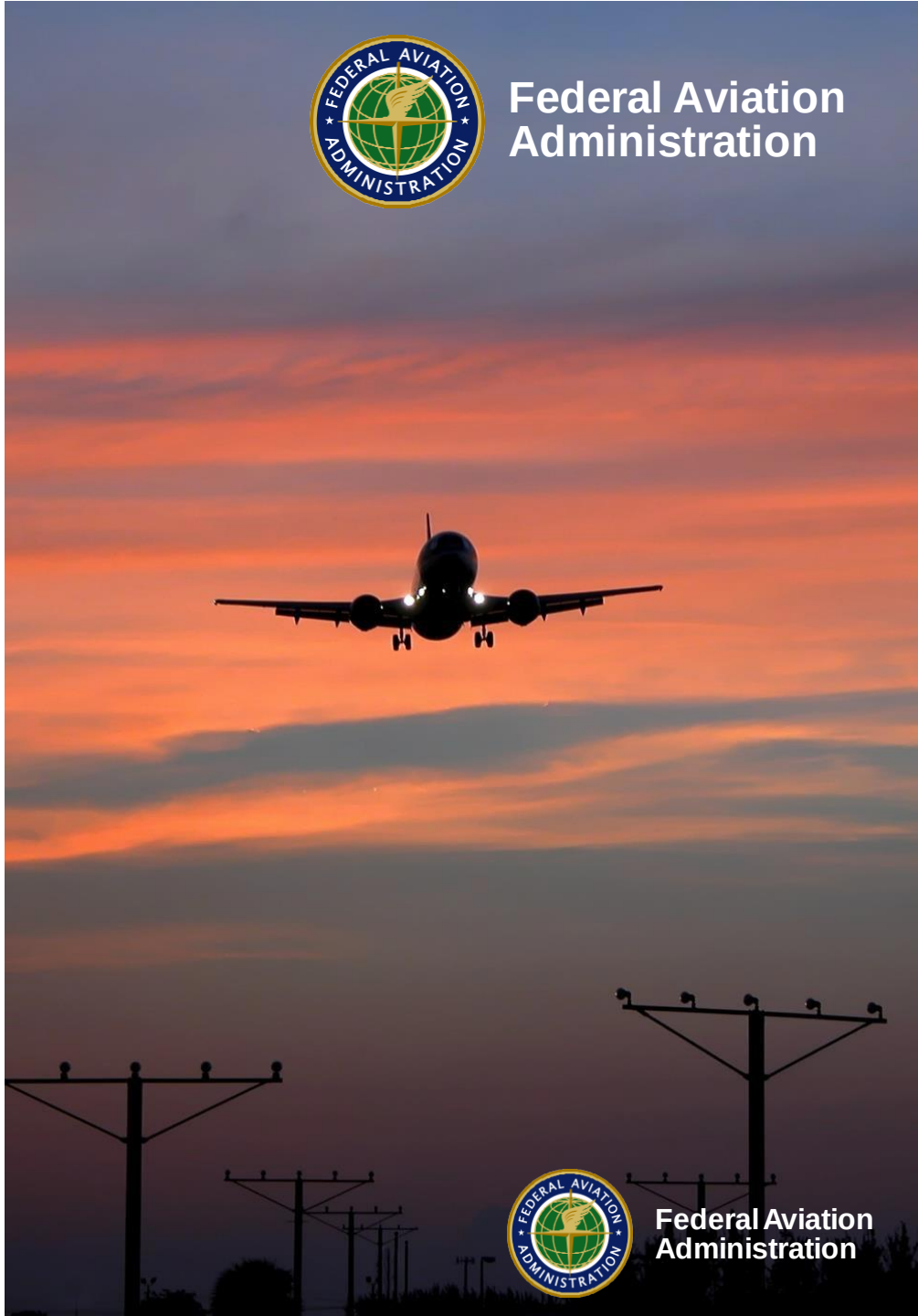
MCAC/FAA Update

Date: November 4, 2020

Presented by: FAA & Massport



Agenda

- Block 1 Update
  - 15R Departure Transition
  - RNAV 33L (RNP) Arrival
- Block 2 Update (Massport)
- FAA BOS Community Involvement Webpage
- BOS RNAV (GPS) RWY 4L Environmental Assessment
- VALE Grant
- Wake Recategorization
- ~~Northeast Corridor Project~~

Block 1 Update

- **Awaiting MC/Massport official notice on proceeding forth with 15R Transition**
- **RNAV 33L (RNP) Overlay or Standalone RNAV 33L RNP**

RNAV 33L Status: Procedures are on hold until the FAA receives official notice on which option MCAC/Massport wants us to implement

Block 2 Update

FAA BOS Community Involvement Webpage

- The FAA is committed to inform and involve the public, engage with communities and give meaningful consideration to community concerns and views as we make aviation decisions that affect them.

