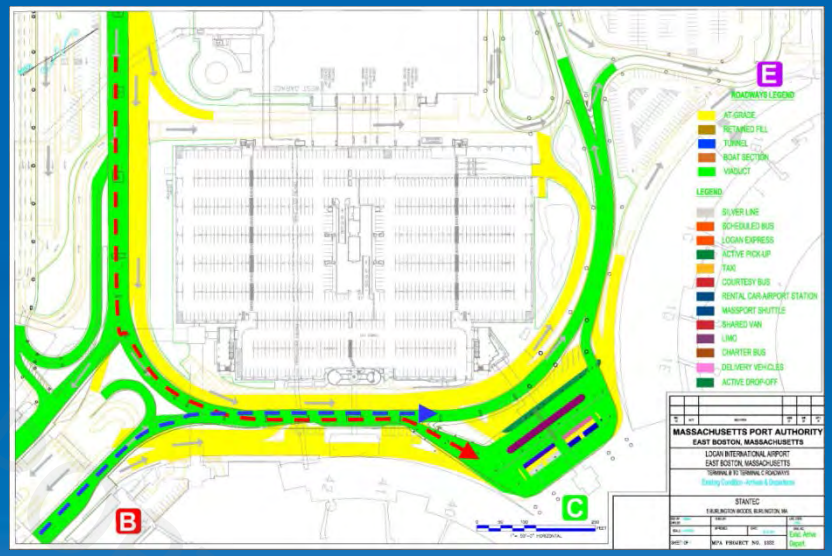
-Support projected JetBlue flight growth and airline relocation projects

