

DC METROPLEX BWI COMMUNITY ROUNDTABLE  
c/o Maryland Department of Transportation Aviation Administration  
P.O. Box 8766  
BWI Airport, Maryland 21240-0766  
January 31, 2018

**SUBJECT: 2017 Annual Report of the DC Metroplex BWI Community Roundtable**

**INTRODUCTION**

The DC Metroplex BWI Community Roundtable members (RT) hereby submit our first Annual Report. This report is required by our charter with the Maryland Department of Transportation Aviation Administration (MAA). It includes the following topics: history, 2017 Roundtable meeting dates, current BWI operations – understanding the problem, RT request to date and the Federal Aviation Administration’s (FAA) responses, RT’s challenges in carrying out its obligations, possible solutions and conclusion.

**HISTORY**

The BWI Roundtable was requested by the FAA and formed by the MAA. In monthly meetings with the FAA, the Roundtable has sought solutions for the harmful effects brought about by the implementation of the DC Metroplex/ NEXTGEN scheme.

During our first meeting, held on March 21st, 2017, our Roundtable unanimously adopted the following resolution on an urgent basis:

The DC Metroplex BWI Community Roundtable requests and recommends that the FAA immediately revert to flight paths and procedures that were in place prior to the implementation of NEXTGEN and the DC Metroplex plan. They will provide urgent relief to residents adversely affected by these new flight paths and procedures. While a more deliberate and public-facing process to develop and implement NEXTGEN and a DC Metroplex plan is undertaken.

We have not wavered from this request to the FAA. Although, we have acknowledged that reversion may be "mimicked" using current or new technology.

The Roundtable meetings have consistently given FAA and MAA representatives a concise picture of the crushing impact that the NEXTGEN/DC Metroplex plan has had on Maryland residents living under current flight paths. Each meeting of the Roundtable involves technical discussions, presentations, as well as a public comment section. Individual homeowners have often given poignant and arresting descriptions of the damage being done to their lives, health, and properties. Not to mention their belief in government has changed as a result of how the federal and state governments allowed NEXTGEN to be implemented without any warning of, or protection from, the far reaching and life changing nature of it all. Many believe they are ambushed, abused, and abandoned by their government(s).

## **2017 ROUNDTABLE MEETINGS DATES**

The Roundtable has met as a working body on the following dates: March 21, 2017, April 18, May 16, 2017, June 20, 2017, July 18, 2017, August 22, 2017, September 19, 2017, October 17, 2017, November 7, 2017, December 5, 2017, January 16, 2018

The full agenda and presentations are on the MAA website:

<http://maacommunityrelations.com//content/anznoiseupdate/dcroundtablecalendar.php>

Two Roundtable members attended the initial Technical Interchange Meeting of the FAA's PBN Working Group in Linthicum on August 10<sup>th</sup>, one in person and one by conference call. The PBN Working Group had been announced by the FAA at our June 20<sup>th</sup> meeting as the primary interdisciplinary vehicle within the FAA for addressing NEXTGEN design/redesign issues in the DC Metroplex.

Additionally, three Roundtable members visited the FAA's Potomac TRACON facility, which is responsible for air traffic operations in the DC Metroplex, in Virginia on December 7<sup>th</sup>, 2017,

## **CURRENT BWI OPERATIONS – UNDERSTANDING THE PROBLEM**

The Roundtable has spent a large amount of time understanding the nature of the problem and has had to push very hard to get the FAA and MAA to describe what is happening in the BWI airspace. It is clear to residents that since the implementation of the NEXTGEN Performance Based Navigation (PBN) Air Traffic Control (ATC) system at BWI Marshall International Airport (BWI) there has been a drastic and unacceptable increase in the frequency, density and concentration of aircraft and noise over limited geography. Previously unaffected communities are now experiencing high volumes of aircrafts flying new and concentrated paths. We believe that this has a direct detriment on public health, the environment, and individual property values of residents under these new flight paths.

