

Watertown Airplane Noise Meeting

July 25, 2017

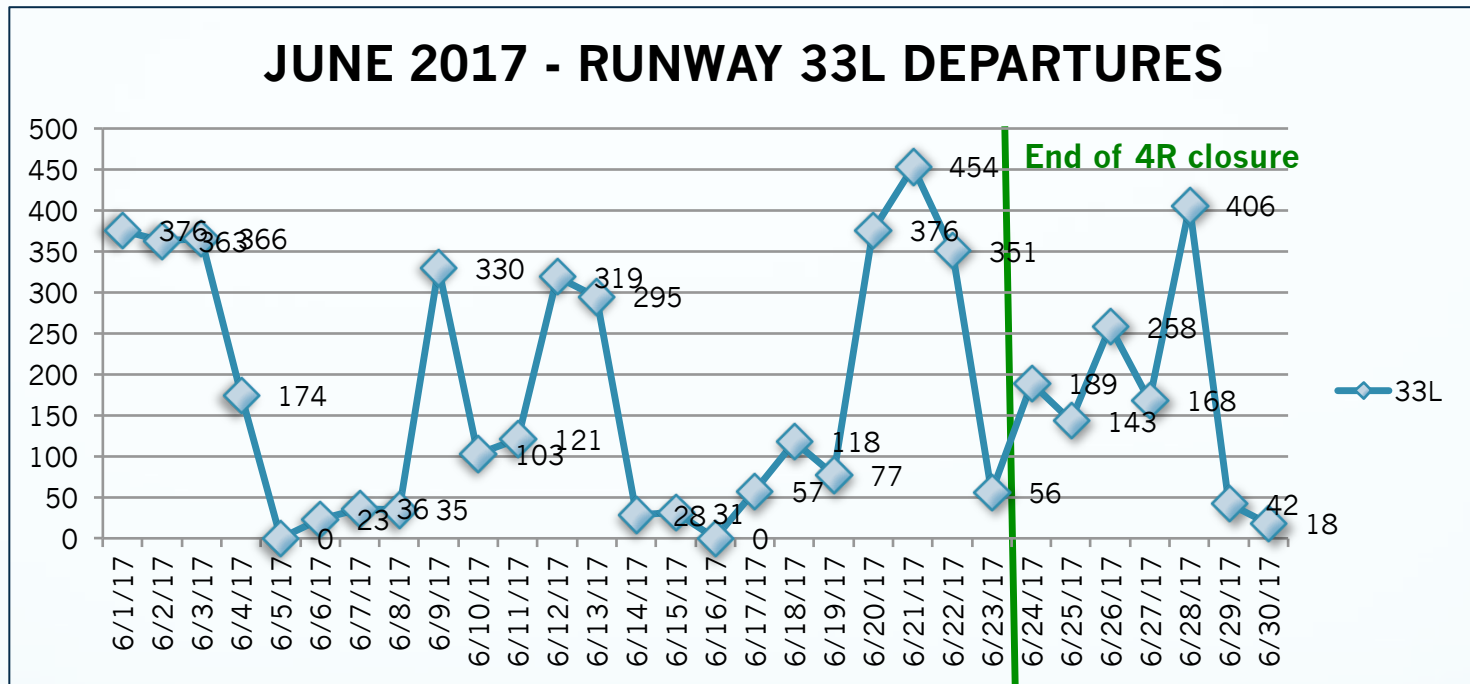
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Topics

- June Stats & Construction Update
- 33L RNAV SID & RNAV Study
- Runway Selection
- Overnight Procedure
- BLANS and Runway Use Plans

