

# AIR TRAFFIC INITIAL ENVIRONMENTAL REVIEW

## **Operational Test Period #2 to Evaluate the Feasibility of Changing Runway Configurations at Two Times during the Day at Boston-Logan Airport**

FAA Order 7400.2 Appendix 5 (Modified)

Facility/Office: Boston Airport Traffic Control Tower (Boston Tower) and Boston Consolidated Terminal Radar Approach Control (Boston TRACON)

Date: 5/1/15

Prepared by: Brian Brunelle, Support Manager, Boston Airport Traffic Control Tower, Logan International Airport, 600 Control Tower, East Boston, MA 02128

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### I. Project Description

A. Attach copy of the most recent Project Status Report. N/A

B. Has airspace modeling been conducted using SDAT, TAAM, TARGETS, or other airspace/air traffic design tool? Yes \_\_\_\_\_  No ;  N/A If yes, provide a summary of the output from the modeling.

C. Describe the present (no action alternative) procedure in full detail. Provide the necessary chart(s) depicting the current procedure. Describe the typical fleet mix, quantifying (if possible) the number of aircraft on the route and depict their altitude(s) along the route.

The FAA selects runway configurations based on wind, weather, and operational conditions. Operational conditions include a variety of factors such as traffic demand, runway closures, etc. The primary existing runway configurations used at Boston-Logan are shown in the attached table entitled: "Massport Table of Runway Use Recommendations for BLANS Phase 3 Test Period #2, Version 3 04/07/15". Because this test does not involve changing fleet mix or flight paths/routes, existing fleet mix and routes are not described.

D. Describe the proposed project, providing the necessary chart(s) depicting changes. Describe changes to the fleet mix, numbers of aircraft on the new route, and their altitude(s), if any.

The proposed project includes a 3 month test to evaluate the feasibility for Boston Tower to change runway configurations at two times during the day as follows: (1) after the morning peak period (about 9:30 am), and (2) before the evening peak period (about 2:30 pm). The test may be shortened or extended, but not to exceed 6 months. FAA agreed to conduct the test in response to a letter request from the Massachusetts Port Authority (Massport) dated August 19, 2014 and

subsequent email requests dated April 7, 2015 and April 10, 2015. Massport requested Test #2 in response to a proposal from the Logan Airport Community Advisory Committee (CAC) and their consultant as part of Phase 3 of the Boston Logan Airport Noise Study (BLANS). The purpose of Phase 3 of the BLANS is to evaluate the potential to further reduce aircraft noise to communities surrounding Boston-Logan Airport by changes in runway use. The attached table entitled: “Massport Table of Runway Use Recommendations for BLANS Phase 3 Test Period #2, Version 3 04/07/15”, identifies seven runway configurations and three priorities for each configuration to change to from the previous period. The table supplements the Test #2 document entitled: “BOS Runway Use Plan Test Period #2 – 03-31-2015”. For example, the first preference is to completely change the configuration (Priority 1), the second preference is to change the primary departure runway only (Priority 2), and the third preference is to change the primary arrival runway only (Priority 3). As stated by the FAA during BLANS meetings and as stated in the RUP Test Period #2 document, the configuration selection and the ability to be in a different configuration from the previous period are dependent on wind/weather/volume/runway availability and other operational factors. The purpose of Test Period #2 is to determine the feasibility of the FAA to change the runway configuration from the previous period at two times during the day.

1. Will there be actions affecting changes in aircraft flights between the hours of 10 p.m. – 7 a.m. local?  Yes  No  Possibly
  
2. Is a preferential runway use program presently in effect for the affected airport(s), formal or informal?  Yes  No Will airport preferential runway configuration use change as a result of the proposed project?  Yes  No
  
3. Is the proposed project primarily designed for Visual Flight Rules (VFR), Instrument Flight Rules (IFR) operations, or both?  VFR  IFR  Both If this specifically involves a charted visual approach (CVA) procedure, provide a detailed local map indicating the route of the CVA, along with a discussion of the rationale for how the route was chosen. (N/A)
  
4. Will there be a change in takeoff power requirements?  Yes  No If so, what types if aircraft are involved, i.e., general aviation propeller-driven versus large air carrier jets?
  