Prior to NEXTGEN, the ATC model utilized "vectoring" to allow for proper spacing and safety buffers between aircraft. Locally, this resulted in the dispersed, and noncontroversial, airplane operations at BWI. With the introduction of NEXTGEN vectoring, although still available, is no longer used in routine practice. Rather, Global Positioning System (GPS) aligned "waypoints" are used to create replicable procedures and standardized flight paths. This approach increases the predictability of operations and reduces pilot/ATC interaction; thereby potentially increasing safety. It also results in a continuous and disturbing number of planes traversing the exact same geography day-in and day out. Which is creating a nuisance for some and a painful, unbearable burden for others.

During the course of our education in the causes of the new noise problem, we have recognized that issues can be grouped into two main categories: departures and arrivals.

**Departures** (Image 1 provides a BWI runway map):

Issues have been identified for the two departure runways as follows:

#### Runway 28:

Flights departing from RWY 28, represent approximately 70% of all annual BWI westbound departures these all turn right immediately after takeoff which causes a significant increase in noise over Hanover, Elkridge, Columbia and Ellicott City. Prior to NextGen these areas had not previously experienced noticeable levels of plane noise. The turn takes place at approximately 800 ft. above ground level, which appears to be in contradiction of the FAA's Environmental Assessment required for the implementation of NEXTGEN in the DC Metroplex. The assessment states that NEXTGEN would result in no changes to flight patterns under 3000 ft. above ground level. Flights leaving RWY 28 heading south, approximately 30% of all departures, have been moved further west, concentrating noise over Odenton.

#### Runway 15R:

PBN procedures have led to much tighter turns off of RWY 15R, concentrating noise from low flying planes over Severn, Maryland. These planes continue along the path previously described for RWY 28 departures, concentrating noise over the previously mentioned Howard County communities.

#### **Arrivals** (Attachment 1 provides a BWI runway map):

We have been told that ATC is issuing a greater number of visual approach clearances to pilots and that approaching aircraft are being cleared directly to PBN waypoints. Both of these ATC procedures were enabled by the implementation of the NEXGEN system and have resulted in destructive noise in communities that previously were not impacted by aircraft noise. Aircraft are flying too low and too loud along the entire Annapolis peninsula and population centers of Anne Arundel County. These issues also affect Baltimore and Howard Counties but to a lesser degree due to the dominant wind direction-based nature of arrival and departure air operations at BWI.

Issues have been identified for the two main arrival runways as follows:

#### Runway 33L:

RWY 33L is used for approximately 70% of BWI arrivals. As stated by FAA operations representatives for BWI approach control, aircraft are being cleared direct to the PBN waypoints to RWY 33L as opposed to vectored sequencing along the entire final approach course. The lack of vectoring has concentrated these aircraft onto specific areas and caused repetitive paths over major population centers along the Annapolis peninsula. Resulting in the introduction of unacceptable aircraft density and frequency in the same airspace over the same populations. In the case of at least one of the waypoints over Crownsville, titled SPLAT by the FAA, there were very few planes using this waypoint prior to the implementation of the DC Metroplex/ NEXTGEN project, but is now a major "highway" for BWI arrivals.

As further stated by FAA operations representatives for BWI approach control, the frequent ATC procedure of clearing aircraft for visual approaches has had the effect of alleviating pilots' obligation to comply with published arrival and approach procedure altitudes. Which results in much lower flying aircraft from as far out on arrival as the RAVNN waypoint to the northeast of

Deale. This has directly translated into an unacceptably lower altitude for regular flight operations across the entire Annapolis peninsula and the final approach corridor into 33L. Not to mention these approaches are lower than IFR standard glideslope intercept altitudes. In many instances the MAA has catalogued of planes flying far below 3,000 ft. above ground level in both Anne Arundel and Howard Counties.

Runway 10:

RWY 10 is used for approximately 30% of BWI arrivals, primarily for the airport's "East Flow" operations. All of the detrimental issues identified for RWY 33L also exist for RWY10, with high concentrations of loud, low flying planes over Ellicott City and Columbia, where few if any existed before.

## **ROUNDTABLE REQUESTS TO DATE AND FAA RESPONSES**

The BWI Roundtable has made the following three major requests of the FAA and received the corresponding responses:

1. *March 31, 2017 request:* To the FAA Administrator following our March 21st, 2017 resolution for the FAA to revert to pre-DC Metroplex/NEXTGEN flights and procedures.