Massachusetts Port Authority

# Terminal B to C Roadway Improvements - Project Issues



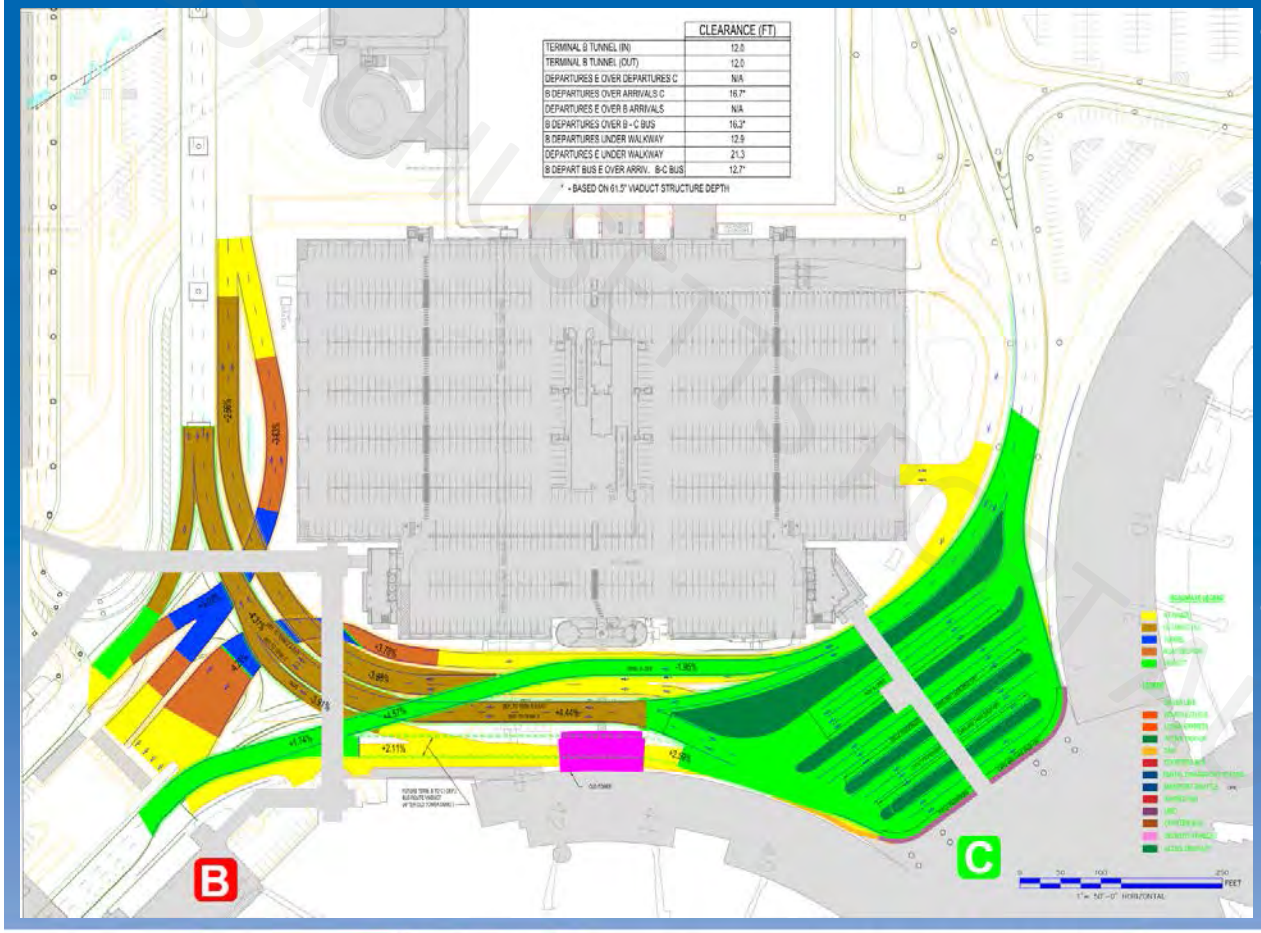

Arrivals




Departures

- Substandard weave condition exists for traffic exiting Terminal B with traffic entering Terminal C
- Exists at both Arrivals and Departures Levels
- Contributes to extensive traffic back-ups at peak hours of operation
- Eliminates capacity to handle queuing back-ups from Terminal C curbside

# Terminal B to C Roadway Improvements - Concept Solution




| | CLEARANCE (FT) |
|---|---|
| TERMINAL B TUNNEL (IN) | 12.0 |
| TERMINAL B TUNNEL (OUT) | 12.0 |
| DEPARTURES E OVER DEPARTURES C | N/A |
| B DEPARTURES OVER ARRIVALS C | 16.7* |
| DEPARTURES E OVER B ARRIVALS | N/A |
| B DEPARTURES OVER B - C BUS | 16.3* |
| B DEPARTURES UNDER WALKWAY | 12.9 |
| DEPARTURES E UNDER WALKWAY | 21.3 |
| B DEPART BUS E OVER ARRIV. B-C BUS | 12.7* |

* - BASED ON 61.5" VIADUCT STRUCTURE DEPTH

- Separates Terminal B and C traffic to eliminate weave
- New alignment for Departures Level allows for improved Arrivals access into Terminal C
- New alignment of Departures Level allows for expansion of Terminal C Departures Deck

# Terminal B to C Roadway Improvements - Concept Solution Rendering

# Project Complexity

- Significant phasing and sequencing required to accomplish construction
- Must maintain traffic to Terminals B and C
- Coordination with other projects: Terminal C Canopy & Upper Deck, Terminal C Optimization and Terminal C to Terminal B Connector and future Automated People Mover
- Design-Bid-Build Construction Contract – multi year duration; Multiple bid packages
- Enabling contracts for major utility relocation and electronic signage

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# Terminal C Canopy and Upper Deck Project

**Presentation for**
**January 18, 2018 Board Meeting**

MASSACHUSETTS PORT AUTHORITY

# Terminal C Canopy and Upper Deck Project

Issues the project is addressing:

- Existing Curbside traffic congestion at Departure and Arrival levels
- Existing Canopy cuts off natural light to Terminal and curbside
- Existing Canopy does not cover Departures curbside completely
- Departures deck experiencing significant waterproofing and leakage issues

# Terminal C Canopy and Upper Deck Project

Project Goals:

**Departures and Arrivals**

- Expand footprint of Departures Deck to gain more area for increased curb length and travel lanes
- Improve Arrivals Curbs for increased curb length and travel lanes
- Reduce vehicle queuing onto roadways

**Canopy**

- New canopy to allow more daylight and more visibility of Terminal
- Improve views of Terminal from Roadway and Overhead Walkway
- Expand canopy footprint to cover departures curbside

**Passenger Movement**

- Provide permanent elevators to improve passenger movement capacity to and from Terminal

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# Terminal C Canopy and Upper Deck Project

