

Charlotte Airport Community Roundtable (ACR)

Unapproved Summary Minutes: October 16, 2019

Attendees

Sara Nomellini, Chair, County 2

Kurt Wiesenberger, Vice Chair, Charlotte

Phillip Gussman, City 1

Loren Schofield, City 3

Priscilla Johnson, City 4

Alan Sauber, City 7

Sherry Washington, County 4

John Garrett, County 5

Sam Stowe, Belmont

Sayle Brown, Cornelius

Bob Cameron, Davidson

Bob Lemon, Huntersville

Walter Ballard, Lincoln

Call-in Participants: None

Theresa Brunner, Pineville

Thelma Wright, Mecklenburg

Kevin Vesely, York

Sean Muckenfuss, York (Central)

Gene Reindel, HMMH (Technical Consultant)

Sonya Busch, FAA (ex-officio)

Bob Szymkiewicz, FAA (ex-officio)

Stuart Hair, CLT (ex-officio)

Dan Gardon, CLT

Kevin Hennessey, CLT

Tracy Montross, American Airlines

Ed Gagnon, CSS, Inc. (Facilitator)

Cathy Schroeder, CSS

Summary Minutes

❖ Open the Meeting

- Meeting started at 6:00 PM. Sara Nomellini opened the meeting.
- Approve Minutes: Cameron moved to approve. Member seconded. All motioned to approve.
- Review Ground Rules by Gagnon: We have a huge agenda tonight so remember to have healthy, positive, respectful conversation during and after the meeting. Try to stay on task.
- Review Meeting Packet Information by Gagnon. Cover sheet, Agenda, Minutes, what came out of the last meeting, front and back document we will be talking about during Unfinished Business when CLT talks about the FAA Work Submittal Schedule. Next, PowerPoint by Kevin Vesely – last item in meeting. HMMH PowerPoint. Color key in front of you on table.
- New member representing Gaston Co. - Sam Stowe from Belmont. Flight background as a private pilot.
- Other FAA people in attendance introduced themselves: Pearlis Johnson – Deputy Regional Administrator (Southern Region), Jose Colon -- Community Engagement Officer (supporting CLT ACR), Reggie Davis -- Community Engagement Officer (New England Region – Jose’s backup).

❖ Receive Public Input: the following citizens were given three minutes to address the ACR.

- Person #1 - Todd Douglass

❖ Analyze/Uncover

- Ed Gagnon passed out a packet. Went over the Slate of recommendations. Slide 8 on ACR PowerPoint: Noted that we would be discussing #2 – Utilize Divergent Departure Headings and #6 – On south Departures, change heading at first turns off 18L (East) and 18C (West). Handout includes Guiding Principles - what the ACR is trying to do. Questions at bottom of first page are what Gene will ask after 1st presentation, then at the top of next page are questions that he will ask after 2nd presentation. The others are summary of survey conducted between meetings. Then written updates document.
- **Updated Population Data – Gene Reindel, Vice President HMMH**
 - Reindel: Airport got updated population data for us - the 2017 edition of the American Community Survey (ACS). Got this from the city of Charlotte. There are population differences. Analysis going forward will use this new data. Tonight is still the previous population data for consistency with prior analyses.
 - Ballard: What about updating populations to the counties north and south of Charlotte?
 - Reindel: Covers more than just City of Charlotte; don't know full extent of data, but we can address that.
 - Hair: It covers the whole Metropolitan Statistical Area (MSA). The system defines that as Concord, Charlotte, and Rock Hill. It does incorporate Union and Gaston Counties.
 - Ballard: So, it does not include Lincoln?
 - Hair: Correct. And it includes York County. The US Census Bureau does not have an updated estimate of Lincoln County population, and we cannot do an official estimate of its growth. I think we would have to discuss the source of any estimate and the method for using that source.

