

**Boston Logan Airport Noise Study**  
**Discussion of CAC Runway Use Plan Options**  
**13-10-0793-2.1**

**April 23, 2014**  
**10:00 a.m. EDT**

**Logan International Airport**

**Facilitator:** Rob Adams      **Note takers:** Terry English/John Williams

**Attendees:**

<b>Name</b>	<b>Representing</b>	<b>Email</b>
Flavio Leo	Massport	fleo@massport.com
Natalie Mohan	Massport	nmohan@massport.com
Terry English	FAA, Air Traffic Organization, BLANS Program Manager	terry.english@faa.gov
Andy Hale	FAA, Manager, Boston Logan Airport Traffic Control Tower	andy.hale@faa.gov
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Coleman Hartigan	FAA, Manager, Boston Terminal Radar Approach Control (TRACON)	coleman.hartigan@faa.gov
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John Williams	Project Consultant	j_williams@ricondo.com
Sandra Kunz	President Logan Airport Community Advisory Committee (CAC)(observer)	skunz@verizon.net

**Discussion Points**

R. Adams (RA) stated that the focus of the meeting was to discuss the latest version of the CAC's framework for a runway use plan (RUP) that had been distributed prior to the meeting. (A copy of the framework document "BOS Runway Use Plan – revised 4-11-2014" [runway use plan document] is attached.) The CAC Technical Group met on December 17, 2013 and made revisions to the November 11, 2013, draft RUP framework that the CAC management team had discussed with FAA and Massport on November 14, 2013. The full CAC met on February 18, 2014 and reached consensus to move forward with the RUP framework. RA said that a CAC vote will be required before an actual recommended plan can be submitted. He said that there are several outstanding issues among CAC members that still need to be resolved (i.e., goals and objectives, formal vs. informal program, monitoring, and specific views from certain CAC members), but that this meeting would focus on the details contained in the RUP framework. RA said that there were a couple of other items that are not included in the framework that he would like to discuss in this meeting as well.

RA asked FAA if there were operational reasons that would preclude using other runways during the "overnight period." B. Brunelle (BB) said that there were no operational reasons that prevented other runways from being used during the overnight period. BB added that the overnight period (called the late night period in Boston ATCT Noise Abatement Order) begins at midnight rather than 11:00 p.m. as listed in the RUP framework, and this is the time when BOS ATCT uses the head to head operation departing on Runway 15R and landing on Runway 33L. BB said the time period and runways used reflect the MassPort guidance contained in the Airport/Facility Directory Northeast U.S. F. Leo (FL) added that one option that

has been explored is to stay on 15R for departures as long as possible after 6:00 a.m. The benefit of this is to minimize flights over the Boston area while eliminating the R33L arrival noise over the south shore. BOS ATCT said that they try to use Runway 15R for departures after 6:00 a.m. now if travel levels are lower.

BB said that the JetBlue test of the RNAV visual approach to Runway 33L that overlays the Runway 33L Light Visual approach from Phase 1 of the BLANS is underway; if the test is successful and the procedure is made public, it would increase the use of the Light Visual by providing instrument guidance. Increased use of the Runway 33L Light Visual could reduce noise to some south shore communities by keeping aircraft more over the water as opposed to over land on the Runway 33L ILS approach. In addition, Boston TRACON added that the Runway 33L RNAV visual also includes RNAV guidance from the north that is intended to keep aircraft more over the water as well. BB provided the example that FedEx DC-10s have difficulty following the Lighted Visual approach, but may be able to follow the RNAV guidance. FL said that he believes JetBlue would be willing to make the approach available to other airlines.

FL said that Massport received a lot of calls when Runway 15R-33L was closed for maintenance and the late night procedures could not be followed. RA asked if Massport would be willing to consider rotational runway use at night. FL said that Massport would need to see and consider the data to see what types of changes might be expected. BB said that rotational runway use at night would create operational uncertainties for Tower controllers and that he believes it would increase noise.