<u>Overall Reconstruction includes new:</u>

- Paving
- Signage
- Lighting
- Upper deck waterproofing improvements

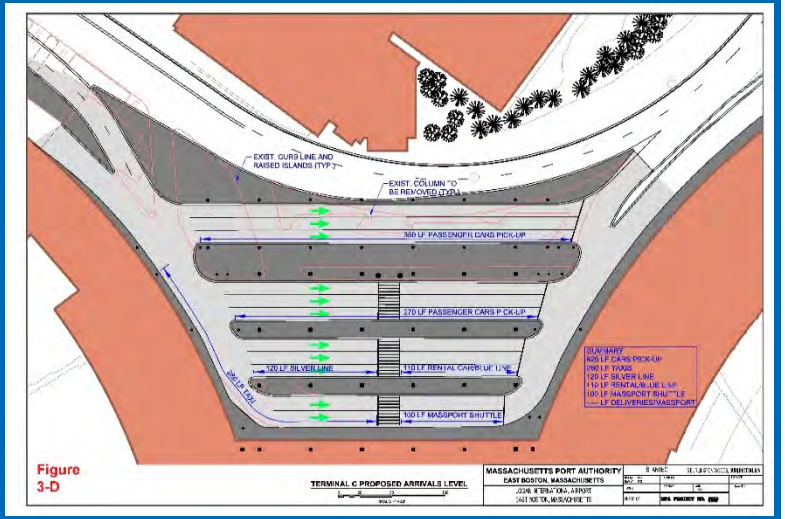
**Departures Level**

- Adds over 400LF of Curb
- Adds 6 Driving Lanes

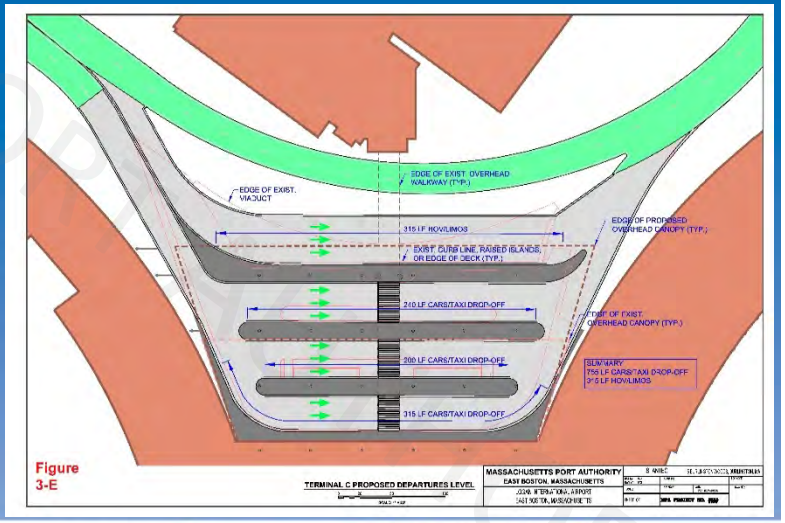
**Arrivals Level**

- Adds over 200LF of Curb
- Adds 4 Driving Lanes

**Arrivals Level**




**Departures Level**



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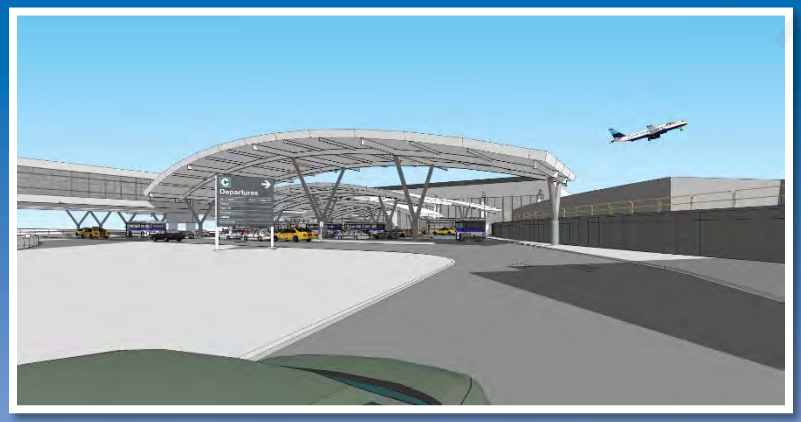
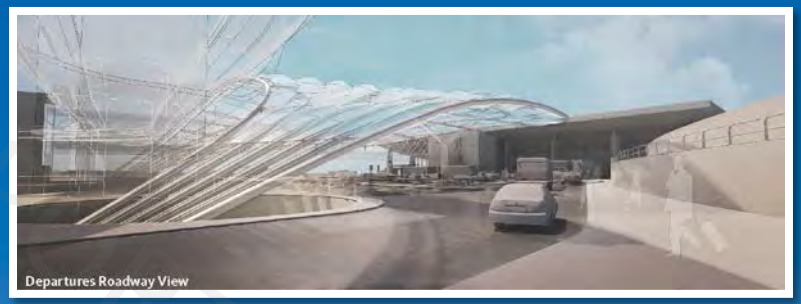
# Terminal C Canopy and Upper Deck Project

