

DC METROPLEX BWI COMMUNITY ROUNDTABLE WORKING GROUP

PUBLIC MEETING

Fourth meeting of the DC Metroplex BWI Community Roundtable Working Group

Tuesday, June 20th, 2017

MAA Offices
991 Corporate Boulevard
Linthicum MD 21090
Assembly Rooms A/B

7:00 PM - 10:18 PM

DRAFT MEETING MINUTES

(DRAFT as of 7/15/2017; to be considered for approval at the July Roundtable meeting)

PARTICIPANTS

Lance Brasher, Chair*	Christopher Yates, Vice Chair*
Evan Reese (alternate for Mary Reese)*	Gary Smith*
Erica Wilemon*	Jesse Chancellor*
Rusty Toler* (absent)	Paul Verchinski*
Bennie Hutto, NATCA	Elizabeth "Lynn" Ray, FAA
Robert Owens, FAA	Steve Alterman, CAA (absent)
Greg Voos, NBAA (absent)	David Richardson, Southwest Airlines
Dan Klosterman*	Paul Harrell*
David Scheffenacker, Jr.* (absent)	Drew Roth* (absent)
Howard Johnson*	Phil Nicholas (alternative for David Lee)*
Bryan Sheppard* (absent)	Patrick Daly, Jr. *
John Belk, FAA	Marcus Parker
Paul Shank, MAA	
Ellen Sample, MAA	
Mary Ellen Eagan, HMMH	
David Crandall, HMMH	
Katherine Preston, HMMH	
Alverna "A.J." Durham, Straughan	
Adam "A.C." Pusateri, Mitre	
Karl Meyer, Mitre	
Randy McGuire, Mitre	

*Voting Members

MEETING MATERIALS (APPENDED)

Participants received the following materials in advance:

- June 20th, 2017 Meeting Agenda
- Draft Meeting Minutes from May 16th, 2017

Displayed at meeting:

- FAA provided members of the round table with four handouts of background documentation to supplement FAA's presentation
 - o Center for Advanced Aviation System Development
 - o MITRE: An Overview
 - o Baltimore/Washington International Thurgood Marshall Airport (BWI) Traffic Analysis and Notional Paths Briefing – Abbreviations
 - o BWI Traffic Analysis and Notional Paths - Analysis Methodology Summary
- FAA presentation (abridged version presented; complete presentation available by request)
- MAA presentation
 - o On Noise Complaints for BWI

Introductions

Mr. Lance Brasher (Chair) welcomed attendees and began the meeting. He gave a brief overview of the Roundtable for new participants, and the Resolution requesting that FAA revert to pre-Metroplex air traffic routes to provide relief to the communities. The resolution was passed at the March meeting, and followed up with a letter to the FAA. The Roundtable was supported in the request by the entire Maryland Congressional Delegation, Howard and Anne Arundel Counties, and Governor Hogan.

The FAA provided a written response from Ms. Lynn Ray, Vice President for Mission Support Services. The letter states that the FAA is committed to working with the Roundtable to find solutions, giving full consideration to the Roundtable recommendations, and keeping the group updated. The FAA is giving this work a high priority, but the process may take 18-24 months. In the interim, the FAA will work with the Roundtable to identify and potentially implement other short-term operational changes that could provide relief.

Mr. Brasher stated his expectation for the FAA presentation on notional designs to take most of the meeting. Because of the amount of time needed for FAA, public comments would be deferred to the end of the meeting. If we run out of time we will commit more time for public comments in July.

Review and approve agenda

Mr. Verchinski made a motion to approve, Mr. Yates seconded. Agenda is approved.

Review and approve May 16th, 2017 meeting minutes.

Mr. Daly repeated comments that he made in the last meeting which were not captured. He reiterated that a letter was sent to the FAA in early April requesting a Town Hall meeting for Anne Arundel County residents. Ms. Ray responded that the Roundtable was a sufficient forum for discussion.

Mr. Yates made a motion to correct participant list because Mr. Voos was not in attendance at the last meeting.

Mr. Verchinski noted that there is a blank space for FAA's web address and requested this information be filled in.

Mr. Verchinski made a motion to approve the minutes subject to the aforementioned changes. Mr. Smith seconded. Minutes are approved.