RA asked if there was any potential for extending the period during which the late night configuration is in use. He asked if the period could be extended until 7:00 a.m. BB said that it could not be extended until 7:00 a.m. Monday through Friday due to traffic levels between 6:00 a.m. and 7:00 a.m. FL discussed the Saturday night/Sunday morning late night period, given that demand is relatively low during that period. C. Beasley (CB) said that the hours could also possibly be extended into Saturday morning.

RA began the discussion of the four other periods listed in the RUP framework and said that the CAC had avoided runway percentage goals, because of concern that the plan would be set up to fail and that it would be difficult for the CAC to develop and agree upon percentage goals. CB said that he remembered that the CAC had stated that they would like to see a runway configuration in use in the morning (after 6:00 a.m.) that is different from what was used the night before (prior to midnight). FL said that ideally, a completely different runway use configuration would be used, but if that could not be achieved, a different use of arrival and departure runways within the configuration would be the second/third choice. CB said that unexpected runway use changes and runway use changes during heavy traffic periods are the most difficult for air traffic control (ATC) to manage. C. Hartigan (CH) said that on some days, ATC is required to "chase the dial" to react to changing weather conditions, changing runway configuration multiple times during the day. BB said that five runway use changes during the day would be a "disaster." RA said that he tried to be very clear with CAC that five runway use changes would likely not occur during the day for noise reasons. He said that the plan would be to look at the potential for a runway use change and if such a change could not occur, then ATC would define the operational conditions that prevented the change.

FL said that the simpler the program the better. RA said he is not willing to give up any periods at this time without testing it. BB said that runway changes add risk to the system and agreed with the

suggestion to simplify the time periods. RA noted that the goal is to “evaluate” the opportunity to change at each time period and not to necessarily change. RA said that Phoenix changes runways at least once or twice a day for noise purposes. RA said that if BOS ATCT has the conversation about whether runway use can change, then that should be considered success whether or not a change occurs. There was some discussion about Massport recommending a runway configuration/use change at the morning FAA/Massport operations telecom, but AH said that would be too late to make a determination on a runway configuration for the morning period.

RA said that he wanted to focus on the concept of a test period, which he said would provide evidence of what is feasible in order to build something for the long term that will be successful. RA recommended testing the RUP for a year in 3 month increments to allow for adjustments after each increment as necessary. RA then asked what the requirements would be for developing and implementing a test. A. Hale (AH) said that what FAA has already done regarding noise has not been appreciated and asked what success would look like and what the requirements would be not just for implementing, but also for monitoring and reporting. RA said that the tests would be helpful in developing an overall plan that does not result in a pass/fail system for FAA. CB asked if success would be defined by looking at changing runway configurations five times per day whether or not a change occurs. J. Williams (JW) said that one of the keys to success is to set expectations appropriately. There was ongoing discussion about what would actually be tested, particularly with regards to the concept of looking to change runway use at specific times during the day. FL said that he likes the test concept.

BB said that FAA would need to know specifically what they would be testing. RA said that it would be a test of reviewing the potential for runway use changes at different times and then recording when and why changes could not occur which will include the seasonal perspective, since the test will be for one year. The goal is to craft a program that is not unreasonable. CB said that he agreed with the test concept, but that we needed to be careful with the metrics for the test. For example, CB recommended that language in 3.a.i. of the RUP be revised to ask if ATCT evaluated whether the configuration/runways could change and what the outcome was, and to eliminate the “supposed to change” language.

CH said that he was concerned with the scrutiny that would be placed on the data and reporting and the time it could take to record the information. CB and CH both stated that additional data would need to be provided by Massport. CB asked if there could be canned responses (e.g., wind and weather) that could be used for stating why a runway use change did not occur, with Massport then matching the time of the responses with specific recorded weather (or other) conditions that prevented a runway use change.

AH asked what would be considered a change in runway use. Would it be defined as a complete change in configuration only or could it be defined as a change in runway use within a configuration? He cited an example of changing from Runways 4L/4R arrivals and Runway 9 departures to Runway 4L arrivals and Runway 4R departures and asked if that would be considered a change. BB said that he agreed with suggestions made earlier by FL regarding the first choice being a change in configuration and the second/third choice(s) being a change in runway uses within a particular configuration.