## Canopy – Study Images:

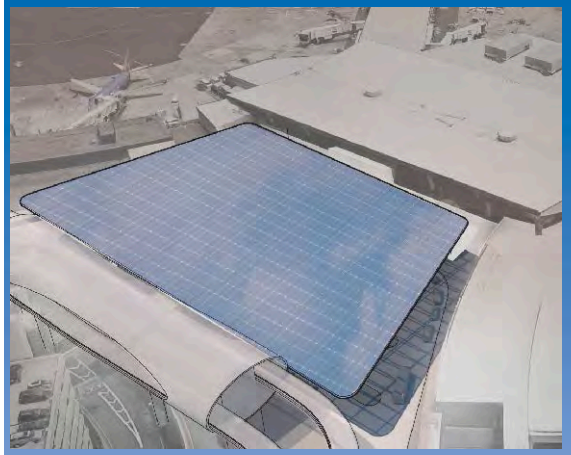
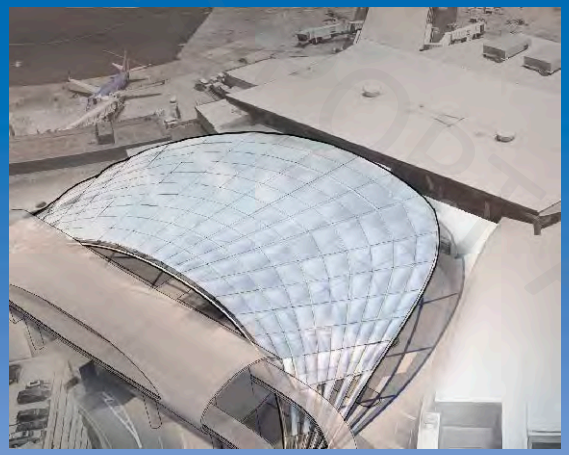
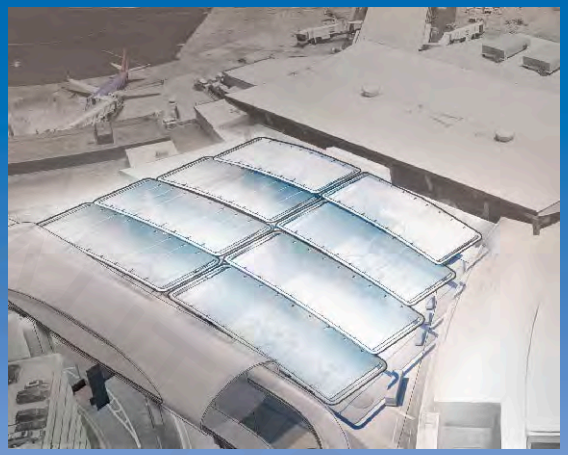




# Terminal C Canopy and Upper Deck Project

Current Status:

- Gensler was selected by the Designer Selection Panel in October 2017
- CM At Risk Project – will procure in 2018 for enabling work
- Project is currently mobilizing and coordinating with other Authority Projects, including Terminal B to C Roadway Improvements and Terminal C Optimization and C to B Connector

Additional Canopy Study Images

# Audit and Finance

MASSACHUSETTS PORT AUTHORITY

# FRAMINGHAM LOGAN EXPRESS

MASSACHUSETTS PORT AUTHORITY

# Framingham Logan Express Bus Service Contract Approval

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# Framingham Logan Express (LEX) - Bus Service

The Framingham LEX Bus Service

- Fleet of 7 coach buses, with 55-seat capacity
- Operates 22 hours a day
  - Weekdays: 30-minute headways
  - Weekends: 30-minute headways during peak hours, hourly during off-peak hours
- Serves approximately 535K riders annually
- Reduces congestion on Logan curbs, airport gateway access, and our employee parking needs

Ridership Profile

- Framingham LEX has the highest percentage of airline customer riders (80%)
- Overall ridership on the Framingham LEX service has increased by over 140,000 riders since 2014, a 36% increase
- The Framingham LEX Garage which opened in 2015, exceeded its capacity 40 out of 52 weeks in 2017

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# Contract Highlights

- Contract was competitively bid
- In addition to the Operation and Maintenance of the Framingham LEX Bus Service, this contract amortizes the cost of the buses over 7 years
- This contract will also provide flexibility to increase frequency/service (30-minute to 20-minute headways) which aligns with the Authority's future HOV initiatives
- Customer amenities on this service will improve with the addition of Wi-Fi, leather seats and chargers for electronic devices, and cup holders at every row/seat

# Proposal Cost Comparison

| 30 Minute Service BAFO | 7 Year Bid - Fox | 7 Year Bid - Peter Pan |
|---|---|---|
| **Total Operating Cost** | $27,461,201 | $37,063,692 |
| | | |
| **Bus Procurement** | $3,911,211 | $5,252,068 |
| | | |
| **Total** | $31,372,412 | $42,315,760 |