- Ballard: Given the growth that has occurred, I think we need that information.
- Reindel: Difficulty is we need population change for each grid dot. I suppose we could estimate the growth, but it is not as easy as applying 8% increase to those numbers.
 - Slide 4: Shows what we have been using - population for 2010 and Slide 5 is 2017. The # of 0 population drastically reduced from over 300 to about 30 grid points. The total grid population has increased about 88K. We also looked at where things are different. Red population increased. Green decreased. More areas of increase than decrease. We will be using the 2017 ACS population data going forward. When we do the expanded grid, we will use this updated population data.
- Wiesenberger: When you do the expanded grid, you'll use what you have updated, but if no update on areas that there is no new data, what will you do?
- Reindel: We will use the 2010 census for that. But where we have updated 2017, we will use that.
- Wiesenberger: Can you update on how much of that expanded grid is without data?
- Reindel: I cannot tonight because we have not expanded the grid completely, but I can get those areas highlighted that are 2010 census.
- Vesely: Was Lancaster County included in this?
- Hair: No. It is outside the MSA as well.
- Vesely: Are they not on the downwind rail?
- Reindel: Yes, I think so.
- Vesely: Don't you think they should be included? Significant growth there.
- Reindel: We think everything should be included that is on the grid. We only have data for what we have. We can't make up data; I would not recommend putting a percentage on it because as you can see in this area things have increased and decreased. It's not as simple as making up numbers. Data is not available.
- Vesely: Have you tried Lancaster County GIS?
- Hair: All of the GIS systems use a common source of information. They are published by various organizations - US Census Bureau being the primary source of demographic information. The US Census Bureau does an every decade census and then uses an extrapolated method, which is American Community Survey, to forecast what growth occurs in Metropolitan Statistical Areas (MSA). Lots of discussion about what counties should and should not be included in the MSA. The only defined period according to adopted law to change them is every ten years. There is really not a way to plug and play to meet the geography that we are defined here different than the way the Census Bureau has defined it, if we are going to use the latest information that they have given us.
- Wright: I understand the prior page, but I'm not clear about Slide 6.
- Reindel: This is showing you the difference by applying the 2017 ACS. Green is showing where population down - not many. Showing which grid points have changed.
- Ballard: When we expand the grid, it needs to be pointed out where the data is 2010 information.
- Cameron: What is the white area south of the airport on slide 6?
- Muckenfuss: I believe that is Carowinds, Westinghouse Blvd. area.
- Hair: We can validate that.
- **Slate Recommendation Analyses (Change Heading on South Departures)** – Gene Reindel, VP HMMH
 - Reindel: Slide 7: First of two presentations: Changing Departure Heading: I added in the red arrows – not exact placements of where the turns are different. Solid lines are how we are turning today; the dashed lines are the changes in headings. We modified the 2018 south flow only departures. Where they currently (west) turn at 270 degrees, we had them turn at 240; to the east, where they currently turn at 090 degrees, they would turn at 120 - turning at a shallower angle. We compared those results with the baseline results in terms of # of annual-average overflights and the # of daily noise events above 70 dB. Disclaimer at the bottom of slide 8: We had trouble running the data with terrain, and so ran these data without terrain. We will put it back in. We chose to remove terrain on the results shown today. It is a little bit different than what we have been modeling in the past.
 - Changed the headings. # of overflights with data on Slide 10 – baseline on left and change on right. All we did was change heading of the first initial turn - not second turn. If we continue with this measure, we may want to make that 2nd turn as well to better represent how they would implement.
 - Wright: It looks like the grid points are lower and more narrow on the Modified.

- Reindel: Yes, correct. If we made the 2nd turn, it would probably not be as narrow. You can see that on the next slide, where the red shows more overflights and the greenish less.
- Reindel: This is just # of operations. Slide 11 - summary, 3.7% would experience reduced # of overflights with change in initial heading; 8% would experience increased numbers. It is not a huge difference. We are using a heading that has been used before at CLT. This is the first take at changing heading.
- Nomellini: When this heading was used in the past, was it prior to Metroplex?
- Reindel: Yes. Tried to get close to that.
- Nomellini: Is it safe to say that the altitude has increased?
- Reindel: Altitude is unchanged with this analysis along the path. Looking at N70 (slides 12 and 13), pushed the noise a little south. 15% experience fewer events above 70 and 13% would experience more events above 70. It depends on where the aircraft is flying. This group wants to increase dispersion, but dispersion is not going to change a whole lot. It will just move to where they are flying.
- Reindel: To summarize: Slide 15: Greater # of grid points and more people experienced increase than a decrease with # of average daily overflights. The opposite with # of noise events greater than 70 dB. Changing the initial heading provides greatest benefits for areas close to the airport. Potential noise reductions in the north and noise increases for SouthPark community. Potential noise reduction in western central and northern portions of the grid and noise increases in Steele Creek area. Dispersion probably doesn't change, but Adam (HMMH) noted it could be a little less dispersion. Could negatively affect operations because of not enough separation.
- Schofield: Slide 14. Cannot quite grasp why we are not seeing more red up toward the airport?
- Reindel: Because it is before the turn is made. Still experiencing the same noise.
- Muckenfuss: So, we are saying switch from the heading now to this – not alternating the heading? This would be a permanent change of that heading?
- Reindel: Yes, and this addresses arrival rails, not departure rails.
 - Slide 16 – Do these reported changes meet the ACR goals? How does negative effect of changing the initial headings affect airport throughput? Does the ACR want to recommend changing initial headings on final slate? Does the ACR want to recommend this along with another measure?
- Wright: For persons in that 3-mile radius, is this a plus or negative?
- Reindel: Back to slide 14. Greenish areas are where you get some relief and the red and yellow areas are where you would get an increase. Something to keep in mind is how many operations in this change? This is why we are putting those graphics out there.
 - If you do this as a standalone measure, there is not a big change. Don't just dismiss this, because it may work well with other measures.
- Gagnon: What does the ACR want to do? Include or exclude in collective analysis? Any thoughts?
- Montross: You would classify this as pre-Metroplex headings?
- Reindel: Not necessarily. We have not evaluated pre-Metroplex. We just discussed with CLT how we ought to change the headings, and they suggested those. I don't know if this is pre-Metroplex.
- Montross: Is pre-Metroplex represented on the Slate? Since folks have talked about going back to pre-Metroplex, I am trying to understand, and if this is pre-Metroplex, we should call it that.
- Gardon: This is not reflective of pre-Metroplex procedures. The headings are somewhat more similar than they are today, but in terms of the actual procedure, it is not the same.
- Schofield: What effect would the second turn have on the dots that you have shown us tonight?
- Reindel: Talking about slide 13. (He showed where he thought the 2nd turn might be)
- Schofield: Before we'd make a strong inclination, I'd like to see where the dots would line up. It is a little misleading because of not analyzing the 2nd turn.
- Reindel: Yes, if you wanted to proceed with this, we could add it in.
- Schofield: I would ask the group; before making a final decision, to see the updated numbers.
- Nomellini: I think what Gene is saying is this analysis might be helpful with some other recommendation, so it doesn't make sense to dump it anyway.
- Reindel: If we did this with 2K' Altitude-based turns, you might get those results you want by moving a little further South with this heading.
- Sauber: So, by definition, none of the other departure analysis we have done has changed the heading?
- Reindel: I believe so.