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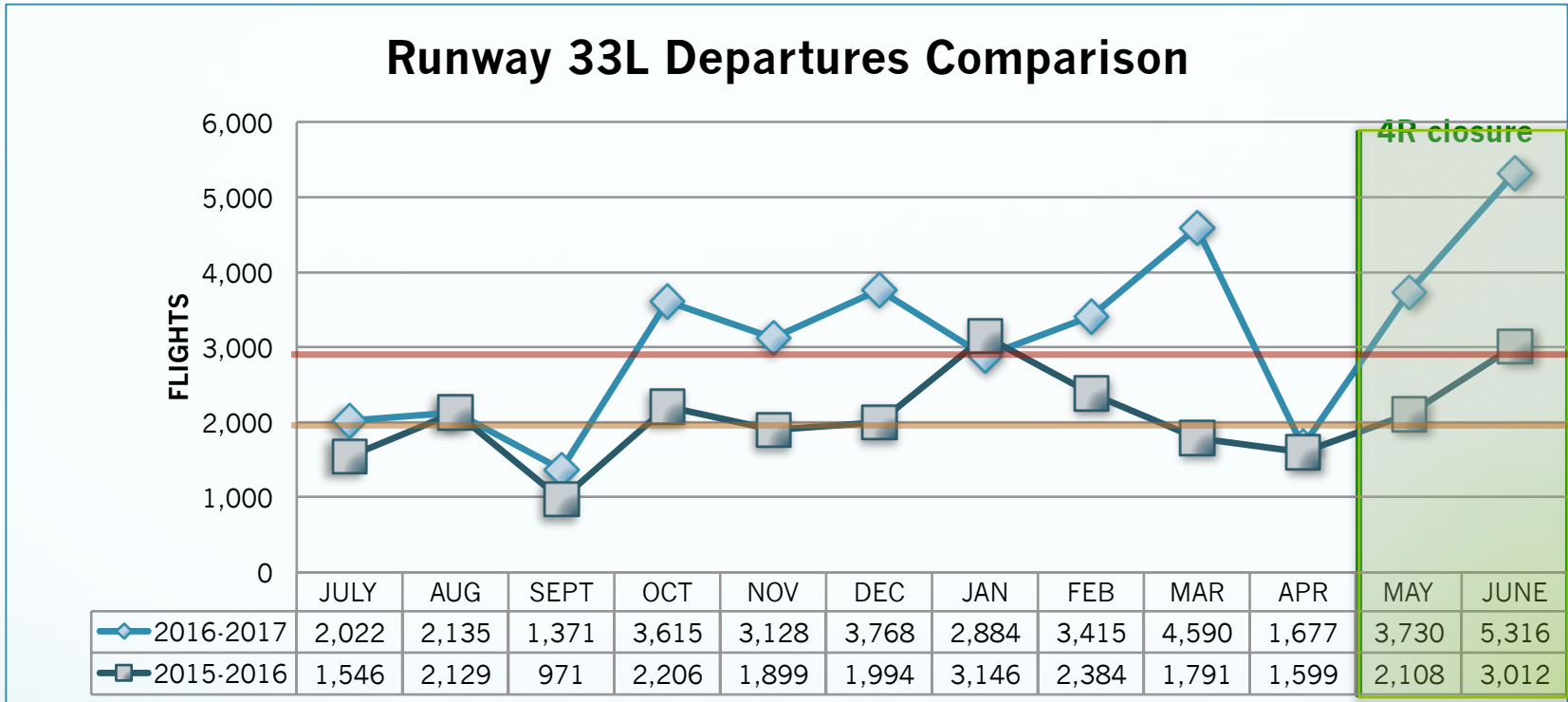
33L Stats from June



Source data from Massport

- 4R/22L closure from May 15- June 23
- 5316 departures on 33L (see next slide)
- Most in one day 6/21 = 454, 81% of all departures
- Most in one hour 39 (7-8pm on 6/21)
- High use on 6/28 - after 4R reopened because of weather (W/NW winds <http://bit.ly/2uZ84s0>)

33L 12-month comparison



Source data from Massport Runway Use Reports

- 52% increase in use past 12 mos. vs. prior 12 mos. (45% excluding May-June)
- Monthly average 33L departures = 3000 vs. 2000 prior 12mos.
- Change in weather pattern likely an influencing factor – still investigating.
- Since 2007, runway 33L has averaged ~17% of all departures at Logan. Prior to 2007 and the opening of runway 14/32 it was 6%.

Summer Construction Update

The maintenance work on the runway was completed on schedule and the runway reopened on June 24. There are certain restrictions, however, due to the use of tall cranes at the end of the runway for a companion project to install a safety approach light pier:

- The runway can be used all day for arrivals on Runway 22L subject to wind and weather
- The runway is available during peak hours of operation from 2p.m. to 10p.m. in both directions on Runway 4R and 22L, subject to wind and weather
- There are restrictions between 10 p.m. to 2 p.m. daily due to the cranes working on the pier on Runway 4R, the end closest to Conley Container Terminal

The work utilizing the cranes on the pier will be completed by the end of August and all runway restrictions will end at that time, subject to wind and weather.