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# Framingham Logan Express – Fox Bus Lines Proposal

- Fox Bus Lines was **34.9%** lower than competitor (Peter Pan Bus Lines)
- The overall contract value is increasing. The major factors cited by Fox Bus Lines:
  - An increase in drive time between Logan Airport and the Framingham LEX Garage necessitated the addition of 1 bus and corresponding service hours
  - An increase in the hourly wage, increase in the benefits and overall employee health care costs
  - The purchase of 7 new motorcoaches to maintain 30 minute headway service
  - Includes the option to purchase 4 additional motorcoaches for HOV initiatives (as well as requisite service hours)

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# Fox Bus Lines Cost Proposal

| Framingham Bus Services | 7 Year Cost | % |
|---|---|---|
| Bus Service | $25,369,997 | 80.9% |
| Fuel Cost | $2,091,204 | 6.7% |
| | | |
| | | |
| **Base Operation Subtotal** | **$27,461,201** | |
| | | |
| **Other** | | |
| Bus Amortization (7 Buses) | $3,911,211 | 12.4% |
| | | |
| **Subtotal** | **$31,372,412** | 100% |
| | | |
| Future HOV Initiatives* | $4,624,825 | |
| | | |
| **Total 7 Year Contract (w/Annual Escalation)** | **$35,997,237** | |

*This line item includes the purchase of 4 additional buses in addition to 8 service hours / per day

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# FY 2017 AUDIT OF FEDERAL AWARDS AND PASSENGER FACILITY CHARGES

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# FY 2017 Audit of Federal Awards and Passenger Facility Charges (PFCs)

E&Y issued a "clean (unmodified) opinion".

**Federal Grants - $14 Million**

- Authority received $13.9 million of Federal Awards in FY 2017.
- $12.2 million from FAA Airport Improvement Program, primarily for:
  - $5.4 million for Logan Alpha and Bravo east taxiway rehabilitations.
  - $4.8 million for Worcester Airport CAT III ILS system.

**Passenger Facility Charges up 2.8%**

- Authority collected $72.4 million in PFCs in FY 2017, up 2.8% from FY 2016.
- $68.0 million of PFC funds expended:
  - $37 million for debt service on outstanding PFC bonds.
  - $19 million to pay for projects in the Capital Program.
  - $12 million for Logan Terminal A to keep rental rates comparable to other Logan terminals.

**PFC Audit Finding**

- Authority misclassified $7.8 million of project expense in an FAA report.
- The FAA report has been corrected.
- New controls are being implemented to prevent future occurrences.

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# ENVIRONMENTAL MITIGATION AGREEMENTS

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# Massport 2014 Strategic Plan

- 2014 Strategic Plan identified increasing parking supply at Logan Airport as important component of ground access strategy; and also identified adding international gates at Logan Airport to support growth of international travel.

- Massport sought to increase the amount of commercial spaces on the Airport by up to 5,000 spaces, requiring both federal and state regulatory approvals.

- Construction of parking structures(s) requires review by the Executive Office of Energy and Environmental Affairs (EEA), and environmental mitigation in the form of Section 61 Findings.

- Massport simultaneously sought to add seven international gates in Terminal E of Logan Airport, which also required review by EEA.

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# Environmental Commitments

| Exec. Office of Energy & Environmental Affairs - Environmental Commitments | Element of CLF Agreement |
|---|---|
| **MassDEP – Study on operational measures to reduce non-HOV pick-up and drop-off at Logan Airport**<br>• Requires a study of feasibility and effectiveness of potential operational measures to reduce non-high occupancy vehicle pick-up/drop-off modes of transportation to Logan Airport | • Specifies study of airport pass-through rate |
| **MassDEP – Study on cost/pricing for different modes of transportation**<br>• Requires a study of costs and pricing for different modes of transportation to and from Logan Airport. Includes an evaluation of short-term and long-term parking rates and their influence on different modes of airport transportation | • Specifies study of variable-rate parking<br>• Could be implemented if variable-rate parking if study demonstrates a "positive impact" |
| **MEPA* - Electrification of Ground-Service Equipment** | • 9% by 2019; 12% by 2020; 24% by 2024 |
| **MEPA* - Expand Logan Express service** | • Increase by 10%, measured by available seats |
| **MEPA* - Increase Zero Emission Taxi, Livery and TNC Vehicles** | • High-speed charging stations at taxi, livery and TNC pools so that 150% of demand is available (July 2019)<br>• Provide taxi/TNC-queue priority to EV, second only to vehicles with 3 passengers and subject to negotiation with companies |
| **MEPA* - Install New Electric Vehicle Charging Stations in Logan Airport Parking Garages** | • Install high-speed charging stations to 150% of demand |
| **MEPA* - Increase Silver Line Bus service to Logan Airport** | • Purchase and support operation of 8 additional Silver Line buses (16 total) that service Logan Airport |
| **CLF Agreement – Blue Line service** | • Free Blue Line service from Airport Station for service company employees at Logan Airport who make less than $25k and who reside in East Boston, Winthrop or Chelsea |
| **CLF Agreement – New HOV goal** | • 25.5% by 2022 and 40% by 2027 |