- Nomellini: When we look at final Slate, is it possible to compare pre-Metroplex and the current proposal?
- Reindel: We can do that with the expanded grid – possibly call it pre-Metroplex Baseline – and then have the collective analysis.
- Gagnon: Any objections to continue to look at this, keeping it in there for now? (Members: *No objections*)
- **Slate Recommendation Analyses (Divergent (& Multiple) Departure Headings) - Gene Reindel, VP HMMH**
 - Reindel: Multiple Divergent Headings. Not just one heading like what we just looked at. What if you have 4 different headings per runway? We assigned them because of where the airplanes are headed. Same disclaimer about terrain. On the South, we waited until the 2-mile restriction. That is something that we could consider in the collective analysis is taking out the 2-mile restriction, but we left it on because it is a standalone measure. Slide 21 - In my mind this is probably the most dispersed we've seen. We do need to look at where things are different, as far as increased and decreased # of operations. Slide 22 – 66% would experience reduced # of overflights. 30% would get increased because of the different headings.
 - Muckenfuss: Looking at where some of those red lines are headed, is this just departures? (Reindel: *Yes*) So it hasn't been evaluated in conjunction with arrivals?
 - Reindel: Preliminary analysis – which is why we moved to further analysis – said it did not conflict.
 - Muckenfuss: The impact to any particular grid point is just departures. (Reindel: *Correct*)
 - Nomellini: In future, need to look at areas in terms of effect of both arrivals and departures.
 - Wright: On slide 21, you said this represents more dispersion. It looks to me like less dispersion.
 - Reindel: Darker dots have decreased. The reason is that you are dispersing them more so that no one area is getting so many flights as they used to, because you are moving them elsewhere. It is less dispersed but not everywhere. It did increase the # of dark dots up north, but it moved them because of the different headings. That is what led me to say that - because of less concentration of darker dots.
 - Events above 70 dB: Results showing the count of grid points and population (slide 23). Baseline compared to modified, more benefit to the south than the north. More of a blob near the south edge of the map because we have taken the departures more to the west and east in a southerly heading. The places where you might see differences are areas where there are not concentrated blue dots, but it is not far off of where you have concentrated yellow. Slide 25 – results are 66% would experience fewer events above 70 with multiple divergent headings, and almost 30% would experience more events.
 - Wright: The persons that are experiencing an increase - are those the ones that are already complaining, and now they are going to get even more?
 - Reindel: One way to answer that is - with multiple divergent headings - you are putting planes over areas that typically don't have operations on departure now. They are not far from where they have operations today. When something changes is usually when people notice.
 - Sauber: One of the ways to address that question is to get to the collective analysis. We don't want to get worse, but we are willing to make sacrifices to make things better.
 - Muckenfuss: You will see small but intense pockets of change, whether better or worse depending on where they go.
 - Reindel: Think of aircraft noise as a balloon. There is so much energy and volume in that balloon that if you take it out somewhere, it will bulge out somewhere else. You cannot get rid of that noise energy. You can disperse it more evenly. There will be people that will experience more noise than they do now.
 - Garrett: We just don't have many levers to pull with arrivals; most of our work is around departures. Remember my pie? This seems to spread out the traffic over broader area. That is what we're trying to do.
 - Gussman: I assume this doesn't take into account the 2nd turn, because those lines got really straight?
 - Reindel: Trying to determine where they will take a 2nd turn or 3rd turn would be impossible at this point, but they will take those turns.
 - Gussman: Will that be in the final analysis.
 - Reindel: I don't know. We may or may not be able to figure out where they would be.
 - Wiesenberger: Seems like there is some similarity between the first recommendation and this divergent heading recommendation. In fact, if we really consider divergent headings all around the radius of the compass, it looks like the current baselines of 270 and 90 degrees would even disperse flights to the east and west even more. We should use all the options that we have in regard to headings (add 270/90 into Slide 20 options). If we're trying to disperse, we should use the entire compass of angles.
 - Reindel: That is a valid discussion.