5. Will all changes occur above 3,000 feet above ground level (AGL)?  
 Yes  No What is the lowest altitude change on newly proposed routes or on existing routes that will receive an increase in operations?

There will be no changes in air traffic control (ATC) routes at any altitude, however, some changes in runway use (from the surface) and the use of existing routes to those runways may occur depending on the amount of time the Boston-Logan ATCT is able to change configurations per the configuration preferences listed in Massport’s table. Because the test focuses on the feasibility to change the runway configuration from the previous period at two

times during the day , the test is more about changing the persistence of the same runway configuration in the short term, and therefore, may result in little, if any, overall change in overall runway use during the test period. The results of the test will identify the potential for longer term changes in runway use.

6. Will there be actions involving civil jet aircraft (heavier than 75,000 pounds gross weight) arrival procedures between 3,000-7,000 feet AGL or departures between 3,000-10,000 feet AGL?  Yes  No

There are no anticipated changes in ATC routes at any altitude; however, the frequency of use of individual procedures/routes may change. Specific increases/or decreases of an individual route will depend on the potential outcomes identified in paragraph I. D. above.

7. If noise analysis was already performed using the FAA’s Integrated Noise Model (INM) or Noise Integrated Routing System (NIRS), provide a summary of the results.

A noise analysis will be prepared after the test to determine, if changing configurations at two times during the day from the previous period had any effect on overall runway use change and therefore changes in noise exposure. Since the test focuses on changing the configuration on a short term basis to reduce persistence of noise, and will vary each day depending on the configuration used during the previous period, changes in the noise exposure are expected to be minimal.

## II. Purpose and Need

A. Describe the purpose and need for the proposed project. If detailed background information is available, summarize here and provide a copy as an attachment to this review.

The test will determine the feasibility of the FAA to change the runway configuration after the morning peak period (about 9:30 am) from the previous period (6:00 am to 9:30 am) and before the evening peak period (about 2:30 pm) from the previous period (9:30 am to 2:30 pm) when feasible. The results of the Test Period #2 in combination with Test #1 (to end on May 10, 2015) and the results of potential future tests of different measures will be evaluated and used by the BLANS Phase 3 technical team members in support of a final runway use program at Boston-Logan that must ultimately be recommended by Massport.

B. What operational/economic/environmental benefits will result if this project is implemented?

1. If a delay reduction is anticipated, can the reduction be quantified?  Yes  No  N/A

2. Can reduced fuel costs/natural energy consumption be quantified?  Yes  No  N/A

C. Is the proposed project the result of a user or community request or regulatory

mandate?  Community Request  Regulatory Mandate If not, what necessitates this action? A request from Massport based on a CAC recommendation as part of Phase 3 of the BLANS.

### III. Describe the Affected Environment

A. Provide a description of the existing land use in the vicinity of the proposed project.

The land use in the BLANS 1500 square mile study area is mixed with undeveloped areas and developed areas including residential, commercial, and industrial land uses.

B. Will the proposed project introduce air traffic over noise sensitive areas not now affected?  Yes  No Will they be affected to a  greater or  lesser extent?

There are no anticipated changes in ATC routes at any altitude; however, some changes in runway use and the use of existing routes to those runways may occur as identified in paragraph I D. 5 above.

Note: An area is noise sensitive if aircraft noise may interfere with the normal activities associated with the use of the land. See Order 1050.1E for full definition of noise sensitive areas.

C. Are wildlife refuge/management areas within the affected area of the proposed project?

Yes  No  Possibly

To be determined, if test results show any changes in overall runway use.

Has there been any communication with the appropriate wildlife management regulatory (federal or state) agencies to determine if endangered or protected species inhabit the area?

Yes  No

1. At what altitude would aircraft overfly these habitats?
2. During what times of the day would operations be more/less frequent?

D. Are there cultural or scenic resources, of national, state, or local significance, such as national parks, outdoor amphitheaters, or stadiums in the affected area?

Yes  No  Possibly

To be determined, if test results show any changes in overall runway use.

During what time(s) of the day would operations occur that may impact these areas?

