Unapproved Summary Minutes: February 12, 2020

Attendees

Attendees	Sean Muckenfuss, York (Central)
Sara Nomellini, Chair, County 2	Gene Reindel, HMMH (Technical Consultant)
Kurt Wiesenberger, Vice Chair, Charlotte	Sonya Busch, FAA (ex-officio)
Phillip Gussman, City 1	Steve Veurink, FAA
Mark Loflin, County 6	Jose Colon, FAA
Sayle Brown, Cornelius	Pearlis Johnson, FAA
Bob Cameron, Davidson	Stuart Hair, CLT (ex-officio)
Sam Stowe, Gaston	Dan Gardon, CLT
Walter Ballard, Lincoln	Kevin Hennessey, CLT
Thelma Wright, Mecklenburg	Tracy Montross, American Airlines
Kevin Vesely, York	Ed Gagnon, CSS, Inc. (Facilitator)
Call-in Participants: None	Cathy Schroeder, CSS

Summary Minutes

- ✤ Meeting started at 6:00 PM.
 - Nomellini: There are only 11 ACR members present, and a quorum is 12.
 - > Gagnon: The ACR could still review materials, just cannot approve Minutes, vote, etc.
 - ▶ Wiesenberger: Is Bob Lemon going to be calling in?
 - ▶ Hair: He has not as of 2 minutes ago.

* **Open the Meeting**

- ➤ Gagnon: Let's get started. Once we get the 12th member we can go back and approve the Minutes.
- Review Ground Rules by Gagnon: Ground rules reflect how we want to be with one another in the meetings and away from the meetings. Healthy conversation, productive, and effective in addressing the noise concerns in the community. ACR PowerPoint Slide page 5: Review of the FAA submittal checklist. Today we will get FAA feedback on potential non-starters. In March, we will receive full analysis on expanded grid on other 8 recommendations. Today we will be getting the 2nd collective analysis results. Also, today we will touch on planning and conducting community meetings.
- \geq Review Meeting Packet Information by Gagnon: Agenda, listing of items, Minutes, motions and requests from January. Full FAA submittal checklist. Presentations - ACR PowerPoint and HMMH PowerPoint. On tables, HMMH color key codes and one additional document that was put together today.

* **Review Public Input:** None tonight

Reminder of Slate of Recommendations **

Gagnon: Noted dates of HMMH most recent analysis. You are able to look back at each recommendation in detail \geq for those dates, if needed. Presentations are available on the website.

* Analyze/Uncover

Receiving Report on Potential Non-starter Recommendations – CLT/FAA \geq

Hair: For context, we have had robust conversations with FAA staff, and last Wednesday had good teleconference - about 10 of us. In talking about the Slate of recommendations and talking about potential successes within this Slate of recommendations, potential changes that could be implemented - we really identified that there are a couple of recommendations that seem to connect well together and seem to have the potential for making a difference in noise impact across our community. The identified ones that have the greatest chance of success are #2 - Divergent Departure Headings, and #7 - Remove the 2-mile Restriction for South Departures. Those are the 2 that we identified as having the greatest chance of being implemented. In addition, the Continuous Descent Approach, #8, also seems to have a good chance of being implemented. We got in the weeds of talking about the specifics of CDA, and I don't want to speak for the FAA, but there are some caveats that would need to be considered within the CDAs. As HMMH studied, there is chance to

implement something within the CDA that is not full-on all the time that would still have a positive benefit to the community.