*FAA response:* The FAA responded in a letter dated May 12th, 2017 from Lynn Ray, VP Mission Support Services, that reversion could not happen immediately because the procedures no longer existed. But that the FAA was committed to giving full consideration to our request. At the June 20<sup>th</sup> meeting the FAA presented its preliminary plan for moving both RWY 28 and RWY 15R departure flight paths to notional zones. But they offered nothing with respect to dispersion, altitude, or arrivals.

2. *July 25, 2017 request:* To Robert Owen, Assistant District Manager, for the FAA to implement near-term procedures to increase altitude and, by re-instating vectoring, recreate dispersion. Robert Owen stated at our July 18<sup>th</sup> meeting that these procedures were feasible and could be implemented readily upon receipt of FAA authorization. Lynn Ray repeatedly stated that these operational procedures were within Robert Owen's area of authority because they did not involve changes in instrument flight procedures.

*FAA response:* Despite repeated requests, we never received a written response to our July 25th, 2017 letter. However, shortly following the letter on a conference call with Lynn Ray and Robert Owen, Robert Owen explained to the chair of the RT, that he planned to meet with controllers and other relevant persons to raise awareness of altitude and dispersion issues. Essentially implementing operational procedures on an informal basis. Robert Owen later communicated that such informal steps would first require formal steps be taken to comply with the National Environmental Protection Act (NEPA). At a planning meeting with the MAA for the PBN Working Group meetings, the FAA provided slides that identified the Roundtable's concerns about altitude and dispersion while also setting tentative plans for shifting RWY 28 and RWY 15R departures to notional zones.

3. *September 8, 2017 request:* Reversion on flight paths and vectoring to recreate dispersion and requesting procedures be implemented so that arriving, departing, and crossing aircraft fly at the highest safe altitude. We also listed all of our concerns to give the PBN Working Group necessary information to guide their work. We were subsequently unofficially told by various PBN Working Group members that our letter had not been shared with them and that they were therefore unaware of the totality of our concerns.

*FAA response:* Jodi McCarthy, new VP mission support services, wrote in a letter on November 21<sup>st</sup> letter. That the FAA is pleased to consider community concerns and proposed solutions. Yet there was no explanation as to why the FAA cannot go back to the “conventional system”. Additionally, the PBN Working Group stated that the FAA would consider ways to increase dispersion while making no informative comment on altitude. They claim the FAA was committed to transparency.

Finally, at our January 16<sup>th</sup>, 2017 meeting we were informed by Paul Shank, Chief Engineer for the MAA, that the PBN Working Group work was nearly complete. Done without any additional changes to design of procedures for the BWI airspace aside from the shifts of departing flights from RWY 28 and RWY15R into the previously described notional zones.

## **RT'S CHALLENGES IN CARRYING OUT ITS OBLIGATIONS**

The RT has been unable to effect significant change to the NEXTGEN/DC Metroplex plan. While the FAA’s proposed changes to departures from RWY 28 and RWY 10 are expected to be an improvement over the current paths. We have made no progress on arrivals, raising altitudes, or restoring dispersion. We have recently identified certain challenges in carrying out our obligations. They are as follows:

- The FAA essentially disowns responsibility for the noise and other environmental harm it causes by its decisions and refers these matters to the local airport operator. There is no federal legislative mandate requiring the FAA to consider or address the “complete” noise effect of its NEXTGEN plan. Nor even to work “in good faith” with affected communities to reduce the noise to levels that are compatible with established residential development.

An example of this is the FAA’s lapse in following the Maryland Environmental Noise Act of 1974. An act which grants citizens protection from the impact of transportation related noise. The aviation portion of the act requires the MAA to create an Airport Noise Zone (ANZ) to control incompatible land development around BWI Marshall as well as a Noise Abatement Plan (NAP) to minimize the impact of aircraft noise on people living near the Airport. An ANZ and NAP were first established for BWI Marshall in 1976 and were later updated in 1982, 1988, 1993, and 1998. An updated ANZ was certified on November 6<sup>th</sup>, 2007.