E. Has there been communication with air quality regulatory agencies to determine if the affected area is a non-attainment area (an area which exceeds the National Ambient Air Quality Standards for ozone, carbon monoxide, lead, particulate matter, sulfur dioxide, or nitrogen dioxide) or maintenance area (an area which was in non-attainment but subsequently upgraded to an attainment area) concerning air quality?  Yes  No

If yes, please explain:

F. Are there reservoirs or other public water supply systems in the affected area?  
 Yes  No  Possibly

To be determined, if test results show any changes in overall runway use.

#### IV. Community Involvement

Formal community involvement or public meetings/hearings may be required for the proposed project. Make a determination if the proposed project has the potential to become highly controversial. The effects of an action are considered highly controversial when reasonable disagreement exists over the project's risks of causing environmental harm. Opposition on environmental grounds by a Federal, State or local government agency or by a Tribe, or by a substantial number of the person affected by the action should be considered in determining whether reasonable disagreement regarding the effects of a proposed action exists (see 1050.1E, paragraph 304i).

A. Have persons/officials who might have some need to know about the proposed project due to their location or by their function in the community been notified, consulted, or otherwise informed of this project?  Yes  No

Massport and the CAC are well aware of the project, since they are part of the BLANS team involved with developing the final Test #2 proposal. In addition, FAA will notify Massport, the CAC and federal representatives and release a media statement to numerous media outlets prior to the end of Test Period #1 and the beginning of Test Period #2. Massport also plans to conduct additional outreach.

1. Are local citizens and community leaders aware of the proposed project?  
 Yes  No See above

Are any  opposed to or  supporting it? If so, identify the parties and indicate the level of opposition and/or support. The expectation is that most communities are in support of the test.

Since the CAC voted to implement the test and the CAC represents 38 communities surrounding Boston-Logan, the expectation is that most local community leaders support the test. While there are many citizens that oppose aircraft noise in general, we are not aware of any specific opposition to this test, which may mitigate for some the very noise about which they complain.”

a. If they are opposed, what is the basis of their opposition?

b. Has the FAA received one or more comments objecting to the proposed project on environmental grounds from local citizens or elected officials?  Yes  No If so, state the nature of the comment and how the FAA was notified (e.g. resolution, Congressional, Public meeting/workshop, etc.).

1. Are the airport proprietor and users providing general support for the proposed project?  Yes  No

2. Is the proposed project consistent with local plans and development efforts?  Yes  No

3. Has there been any previous aircraft-related environmental or noise analysis, including

- FAR Part 150 Studies, conducted at this location?  Yes  No

This initiative is part of the ongoing BLANS.

- If so, was the study reviewed as a part of this initial review?

Yes  No  N/A

## V. Extraordinary Circumstances

The determination of whether a proposed action may have a significant environmental effect is made by considering any requirements applicable to the specific resource (see 1050.1E, Appendix A).

A. Will implementation of the proposed project result in any of the following? As stated in 1050.1E, paragraph 304, extraordinary circumstances exist when a proposed action involves any of the following circumstances AND may have a significant effect (40 CFR 1508.4).

1. An adverse effect on cultural resources protected under the National Historic Preservation Act of 1966, as amended (see 1050.1E, paragraph 304a).

Yes  No  Possibly

Comment: Since the test focuses on changing the runway configuration on a short term basis to reduce persistence of noise, and will vary each day depending on the configuration from the previous period, changes in overall runway use and therefore noise exposure are expected to be minimal.

2. An impact on properties protected under section 4(f) of the Department of Transportation Act (see paragraph 304b).  Yes  No  Possibly

Comment: Since the test focuses on changing the runway configuration on a short term basis to reduce persistence of noise, and will vary each day depending on the configuration from the previous period, changes in overall runway use and therefore noise exposure are expected to be minimal.

3. An impact on natural, ecological (e.g. invasive species) or scenic resources of Federal, Tribal, State, or local significance (for example, Federally listed or proposed endangered, threatened, or candidate species or proposed or designated critical habitat under the Endangered Species Act); resources protected by the Fish and Wildlife Coordination Act; wetlands; floodplains; prime, unique, State, or locally important farmlands; energy supply and natural resources; wild and scenic rivers, including study or eligible river segments; and solid waste management. (See paragraph 304c.)  Yes  No  Possibly

Comment: There are no physical impacts from the test procedure and flight routes and number of operations at the airport will not change.