- Those 3 are the ones identified as having the best chance of being implemented. I would ask this committee to look at these and consider whether they meet the goals of participants. That is the report of the potential non-starter recommendations looking at it from what could be a starter potentially.
- Muckenfuss: For clarification you said those were the most probable. Does that mean that the others are
 non-starters? In the December meeting, I thought we were going to get ideas on non-starters. If some of these
 had problems in their design, we were going to get feedback on that if there was any change that could be
 made to the design to make it better.
- Hair: There did not seem to be any tweaks or modifications in the design in any of the other ones that would make them very viable for implementation.
- Vesely: I thought we were going to get a little synopsis on why each one was not viable?
- Johnson: I will answer that question. I'm deputy regional administrator for the FAA Southern Region. This is my 3rd time here. I am representing Michael O'Harra. We want to help this group move this process forward, and we want to be a good neighbor with the airport. When we design these routes, that is our intention to make sure they are safe and efficient. As Michael said, we have a lot of requests to make changes to the airspace. The backlog right now is about 8000. When we design routes, we try to make sure they are structured, they are designed for repeatable processes, we know where the flights will be just like pilots, they like to know where they will be, we want to know that also. We want a structured, repeatable and predictable route as we plan. We want to make sure that the capacity, efficiency, and safety are considered when looking at these routes. When we talk about the goals that you have, coming up with different routes, we want to make sure they are safe, efficient and basically something that is repeatable and structured to make sure that it will not be a problem for us. I will let Sonya Busch, who is the air traffic control manager, talk about the two that we said are non-starters. The others we will still evaluate them, but our staffing is limited. We don't have many people to go back and look at this stuff multiple times. We are looking for connectivity, as Stuart said, between some of these processes and recommendations.
- Nomellini: This is a completely different message than what we have heard before, so I'd like some clarification. So, we understood that what we were bringing forward were non-starters and that the expectation was, if it was possible, it would go on the Slate. Now, what I am hearing is that it would be better if we would winnow that down further.
- Johnson: We are not going to say, "don't send this to us." We thought you wanted feedback from us. Based on what we know right now, two of these we have some serious concerns about.
- Nomellini: Understood, but honestly what I heard was a veiled threat of "too much on the Slate, we have 8000 requests, we don't have people to evaluate them, so, don't waste our time."
- Johnson: Let me be very clear. Safety and efficiency are the two things that we are looking for in the 8000 recommendations out there.
- Nomellini: Understood, but what we have always been told in the past is, if we think something is plausible or probable, we will forward it to the FAA. In turn, if there is a tweak that would make it valid, we would be advised of that. Is that still the case?
- Johnson: That is still the case. We will take and evaluate it, but if it is connected with something else that will make it feasible, then we will try to make it happen.
- Nomellini: Then explain to me the point about bringing up the 8000 requests out there.
- Johnson: I don't want you to think we will be back in 2 months. It will take some time.
- Nomellini: (Asking the ACR) Did anyone think they'd be back in 2 months? *No.* We are on the same page.
- Busch: We met on a telecon. Michael asked us to come back here and give feedback, as subject matter experts, regarding things we considered non-starters or things we had serious concerns about. In our opinion, there are 2 non-starters. Slate items, #1, Altitude-Based Turns and #4, Alternating Arrival Rails, are non-starters. Those can both be described in the same package. The way we work aircraft here at Charlotte, obviously it is a large volume of aircraft. We work a very structured airspace. We need predictability because of the volume of aircraft that we work. Both of these would introduce risk into the system. It would impact capacity that we could work in our airspace. We would be introducing risk because now we would be working aircraft in someone else's airspace. Procedurally, the Alternating Arrival Rails would be a continuous procedure change and continuous training training employees on almost a continuous basis. Our current STARS lead to a point on the downwind, and all that would need to be restructured, redrawn, and it

impacts Charlotte airspace in far reaching ways. It would not work here because of the volume, predictability we must have, procedural changes, capacity to train our employees.