FAA Presentation

Ms. Ray introduced Mr. Bennie Hutto and Mr. John Belk, who will be giving the presentation. There is a good deal of extra background information that the FAA will provide, and will post the full slide version after the meeting. FAA is happy to come back to explain any of the analysis at future meetings, if we do not get to all questions. This presentation is focused on the changes to the procedures that have happened.

Mr. Belk introduced himself to the group. He spent 30 years in the Air Force as an air traffic controller. He has experience reaching out to communities as part of that role, and is also doing this now for FAA. He is now a manager in the office for Performance Based Navigation. Mr. Hutto and Mr. Belk work across the country, but their focus for the last 23 days and going forward is on BWI and your communities. Mr. Belk thanked the group for letting him speak. The FAA has heard your concerns and will provide you with information to help with your analysis. Below is the agenda for FAA's portion of the presentation:

- PBN Design Influences and Factors
- Lateral Analysis
 - o Traffic Density Changes
 - o Analysis of Track Data Changes
 - o Notional Designs
- Vertical Analysis
 - o Altitude Distribution Changes
 - o Vertical Profiles
- Speed Analysis
- Ground Speed Distribution Changes
- Notional Path Discussion
- Notional Next Steps

Mr. Randy McGuire of Mitre described their role and assistance to FAA, then introduced Mr. Adam Pusateri and Mr. Karl Meyer, who provided staff assistance and helped prepare the presentation.

Mr. Belk described the (4) handouts which discussed project overview, data sources, acronyms, and terminology.

PBN Design Influences & Factors

Mr. Hutto described the constraints to airspace that are a dominant factor on how and if current procedures could be changed.

Mr. Hutto described BWI runway configurations. He discussed primary operations to the west and changes that occurred due to runway closures in addition to Metroplex implementation.

Mr. Belk explained that it was important to consider changes from the runway closures, to understand the data and what was due to NextGen versus runway closures. The version of the MS PowerPoint that was presented tonight is 60 slides [referred to as the "abridged version"], and focuses on the main changes. A full version of the presentation that is over 140 slides is available for review; it includes every runway end and every procedure, regardless if there was a change or not.

Mr. Hutto went over special flight rules area, Air Traffic Control (ATC) considerations, flight restricted zone, and class B Airspace (up to 10,000 ft.). The FAA tries to separate all instrument flight rules (IFR) aircraft within Class Bravo airspace, and visual flight rules (VFR) aircraft are below that threshold.

There is additional Chesapeake Bay airspace with other requirements and standard operation procedures that we have to take into account when designing procedures. Aircraft that fly in the Chesapeake Bay airspace also require certain equipment.

Mr. Belk explained that pilots operating under VFR in this area have to have certain equipment and be in radio contact, because this is such a congested airspace with a lot of commercial flights.

Mr. Hutto talked about lateral analysis for Runways 28 and 15R 2014-2016 for TERPZ3 and TERPZ6.

Mr. Hutto showed a traffic density map that compared June – July 2014 with June – July 2016. Mr. Belk explained what these maps represent and how the colors show the number of aircraft in a certain area on each day.

Mr. Evan Reese asked if FAA developed traffic density maps for December 2016 – January 2017 timeframe to show what the picture looks like with prevailing winds shift. Mr. Belk said FAA only developed analysis for the June 2014 and June 2016 timeframe, but that they could take a look at that.

Mr. Hutto then showed TERPZ routes from Runway (Rwy) 28. It depicts 150 randomly selected flights from both 2014 and 2016 to show the shift produced by the Metroplex procedural changes.

Mr. Verchinski asked why the bulk of the flights on Rwy 28 TERPZ departures shifted to the north, and who made that decision.

Mr. Hutto said some rules came out of Atlanta regarding Equivalent Lateral Spacing Operations (ELSO), which allowed FAA to reduce separation to 10 degrees. These changes were based on Dallas, Texas, procedures. The routes are slightly shifted north because of the south departures on CONLE. This is a result of the tower using these new tools. There were procedures in this area to the north before, just not as many.

Mr. Reese asked which order FAA was using: 7100.41A or 8200? Mr. Reese explained that he thought the FAA stated that order 7100.41A should not be used for Metroplex anymore. Mr. Belk stated that that order was not used for development and implementation of Metroplex processes, but FAA will be using 7100.4A going forward. This is no longer a Metroplex process, as the post-implementation is complete. We are using this order for the review and revision phase.