**Anticipated Section 61 Findings for Parking Garage, which will require future Board vote.*

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# Consultant Profile: Ricondo

- Leading full-service aviation consulting firm based in Chicago
- Founded in the late 1980's, Ricondo has undertaken strategic and master planning studies for a numerous large airports both domestically (e.g., Atlanta) and internationally (e.g., Abu Dhabi)
- Ricondo focuses solely on the aviation industry, offering expertise in:
  - Technical consulting
  - Facilities and operations planning
  - Project management
  - Environmental and Financial planning
- Massport currently has an on-call contract with Ricondo and has used them on many projects at Logan including the 2008 Ground Transportation Master Plan
- Ricondo Ground Transportation and Parking Planning services:
  - Related staff project experience at: Baltimore, Chicago, Columbus, Dallas-Fort Worth, Los Angeles, Miami, Phoenix, Reno, San Jose, Tampa, Washington, D.C., Abu Dhabi, and Beijing
  - Ricondo completed a white paper for Massport in 2017 on DFW's pass-through rate program
  - The project lead on this work is Jim Jarvis

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# Airport Access Fee Benchmarking

## Task Background

- The purpose of the task was to benchmark other domestic airports to determine if other airports have considered implementing (or implemented) an access fee for private vehicles accessing the airport roadways or curbsides.
- Most airports use varying systems to track and charge for commercial vehicle access currently; this benchmarking effort is specific to private vehicles.
- The overall goal of the survey were to:
  - Consider if an access fee would provide environmental benefits
  - Discover why other airports may or may not have chosen to implement a fee
    - Operational, technological, political, or other challenges
- The second part of the task (to be completed) will focus on surveying international airports that currently have an airport access fee.

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# Background on Access Fees

## Airports Implemented Access Fee

- Only One airport in the US currently charges vehicles for accessing the airport: DFW
- Many case studies of airport access fees are in Europe
  - UK airports began practice in 2007
  - Airports charge for pick-up and drop-off, however some charge for pick-up only
- Select US airports have considered access fees

SOURCES: Nix, Emma and Mundy, Ray A., "Airport Drop-Off and Pick-Up Charges in Great Britain: Will They Come to the United States?" (2015). InTrans Project Reports. 194. http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1193&context=intrans_reports, Ricondo, January 2018.

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# Background on Access Fees

## Historical Responses to Access Fees

- Negative response from public
  - "Nickel and diming"
- Alternate drop off locations can be inconvenient because of heavy luggage, shuttle frequency, bad weather conditions,
- Safety concerns due to speeding through fee zone
- From UK airports that have implemented a fee, the following have been observed but not quantified publicly:
  - No noticeable improvement in public transportation use after implementation of the fee
  - No adverse effect on airline travel
  - Could have effect on businesses inside the airport
    - Paying for fees could decrease chance of making purchases in the airport

SOURCES: Nix, Emma and Mundy, Ray A., "Airport Drop-Off and Pick-Up Charges in Great Britain: Will They Come to the United States?" (2015). InTrans Project Reports. 194. http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1193&context=intrans_reports, Ricondo, January 2018.

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# Survey Summary

- 28 US airports were contacted for the survey (26 large hub and 2 medium hub)
- 17 responses were received, and organized in the following categories
  - No consideration of an airport access fee (8 airports)
  - High-level discussions, but no study or implementation (4 airports)
    - The primary issue for these 12 airports is typically political/regulatory considerations.
  - Further discussions, studies, or implementation (5 airports)
    - The level of consideration and/or type of implementation varies among these 5 airports
    - Analyzed in the more detailed case studies

SOURCES: Staff of participating airports, January 2018; Ricondo, January 2018.

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# Dallas/Fort Worth International Airport (DFW)

**Background**

- Operate consolidated revenue control entry and exit plazas at both airport access points
- Fees for passing through, drop-off/pick-up, and parking collected

**Purpose**

- Manage non-airport related trips using airport roadways
- Collect all airport access revenue
- Revenue enhancement measure

**Key Challenges**

- Revenue control plaza delays due to back-ups
- LPR technology not as reliable as anticipated
  - Large number of manual verifications

SOURCE: Ricondo, January 2018.