The MAA has been working with communities for many years to comply with the Environmental Noise Act; and considering the results of NextGen, the FAA completely ignored Maryland State law, the NAP, and standards when plotting new way points.

- The Noise Standards used by the FAA, which were adopted in 1971, are outdated and do not reflect the precise and unremitting effects of concentrated flight paths over limited geography created by modern technology. The FAA asserts that it is in compliance with all noise and other environmental requirements, yet thousands of airport community residents around the country are harmed by the adverse environmental effects of NEXTGEN. Clearly the legal standards are inadequate to protect citizens from the FAA's actions.
- The FAA's decision-making and reasoning are opaque and remote.
- The timeframes for taking effective action to alter the NEXTGEN system, even in small ways, are quite short.
- The RT was not created until 2 years into the NEXTGEN implementation process at BWI, after the initial designs and studies had been completed.
- The FAA has refused to redesign the current flight paths to increase airplane dispersion or raise altitudes.
- The RT has been unable to get clear information on the NEXTGEN flight paths that is understandable to regular citizens, such as RT members. For instance, maps given to the RT continually have no recognizable geographic or topographical features on them. This makes it difficult to ascertain the effects of the paths on the residents of the legislative districts represented by the RT members.
- Other requests to the MAA and FAA have been ignored or only partially addressed. The RT has made an effort to organize and prioritize the many requests for information to both the FAA and MAA, with very limited success in getting useful information.
- The RT's ability to influence the FAA is extremely limited and consists largely of "imploing" the FAA to solve the problem it created.

## **POTENTIAL SOLUTIONS**

The following are possible actions that the RT could take to partially meet the challenges identified:

- *Specific requests of the FAA.* While the FAA has denied key elements of our general request for reversion and appears to have shown little initiative in developing solutions to solve problems that the RT has identified, Jodi McCarthy states in her letter that the FAA will consider community requests. This may put the RT in the unenviable and politically untenable position of making proposals that benefit certain communities, while harming others. This pitting of communities against one another in order to push the noise around is abhorrent.

- *Greater political support; remedial legislation.* Seek legislation and other political support at the federal, state and local levels to compel the FAA to act. The FAA reauthorization bill may be the vehicle for a new federal law. The BWI RT has drafted proposed legislation; it is being reviewed by RT members and members of other affected communities near NEXTGEN airports, including DCA, Logan, LaGuardia, as well as U.S. Senator Van Hollen's office.
- *Maryland action to compel the FAA.* Encourage the state of Maryland to proceed vigorously with a lawsuit to compel the FAA to correct the harm that Maryland residents who live under or near the concentrated flight paths are suffering from and give the RT's full support however we can.
- *FAA processes.* Complain vigorously to the FAA regarding the harms we are suffering from and comment on any procedures/rulemakings wherever possible.
- *New PBN Working Group.* The RT should work with the FAA to convene another version of the PBN Working Group to address issues such as dispersion, altitudes, and arrivals that were left unaddressed by the current group. We have been told that the FAA is out of budget for a new effort; perhaps our federal delegation can assist.
- *MAA and airport support.* Given that the FAA has largely not addressed the problems we are facing, consider petitioning the MAA, state, and local governments to require BWI airport to among other things (i) refrain from expanding facilities or operations that could lead to an increase in frequency of aircraft flights or noisier flights, (ii) reduce and restrict hours of operations to mitigate the adverse effect of the FAA's actions, (iii) demonstrate national leadership by applying a "best practices" approach and take all actions to reduce noise from departing and arriving aircraft and (iv) when conducting environmental reviews, not rely on outdated and ineffective noise and other legal standards; but apply more stringent standards relevant to the BWI communities and the nature of air traffic at BWI.
- *Airline help.* Petition the airlines to take actions within their control to reduce noise, whether through operational steps, fleet mix, or otherwise.

## CONCLUSION

The DC Metroplex BWI Community Roundtable was created at the insistence of the FAA to act as the vehicle for addressing the harmful noise issues associated with the NEXTGEN/DC Metroplex project. Unfortunately, it appears to be a largely unsatisfactory approach. At this time, we believe there must be a change in approach in order to achieve broader results.