- Muckenfuss: Question: If memory serves, utilizing alternating arrival rails, the timeframe for changing that
 was flexible a year was suggested. Was that taken into account? Was there any thought about the timeframe
 being longer, maybe 2 years?
- Busch: In general, it is the alternating rail. It takes about 3 years for an employee to certify here on a procedure. So, if we are going to change that procedure on a constant rotating basis, we will never complete training because that's not the only thing we're training on. On a new procedure, once we get it in the system, work up a training plan, a briefing plan, run them through the labs, we are looking at 6 months.
- Muckenfuss: It's similar in my industry, and I accept your answer. My resistance is you cannot stop changes. The redesign of having to create those alternating rails, was that the bigger hurdle than the training and the logistical parts?
- Busch: It is all things combined, not just the training. Numerous procedures in the pipeline at the same time. That is a problem with resource. Any time we move fixes, that will require a flight check. Lots of resources. Operators would have to input the changes, the operators would have to be trained and briefed on these changes, maps would need to be developed on a constant basis. This change would be under 10K, and there may be a requirement of an EA or EIS for this. That is not in my realm of knowledge. It can be a repetitive thing. It is almost impossible to do this on a one or a 2-year basis.
- Nomellini: Regarding the Altitude-based Turns. My understanding is that of the inefficiencies introduced is based on the size of the plane and if you don't know where they are turning, there is a delay for the next takeoff. So, are you aware of an altitude that how low would that altitude have to be for you not to have that issue?
- Busch: It is very rare that procedures are based on an altitude-based turn that is predictability. The reason for that is aircraft characteristics. You can have the exact same aircraft operating separately, different load, a multitude of different things, and in order for us to be able to predict ours are now based on a point and that is when they turn. In order to be able to predict for the next departure, again we are talking about capacity, we need to know that that aircraft is going to turn at that point so we can work the next one in. The biggest risk of the several is you run the risk of the 2nd guy turning inside the first guy. That is a safety concern, and we cannot maintain the required separation between the aircraft. The impact on that one is loss of predictability, so the loss of capacity, and again not able to work the amount of aircraft that we work in our airspace.
- Gagnon: Any questions or comments on any of the recommendations, particularly the ones identified as non-starters?
- Wiesenberger: That leaves 5 "in between." Will we be going over them tonight?
- Gagnon: We did not have a specific plan to go over them tonight, but you can ask about any of them.
- Johnson: I want to be totally transparent. We did have concerns about 2 others. I will let Sonya explain.
- Busch: We have concerns about 2 others we didn't say they're non-starters. #5 On South Departures, Delay Turns, and #9 Maintain 6000 Arrival Until Final Approach Course. These again are based on introducing risk to the system and impact to capacity.
- Vesely: Could you elaborate further on #9?
- Veurink: My name is Steve Veurink, I am normally an OM at Charlotte, but I am currently serving as traffic management officer for the Atlanta district. My job is to ensure throughput and efficiency at the airport. To maintain 6K arrival altitude to final approach course, that pushes the point out of where we can turn onto final. The guy on the downwind that would base at 4000 feet now would stay at 6000', but he has to go out to the 6000' turn point. That delays that aircraft by at least 2 minutes every second matters to the airlines. The airplane behind that is delayed, and that delay is compounding. As a traffic management officer, we're in the business of reducing delays. This is counterproductive to the efficiency of the airport. Also impacts airspace because now if I turn on my low side at 6000', it means my medium side has to be at 7K, and my straight-in has to be at 9K feet. That pushes back the final, and I would have to basically turn onto final now over Kirk Air Force Base, which is not in my airspace. It would take an entire redesign of airspace. There are too many facilities affected for the 6000 arrival until final approach.
- Vesely: Have you looked at any alternative solutions to that?

