Introduction

The Maryland Aviation Administration (MAA) is proposing a number of projects for implementation at Baltimore / Washington International Thurgood Marshall Airport (BWI Marshall Airport). An Environmental Assessment (EA) is being completed to satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA). This document provides preliminary information regarding the EA to facilitate agency review and comment and includes the following sections:

- Background
- Proposed Action
- Preliminary Purpose and Need
- Preliminary Alternatives
- Environmental Analysis
- Preliminary Schedule
- Comment Form

The MAA encourages each agency to review these materials and provide comments by September 9, 2016. Comments provided by this time will assist the MAA in identifying issues early in the development of the EA. A Comment Form is attached for your use. You are welcome to submit comments either by mail at the below address or by email to rbowie@bwiairport.com.

Please submit written comments to:

Ms. Robin M. Bowie
Acting Director, Office of Environmental Services
Maryland Aviation Administration
P.O. Box 8766
BWI Airport, MD 21240
Background

BWI Marshall Airport is an international air carrier airport located in Anne Arundel County, Maryland that is owned by the Maryland Department of Transportation (MDOT) and operated by the MAA. The Airport is located approximately 10 miles south of Baltimore and 30 miles northeast of Washington DC. The airfield includes two parallel runways (Runway 15R-33L and Runway 15L-33R) and one crosswind runway (Runway 10-28), a helipad, and multiple taxiways. Aviation support facilities include aircraft hangars and tie down areas, a terminal building, an Airport Traffic Control Tower (ATCT), aircraft rescue and firefighting facilities, and fuel facilities.

The MAA is proposing to implement the Proposed Improvements 2016-2020 as identified on the Airport Layout Plan (ALP). The BWI Marshall Airport ALP was conditionally approved in 2013 and a draft ALP was submitted to the FAA for consideration in 2015. In order to implement these improvements, FAA action in the form of ALP approval and federal funding will be required. NEPA requires environmental review of federal actions including federal funding, approvals and certifications. Therefore, an EA is being prepared in accordance with FAA policies and procedures for considering environmental impacts: FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions and FAA Order 1050.1F, Environmental Impacts: Policies and Procedures.

Proposed Action

The Proposed Action consists of the Proposed Airport Improvements planned for BWI Marshall Airport between 2016 and 2020 as detailed below and illustrated on Figures 1 and 2.

Taxiway Geometry Improvements (Improvements 1, 2, 3, 4, 5, 6, 12, 17)
- Numerous taxiways throughout the airfield will be relocated with the pavement in the current location demolished.
- New pavement will be constructed in several locations for new taxiway connectors, fillets, and shoulders.

Terminal and Terminal Area Improvements (Improvements P4, P148, 14, 15, 19)
- Concourse E will be expanded by two gates.
- The Terminal Roadway will be widened and access improvements also constructed.
- The Upper Level Roadway at Concourse E will be widened.
- A Taxicab Support Building will be constructed at the Former Hotel Site.
- A New Sky Bridge C will be constructed.

Pavement Modifications and Repair (Improvements 7, 11, Repair areas not shown on Figure 1)
- An Isolation / Remain Overnight (RON) Apron and Runway 10 Hold Pad will be constructed.
- Pavement identified in the current Pavement Management Program will be repaired according to specific level of pavement deterioration.
Firefighting and Fire Training and Rescue Improvements (Improvements P10, P24, P45)
- The existing Aircraft Rescue and Firefighting Facility (ARFF) bays will be expanded.
- A new Terminal Response Fire Station will be constructed.
- The Fire Training Facility will be relocated.

Airside Improvements (Improvements P7, P9, P11, P12, 9, 13, 16)
- A Second Fixed Base Operator (FBO) Building and up to two new Aircraft Maintenance Facilities will be constructed.
- The existing Helipad will be relocated.
- New Vehicle Service Road Sections will be constructed from Runway 33L to the Future Fire Training Facility and in the Northwest Quadrant from the new Aircraft Maintenance Facilities to Runway 10.
- Northrop Grumman Hangar and accompanying repairs to Taxiway W.

Airfield Utility and Maintenance Improvements (Improvements P13, P14, P30, P40, P41, P43, 8, 18)
- Runway Deicing Chemical Storage and Access Road will be constructed.
- The Airfield Lighting Vault will be relocated.
- The Airport Maintenance Complex will be consolidated and relocated.
- The Triturator will be relocated.
- The Runway 15R and 28 Deicing Pads will be expanded, the Glycol Storage / Truck Staging relocated, and a new area for snow dumping constructed.

Obstruction Removal (Improvement 10)
- Trees and other structures (poles, signs, and obstruction lights) that are considered obstructions to navigable airspace both on- and off-airport will be removed.

- Several buildings and/or structures will be relocated, as necessary, and the existing facilities demolished.

Preliminary Purpose and Need

Defining the Purpose and Need is essential in providing a sound justification for the proposed action. In addition, the Purpose and Need is used as the primary foundation to develop reasonable alternatives to the Proposed Action.

The purpose of implementing the Proposed Action is to meet various FAA criteria, enhance airfield safety and efficiency, accommodate existing and anticipated demand, and improved customer service at BWI Marshall Airport.

The Proposed Action is needed to address the following issues:
- FAA Criteria
  - Vegetative and man-made penetrations need to be removed to meet 14 Code of Federal Regulations Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace.
Runway to taxiway separation and taxiway fillets and shoulders modifications are needed in several airfield locations to meet AC 150/5300-13A, Airport Design, design standards. In some cases improvements are needed to accommodate Airplane Design Group V aircraft. Some demolition of existing equipment is needed to accommodate these improvements.