- Montross: We have studied this before without the 2-mile restriction, right?
- Reindel: Yes, we did not do the preliminary evaluation with the 2-mile restriction.
- Montross: It would be good to see the population maps without the 2-mile restriction. Divergent headings is a priority and important to airlines. With divergent headings, you're putting a flight on the appropriate path to its final destination as opposed to one or two headings. It helps with efficiency. We would like to see divergent headings come out of this process.
- Nomellini: I'm a little surprised at that because it looks complicated.
- Montross: We've had some initial conversations about divergent headings both for dispersion for the community impact as well as efficiency of sending flights on appropriate heading toward their final destination. Benefit of clearing the airfield faster, whether the 2-mile is there or not. Want the ACR to know that this is important.
- Nomellini: So, a flight to Chicago will always take the same divergent heading. The final destination will determine what that is?
- Reindel: That's how we did modeling, not to say that there aren't other reasons FAA may assign headings.
- Wright: Adding the 4th runway will add a mix in this discussion.
- Reindel: That runway will be within the footprint of the existing airport. I'm going to give an FAA point of view – it is my FAA point of view - if we did this instrument departure, there could be pushback by the FAA. They have done multiple departure headings off runways. I think at Denver they had some issues of them putting in the wrong one or they change last minute, and they don't change it in the flight control system, and they take the wrong one? You could fly these with open departure procedure to where the FAA tower directs them to a heading, and then put in procedure after the first turn or two. That would likely have to remain the case here because FAA couldn't manage that many procedures with the airlines.
- Cameron: Today they are using a 270 turn after 2 miles but before 4 miles. (Reindel: *Yes, around 4 miles*) If we have that hypothetical Chicago flight that wants to go to the northwest, at about what point does he get a further turn from 270? Does he have to clear all arrival paths, or is he cleared to 12K and continue to climb? How is that really working right now?
- Reindel: I have no clue. There are other procedures that they have to look out for.
- Szymkiewicz: So, the initial turn point at 2 miles is 240. Several miles after that is when we go to the 270. You are probably emulating what the departure controller does, not what the tower controller does. The departures are free flow until they get to those automated waypoints, but they stop at 8 whereas the arrivals stop at 9, so you have a thousand feet built in. The departure controllers manage that conflict point. There are a lot of calls that the ATC gets to make in real time to get them up or on course depending on the volume of traffic. There is no set point except for first turn after 2 and before 4. Based on traffic and volume, the departure controller starts working them around to west or east.
- Reindel: There is no real point where it happens. There are procedures, and they are trying to manage the airspace - and not only Charlotte airport; there are others in the region.
 - Slide 26: Observations: Dispersion would remain roughly the same with EACH heading, but the multiple headings increase overall dispersion. Also, could negatively affect operations throughput due to less separation of the aircrafts. (Reindel offered typical questions again for ACR)
- Gagnon: Do you want to continue to include this in the collective analysis, or do you want to exclude this?
- Schofield: This seems closest to what we've been talking about all along. Yes, keep it in.
- Muckenfuss: I think the convergent analysis is key.
- Nomellini: When we do the analysis, the altitude is important.
- Sauber: That is the single biggest point for me. If they are making turns at 8 or 10K feet, it doesn't matter. But if they are turning at 3 and 4K feet, and arrivals in at 4K and 5K feet, that is a disaster.
- Garrett: Would it not make sense to exclude the single heading item?
- Wiesenberger: I concur.
- Nomellini: If it could be combined elsewhere, I don't want to toss it out now.
- Reindel: You're right; if all we'll do is change the heading to this, you're not going to get much bang for your buck. But what if the FAA says we can't do multiple divergent headings? Then you are back to evaluating a single heading. Or maybe they say we can do 2 headings or 6 - and that is what we want to get at – knowing that what we provide to the FAA is a give and take, that we want their input on what we have done. We are glad that more FAA folks are here. We want them a part of what we are trying to solve.