- Johnson: We have not done a full evaluation on any of these we did a cursory review. We have years and years of doing this. We have not put anything in procedure, ran it through a simulator, which is what our process is.
- Vesely: I understand, but there are a couple of things that you may be able to help me with. When planes are coming straight in, right now they are supposed to be at 4k/5k/6k, correct?
- Veurink: They start out there. They end up at the surface. When I am running triple approaches, I am normally running my low side at 4k as on a base turn to final, my middle side is at 5K base turn to final. The middle approach starts out at 8K and runs down.
- Vesely: That is not what is happening today.
- Veurink: That is during my ILS's. We have airspace that we do not descend out of. We don't descend out of the Bravo, so the bases are at 4. We do not do opposite direction bases at the same altitude. Some controllers have, and that has been addressed by performance management because that also introduces risk. We don't want aircraft at 4 going at each other. We don't descend out the Bravo very often, so we don't go below 3600 feet.
- Vesely: I see on a daily basis planes coming in from Lancaster, and they are at 3900 feet. You keep telling me it is not happening, but it is. I don't understand how you can say that those planes cannot be raised in altitude.
- Veurink: When we are extended, that whole low final turns on at 4000 feet.
- Vesely: I am talking about when there are no planes, at 5am on Sunday morning, this morning. I'm not talking about when they are backed up. I am talking about all the time. This is part of why I came here. What you are saying does not jive with the data. Look at the data. We are looking at the same data, and we are not coming up with the same things. A lot of these planes are coming in very low at long distances from the airport, especially from the south. That is why we picked 6K. It is a huge noise problem down south and up north mainly because when Metroplex came into play, and you started putting these things on rails to be consistent. I understand consistency and safety. I think we could eliminate a lot of noise and a lot of risk.
- Busch: If it is on the Slate, we will put it through the process. We just wanted to let you know that if we are looking at a flat 6000 arrival altitude until final approach, we have serious concerns because obviously the final is going to get full, it is going to get extended, it will be in other airspaces, and we could not run the capacity the amount of traffic in our airspace safely if we kept them at 6000.
- Vesely: I understand, but there are twice as many planes down south as there are in the north. What I'm seeing is most of those planes don't turn before 6K anyway. Probably about 70 out of 800 planes turn before the waypoint. If you check that out, you will find it is correct. We have done the analysis on it. I am trying to bring the problem of a lot of noise to your attention. Whether it is 6K across the board, that is not what we asked. Let's open up the dialogue. Maybe 6K won't work. Maybe 5K will. Maybe just a couple of flights in different areas can be raised. Where is that happy medium? My point is we are here to help. There is a problem.
- Muckenfuss: If a number becomes an issue, like 6K, we would love the feedback on what number you would like. That is the feedback we would like. I understand that before you run the analysis, you cannot tell us. If one of these can be tweaked, how can we tweak it?
- Johnson: If 6K won't work, I think they will tell us what might work. We want you to prioritize whatever those recommendations are because we're looking for connectivity.
- Gagnon: Any other thoughts/comments/concerns before we move forward?
- Wiesenberger: For Stuart: It seems as though the FAA is prioritizing based on safety, consistency and capacity. My question is for the City of Charlotte, is the goal of operating this airport to have limitless capacity? To double or triple the volume that we have currently without regard to the quality of life that we are here discussing?
- Hair: Please understand that I am trying to be respectful with my response. There are things that need to be considered. We are a public use facility. We do not have the ability to say who can fly in and who cannot. When there is capacity and the market demands it, we cannot limit who has service just like we cannot limit how much they charge. Market decides how our public facility gets utilized. We have demand today where we are capacity constrained. Carriers want to use Charlotte or want to provide additional service. We don't have the ability to provide that service right now. We are just meeting the demand today. We also have some challenges on the ground surfaces once they have landed not having room to move around. Some of the

improvements we are making are for the ground improvements, not just airspace improvements. As a public use facility, we are responding to the demand that is out there.

- Muckenfuss: This month's AA inflight magazine has a focus on Charlotte and on the last page it predicts the future. Very last bullet point is that in 2028 Charlotte Douglas airport will have in excess of 45 million enplanements. I don't know where the data came from. I thought it was interesting.
- Wiesenberger: Stuart, I appreciate your response. You're very tactful. Maybe the question should be for the leaders of the City. Do we want to have a free market airport that could expand three-fold and compromise the quality of life for people like us? It's analogous to what's happened on I-77, where it is now a toll road. Are we concerned about that as a city, or are we just pursuing economic good of revenue for the city?
- Nomellini: Good point, as the majority of flights are mostly moving people through Charlotte and not for the occupants of Charlotte. As citizens of Charlotte, we suffer on behalf of the revenue that the city gains and the airlines gain. I think we need to get the government involved in this.
- Hair: Clarification the City of Charlotte budget does not benefit from the activities of the airport. We are an enterprise fund of the City of Charlotte. We are just like any publicly-owned private business. Revenues do not help to pay for new schools. We do have cost recovery, so we pay CMPD for services here. Same thing with fire, etc. We do not receive general fund from taxes. There have been airports across the nation that have gotten in trouble situation in LA where they participated in a Come Visit LA ad campaign, and they had to pay that money back because it was seen as revenue diversion. We do not benefit from City of Charlotte funds.
- Cameron: Does that apply to the airlines as well? No airline taxes or fees go to the city of Charlotte?
- Montross: Airlines pay for the facilities, except for some federal grants. We are tenants of the landlord and contribute to the cost of running this operation. To balance in the conversation, the airport is not meant to detract from the quality of life. It is an important aspect of the community. A sign nearby says 227,000 people are employed because of the airport with a \$16B economic impact. It is hard to leave that fact off the table in this conversation.
- Wright: Based on Altitude-based Turns being a non-starter, looking ahead at HMMH, what does that mean now for the analysis that has been completed?
- Gagnon: Thanks for the segue. We knew that might be a possibility. Prior to Gene coming up, are there any other questions?
- Brown: What is the projected growth between now and 2028?
- Hair: If I quoted you something, I would be wrong tomorrow. We are seeing extraordinary growth level of growth that we have not seen before. A lot of that growth is in the local traffic, the O and D traffic. The share of our traffic is shifting from being primarily connecting to being more balanced. We are not there yet, but it is hard to trend-forecast this. We have an adopted forecast with the FAA that has us at about 3%, but it is a little more than that. I think we are in the large teens on growth annually.
- Montross: We recently added flights because of the 4 new gates on Concourse A. We are capacity constrained – there's no place to add flights. We are growing in pace with the infrastructure that CLT is bringing online.
- Vesely: For those of us on the Government Engagement Team, what are we supposed to tell people now? Is there no positive sign? I don't know what question to ask the FAA on what altitude would be acceptable. Without having engagement back, I don't know how we are going to go forward. It will be very difficult.
- Gagnon: I do know that in Unfinished Business we are going to have updates on the Government Engagement Project Team, so if it is OK to defer until then, that would be great.