Mr. Nicholas asked when was flight procedures shifted to TERPZ6? Mr. Hutto responded February 4, 2016.

Mr. Belk stated that the PBN working group for BWI will kick off in August. The different orders are different processes/tools that FAA can use to develop procedures. There is not just one set of tools to develop routes. We use a selection of tools to try and minimize impact on communities, while preserving flight safety and efficiency.

Mr. Hutto then stated that FAA will show “notional path areas” tonight, not actual notional procedures. Mr. Reese asked if FAA will discuss altitudes with notional path areas this meeting. Mr. Hutto said that TERPZ does have a minimum altitude and climb. The working group that will get together in August will be looking at altitudes. Mr. Belk reminded the group that Air Transportation Organization (ATO) has a huge range of aircraft to take into account when developing the procedures, and not all aircraft have the same capabilities. The idea is to provide a more dispersed path. The FAA workgroup has the tools to do

that, and Mr. Belk, Mr. Hutto and the Mitre team are collecting the Roundtable's input and questions to share with them. They will be joining the team in Atlanta to make sure they're on the same page.

Mr. Hutto described that there are multiple options to review. The FAA has heard a lot about 3 Distance Measuring Equipment (DME) in these meetings. Specifically the communities have asked not to make any turns until 3 DME. This is not GPS equipment; it's for ground-based waypoints.

Mr. Hutto then showed the southeast-bound Standard Instrument Departure (SID), the CONLE3. In 2014, the flights took manual turns south earlier than in 2016. All of the 2014 lines are vectors, and flights have to reach a certain altitude before they can make the turn. In 2016, aircraft navigate to a waypoint which creates a more concentrated flight path. There are certain times when air traffic controllers will route the flights off the procedure, depending on what else is happening in the airspace.

Mr. Brasher asked about the relationship between BOSLY and RASIN, and Mr. Hutto described that planes have to pass BOSLY before they start turning, and they aren't all as tight turns. The dashed line on the diagram is illustrative but planes are really arcing out to take a turn, planes don't take a sharp straight line.

Mr. Brasher expressed difficulty in identifying where all of the points are displayed. Mr. Belk stated that FAA will provide the latitude and longitude for each of these points, and will display the points on a better map that shows communities. If the goal is having more dispersion, FAA may be able to move the waypoint further to the southeast.

Mr. Reese asked if the cutoff for the analysis was the last waypoint. What is the cutoff distance and altitude? It shouldn't just be a function of distance but altitude too. Mitre staff clarified that they didn't stop the analysis at RASIN, and that data is available further out from the airport.

FAA then showed traffic density maps to the south with departures from Rwy 15R from 2014 to 2016. Tracks got more concentrated and the amount of flights nearly doubled. Westbound traffic moved north, southbound moved east, in addition to increased concentration. Mr. Brasher asked for reasoning behind the increase in flights. Mr. Hutto stated that there were no closed runways at the time and possibly weather may have played a role in the increase of flights.

Notional areas were shown for the westbound and southeast departures. Arrivals from the west and traffic to the south will have to be considered.

Lateral analysis / Departure Summary

Lateral analysis for arrivals on Rwy 33L and 10 was discussed. Mr. Hutto showed the density map. Mr. Belk described the final approach. Mr. Belk explained that pilots are extremely busy in this phase of flight. The FAA has to develop the final procedures to work in the most adverse conditions. Air Traffic is restricted by certain FAA orders on how low and how high they can have aircraft on final approach (typically a 3° angle). Aircraft can't be higher than a certain altitude on final approach because the aircraft is too high and trying to slow down as they're descending. These are considerations and constraints in development of procedures.

Density maps showed more concentration on downwind leg and upstream, but do not show a large change for final approach of arrivals coming from the southeast. Mr. Brasher stated that there has been a big change in that area. There was a large increase in flights from 5,163 in 2014 to 13,690 in 2016.

Mr. Hutto showed the routes for RAVNN arrivals from the 2014 – 2016 samples.