- Garrett: If changing a heading can be part of other considerations, why do we need it as a standalone?
 - Reindel: Like I said earlier, we can ask this to be included in combination with something else.
 - Nomellini: You are the subject matter expert, Gene.
 - Reindel: You only have 8 measures at this point. 8 is not a large number.
 - Brown: If we give many options, would the FAA follow the path of least resistance?
 - Reindel: I think that is part of why we decided to do a collective analysis. So, 1 - we could see collectively how it is affecting people and 2 - we are looking at multiple fixes here. I doubt we will present “pick one.” Instead, I would think we would present “these are the solutions that we think are acceptable for this environment.” Realistically the FAA, in my experience at other roundtables, have come back with “no, we can’t do that.” So that is why I am glad more of them are here with a regional perspective because they are listening to you, and hopefully they understand and come back with “no, but this is how we’re going to do it.” Until we submit, we won’t know, but Bob has been pretty upfront saying what issues they have.
 - Gagnon: Keep in mind that there is another step before submittal, and it is the collective analysis. Gene will show us some collective groupings in a minute.
- **Planning for Collective Analysis (Sharing Results of September Meeting ACR Member Feedback on 3 Recommendations)**
- Gagnon: Want to share the summary results of member survey after September meeting. 17 members responded to the survey. Results: 2/3rd wanted to include removing the 2-mile restriction in collective analysis. 71% wanted to include delaying turns on south departures. 82% wanted to still consider utilizing alternating arrival rails. No consensus on when members would prefer to provide feedback.
- **Planning for Collective Analysis (Discussing Potential Collective Analysis Groupings) – Gene Reindel, Vice President HMMH**
- Reindel: Some of the recommendations cannot be done together. Slide 29: Here are the 8 Slate recommendations that we have been evaluating. Notice the Notes on NADPs – they are moving forward outside of the full ACR slate. CDAs: We don’t believe the technology exists today to implement that, and we don’t know when that will be available. It is going to require something, TSAS, that is being tested.
 - Ballard: My neighbor says that CDA is used at other airports.
 - Reindel: Yes, they do. UPS did a study with FAA to figure out how to do a continuous descent. Airlines want it because it saves fuel; FAA wants it because it saves interactions between pilot and ATC, but you don’t have conditions everywhere to do it. You are merging a lot of traffic. The traffic has to be synced and hopefully that is what TSAS is going to do. There are a # of airports where it happens: LAX (90% arrival stream from East to West – they don’t have all the downwind legs like at CLT), Denver. It probably happens here occasionally. That is how the airplane wants to fly. Spacing reasons and congested airspace prohibit it happening all-the-time here.
 - Cameron: Repeatedly we have said that when we can do it, we will - such as 5am. Every time we talk about this, we are told we cannot do it all the times. Do it when it makes sense.
 - Reindel: Yes, but for collective analysis you want to do something all the time. Let’s weigh those two a little differently. (*Went over the other Slate items*) I put together a couple of matrices. Slide 30. The first 6 are collective analyses that I feel we can do. Now we just need to overlay them together. This slide is not the same that is in your packet. Slide 31 are potential combinations that we would have to evaluate more. A new model would have to be done. Probably have to modify flight tracks additionally. For instance, if we used Altitude-based turns and changing departure headings, we would have to modify flight tracks to do that. To explain this, I have alternating downwind rails on every measure because that can be done regardless of what else you choose. (Each of the six columns are options that could be overlaid together) Slide 31: More options but would require additional analysis. Look at these and see what you would recommend as your collective. I think this would be good to survey, but you need time to digest this.
 - Wiesenberger: In terms of polling the group, I find that to be a real onerous aeronautical analysis process for a civilian. I would greatly appreciate guidance on this. What are the pros and cons of combinations? Even if it is a simple paragraph on them, that would be helpful to us lay persons.
 - Reindel: Think about what are the most important to you. Start there, and then add others to those.
 - Garrett: And also, feasibility of being able to do this. Likelihood that the FAA would consider doing.
 - Reindel: We could go back to all other analyses and do this in another document.
 - Wright: In column 3 (slide 31) and column 3 (slide 30), they are different. Why?
 - Reindel: Slide 31 combinations require running a new model.

- Sauber: If we say we want to do 3 or 4 of these on Slide 31, what would that do to our timetable?
- Reindel: That is why we want to limit these – do a couple maybe. Some are no brainers. We are not going to do 13 more runs. We need to think what’s important. We can’t do all 8 collectively, unfortunately.
- Nomellini: I think you can make the recommendation because you hold the knowledge, you know where we are coming from – we’ve talked over and over again about sharing the love. You all as the experts have the best idea of what will be most successful. We need guidance/recommendations from the experts.
- Gagnon: Is that an ask of the ACR to HMMH? You want a list of pros/cons for each, feasibility of implementation? Want to make sure I am hearing and getting what you want from HMMH and by when?
- Johnson: Would it be daunting to ask for a written recommendation in November?
- Reindel: Yes, but we could do that; I doubt we could do much modeling by November. We could overlay maybe but we cannot build new things. I am thinking out loud. Maybe next month would be for HMMH to look at this and come up with some recommendations for collective analysis.
- Cameron: Can you keep same format/order? We are getting it in our heads. Keep this matrix. I get it now.
- Reindel: Yes, I’ll keep these unless I have to make technical changes.
- Cameron: As a fan of the CDAs, it would be fine to not include because of what you have stated about the technology, etc. I think the CDA has a place on the Slate for later.
- Gagnon: In terms of next steps having Gene come back with pros, cons, collective groupings, etc. for next month, is that a plan? (Nomellini: *Yes*) Anything else for Gene?
- Reindel: Robert brought up a good point. I was thinking of not including the top 2 – NADP and CDAs – and not including them in the collective analysis. Does anyone have any objections?
- Wiesenberger: Is there a way to include CDAs on a separate recommendation, say on off-peak hours?
- Reindel: Let me think about that? Good point.
- Brown: Are you saying the FAA would rather not design a CDA because it could not be used continually?
- Reindel: The way that we implemented the CDA in our model would take a procedure, and they would only be able to fly that procedure when there was very little traffic. They may want to design it. I’m not saying we drop the CDA; it is very complicated and might convolute the collective analysis.