Sharing Results of Second Collective Analysis – Gene Reindel, Vice President HMMH

- Reindel: This is the 2nd collective analysis, which includes 6000' minimum altitudes on downwinds, Altitudebased Turns and change initial departure heading on south flow departures. We also put together some sample talking points for your review later in the presentation.
 - I understand there was confusion last month on which each of those are that are in the collective analysis. Slide 3: Modified calendar year 2018 for each of those collective analyses. Maintain 6K feet on downwind on arrival; departure aircraft would not initiate turns until reaching 2000 feet; south flow aircraft departure aircraft would utilize initial headings of 240 and 120 degrees and north flow departure aircraft would remain on existing headings. This represents combinations of measures presented in August, October and December 2019 ACR meetings. Next few Slides are review of prior individual ACR Slate measures in collective analysis.

- Nomellini: Which numbers are we looking at? *#1*, *#6*, and *#9*.
- Reindel: Slide 6 shows the results of Altitude-based Turns by itself. Slide 7: Number of noise events above 70dB. The altitude that they are turning here is about 2K feet, which is a bit later than they turn now but not much, on average. Slide 8 is showing the difference that we achieved. The greenish colors are showing benefits, and the orange/reddish are showing areas of increased events above 70dB.
 - Next is change the headings from 270 approximately and 90 approximately to 240 and 120 approximately. Not quite as much of a turn. Next Slide shows the change in number of overflights. Change in N70 with the shallower turns to the south. Slide 12: Areas where you get less noise above 70 and areas of more noise above 70.
 - Slide 13: We looked at 6K altitude on arrivals downwind just a couple of months ago. Compared to baseline. The areas of improvement are close to the airport and overflights farther away from airport. Slide 14 gives the numbers for Overflights. Slide 16: Number of noise events > 70 dB results.
 - Those are the 3. Now looking at those together. Slide 18. Compared the collective to the 2018 baseline results in terms of annual average overflights and average daily noise events over 70 dB. Looked at this on the expanded grid and utilized the updated 2017 ACS population data. Looked at results for differences between 2018 baseline and collective alternative to give you an idea of putting them together and what the results would be.
 - Here are the results of putting those 3 together in terms of the average annual day overflights. We usually look at this with the baseline so you can see the change. We understand that these maps, since expanded, are difficult to see. Can load in Google Earth. We will be delivering KML files that you can load into Google Earth to zoom in and out with the results.
 - This does show where you get areas of increased and decreased overflights. If you look at some of the changes of angle where they are turning, you can see areas of less overflights and more overflights compared to the baseline. Slide 22: 21% would experience reduced numbers of overflights and almost 25% would experience increased numbers of overflights with the collective measures.
 - Slide 23: Another thing we looked at with the N70 tables, we added the nomenclature (Bob Cameron's noise annoyance terms) of "Comfort", "Concern" and "No-go" in terms of number of events above a certain noise level. These could be modified.
- Reindel: We said Comfort was under 51 events above 70dB in an average day. Between 51 and 100 was a
 Concern but not yet a No-go. We looked at the graphics that you made in terms of what might be Comfort,
 Concern and No-go. If you had over 100, it would be a No-go. We will be looking at these as we go along.
 Next month we will look at these categories with all the measures.
- Wright: Currently on the screen are they real numbers?
- Reindel: On the screen now are the modeled results of the collective analysis for number of noise events above 70dB. It is looking at numbers in each of those categories. It is looking at actual results.
- Gagnon: Just to clarify, this is baseline, and the next slide is modified.
- Reindel: Slide 24: This is collective results: 11% would experience 51+ more N70 events with baseline, and 10% would experience 51+ more events with collective. So, in the Concern area. A little bit less people experiencing the No-go.
- Nomellini: If the colors of the chart could be reflected on the map, it would be helpful.
- Reindel: We looked into that; we would have to totally change the scale to match those which is why we went with totally different colors. Let us think about that some more. We thought about not even color-coding it, but it was difficult to see where all the breakouts were.
- Cameron: Clarifying. 1.7 million people would be in the comfort zone of 25 or less N70 events per day on the baseline. *Yes.* If we instituted those options, we'd be up to 1.789M. In other words, more people would be in the comfort zone of 25 or less. *Yes.*
- Cameron: On the other hand, the people on the bad end are going from a baseline of more than 500 N70 events the number of 624 population goes to 1147 population with the collective. The people on the good end, great, but the people on the bad end, not good. Some people that are not now miserable are going to be. Is that a correct way to read the charts?
- Reindel: It is. I've talked about this many times. Noise is going to be pushed somewhere.
- Muckenfuss: Yes, but the number of good end is about 100,000 more, and on the bad end, it's 500 more. It is not equal.