Ms. Wilemon stated that the number of flights and concentration has really increased. Mr. Belk said that dispersion is really difficult to do inside the 10-mile range, but FAA will look at other options closer to

the airport. There may be an opportunity for a charted visual approach when conditions permit. The PBN Working Group is going to be looking at how to reduce the impact to the community. Ms. Wilemon mentioned that Denver and Houston airports shifted the “funnel” of approaching flights away from homes and schools.

Mr. Brasher said that the diagrams FAA showed before for these arrivals looks very different from the flight density maps. They showed a much more dispersed pattern prior to Metroplex; there was no turn at SPLAT from the south. Ms. Ray reminded the Roundtable members that the prior diagrams were just showing a single day, and they were not representative. Mr. Brasher noted that the diagrams from the single day were more representative of the communities’ experiences. Mr. Belk offered to go back and develop density maps that display a monthly basis. All of the Roundtable’s comments and concerns will be shared with the PBN Working Group.

Mr. Belk noted that two FAA Environmental Protection Specialists (EPSs) will be on the working group to ensure FAA is doing everything possible to move traffic away from communities. The FAA also has a legal responsibility to consider environmental justice. Ms. Wilemon asked if those EPS FAA staff were involved in the Denver project. Mr. Belk said that individual staff members are in different regions, but have been sharing all the lessons learned across the country in the past several years.

Mr. Reese asked if there is an opportunity to shift airspace. Mr. Belk stated that it is a multi-year process to do that. There is a legal process required when you start looking at airspace changes. Ms. Ray confirmed that it would be a 3- to 5-year process.

Mr. Belk explained that airspace is like moving a fence, which requires an extensive legal process. Ms. Ray explained that moving the whole airspace is a formal rulemaking process, but changing procedures is not the same thing and is quicker.

A density traffic map was shown for Rwy 10 Arrivals.

Ms. Gail Sigel stated that the arrivals to Rwy 10 do not show traffic over her home, but there are planes all the time. Mr. Belk said that the full slide deck shows all procedures. Planes may be arrivals to Rwy 28.

Mr. Belk discussed vertical profiles of departures from 2014 – 2016. Similar altitude distributions at 5, 10, and 20 nautical miles from departures in 2014 vs. 2016, but some differences were discussed.

Next slides looked at vertical analysis for Rwy 33L arrivals and Rwy 10 arrivals.

Mr. Brasher asked how the flights were selected that are shown on the graph, if they were IFR or visual. Ms. Ray responded that all flights shown could be IFR or visual approaches.

Mr. Reese asked how representative these flights are to the overall total variation in types of flights. A Mitre representative responded that the flights were randomly selected, but that it was one flight for each percentage variation.

Mr. Harrell stated that the communities’ observations are that flights are coming in lower, and asked why that is not showing on these slides. Mr. Belk stated he wasn’t sure of the reason for the disconnect, but the data FAA used to develop these charts is very accurate. Mr. Reese asked for an analysis to show 2017 data because we [the communities] feel that traffic is up. Mr. Shank responded that the number of operations has not gone up significantly, but it is a good idea to show the data.

Mr. Brasher stated that his community started noticing the difference this past July (2016). Mr. Reese asked to clarify if the number of complaints was used to develop the timeframes for analysis. Mr. Hutto confirmed that the dates were selected based on what FAA heard in prior meetings (that most of the change occurred in 2015).

FAA moved on to discuss Speed Analysis.

FAA displayed charts showing departure speed distributions from each of the runways.

Mr. Shank noted that he recalled the Roundtable wanted to see flight path compared to population density. Ms. Ray stated that the EA was based on population centroid, but that MAA would have to provide the analysis for current population density along flight paths.

Mr. Shank noted that there was also extensive interest in visual approaches to Rwy 33L that the Roundtable wanted FAA to see. Ms. Ray noted that there are two processes here: (1) look at instrument flight paths related to Metroplex and (2) short-term operational changes, which are being considered by Mr. Robert Owens and his staff.

Mr. Verchinski clarified that FAA can write procedures that will randomly disperse planes within the notional path. It was confirmed that the flights will be randomly dispersed

Mr. Parker asked for the definition of dispersion. Does FAA mean by flight, day, or some other measure?

Mr. Belk responded that dispersion is referring to by flight, and confirmed that this is a possibility that the working group will review. Mr. Hutto reiterated that the working group needs to evaluate everything in the airspace because dispersion on one track will impact other air traffic.