The existing helipad location does not meet AC 150/5390-2C, Heliport Design, design standards and it cannot be modified in its current location, it needs to be relocated.

Modifications to the Runway 28 Deicing Pad are needed to meet AC 150/5300-14C, Design of Aircraft Deicing Facilities, design standards.

**Airfield Safety and Efficiency**

- Modifications to a number of the existing runway/taxiway intersections are needed to reduce the risk of runway incursions.
- BWI Marshall Airport’s Pavement Management Plan (PMP) has identified areas of airfield pavement that are deteriorating and in need for various levels of repair.
- A two-bay expansion of the existing ARFF facility is needed to better respond to airfield emergencies.
- A dedicated Isolation / Remain Overnight (RON) Apron is needed for inspection and clearance of suspicious aircraft.
- A new fire training facility is needed to meet AC 150/5220-17B, Aircraft Rescue and Fire Fighting (ARFF) Training Facilities, to allow training of ARFF personnel.
- Several taxiways need to be relocated to provide more efficient aircraft movement within the airfield and in some cases reduce runway occupancy time in accordance with AC 150/5300-13A, Airport Design.

**Existing and Anticipated Demand**

- An additional 22,000 square feet of gate space is needed to accommodate Group V aircraft on Concourse E.
- Additional Fixed Base Operator (FBO) space is needed to accommodate General Aviation activities for based aircraft.
- Additional aircraft maintenance facilities are needed to accommodate a combination of Airplane Design Group IV and V aircraft. A perimeter road will be needed to accommodate these facilities if they are located north of Runway 10.
- An additional hangar and connected apron area along with accompanying administrative office and employee parking is needed to accommodate Northrop Grumman’s manufacturing requirements.
- Additional deicing area is needed in proximity to Runway 15R during deicing conditions and for use as RON positions during other seasons. With this improvement the taxicab administration building and associated parking operations will need to be relocated. Additionally, various existing equipment and buildings need to be demolished to accommodate the expansion.
- Additional hold pad area is needed near Runway 10 to allow Airport Traffic Control Tower personnel more flexibility for departures.
A new terminal response fire station is needed outside of the airport operations area to serve as a secondary fire rescue facility to provide more efficient and timely emergency response capabilities to the terminal and landside facilities.

The airport maintenance complex needs to be relocated and consolidated to allow appropriate storage of snow removal equipment.

An additional runway deicing chemical storage tank is needed and a modified access road for better circulation is needed to accommodate projected demand.

Improve Customer Service

A sky bridge is needed at Concourse C to reduce walking distances to the hourly garage.

The terminal roadway needs to be widened and access to the hourly garage and potential hotel site needs to be improved to reduce congestion in the terminal area during peak periods.

The upper level roadway at Concourse E needs to be widened to be consistent with the existing terminal curbside/road between Concourse A and D. This improvement is also needed to accommodate future demand.

Preliminary Alternatives

Analysis of alternatives is key to the NEPA process. The EA will include consideration of reasonable alternatives to the Proposed Action. The number of alternatives considered will be influenced by the degree of potential impact as well as the stated purpose and need. The EA will consider potential alternatives based on the alternative’s ability to meet the purpose and need of the Proposed Action. It is anticipated that the following on-airport alternatives will be considered:

No Action Alternative - Consideration of the No Action Alternative is required by NEPA per the Council on Environmental Quality (CEQ) Regulations. The No Action Alternative represents the Airport without the improvements included in the Proposed Action.

Other Alternative – This alternative will include alternatives to specific improvements that may minimize impacts to environmental resources while satisfying the project purpose and need and meeting FAA standards.

Proposed Action Alternative – This alternative includes Proposed Improvements 2016-2020 identified on the FAA January 2015 draft ALP and as illustrated on Figure 1.

Environmental Analysis

The EA will assess the environmental consequences of the Proposed Action and reasonable alternatives. All categories of impact will be considered according to the criteria included in FAA Orders 1050.1F and 5050.4B. Impact analyses will be conducted for the first full year of implementation (2020) of the improvements and five years thereafter.
While all of the environmental impact categories identified in FAA Orders 1050.1F and 5050.4B will be addressed in the EA, the major emphasis is expected to be on those categories listed below. Preliminary review of the affected environment and available materials indicated that these categories may require detailed analysis.

- Air Quality
- Biological Resources
- Coastal Resources
- Historical, Architectural, Archeological, and Cultural Resources
- United States Department of Transportation, Section 4(f)
- Visual Effects
- Water Resources, including wetlands, floodplains, and surface waters

Preliminary review indicated that the following categories may be impacted and some analysis may be required.

- Climate
- Land Use
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Noise and Noise-Compatible Land Use
- Natural Resources and Energy Supply
- Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks
- Cumulative Impacts

Farmlands are not present in or around BWI Marshall Airport and will require no analysis. The EA will provide succinct documentation as to why this resource will not be affected.

The anticipated level of analysis for the resource categories is based on preliminary review of the affected environment. Ongoing field studies, detailed analyses and agency consultation will determine the appropriate level of analysis for each resource category.
The EA is anticipated to last approximately 18 months. Major milestones are depicted on the following schedule. Note that there will be another opportunity to participate in the development of the EA. It is anticipated that the Draft EA will be available for agency and public review and comment in May 2017. Comments on the Draft EA will be addressed as part of the preparation of the Final EA.

<table>
<thead>
<tr>
<th>TASK</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact Analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draft EA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draft EA Comment Period</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response to Comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final EA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEPA Finding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comment Form

See Attachment 4