After some discussion about the timing of the tests, JW said that it seemed best to wait until the ongoing tests of the effects of rules regarding operations on converging non-intersecting runways and the JetBlue tests are complete. It was decided that October 1 would be a good date to begin the tests. RA then discussed the steps and suggested the following schedule:

- Definition of test by CAC and agreement from FAA by August 1 (hopefully earlier)
- Briefings on the test to controllers to begin September 1
- Test to be initiated October 1

There was further discussion among the attendees as to what would be tested. JW suggested that the first test could be on the potential to operate in a different configuration after 6:00 a.m. than during the night period before midnight the night before and possibly a test of extending the morning hours for the overnight period configuration for Saturday night/Sunday morning.

BB said that there would need to be a good description of the reasons for conducting the tests for controller briefings so that they can understand what they are trying to accomplish and why. RA said that he would prepare that documentation to be used in briefings, working with the CAC. FL also said that RA, working with CAC, would need to identify metrics for the tests, as well as the data to be collected by FAA and Massport during the test period.

JW said that during the first test period, a second test could be defined, which might address tests for the daytime periods.

FL then summarized his understanding of what the group was suggesting would be tested as components of an overall runway use plan:

- Overnight period – core period, shoulder periods, potential extension on weekends
- Before midnight/after 6:00 a.m. – different runway uses
- Daytime period – potential for runway use changes

BB said that FAA will not be in favor of a runway use change, unless it would actually improve something; FAA will not initiate a runway use change just to have a runway use change. BB said that he had hoped to have CAC recommendations on changes in annual runway use percentages, based on the 10 year runway use averages – not on changing runways more often.

BB asked what format would be used to define the test and if a formal recommendation would be required from Massport to initiate the test. T. English (TE) said that for the tests, the group could work together and that no formal request would be needed from Massport until after the end of all the test periods and a RUP has been identified by CAC and recommended by Massport.

#### Action Items:

- ✓ RA to work with the CAC Technical Group to develop proposal for the first test period and to identify data needs, metrics, etc. He hopes to have the draft by the end of May.
- ✓ TE to determine the administrative and environmental requirements to initiate the test.

- ✓ Once the test is agreed upon, a controller briefing schedule would be set with the intent of initiating the test on October 1.
- ✓ PC and IC will review the results of new rules for operations on converging non-intersecting runways once the test period is completed in September to determine whether the baseline noise exposure contours need to be revised.
- ✓ Plans for the second test period will begin after the first test is initiated on October 1.

**Attachments:**

Runway use plan document

**Distribution:**

13-10-0793-2.1

Meeting Attendees

Read File

c:\users\jwilliams\desktop\jcw files\client files\massport\logan airport noise study\phase 3\phase 3 meeting notes\coordination meeting 04232014\coordination\_meeting\_04232014\_notes\_final\_05202014.docx

**Boston Logan Airport Noise Study**  
Runway Use Program – Technical Meeting  
April 23, 2014 10:00 AM – 2:00 PM  
Agenda