- Vesely: The other point is where are these people? Aren't they at the end of the runway? Most of the areas at the ends of the runways already have had been subsidized, and they are not new developments. That is why the numbers are less.
- Reindel: That's why tables and graphs are both important. We will be doing continued analyses on those ranges for the individual results.
- Wright: So, the blue color corresponds to the green color, and the yellow is the yellow?
- Reindel: It does not correspond. Yes, that is what Sara was alluding to. The graphic goes along with it. It is not just a matter of who is being affected; it is also where they are. We don't have a direct 1-to-1 correlation.
- Gagnon: Gene, can you highlight the key scale with Comfort/Concern/No-go?
- Reindel: Yes, so the Comfort is everyone within the clear circles and most of the light blue. We will look at that again to see about correlations with the map colors and chart colors.
- Vesely: This is based on elevation, correct?
- Reindel: The altitude of these grid points is known in the model, yes.
- Vesely: Ok. I think we are missing the elevations. If the areas that are getting more noise are at the end of the runways, who cares? But if they are in residential areas, that is important.
- Reindel: True, and if you can zoom in and out of these maps, which we will do in a bit, you can see whether or not they are in more populated areas or less populated areas.
- Wright: I am trying to get to 100% are the other 80% clear?
- Reindel: The clear dots are 25 or less events. Lots of population in clear dots the almost 1.8M people.
- Gagnon: Thelma, are you looking at the summary bullet points on the bottom of Slide 24? Yes. You are asking the right question; it is just hard to answer because that 21% is a change figure, but what this slide represents is not change it's what they are after the collective has been analyzed, what the values are at that point in time.
- Reindel: The last 2 bullet points are showing the percentage of the Comfort area difference between baseline vs. collective.
 - Slide 26: These tables are ones we want you to review. Here shows the differences between the baseline and the collective. You can see areas of change. We have circled areas that we considered going in the wrong direction. Baseline may have been better. Circled on the right are areas that experienced an increase in those categories rather than a decrease. The increase in the green is good.
- Muckenfuss: It puts the population about 89% in the green Comfort.
- Reindel: But the population is the whole grid.
- Gagnon: To summarize, if you look at the 3 Subtotal rows: Comfort Subtotal on the far right, it says we have 17,694 more people who have moved into the Comfort zone. Concern Subtotal: we have 15,713 fewer people in the Concern zone. No-go Subtotal has almost 2000 people fewer in the No-go zone.
- Muckenfuss: That's where the extra Comfort people came from.
- Reindel: Get used to this table. You will see it next month with all the measures that we look at. Slide 27: 46% would experience fewer events above 70dB with collective measures. 25% would experience more events above 70dB with collective measures.
- Nomellini: When we come to make our final decisions, it is important for me to know if we are putting someone in a worse position, determining if that was a position they were in pre-Metroplex. Is that data that we have?
- Reindel: We would have to have another baseline. We would have to agree on a year for baseline before Metroplex. It is doable just not easily doable at this time.
- Cameron: As interesting as that is, we've been told we are not going to go back to pre-Metroplex.
- Nomellini: I think it is important to know the audience if they saw changes before.
- Muckenfuss: Curiosity on this Slide: At the point of SC, there are some yellow, reds and oranges. Do you know why that popped up?
- Reindel: Hold on for a few Slides. We did a deeper dive. If not, we will come back to it.
 - Slide 28 summary: A greater number of grid points and people experienced an increase than a decrease in average daily overflights. In general, a greater number of grid points and people experienced a decrease in N70 than an increase. Slide 29: The areas in circles are areas where you get benefit from maintaining a minimum altitude of 6000' on the downwind. Looking at Slide 30, the circled areas are improved because of the Altitude-based Turns. Slide 31: the circles represent the areas that benefit from change initial