*Without a major change in federal legislation, or a successful lawsuit, that creates mandatory incentives for the FAA to mitigate the situation the RT will fail in its goal of returning to a reasonable facsimile of the noncontroversial airport operations that existed at BWI prior to the implementation of the NEXTGEN/DC Metroplex project.*

Despite the very limited positive outcome of the RT to date, the RT still has important work to do. The FAA will return to our April 2018 meeting with a full description of the changes that they are making to the departures from RWY 28 and RWY15R as a result of the PBN Working Group process. The RT will be the primary vehicle for community reaction to those proposed changes, and will be required to monitor progress well into final implementation of the new procedures, expected sometime in mid-2019.

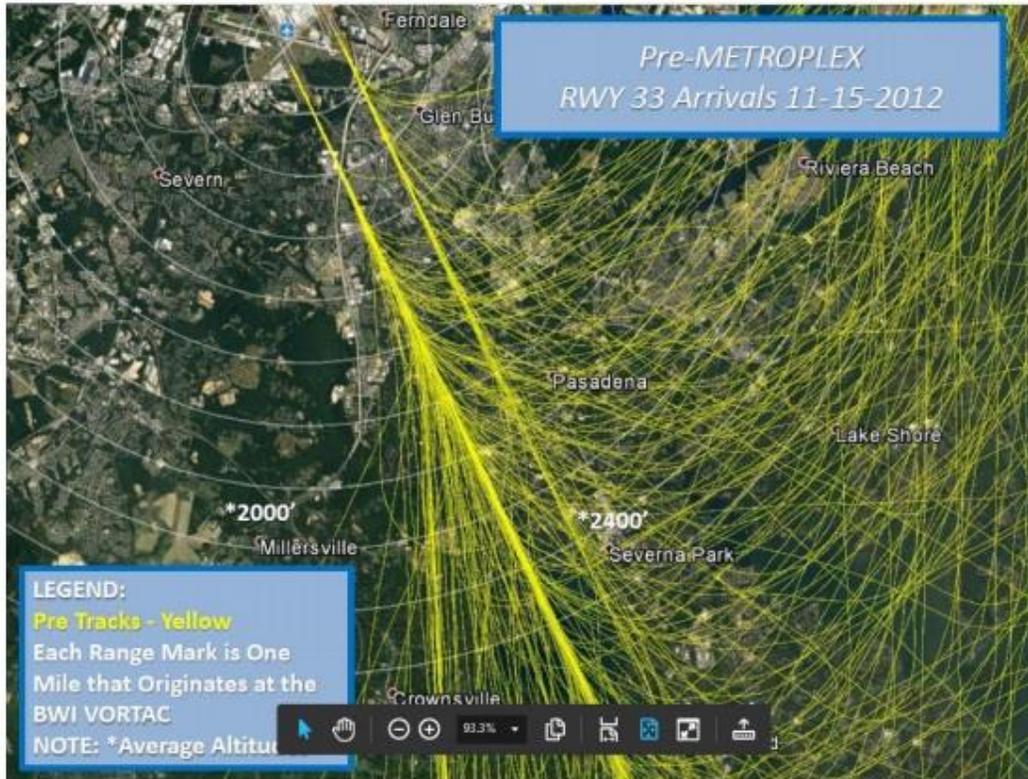
It is also foreseeable that the RT will continue to work with the MAA and the airlines on operational changes within their control that may mitigate the noise effects of NEXTGEN at BWI.

The RT has gained valuable knowledge of the technical components of the new noise problem at the airport caused by NEXTGEN's implementation per the FAA. We believe that knowledge will be important as federal, state and local decision makers take the lead and continue to grapple with this issue. We hope that the RT can play a key supporting role in that effort.

Finally, we wish to conclude this report by reiterating that, at the BWI Roundtable meetings, numerous community residents harmed by the situation at BWI speak out publicly about their sorry predicament, the substantial negative impact on their health and mental wellbeing, their rest, their family, their ability to function at work, their use and enjoyment of their homes, the value of their single largest personal investment and their communities. This situation at BWI is not one where the harm is a potential one or one that may occur in the future. The harm is real and Maryland residents are bearing this harm now. Our government must act urgently to protect its citizens and resolve this harm.



