

DRAFT BOS Runway Use Plan Test Period #4 Test 4B – 04-07-2016

1. Definitions (for the purposes of these tests)

- a. Configuration – Any combination of two or more runways with a defined primary arrival runway end and primary departure runway end. There may be secondary arrival runway ends and secondary departure runway ends utilized as traffic and operational conditions require.
- b. Runway End – Acknowledges that each runway has two operating ends (one for arrivals and one for departures) based on direction of flow.
- c. Seasonal Runway Use – Acknowledges that runway use is seasonal due to changing wind and weather conditions during the various seasons.

2. Test 4B Definition

The intent of the test is to reduce the percentage of arrivals landing on Runways 4R and 4L by 5 percentage points compared with the same months in recent years.

- i. During periods when operating in a configuration when arrivals would typically occur on Runways 4L and 4R, attempt to reduce the overall use of Runways 4L and 4R for arrivals by 5 percentage points from the average historic baseline since the opening of Runway 14-32 in 2007
- ii. It is noted that for the test period, the comparisons of runway use should be made with historic data from the same months to remove seasonal runway use variations; the use of Runways 4L and 4R for arrivals has been approximately 36% during the same months in recent years.

3. Approach to Implementation

Test Periods – Tests 4A (described separately) and 4B are to be conducted simultaneously. Suggest employing a 3-month test period of the runway use program instructions after the environmental documentation has been completed for an operational test per FAA Order 1050.1F: “Environmental Impacts: Policies and Procedures,” dated July 16, 2015.

- 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 during test period

4. Metrics/Monitoring

- a. ATCT Performance – These metrics are designed to specifically measure ATCT’s ability to implement the test program and would be produced weekly, as appropriate:
 - i. *Arrival Runway Split* – FAA to report the hourly numbers of arrivals on Runways 4L and 4R and on other runways over the test period.
 - Massport to calculate the percentage use of Runways 4L and 4R for arrivals over the test period.
 - Massport to compare percentage use of Runways 4L and 4R for arrivals with baseline historic usage during the same time periods to determine what reductions on Runways 4L and 4R were achieved.
 - ii. *Documentation* – Provide detailed operational conditions (wind, weather, airfield closures, etc.) for the test period.
- b. Operational Performance – These metrics are designed to measure the operational results of implementing the program:
 - i. *Runway End Use Percentages* – Massport to provide daily reports of runway end use percentages to include:
 - Runway End Use by Day (24 hours)
 - Detailed Runway End Use for 6:00 am to 8:30 pm
 - ii. *Hourly Operational Data* – At the end of each week, Massport/FAA to provide hourly reports (taken from available sources) of wind, weather, traffic volumes, airfield closures
- c. Noise Performance – These metrics are designed to measure the noise results of implementing the overall runway use program:
 - i. *Baseline Preparation* – Massport to update the 2015 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 (*CAC will calculate this from noise data prepared by Massport*)

- ii. *Noise Analysis of Recommended Runway Use Program* – At the end of the Test Period #4 and upon development of a recommended runway use program by CAC, Massport to provide a 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 (*CAC will calculate this from noise data prepared by Massport*)

- d. Percentage-Based Goals – Except for those listed above, 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 if determined to be valuable those goals established.