Source:

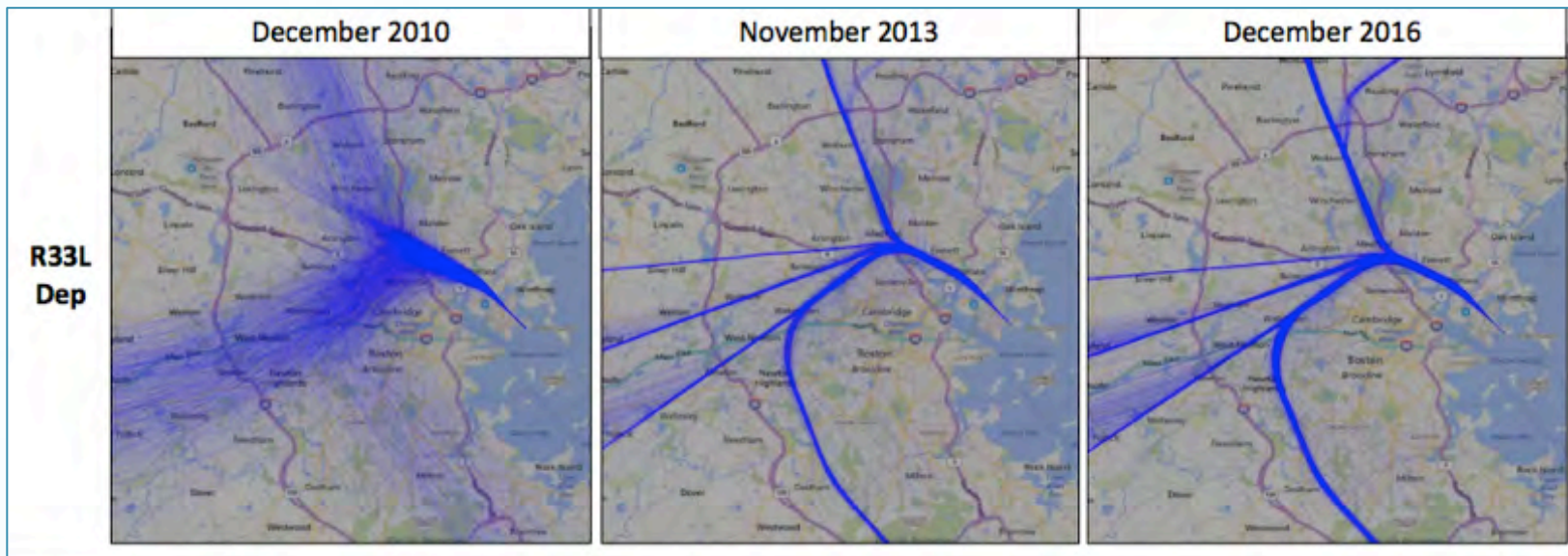
<http://www.massport.com/logan-airport/about-logan/noise-abatement/complaints/>

RNAV Study Update

- Memorandum of Understanding (MOU)¹ entered into in October 2016 between FAA & Massport to cooperate in analyzing opportunities for noise reduction through changes or amendments to PBN procedures.
- MIT Lab for Aviation and the Environment engaged to manage the RNAV Study.
- Public briefing held on February 22, 2017 at State Transportation Building
- Initial study results split opportunities into Block 1 and Block 2.
- Several opportunities for improving 33L situation.

¹ http://www.belmont-ma.gov/sites/belmontma/files/u486/massport-faa-rnavstudy-mou_10-7-16.pdf

RNAV Study Update (part 2)



Source: <http://massportcac.org/wp-content/uploads/2017/06/BOS-RANV-Update-MCAC-060817.pdf>

- 33L RNAV SID analysis confirmed what we already knew – high levels of concentration of flight paths over densely populated communities.
- RNAV is not all-bad. There are many cases where using precision and concentration can have operations flying over more compatible land use areas (like the harbor or over Nahant causeway).
- RNAV concentration of flight paths is a national issue. Logan RNAV Study is the only one being supported by the FAA and will have national implications.