4. A division or disruption of an established community; a disruption of orderly, planned development; or an inconsistency with plans or goals that have been adopted by the community in which the project is located (see paragraph 304d).  Yes  No  Possibly

Comment: There are no physical impacts from the test procedure and flight routes and number of operations at the airport will not change. In addition, since the test focuses on changing the runway configuration on a short term basis to reduce persistence of noise, and will vary each day depending on the configuration from the previous period, changes in overall runway use and therefore noise exposure are expected to be minimal.

5. An increase in congestion from surface transportation, by causing a decrease in the Level of Service below the acceptable level determined by the appropriate transportation agency (i.e., a highway agency). (See paragraph 304e.)  Yes  No  Possibly

Comment: There are no physical impacts from the test procedure and flight routes and number of operations at the airport will not change

6. An impact on noise levels of noise-sensitive areas (see paragraph 304f).  Yes  No  Possibly

Comment: Since the test focuses on changing the runway configuration on a short term basis to reduce persistence of noise, and will vary each day depending on the configuration from the previous period, changes in overall runway use and therefore noise exposure are expected to be minimal.

7. An impact on air quality or a violation of local, State, Tribal, or Federal air quality standards under the Clean Air Act amendments of 1990 (see paragraph 304g).

Yes  No  Possibly

Comment: The test will not impact the number of operations at Boston-Logan.

8. An impact on water quality, sole source aquifers, a public water supply system, or State or Tribal water quality standards established under the Clean Water Act and the Safe Drinking Water Act (see paragraph 304h).  Yes  No  Possibly

Comment: There are no physical impacts from the test procedure and flight routes and number of operations at the airport will not change.

9. Effects on the quality of the human environment that are likely to be highly controversial on environmental grounds (see paragraph 304i).

Yes  No  Possibly

Comment: There are no physical impacts from the test procedure and flight routes and number of operations at the airport will not change. In addition, Since the test focuses on changing the runway configuration on a short term basis to reduce persistence of noise, and will vary each day depending on the configuration from the previous period, changes in overall runway use and therefore noise exposure are expected to be minimal. The overall purpose of the test is in support of a runway use program at Boston-Logan that would be recommended by Massport after coordination with the CAC, who voted to proceed with the test.

10. Likelihood of an inconsistency with any Federal, State, Tribal, or local law relating to the environmental aspects of the proposed action (see paragraph 304j).

Yes  No  Possibly

Comment: Since the test focuses on changing the runway configuration on a short term basis to reduce persistence of noise, and will vary each day depending on the configuration from the previous period, changes in overall runway use and therefore noise exposure are expected to be minimal.

11. Likelihood of directly, indirectly, or cumulatively, creating a significant impact on the human environment (see paragraph 304k).  Yes  No  Possibly

Comment: Since the test focuses on changing the runway configuration on a short term basis to reduce the persistence of noise and will vary each day depending on the configuration from the previous period, changes in overall runway use, and therefore noise exposure, are expected to be minimal. In addition, because minimal impacts in noise are expected and the test will not exceed 6 months, there are no cumulative effects of noise to add to potential future separate independent tests that will evaluate the potential to change configurations between different time periods within the 24 hour day. In addition, Test #1 that began on November 12, 2014, will end on May 10, 2015. Data collected is currently being evaluated to determine what, if any, noise exposure changes occurred from changing configurations in the morning (6:00 to

9:30 am) from the previous night (8:30 pm to midnight).

## VI. Alternatives

A. Are there alternatives to the proposed project?  Yes  No If yes, describe any alternatives to the proposed action.

To finalize a runway use plan without any previous testing.