Mr. Verchinski agreed for the need for flight dispersion. His home is about 5 miles away from the airport, and there are a lot of planes flying overhead at night and at peak periods. The frequency is a big problem.

The FAA representative then ran through the notional design areas for each of the runways with related departures and arrivals. Mr. Belk stated his optimism based on what the FAA has been doing at other airports recently, the dispersion may be even more than what is depicted in the purple areas.

Mr. Reese asked how the notional paths compare to NextGen and pre-NextGen paths. He asked for a percentage overlap. Did the notional path get back to (for example) 20% pre-Next Gen level? Mr. Belk was unsure if that was something that could be quantified.

Mr. David Crandall of HMMH noted the noise abatement procedure areas that FAA will need to consider. Mr. Chancellor also requested FAA to show the designs over Google Earth maps, so communities are more visible.

Mr. Parker asked that FAA add the sharp turn off Rwy 15R to the west to their list of serious community concerns. Mr. Belk agreed to look at operational changes to address that.

Mr. Chancellor stated that planes coming off Rwy 15R are loud in his community, but not quite as loud as the planes coming right off Rwy 28. He requested FAA review dispersing flights laterally, vertical profiles, and altitudes of the dispersion procedures. Mr. Hutto stated TERPZ3 has altitude procedures of 500 foot climb per nautical mile, and that he wasn't sure why altitudes were low. Mr. Belk asked Mitre staff to add air speeds, climb gradients, and minimum altitude to the list of items for consideration.

Mr. Chancellor also stated that the roundtable needs to review more data to look at notional designs for arrivals. He stated that the arrivals impacting Anne Arundel County were as bad as departure impacts in Howard County, and that he could not approve notional paths that help Howard County without any relief for Anne Arundel County.

Mr. Belk said FAA is willing to come back to the Roundtable again to respond to these requests, and encouraged everyone to review the full version of the presentation. Mr. Belk reminded the room that it takes time to get this information, and that FAA wants to show the Roundtable everything so their comments can go to the working group.

Mr. Belk then ran through the anticipated timeline for notional next steps:

- July/August: Analysis review; FAA will return to address other questions and requests.
- August: PBN DCA/BWI/IAD working group five-phase kick off meeting.
- September or early Oct: Follow-up meeting with BWI Roundtable, Co-Leads and facilities; present notional designs.
- February 2019: Notional publication date.

The FAA already has a placeholder for this project. Normally these projects take 24-36 months from the time of the kick-off meeting, but they've gotten the direction and authority to design and implement changes by February 2019. Mr. Belk asked for assistance and feedback during the July/August Roundtable meetings. This is a very tight timeline.

Mr. Brasher asked for graphics to show what the procedures were before Metroplex (2014) compared to notional designs.

Mr. Parker also asked for FAA to discuss the short-term operational changes FAA will develop at the next meeting. Ms. Ray stated that those things will not be done in the working group because it's a different effort; however, FAA will discuss the short-term and long-term efforts to address the issue. Mr. Belk reiterated that although these will not be discussed in the working group, issues are connected because it is one airspace and ATO.

Mr. Reese reiterated that the Roundtable wants to see arrivals and departures from start to finish. The procedures discussed tonight were not covered in their entirety. He suggests going out to 10,000 feet.

Mr. Reese commented that the snapshot was not encompassing enough, and was not the right year – the FAA needs to look at data from 2017. Mr. Reese did not think FAA was prepared well enough for this meeting, and did not discuss enough of each procedure. He stated that FAA should do a full SID, Standard Terminal Arrival (STAR) Instrument Approach Procedure (IAP), though they only provided a 50%. Mr. Reese expressed the need to look at the airport as a whole and further voiced his frustration. He understands that the FAA's job is difficult, but the FAA has the data to do the things the Roundtable is asking. Mr. Reese requested from Ms. Ray that the FAA go back and show more recent data. He is concerned that all the data needed will not be ready to provide to the working group in August.

Ms. Ray replied that the Roundtable's recommendation is vague and it is difficult to understand specifics of what they want to see. She mentioned that most other roundtables spent time doing the analysis that FAA completed; and, every time FAA has to go back and do analysis, it will push the overall timeframe beyond 18-24 months. The FAA does not have a problem looking at newer data, but Ms. Ray was not sure what additional information newer data would present.