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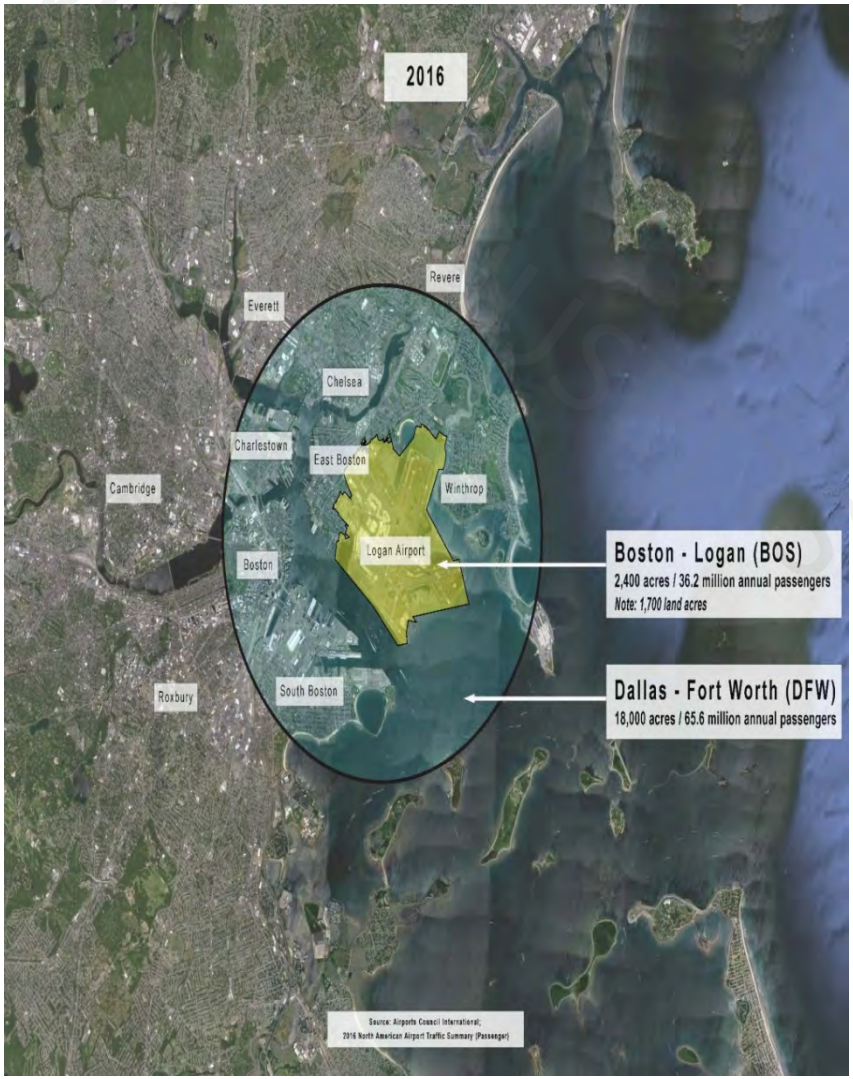
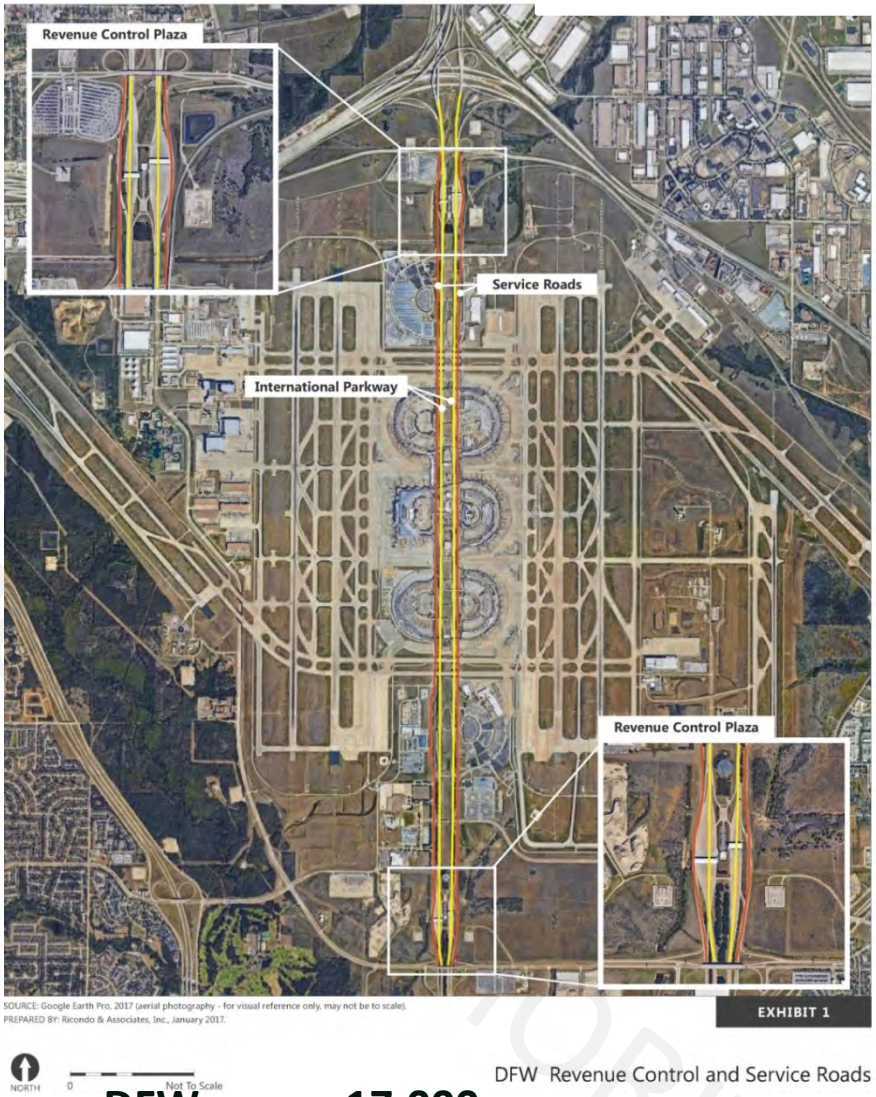
# Dallas/Fort Worth International Airport (DFW)