❖ **Request/Address Additional Business**

➤ Note **written updates** on Motions/Requests for Support

▪ Written Update: **North Flow v. South Flow Decision-making**

- Gagnon: Back to the separate handout. Written updates: Bob (FAA) answered the questions on North Flow v. South Flow decisioning that are shaded on the handout.
- Muckenfuss: Thank you for the responses. In reading the responses, it generated a # of more questions. In the interest of time, what would be the best way to handle those questions?
- Nomellini: Can you handle those offline between meetings?
- Muckenfuss: Should I work with Ed now?
- Nomellini: Yes. When you are satisfied with the responses, bring it to the meeting.
- Gagnon: So, I will work with Sean and maybe bring in Dan. We will send additional questions to FAA. If anyone in the roundtable has additional questions to Bob’s responses, please send those to me by Wednesday next week.

▪ Written Update: **EA Meeting**

- If you are not able to attend Oct. 21 or 24 meetings, we will send links of information after the meetings.

▪ Written Update: **ACR Community Engagement Project Team Update**

- Wiesenberger: Several of us have written articles for community newspapers, and we realized that we don’t represent all of Charlotte. The last bullet point is a request of ACR members to help broaden community engagement in other areas to provide a short write-up of your local perspective on airplane noise; we can help guide you in publishing these articles. If you are interested, contact Mark Loflin.
- Johnson: I also submitted an article that went throughout Mecklenburg, Stanly, Denver, Gaston County. Owner of the newspaper appreciated this information, and she also requested that we keep her updated.

➤ Other Unfinished Business - **Update on FAA Submittal Work Schedule, and Community Meeting Plans**

- Gardon: FAA submittal schedule is largely similar to previous meetings. Still looking to submit in January, and still looking to having public meetings in December. The other changes are due mostly to what Gene presented - collective analysis, etc. On other side of handout: This is a draft to see how the

community meetings will work. We have the dates. Definitely want ACR members to attend. We will be bringing in additional staff from HMMH to help. We are planning a mailer to advertise.