## Arrivals into RWY 33L (Pre)



BWI Roundtable  
April 18, 2017

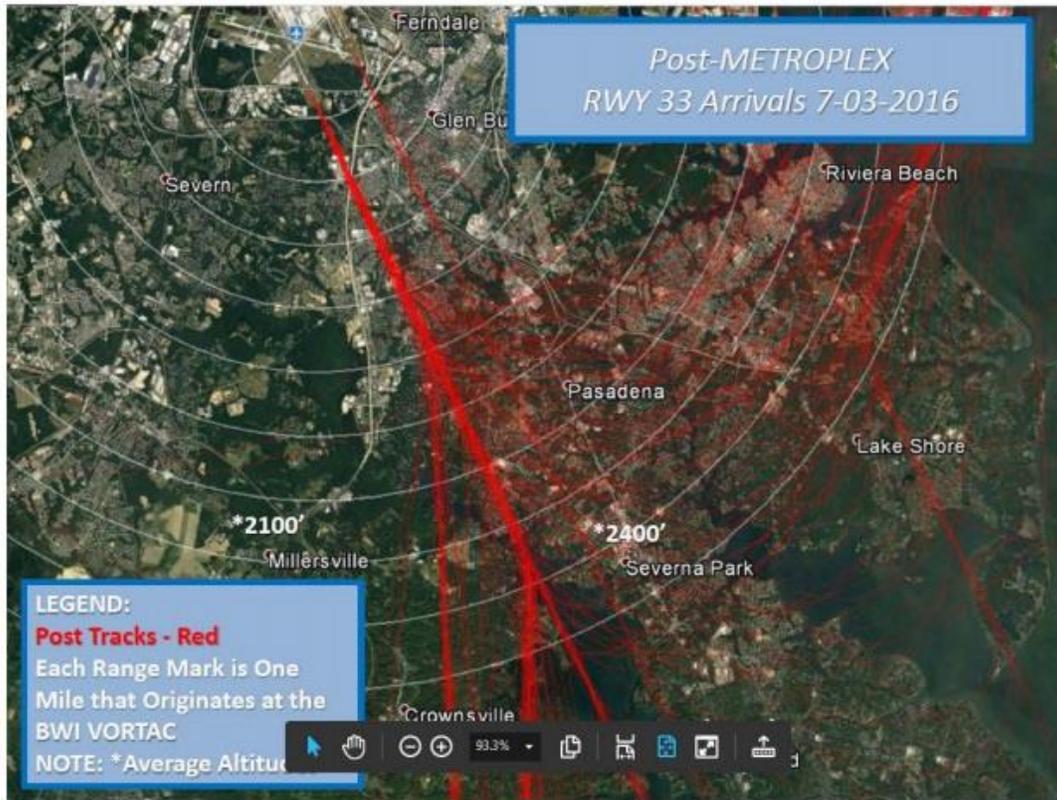


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Image 2: BWI ARRIVAL 33L PRE-NEXTGEN