Mr. Brasher stated that he understands FAA's position, but his experience and the communities' experiences are not what are being shown on the maps concerning arrivals. We feel that there was a change after July 2016.

Mr. Belk agreed to show month by month data from May 2017 back to July 2016.

Ms. Ray said that she understands that the problem is concentration over GRAFE, SPLAT and JANNS; regardless of what the more recent data shows, this group (the FAA and the working group) needs to think about what can be done in this area.

Ms. Wilemon said that FAA is willing to make changes regardless of what the data shows from 2017, and that is what the Roundtable wants.

Mr. Belk stated that no more data is necessary for him to see what the community is saying, as he values their qualitative input. This Rwy 33L arrival is going to take a lot of coordination.

Mr. Brasher asked for FAA to explain the tools in their toolbox to address these problems and talk internally about all the options. Mr. Belk stated that FAA is already doing this. He stated that there will be a number of coordination calls with the towers and all the right people in the FAA, before the working group officially kicks off.

Mr. Brasher asked what can be done by the July meeting.

Ms. Ray said that FAA can get the new data requested. They can discuss, in general, the tools available to FAA. Mr. Belk stated that they could show what was done in other airports by August. Ms. Ray stated late September – October is when FAA will be ready to come back with actual notional designs.

Mr. Belk said FAA can build a defined path off the end of the runway for TERPZ Rwy 15R departures. At that point, they can vector to a point further out before turning. This will be considered by FAA. Mr. Belk said the FAA is not going to throw any possibility away; they're going to look at everything.

Mr. Daly asked if, after a review of the unabridged version of FAA's presentation, some areas or data appear to be missing; can FAA go back and provide us with that additional data? Mr. Belk stated that they can look at additional procedures, and that FAA wants questions and to be alerted about places that may have been missed.

Mr. Brasher opened the floor for public comment.

Public comment

Mr. Mark Peterson, Elkridge – You've said that FAA hears us, but you don't seem to have listened to us about altitude. There is not a person here who hasn't seen multiple planes lower than your data is showing. So what is this sampling based on, is it time, distance, or other? It's your interpretation, but we can see with our own eyes that the planes are not where you say they are. How often is the data sampled and recorded? I am about 6 or 7 miles out from the airport, but the planes are much lower than graphs are showing. I'm talking only departures. I think they're lower than the supposed minimum of 3,000-4,000'. They're lower than anything I've seen in 20 years. Somehow there are these rogue flights not registering on the data and causing all the problems. I never used to be able to read an aircraft's tail numbers, but now I can. This is off of Runway 28.

Mr. Randy McGuire, Mitre – The data is collected daily from FAA's radar. We compile it and get multiple radar readings for each aircraft. It's a straight reporting of the altitudes as a function of the distance from the runway, every 4.5 seconds. This is for all aircraft regardless of IFR or VFR.

Mr. Belk added that when Mr. McGuire talked about threaded track, information comes from more than Baltimore; there are multiple radars that are getting information in between what the Baltimore radar systems are getting, so it's more frequent than 4.7 seconds. The FAA has high confidence that this information is accurate. Mr. Belk said he cannot explain the scenario where people say flights are lower than in the past because he only knows what the data says.

Ms. Gail Sigel, Hanover – Ms. Sigel stated that she agrees with the altitude statements from the Roundtable members that planes are lower. She asked if the graphs averaging distance or a snapshot. Mr. McGuire confirmed it's a snapshot at 5, 10, and 20 nautical miles. Ms. Sigel said she has noticed the planes are lower and asked for a snapshot closer in to the airport and at each mile (1, 2, 3, etc.).

Mr. Brasher asked everyone who thinks flight altitudes are lower to raise their hands, and most of individuals in the public seating public did raise their hands. Mr. Brasher commented that it cannot just be that everyone is wrong.

Mr. Harrell said his home is closer to the airport, so he cannot speak about flights further out.

Linda Curry, Severna Park – Ms. Curry asked Mr. Hutto if flights over Severna Park are at 1,100 feet. Mr. Hutto denied ever stating flights at 1,100 feet over Severna Park. Ms. Curry stated everyone agrees that all of these flights are lower, so there is something inherently wrong with the information presented by the FAA. The flights are lower over our homes. Ms. Curry said that she has lived in her home for 20 years and they are lower. The FAA needs to find out what is wrong with its system or the data.