**Boston – ~2,400 acres**




**DFW – over 17,000 acres**
**Bigger than Manhattan**

# Case Studies – Airports with No Access Fee

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# Denver International Airport (DEN)
# Airports 3 - 5

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## Background

DEN - Airport previously operated a consolidated revenue control entry/exit plaza

3 - Included airport access fee options in preliminary master planning discussions, did not move forward with access fees

4 - Studied airport access and congestion pricing concepts, did not move forward with access fees

5 - Have considered incorporating a fee for private vehicles, have not moved forward with access fees.

## Purpose

DEN - Consolidate and integrate parking revenue control in one location

3 - To fund capital program and manage capacity

4 - To fund capital program and manage capacity

5 – To fund ground access projects and manage capacity

## Key Challenges

DEN - Manual ticket pull system was insufficient with all curb trips/non-revenue transactions requiring a stop at the exit plaza

3 - Political and customer service considerations were an identified issue

4 – Technology and Airport Real Estate

5 - Political and regulatory considerations



SOURCE: Ricondo, January 2018.

# Summary of Results

- Primary Purposes
  - Revenue generation
  - Recover costs of landside facilities
  - Manage curbside demand (not quantified)
- Key Challenges and Opportunities
  - Political, legislative, and regulatory hurdles vary widely but are likely to be significant
  - Potential to provide a free drop-off location with HOV shuttle to terminals
- Other Issues - Technology
  - Reliable revenue control is critical attribute of system
  - LPR: High quality cameras and large database of license plate designs needed
  - Congestion at plazas may be a technological hurdle particularly with cash/credit options or ticket-pulling systems

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# January 18, 2018 Board Vote

Staff Recommendation:

Staff recommends that the Board vote not to implement an airport pass-through rate at this time.

Board Vote - Key Language:

Based on the analysis presented, the Board hereby votes not to implement an airport pass-through rate at this time.

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The Boston Globe

# Environmental group files suit to stop Seaport condo tower

ELKUS MANFREDI ARCHITECTS

A rendering of the 22-story residential building proposed for 150 Seaport Blvd.

By Katheleen Conti | GLOBE STAFF FEBRUARY 21, 2017

A controversial luxury condominium tower proposed for the South Boston Waterfront is facing a legal challenge by an environmental group that claims the development restricts access to the water and sets a dangerous precedent for Seaport construction.

The Conservation Law Foundation, which has fiercely opposed the development, made good on its threat to sue the state to stop developer Jon Cronin's $260 million project if it received approval from state environmental regulators. The project, proposed on the site of Cronin's Whiskey Priest and Atlantic Beer Garden restaurants, got the green light from the state in December.



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