## Arrivals into RWY 33L (Post)



BWI Roundtable  
April 18, 2017

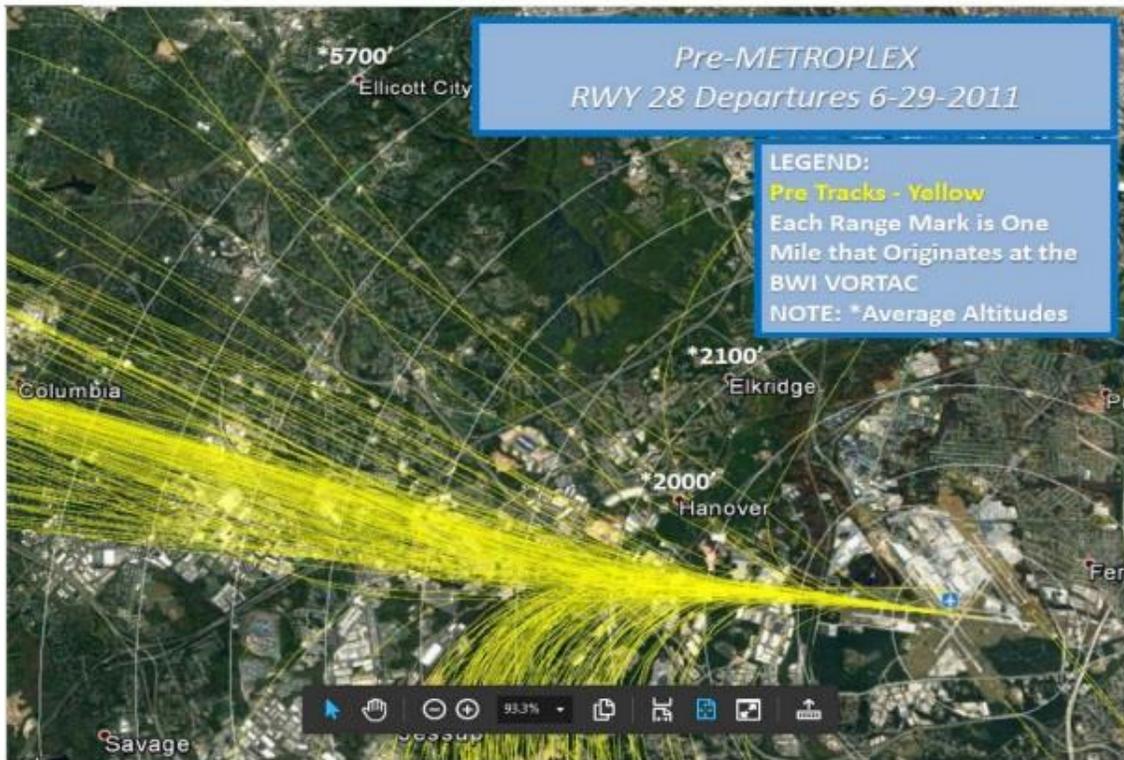


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Image 3: BWI ARRIVAL 33L POST-NEXTGEN