- Reindel: At each of the stations we will have a measure. We would like 1 ACR member at each station so you can describe it to folks asking questions. Will have laptops at stations so members of public can put in their addresses. So, folks can see how that particular measure would affect them.
- Gardon: Meetings will probably start at 6ish. To be held at Kennedy Middle and Durham Presbyterian.
- Other Unfinished Business - **Update on NADP-2 Recommendation** – CLT Staff
 - Gardon: NADP-2 request finalized. To send to all carriers.
 - Montross: American Airlines is already using NADP-2; we expect to be supportive.
- New Business: **Request of FAA for Tower Orders** – CLT Staff
 - Gardon: The FAA has indicated that they prefer a FOIA (Freedom of Information Act) request to provide information about Tower Orders. An official request was submitted on October 14. Not quite sure on the timeframe of that, but we will keep you updated.
 - Gagnon: Just some background information. Some members have asked what is done locally at the towers, and this is a way to learn and understand the processes.
 - Garrett: We want to understand what operations & procedures are local, not necessarily FAA controlled.
- New Business: **Downwind Altitude Proposal** – Kevin Vesely, ACR Member
 - Vesely: I am talking about raising altitudes primarily on approach. I am about 22 miles from the airport to the South. What I experience constantly is planes that are at about 3900'. What is happening is if a plane is at EPAYE and not cleared to turn, they continue down and then turn and come back. They are supposed to come in as soon as they can to save fuel. Almost never a plane stays at this altitude. What I want to find out is why can't we keep the plane at 6K feet - making less noise for everyone. This rail and the noise effects: Myers Park, Barclay Downs, Piper Glen Estates, Ballantyne, Indian Land, Marvin, Waxhaw, Van Wick, Catawba Leslie and the Springs. All those areas are hearing this 4K' noise. If you raise the altitudes to 6K', that reduces the noise considerably. I don't know what the conflicts are. Most of the proposals we are talking about are about takeoffs, not landings.
 - Ballard: It is just as bad up north. They are over my house at 3700'.
 - Vesely: I don't understand why they are so low. I am just trying to understand. There is a slide missing. We looked at population. It is about 425,000 people that the noise would be decreased. There may be other concerns. Needs to be put in the agenda now. Not in a year.
 - Nomellini: What are you asking? Are you asking for HMMH to do an analysis of this?
 - Vesely: I'm asking for a proposal to the FAA. Maybe it needs some type of analysis. What would be the challenges to raise the altitude? I don't know. What is preventing the raising of altitude?
 - Cameron: Reading from March 2018: We asked a year ago for this. Asked that the CLT and FAA investigate raising the minimum altitude for flights arriving in Charlotte so that no flight descends below 6,000' prior to being aligned on the final approach course of the runway. If this specific remedy is not possible, the ACR requests statement of the factors involved that preclude adoption.
 - I am not sure if we got an answer, but basically a year and a half ago we asked for your idea to be considered. I think it is still a good idea and merits consideration.
 - Garrett: I think there is an effort now. It is one of the items in open items in unfinished business.
 - Gagnon: There was a discussion prior to myself and Gene joining the group. Something about changing EPAYE and CAATT to pre-Metroplex locations. FAA looked at it, and that is when they came back with a proposal specific to CAATT and EPAYE waypoints to raise the altitudes 1000'. That is what John is referencing. It is still in the works now. The designers are still in the process of scheduling that meeting to design raising the altitude on those waypoints. I don't believe that is getting at everything that Bob Cameron was referencing that was identified in March of 2018.
 - Vesely: So, 3900 plus 1000 is 4900. How did it go from 6000 to 4900?
 - Gagnon: The analysis showed that altitudes at EPAYE point are 5100' on average. The request was to raise the altitude at EPAYE by 1000 feet. Dan did analysis that showed the average was 5100' over a period of time and Bob with the FAA concurred.
 - Vesely: Raising it to 5K is nice, but it needs to be at 6K and kept at 6K.
 - Nomellini: Why don't we meet afterward and see what we can do. With the letter that was sent out over a year ago, we have not been very organized about tracking this. We should find where it is in the process.

- Gagnon: So, Kevin, your recommendation is to raise it to 6000, not just at EPAYE but on the downwind.
- Ballard: Why don't we add it to our Slate?
- Vesely: I second that, or if we're going to reduce the Slate now, put this on.
- Nomellini: This may delay the Slate submittal package.
- Gardon: If anything is added to the Slate, it will delay by some amount of time.
- Nomellini: I think we are going to get one shot for the FAA to look at our slate. If we include this, we can expect a delay in the overall package.
- Ballard: This affects me up in the north – arrivals are problematic. If there is not this, then up north there is nothing to help us with noise.
- Nomellini: I understand that, but this is an entire group. We're going to take a vote because you are two of the full group, and there are things we've chosen to move forward on that I personally didn't prefer, but majority rules. We just need to ensure that everyone around the table agrees that this is worth a delay.
- Johnson: I've followed several articles in the Charlotte Observer, and some out there don't have much faith in us. They think we are a red herring committee put together to divert from the real issue. I think we need to move forward on something and stop delaying. Why is the waypoint suggestion delayed?
- Muckenfuss: The design – getting on the schedule – is what is delaying this idea of raising the waypoint.
- Nomellini: To clarify, what has already gone to the FAA is not what we are talking about. If we look at the new proposal, I think it delays the Slate submittal.
- Sauber: I remember that the FAA said that it is not practical. Can't really do that but we have an idea. I think the FAA said we cannot just raise the altitude because it is affecting certain people. I think there are concrete reasons why we cannot be at 6K to manage the traffic.
- Garrett: Our original idea was to move waypoints to pre-Metroplex, and they said you can't do that, but you could raise the elevations at the waypoints; that's what's going to begin the design process soon.
- Cameron: Raising EPAYE is not addressing all of the problem. There are many planes that do not cross EPAYE, and I believe that CDAs and NADP do not need to be on the slate. If we go to these community meetings and say that all of our Slate items are departure-related, there will be folks questioning "what about arrivals?" I think there is a public relations side to this as well. Personally, I don't think that raising EPAYE 1000' is fixing the problem.
- Vesely: How many other solutions have we brought up so far that affect 425K people?
- Ballard: This reduces noise instead of moving it.
- Nomellini: To include this in the Slate we need HMMH to do full analysis, right? (Yes) How long would the delay be if we added this analysis?
- Reindel: It does not only affect me. CLT has a lot to do including re-scheduling public meetings.
- Brown: It should be done north and south of the airport.
- Nomellini: Want everyone to realize that this will delay things.
- Garrett: How do we know that we only had one shot with FAA?
- Nomellini: My understanding is once we get in the queue, the next submittal from us is going to the bottom of the pile. Lots of airports are submitting stuff.
- Szymkiewicz: That is the guidance that we've received. Give us the Slate, then next goes to the bottom.
- Nomellini: I think we vote now. Include this now, understanding that it delays the Slate or addressing it later, understanding it goes into the queue at that time.
- Ballard: I need clarification. Can we submit more, or are we done after this?
- Nomellini: We can keep submitting recommendations; they will be placed at the bottom of the pile.
- Schofield: I would call for adding it now or don't. Keep it simple - Add a proposal for 6K feet arrival altitude (N and S) until on final approach course.
- Gussman: Is any of this still in the works? That compromise 1000'?
- Muckenfuss: It is in our written updates today.
- Szymkiewicz: We are waiting for the design team to come to Charlotte. They are looking to their schedule. It is not dead. The proposal has been accepted but no real timeline.
- Ballard: Is there a way to add this proposal to that request?
- Cameron: I think the original request was changed to just EPAYE.
- Gagnon: (*Reading from Motions Database*) The March 2018 request was to raise Minimum Altitude on Arrival. ACR asked for an examination into whether base leg altitudes can be raised prior to final