Link to FAA BOS Community Involvement Webpage

https://www.faa.gov/air_traffic/community_involvement/bos/

BOS RNAV (GPS) RWY 4L Environmental Assessment

- **60 day comment period: Comment period open until November 20th**

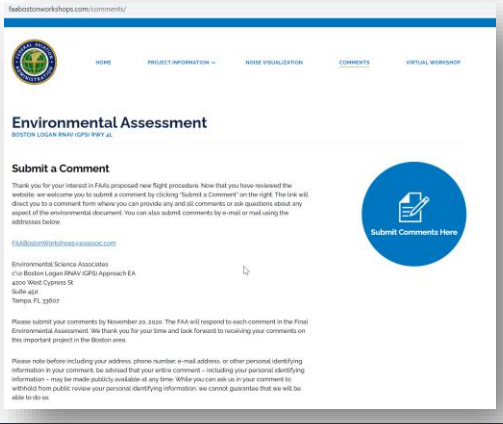
Send your comment via U.S. Mail to:

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

E-mail Comments to: FAABostonWorkshops@esassoc.com

For information on how to submit a comment visit:

FAABOSTONWORKSHOPS.COM



Vale Grant

- Voluntary Airport Low Emissions (VALE) program
- Massport Electrification Initiative

Massport Electrification initiative and VALE funding

VALE funded projects at Massport include:

Grant Number	FY	Project Description	FAA Funding	Other Funding	Status
3-25-0010-105-2010	2010	Replacement of 96 Diesel powered shuttle Busses with 32 60-foot articulated diesel electric hybrid busses and 18 42-foot CNG powered busses	$5,974,017.00	$29,176,375	All 50 Busses are on site and operational.
3-25-0010-119-2013	2013	Terminal B, Pier A, installation of jet bridge mounted PCA and 400hz Ground power systems to 8 gates.	$2,000,000.00	$666,668.00	Installed and operational
3-25-0010-129-2018	2018	Terminal B Pier B, Posi-Charge dual port charging stations to support American Airlines converting 99 pieces of GSE to eGSE	$1,649,222.00	$857,891.85	Installed and operational
3-25-0010-131-2019	2019	Terminal C, Posi-Charge dual port charging stations to support JetBlue Airways converting 86 pieces of GSE to eGSE	$3,051,925.00	$1,483,979	Installed and operational.
3-25-0010-134-2020	2020	Terminal E / GA ramp, Posi-Charge dual port charging stations to support Signature Aviation and Triangle Services converting 19 pieces of GSE to eGSE.	$1,365,716.00	$504,929	Project awarded 9/2020. Anticipated construction will take place in 2021.

To date the VALE program has assisted Logan Airport in reducing air pollution by:

- Removing 96 diesel powered shuttle busses from service and replace them with 50 CNG and Diesel-Electric hybrid busses.
- Installing Pre-Conditioned Air and Gate power to 8 gates in Terminal B, completing the electrification at all Logan Airport gates and reducing the need for Auxiliary Power Unit usage by aircraft at gates.
- Installation of GSE dual port charging stations, allows Massport to secure commitments from GSE owners to remove 204 pieces of traditional fossil fuel powered GSE from service and replace them with all electric eGSE.
- Massport has 264 active eGSE charging ports on the Airfield at Logan Airport. 20 more ports are proposed as part of the 2020 grant listed above.

Wake Recategorization

CWT Wake RECAT
A90 implementation

Federal Aviation Administration

Massport Community Advisory Committee (MCAC) meeting

New Separation Standards initiatives Implementation at Boston TRACON

- The Implementation of new separation standards, called Consolidated Wake Turbulence(CWT), at Boston TRACON and 12 underlying Air Traffic Control Towers occurred successfully on 5.22.19
- This was possible through months of work and collorabtion with the A90/BOS Air Traffic leadership, Air Traffic Controllers, Technical Operations, National Air Traffic Control Association (NATCA), and Headquarters Consolidated Wake Turbulence(CWT) team.
- The change refined and brought a new set of separation standards to Boston Tower, Boston TRACON and all 12 underlying Air Traffic facilities.
- The CWT Team trained 184 controllers, supervisors and managers on the new wake standard, over a span of 17 days.
- Equipment and software was updated to reflect the new wake separation standards, along with testing and verifying each equipment/data bases were configured and working correctly.

What is Consolidated Wake Turbulence (CWT)

- Over the past several years, knowledge about wake vortex behavior in the operational environment has increased due to multiple advances in measurement techniques, available automated surveillance data, and improved understanding of physical processes.
- The FAA has undertaken an effort to recategorize the existing fleet of aircraft and modify the associated wake turbulence separation minima.
- Prior to this effort, approach and departure wake turbulence separation minima were mostly based on Maximum Certificated Gross Takeoff Weight (MCGTOW).
- The new parameters consider aircraft weight, wingspan, approach speeds and other physical characteristics rather than mostly MCGTOW
- Updates in methodology make some wake turbulence separation standards in FAA Order JO 7110.65(Order covering rules and regulations for Air Traffic Control) result in greater than necessary separation distances.