## TERPZ SID - RWY 28 (Pre)



BWI Roundtable  
April 18, 2017

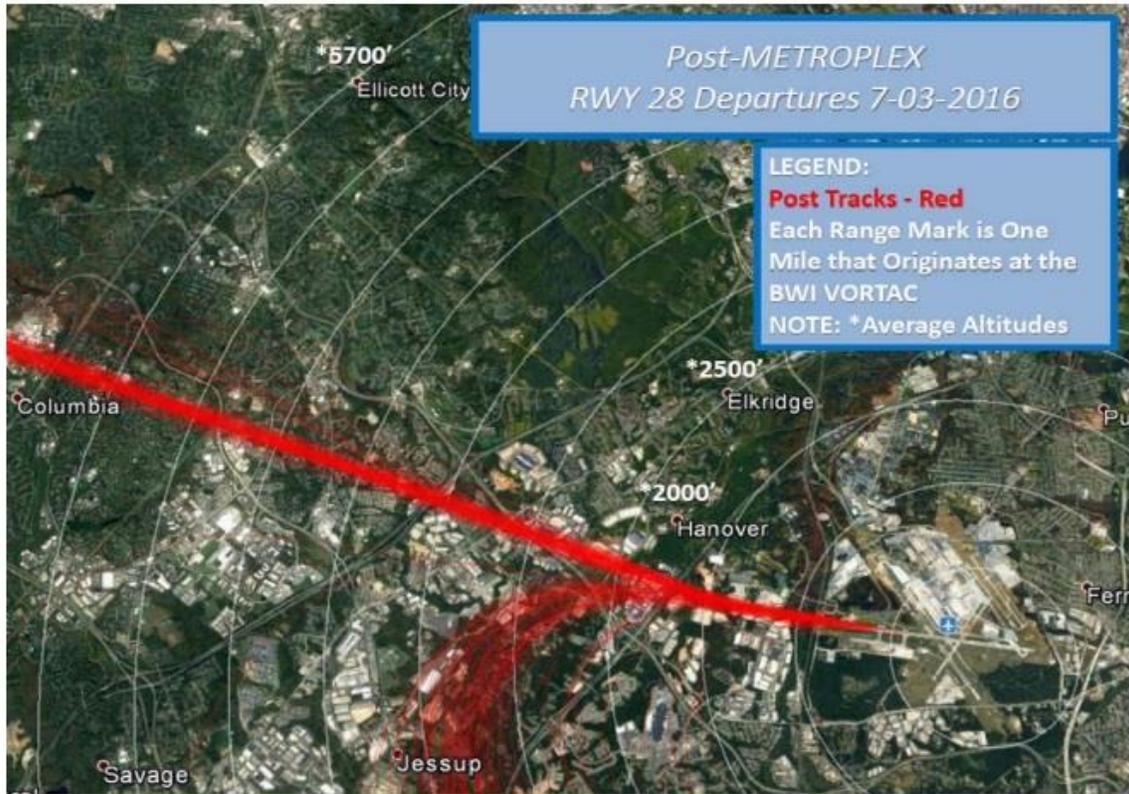


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Image 4: BWI DEPARTURE 28 PRE-NEXTGEN

# TERPZ SID - RWY 28 (Post)



BWI Roundtable  
April 18, 2017

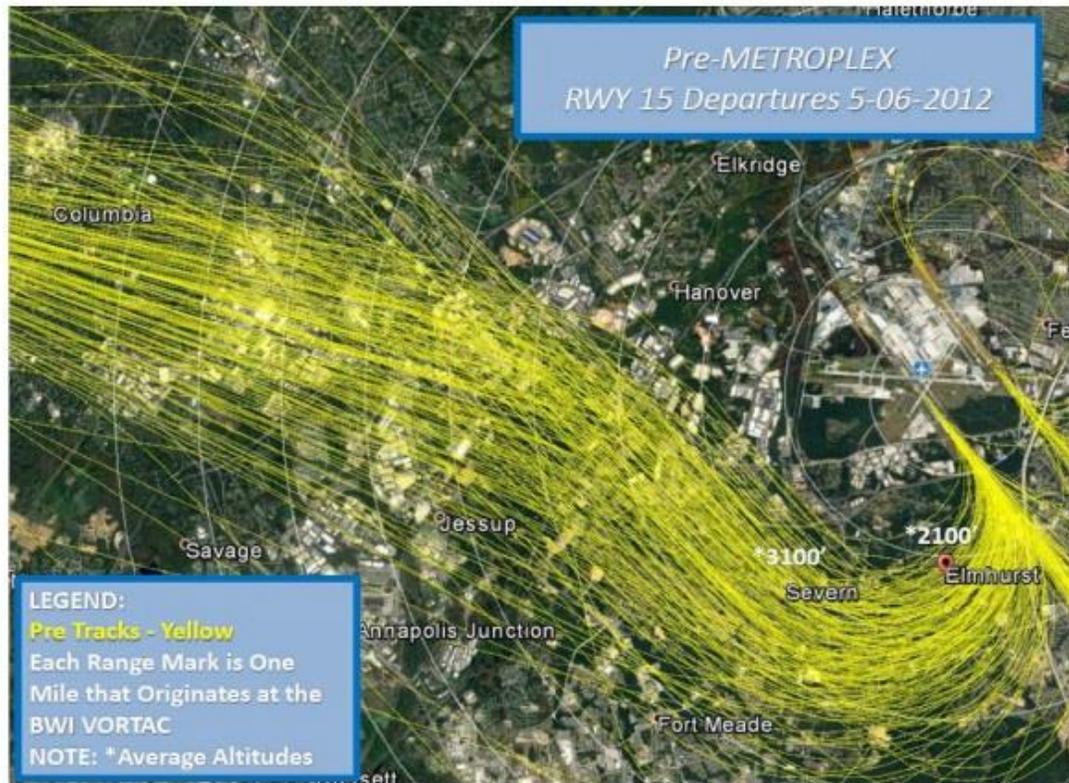


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Image 5: BWI DEPARTURE 28 POST-NEXTGEN

## TERPZ SID - RWY 15R (Pre)



BWI Roundtable  
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Image 6: BWI DEPARTURE 15R PRE-NEXTGEN

# TERPZ SID - RWY 15R (Post)



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Image 7: BWI DEPARTURE 15R POST-NEXTGEN