Runway 33L Departure Concepts

- **Thrust and Speed Management**

BLOCK 1

- Fleet-specific performance analysis and noise modeling

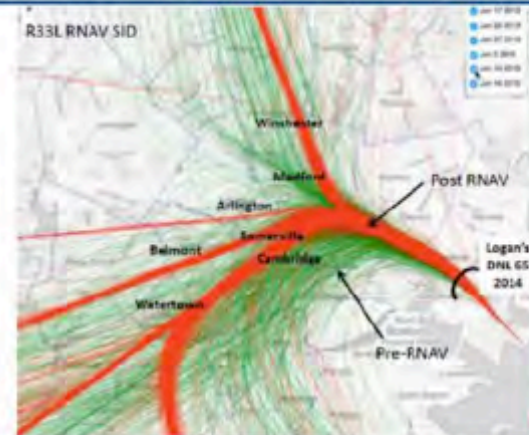
- **Flight track dispersion**

- **Discontinuous (Open SID) procedures**

BLOCK 2

- Initial RNAV segment on departure, transition to vectors to introduce dispersion, return to RNAV

Review R27 and R4R departures also requested through public input



2015-2016 Noise Complaints at BOS with 12 Days of Departure Tracks



RNAV Study Schedule

- Initial results presented to MCAC Aviation Operations Subcommittee on May 5th
- Concepts were being shared and discussed by Study team with the FAA.
- Next update at to-be-scheduled MCAC Subcommittee meeting (August/Sept)
 - Block 1 to have more refined proposals
 - Block 2 more detailed analysis
- Finalize Recommendations - Winter 2017/2018
- Implementation/Final Report – Spring 2018

Runway Selection and Use



- There are four major runway configurations at Logan
- Runway configuration selection is made by the FAA (ATC-tower)
- Weather is a big factor but demand/traffic and aircraft mix are also a major influences.
- Weather is not just what is happening in your backyard or even at Logan – it can be bad weather on the Eastern Seaboard or elsewhere, variations in the jet stream, etc.
- Source:
<http://massportcac.org/wp-content/uploads/2017/06/Final-BOS-Update-MCAC-Logan-101-060817.pdf>

Overnight Procedure

- FAA Noise Abatement Order BOS ATCT 7004.1H, Effective October 28, 2007 defines an overnight procedure as:
 - Late Night Operations – When practical and traffic permits, the preferable runway configuration between the hours of midnight and 6:00 a.m. is Land Runway 33L, depart Runway 15R.
- This is also called a “head-to-head” procedure and was actually suspended by the FAA for a time in 2012-13 because of safety concerns.
- Logan has had schedule creep where now there are now 47 scheduled departures from 9 pm to midnight and 20 arrivals and 20 departures scheduled between 5 am and 6 am. This is compared to 2010 when there were 12 departures in that evening slot and 9 arrivals and 6 departures from 5-6 am. (based on FlightStats data for a sample day in July in 2017 and 2010).
- Weather or air traffic delays can now push too many flights past midnight (delay/overflow) to use the Late Night Operations and the 5-6 am slot has way too many flights for head-to-head to be practical or safe.
- Massport and the FAA claim that the AIRPORT NOISE AND CAPACITY ACT OF 1990¹ (“ANCA”) prevents them from setting curfews or denying requested time slots (some like 4L/22R were grandfathered)

¹ <https://www.congress.gov/bill/101st-congress/house-bill/5170/text>

Runway Use Plans

- Logan's Preferential Runway Advisory System (PRAS) was a set of targets for FAA runway assignments that were established by Massport, the FAA, and community representatives in 1983. PRAS set % targets for individual runways. The Logan CAC voted to abandon PRAS in April 2012.
- BLANS Phase 3 Runway Use planning was focused on testing various runway rotation plans intended to minimize the repetitive use of runway configurations (night vs. morning). There was no majority consensus of support by the Logan CAC for completing these tests or funding their analysis. Other forms of Runway Use Plans (like PRAS) look to distribute/redistribute flight volume across runways or configurations based on % targets.
- BLANS has been deemed to be completed and no longer has financial support of the FAA. Information on BLANS can be found here: <http://www.bostonoverflight.com/>
- The Massport CAC is taking a look at BLANS initiatives including Runway Use to see what elements to propose continuing with.
- Logan Runway use statistics are published monthly by Massport: <http://www.massport.com/logan-airport/about-logan/noise-abatement/runway-use/>

Links

- Belmont CAC Document Index:
<http://www.belmont-ma.gov/logan-airport-community-advisory-committee/pages/logan-cac-document-index>
- Boston Logan Noise Airport Study (BLANS) website:
<http://www.bostonoverflight.com/>
- Massport CAC Website: www.massportcac.org
- Watertown CAC webpage:
<http://www.watertown-ma.gov/index.aspx?nid=819>