approach. The FAA has concluded that altitudes on base leg turns are as low as feasible. Modification in the form of RNP routes not feasible at this time. See Motion 01-17. HMMH presented analyses of increasing base leg altitudes for CLT arrivals during 2018 July, August, and September ACR meetings.

- In the October 2018 meeting is where the ACR proposed an alternative to raising the altitudes instead to moving CAATT and EPAYE back to pre-Metroplex locations. The FAA looked at it and came back and said we can accomplish the same thing by raising the altitude by 1000'. That is the March 2018 motion that led to HMMH doing some analysis and led to the ACR making the formal motion in October 2018; the FAA said we can do this differently, which will accomplish the same thing.
- Muckenfuss: Would it be accurate to say that this is only on the east flow and on north arrivals? That is what is currently in this statement. If so, it looks like we want to add back in our Slate having that for the west leg of northbound and the east and west leg of southbound as well.
- Reindel: These are two very different things. What the FAA is currently looking into is raising the altitude at the waypoint. It is not maintaining that altitude on the downwind. You are being asked to add something to the Slate that is very different from what the FAA is trying to do now.
- Vesely: Since the FAA doesn't have a committee yet, why can't it just be converted to 6K?
- Reindel: The FAA would have to start from scratch. They would benefit from us doing our analysis. It is different enough that they couldn't just swap them out; there's a lot of safety analysis and other things that need to happen just to get to the phase they are currently.
- Garrett: Can you reread the motion?
- Reindel: Before he rereads it, I would say that we pulled it from the Slate because the FAA said they had a solution. We felt like it was a win that wouldn't have to wait for the slate. I feel like if you had recommended the 6K altitude on the downwind leg, it would not have gone on a fast track with the FAA. I feel like they would have said to include that on the slate.
- Gagnon: (*Re-reading Motion*) The March 2018 request was to raise Minimum Altitude on Arrival. ACR asked for an examination into whether base leg altitudes can be raised prior to final approach. The FAA has concluded that altitudes on base leg turns are as low as feasible. Modification in the form of RNP routes not feasible at this time. See Motion 01-17. HMMH presented analyses of increasing base leg altitudes for CLT arrivals during 2018 July, August, and September ACR meetings.
 - In the October 2018 meeting is where the ACR proposed an alternative to raising the altitudes instead to moving CAATT and EPAYE back to pre-Metroplex locations. The FAA looked at it and came back and said we can accomplish the same thing by raising the altitude by 1000'.
- Schofield: I prefer to vote on the thing we have in front of us. The other alternative does not sound the same to me. It seems to be that if you can get the planes up higher, it would be beneficial. My proposal is vote on this and move forward.
- Gagnon: The proposal is to add a proposal for 6000' arrival altitude (N and S) until final approach, understanding this will delay submittal of the Slate.
- Brown: It will extend the downwind, but at least it will be on the record, and we will get a response from the FAA. Community would know that we tried.
- Johnson: If we vote for this, it will delay the submittal. Correct?
- Gagnon: Yes, and this doesn't mean it will be on the final slate. Just means there will be analysis.
- Washington: Would this delay the community engagement?
- Gardon: Yes, it will affect the community meetings in December. If this pushes back the Slate to February, we would likely do the public meetings in January.
- Hennessey: We have to look in our calendars because of other EA meetings to be scheduled. Cannot give a decision tonight.
- Gagnon: Vote - 11 for; 4 against. You have voted to add this to the slate for analysis. We will have a debrief in the morning and see what is needed to go forward with the analysis for this. Anything else?

❖ Adjourn

- Wright motioned to adjourn. Member seconded, all in favor.
- Meeting adjourned at 8:52 pm