To include Test #1 with Test #2

B. Please provide a summary description of alternatives eliminated and why.

If components of the runway use plan framework proposed by the CAC dated April 11, 2014 are not initially tested to determine their feasibility, it will likely limit the potential of a successful final runway use program at Boston-Logan to be recommended by Massport. In addition, per CAC's request, the FAA could not agree to include Test #1 with Test #2. FAA's Order 1050.1E, Environmental Impacts: Policies and Procedures, dated March 8, 2004, only allow tests of air traffic procedures that do not exceed six months. As stated above, Test #1 will end on May 10, 2015. See FAA's Categorical Exclusion Declaration, entitled: "Operational Test to Evaluate the Feasibility of Changing Runway Configurations from the Night to Morning Period at Boston-Logan Airport," dated October 29, 2014, on the BLANS website: [http://www.bostonoverflightnoisestudy.com/phase3\\_documents.aspx](http://www.bostonoverflightnoisestudy.com/phase3_documents.aspx)

## VII. Mitigation

Are there measures, which can be implemented that might mitigate any of the potential impacts, i.e., GPS/FMS plans, NAVAIDS, etc.?  Yes  No  N/A The test requested by Massport is in support of a runway use program to reduce the overall effect of noise generated by aircraft arriving at and departing from Boston-Logan Airport.

## VIII. Cumulative Impacts

The purpose of the test is to collect and analyze operational data to determine the feasibility of changing runway configurations at about 9:30 am and 2:30 pm from the previous period in support of a final runway use program at Boston-Logan. Since the test focuses on changing the runway configuration on a short term basis to reduce persistence of noise, and will vary each day depending on the configuration from the previous period, changes in overall runway use, and therefore noise exposure, are expected to be minimal. Since minimal impacts in noise are expected and the test will cease at the end of 3 months, not to exceed 6 months, there is no cumulative effect of noise to add to future separate independent tests if/when they should occur. In addition, Test #1 that began on November 12, 2014, will end on May 10, 2015. Data collected is currently being evaluated to determine what, if any, noise exposure changes occurred from changing configurations in the morning (6:00 to 9:30 am) from the previous night (8:30 pm to midnight).

What other projects (FAA, non-FAA, or non-aviation) are known to be planned, have been previously implemented, or are ongoing in the affected area that would contribute to the proposed project's environmental impact?

Future tests that may include evaluating the feasibility for the Boston ATCT to change runway configurations between different time periods of the 24 hour day.

**IX. References/Correspondence**

Attach written correspondence, summarized phone contacts using Memorandums for the File, etc. N/A

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**X. Additional Preparers**

The person(s) listed below, in addition to the preparer indicated on page 1, are responsible for all or part of the information and representations contained herein:

<u>Name</u>	<u>Title</u>	<u>Facility/Agency/Company</u>	<u>Area of Responsibility</u>
<u>N/A</u>			

**XI. Facility/Service Area Conclusions**

This initial review and analysis indicates that **extraordinary circumstances** or other reasons  **exist**  **do not exist** that would cause the responsible federal official to believe that the proposed project might have the potential for causing significant environmental impacts.

The undersigned have determined that the proposed project **qualifies as a categorically excluded action** in accordance with Order 1050.1E, and on this basis, recommend that no further environmental review be conducted before the proposed project is implemented.

The undersigned have determined that the proposed project **does not qualify as a categorically excluded action** in accordance with Order 1050.1E, and on this basis, recommend that further environmental review be conducted before the proposed project is implemented. Therefore the undersigned recommend that the proposed project be submitted for environmental funding for preparation of an  EA  EIS  Not sure-more analysis needed.

**Facility Manager Review/Concurrence (Boston Airport Traffic Control Tower)**

Signature:  Date: 5/11/15

Mr. Michael Nelson, Acting Manager, Boston Logan Airport Traffic Control Tower

Logan International Airport, 600 Control Tower, East Boston, MA 02128

**Facility Manager Review/Concurrence (Boston Terminal Radar Approach Control)**

Signature: Coleman Hartigan Date: 5/1/15

Mr. Coleman Hartigan, Air Traffic Manager, Boston Consolidated TRACON

25 Robert Milligan Parkway, Merrimack, NH 03054

**Service Area Environmental Specialist Review/Concurrence**

Signature: Terry English Date: 5/1/15

Ms. Terry English, Environmental Specialist, Operations Support Group

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