Purpose of Meeting

Review of Actions Since Last Meeting

Discussion of Preliminary Runway Use Program

Other Topics

Next Steps and Project Schedule

## BOS Runway Use Plan Framework – revised 4-11-2014

### 1. The following is suggested ATCT instructions for the approximate time periods listed below:

- a. Overnight Period (typically 11:00 PM – 6:00 AM) – Runway preferences are as follows – *to be determined*
- b. Morning Peak Period (typically 6:00 AM – 9:30 AM) – It is recognized that peak operating periods generally require higher capacity operating configurations. During this period, FAA selects the higher capacity operating configuration with the following guidelines:
  - i. If wind, weather, operational conditions allow, FAA selects a different runway configuration than what was used during the previous Night Period (8:30 pm – 11:00 pm).
  - ii. If wind, weather, operational conditions allow, FAA selects a runway configuration that utilizes different primary arrival and departure runways than the prior period.
- c. Midday Period (typically 9:30 AM – 2:30 PM) – During this time period FAA has additional flexibility compared to the peak operating periods and:
  - i. If wind, weather, operational conditions allow, FAA selects a different runway configuration than what was used during the previous period.
  - ii. If wind, weather, operational conditions allow, FAA selects a runway configuration that utilizes different primary arrival and departure runways than the prior period.
- d. Evening Peak (typically 2:30 PM – 8:30 PM) – It is recognized that peak operating periods generally require higher capacity operating configurations. During this period, FAA selects the higher capacity operating configuration with the following guideline:
  - i. If wind, weather, operational conditions allow, FAA selects a different runway configuration than what was used in the previous period.
  - ii. If wind, weather, operational conditions allow, FAA selects a runway configuration that utilizes different primary arrival and departure runways than the prior period.
- e. Night Period (typically 8:30 PM – 11:00 PM) – During this time period FAA has additional flexibility compared to the peak operating periods and:
  - i. If wind, weather, operational conditions allow, FAA selects a different runway configuration than what was used during the previous period.

- ii. If wind, weather, operational conditions allow, FAA selects a runway configuration that utilizes different primary arrival and departure runways than the prior period.

## 2. Approach to Implementation

- a. Test Periods – Suggest employing four 3-month test periods of the runway use program instructions.
  - i. Develop ATCT language
  - ii. Provide instruction/training of ATCT staff
  - iii. Implement runway use program test
  - iv. Monitor ability to implement
  - v. Monitor effectiveness of changes in runway end use
  - vi. Identify problems/opportunities
  - vii. Make adjustments for next test period

## 3. Metrics/Monitoring

- a. ATCT Performance – These metrics are designed to specifically measure ATCT’s ability to implement the program and would be produced daily:
  - i. *Configuration Changes* – How often did the configuration change vs. how often were they supposed to change
  - ii. *Documentation* –Provide detailed operational conditions (wind, weather, airfield closures, etc.) for periods where ATCT did not change configurations
- b. Operational Performance – These metrics are designed to measure the operational results of implementing the program:
  - i. *Runway End Use Percentages* – At the end of each month, Massport to provide daily reports of runway end use percentages to include:
    - Runway End Use by Day (24 hours)
    - Runway End Use by Operational Period (described above)
  - ii. *Configuration Use Percentages* – At the end of each month, Massport to provide daily reports of configuration use percentages to include:
    - Configuration Use by Day (24 hours)



Configuration Use by Operational Period (described above)

- iii. *Hourly Operational Data* – At the end of each month, Massport/FAA to provide hourly reports (taken from available sources) of wind, weather, airfield closures
- c. Noise Performance – These metrics are designed to measure the noise results of implementing the program:
  - i. *Baseline Preparation* – Prior to implementation of the runway use program tests, Massport to prepare baseline noise data for comparison purposes to include:
    - DNL noise contours for 65, 60, 55, and 50 dB increments
    - Number of people residing within each 5 dB DNL increment
    - DNL for the evaluation points identified in previous phases of BLANS
    - Noise-level weighted population data for the evaluation points

*\* Note: These would be prepared for Seasonal and Annual periods based on the last 12 months of data*
  - ii. *Seasonal Analysis* – At the end of each season (specific dates to be determined), Massport to provide a seasonal noise analysis to include:
    - DNL noise contours for 65, 60, 55, and 50 dB increments
    - Number of people residing within each 5 dB DNL increment
    - DNL for the evaluation points identified in previous phases of BLANS
    - Noise-level weighted population data for the evaluation points
  - iii. *Annual Analysis* – At the end of each calendar year, Massport to provide an annual noise analysis to include:
    - DNL noise contours for 65, 60, 55, and 50 dB increments
    - Number of people residing within each 5 dB DNL increment
    - DNL for the evaluation points identified in previous phases of BLANS
    - Noise-level weighted population data for the evaluation points
- d. Percentage-Based Goals – For the first year (test period) there would not be percentage-based goals for runway end utilization or configuration utilization. After the end of the test periods, the feasibility of percentage-based goals would be determined and those goals established.