Consolidated Wake Turbulence (CWT)

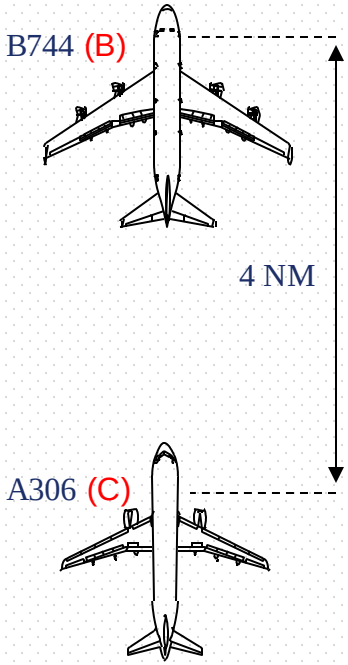
- Separation reductions were achieved with a better understanding of wake behavior and now are determined on *wake based data*, rather than weight-based data.
- Consolidated Wake Turbulence (CWT) Separation Standards, are new wake standards that were derived from this new scientific methods and data.
- Consolidated Wake Turbulence (CWT) also uses the most operationally advantageous separation standards from the four previous sets of standards while retaining the use of all time-based wake turbulence separation standards from FAA Order JO 7110.65.
- The FAA currently uses five Wake Turbulence weight classes, based for the most part on Maximum Certified Gross Takeoff Weight (MCGTOW).
- Consolidated Wake Turbulence (CWT) is based on a ***nine category system*** that further refines the grouping of aircraft, provides throughput gains at many of today's constrained airports(BOS), and is manageable for all airports throughout the National Airspace System (NAS).

Wake RECAT Categories

7110.65 Weight Classes (Old)	CWT Wake Categories (Current)
Super	A. A388
Heavy	B. Upper Heavy
B757	C. Lower Heavy
Large	D. Non-Pairwise Heavy*
Small Plus	E. B757
Small	F. Upper Large
	G. Lower Large
	H. Upper Small > 15,400 lbs
	I. Lower Small ≤ 15,400 lbs

CWT Separation

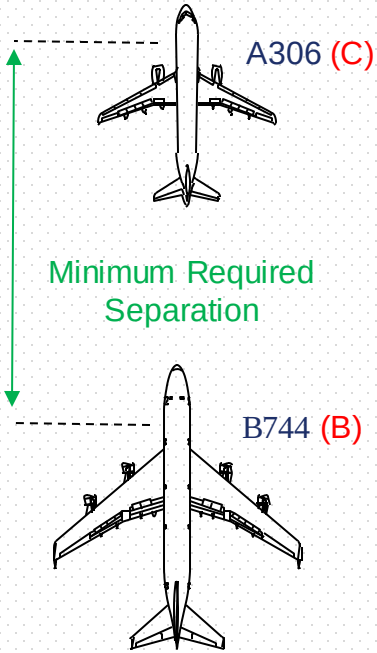
Lower Heavy behind Upper Heavy



Required Separations

Wake Vortices produced by aircraft, based on design and weight, were measured, charted and categorized. This resulted in the adjustment of miles-in-trail.

Upper Heavy behind Lower Heavy



Consolidated Wake Turbulence (CWT)

- The goal of CWT is to incorporate reductions in wake turbulence separation standards in an effort to capitalize on operational efficiencies while continuing to provide throughput gains and safety at many of the major airports.
- Depending upon the leading and following aircraft, Consolidated Wake Turbulence (CWT) reduces the required wake separation in most instances.
- Because of science and better understanding of wake turbulence we are able to reduce separation between Heavy aircraft, such as the B767, and other aircraft following or departing behind the Heavy aircraft. Which reduces time waiting for departure, and reduces flying time, thus saving fuel.
- Separation reduction in smaller aircraft following larger aircraft including the B757 has also reduced delays for arrivals and departures at busy airports such as BOS Logan Airport.

Why a new Separation Standard

- Harmonize Wake Turbulence Separation in the National Airspace System(NAS) with International Civil Aviation Organization (ICAO).
- Reduce workload by reducing congestion on the runway/ramp.
- Reduce the Number of Automation Databases required for the National Airspace(NAS), there are currently 3, the goal is to have one National data base.
- Enhance Safety and Efficiency.
- Simplify Time Based Separation Rules, some of the time based rules are complicated and can lead to confusion, CWT simplifies and is more efficient.
- CWT provides Controllers and Traffic Managers with necessary decision support, which deliver efficient flows and maximize use of available runways.
- During busy traffic CWT optimizes the use of airspace by increasing arrival/departure rate, thus reducing delays at major airports.
- Will allow for a harmonized, safe and more efficient manner of ensuring that the suitable wake turbulence separation is applied.

Results of CWT

- Enhance Safety
- Reduce Delays
- Save Fuel
- Manage High density airports with complex constraints
- Enhance strategic planning
- Promote a more Efficient National Airspace System(NAS)

Northeast Corridor Project

This will not be presented at the current MCAC meeting. Possible consideration for future meeting.

Q&A

How to Submit Public Comments

We welcome you to submit comments on the Draft Environmental Assessment through November 20, 2020 by using one of the three methods outlined below

E-mail

FAABostonWorkshops@esassoc.com

Mail

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

Web

Questions or comments can be submitted on-line by visiting the "Comments" page of the project website:

https://faabostonworkshops.com

A question asked during this virtual public workshop is not considered an official public comment on the Draft EA