Brent Girard, Representative for Senator Van Hollen – Mr. Girard asked if it would be prudent to have actual site visits or models and actual altitude measurements studies on the ground, in advance of the meeting in August.

Ron Pusloski, Elmhurst – Mr. Pusloski stated that he knows FAA is trying to help clean up the mess. In the month of May, there were 10,000+ flights with east departures. Twelve of 22 days we were underneath 90% of flights taking off, averaging 690 flights per day for those 12 days. That's 36 flights an hour during operating hours, or one flight every 1.56 minutes on average. Mr. Pusloski stated that he has been told aircraft are flying between 600-700 feet at 1 NM; they are lower and louder because they have higher load factors (planes are fuller) and need to use more thrust. He noted that there are more houses on the market in his community now than any time in the last 15 years. The values are lower, and homes are sitting on the market longer.

Mr. Pusloski stated that his health has deteriorated. It's depriving people of sleep. He did due diligence before buying his home, and first got involved with the airport issues in 1988 with the 1 DME turn. The final straw was when his grandchildren said they don't want to come to his house to play or sleep over because the planes are too loud. He would like to go back and address hours of operation too. The latest planes that took off used to be 11pm, and only a few. He suggested that BWI consider stopping the flights between 10pm – 6am. He put up with Stage 2 aircraft, but this noise is worse and the communities need help. His home is right at the 1 DME, and off the RWY 15R. He suggested getting a tax on every passenger flying out of BWI to fund mitigation measures. There is no money coming from the federal government for these programs. We recognize the economic benefits for the region, but we're suffering all of the impacts. He stated that his home is not in the noise zone because the models do not accurately reflect noise on the ground.

Mr. Marcus Parker said that he is going to submit the formal noise report from MAA showing the impact on all his community (Elmhurst and Queenstown). On December 26th, the noise was at 70 dB starting at 5 am and that is unacceptable.

Jimmy Pleasant, Ellicott City – Mr. Pleasant stated that 90% of the flights are Southwest Airlines, and that more planes are flying after 10 pm and before 6 am. They're MD 80s. Reagan National Airport had the same issues and asked airlines not to fly the noisiest aircraft between those times. American Airlines stopped and Delta stopped flying those models after 4 pm. This could be part of the solution for BWI. Mr. Pleasant stated that he thought departures increased by over 100 a day last month.

Debbie Wellons, Linthicum – Ms. Wellons asked why the FAA couldn't just start trying to implement solutions instead of looking at the data? She noted that data can be inconclusive. She suggested that FAA start by trying to raise the altitude of flights or implement a minimum altitude.

Mr. Shank said MAA will report back on operations numbers at the next meeting.

Mr. Parker asked if MAA can quickly run through the complaint data. Ms. Ellen Sample presented on the complaint numbers from 2005 – 2017. She stated that the summary of the data is that BWI did not have a noise problem before the final Metroplex procedural changes. Mr. Belk asked if MAA could provide FAA with complaint data with smaller pinpoints on addresses to be more precise.

Mr. Parker asked if Ms. Sample can plot noise complaints by runway - however, she does not have that information. Mr. Shank said that although not all complaints specify which runway the flight is coming from, MAA can deduce this information. Ms. Sample then displayed runway use information slides. These slides will be posted to the website.

Mr. Pusloski asked what the airport and FAA does with all of their complaint data, and if it has an impact. He asked if the complaint data will be used to prioritize solutions by the FAA.

Ms. Sample replied that the airport records all complaints from email, hotline, or through her direct phone line. MAA does their best to respond to people, but have had so many complaints that they have not been able to respond to a lot of them. There is not a lot MAA can do to resolve the complaints. Mr. Shank stated that the complaints helped in the forming of the Roundtable.

Laura Donovan, Ferndale/Linthicum – Ms. Donovan expressed frustration about the noise hotline because it does not have a tangible impact. Ms. Donovan has been impacted by helicopter noise.

Mr. Brasher announced that the next meeting will be held on July 18th, 2017, at 7pm. The meeting adjourned at 10:18 pm.S