departure headings. Slide 32: The potential noise increases across most of the grid, and potential noise reduction along the eastern and western edges of the grid for the community of Mountain Island Lake. I thought it would be good to look closer in on these communities and we will continue to do that going forward. Slide 33, SouthPark area, you can see that most of it is actually in the yellows and reds except in the lower southwest corner. And the Steele Creek area (Slide 34), you can see just the top portion with increases; most of the rest is a reduction.

- Vesely: Is the gray line I-77?
- Hair: We would need to look at the KML files to figure that out.
- Vesely: If that is I-77, it is where there is an industrial area. To my point, in the areas where you are seeing the red, unless you dive in, you don't know if it is industrial or residential.
- Reindel: Other points like FAA noted, 6000' downwinds may negatively affect arrival operations
 throughput due to reduced flexibility to vector aircraft close to the airport. Changing the initial departure
 heading on south flow departures may negatively affect departure operations throughput due to aircraft taking
 longer to achieve divergence. Going to the KML files this is in Google Earth. Files will be delivered to Dan.
 This is showing the N70 results with the collective analysis, and this is the area where we see what the land
 uses are. You can see open areas, residential areas. All this information is available to zoom in. When you
 zoom in, the dot represents the square surrounding the dot.
- Nomellini: You are going to provide a link for each of the Slate items?
- Reindel: Yes. Each item will have its own individual measures as well as the 2 collective results that we have done. After next month you will have all that in this format.
- Wiesenberger: Reminder of grid point measurements?
- Gagnon: A grid point is ¹/₄ mile by ¹/₄ mile.
- Nomellini: And the dot is the center.
- Gardon: Thank you for taking some of the map issues and getting a good representation. It seems like this is what the committee wants to see. The Slate items in this collective, from what we have heard, are slightly less than useful. We have heard that Altitude-based Turns are a non-starter, and we have heard some issues with 6000' altitudes. One other thing I want the group to look at is Slide 12. Indicated as #6, changing headings at first turns off 18L and 18C. Call attention to the bottom bullet points not a great difference between benefit and disbenefit. Just something to keep in mind. When the group looks at them individually, that is important to keep in mind.
- Nomellini: Can I challenge that? I think it is important to look at the distribution. Because that is just a flat percentage. If you look at the % and how many events there might not be a big difference, but you need to look at distribution. I don't think it is a clear representation until you look at the number of events.
- Gardon: The main takeaway is that numbers are complicated a lot going on. We still have a number of Slate items that are still potentially viable.
- Reindel: Slide 37: Sample talking points for individual Slate measures. Based on progress completed to date, HMMH selected the 6000' minimum downwind altitude Slate recommendation as an example for discussion of potential talking points. Note that the community regions will be removed from graphics for public meetings, per ACR request. Slide 40: In terms of sample talking and key takeaways for aircraft overflights may decrease for communities between approximately 6 and 16 miles north and south of the airport, and may increase for communities beyond approximately 16 miles north and south of the airport because more aircraft will be going that far from the airport before they can turn. It will remain roughly the same elsewhere. N70 may decrease for communities between approximately 6 and 20 miles north and south of the airport between the existing downwind and runway centerlines as well as underneath existing downwinds. May increase for communities beyond 20 miles north and south of the airport. Also, may negatively affect the airport's capacity due to reduced flexibility and efficiency for controllers to accommodate arrival aircraft and may be difficult to implement due to potential airspace and procedural changes, as was discussed by the FAA. Are these the types of talking points you want?
- Vesely: I think we are stuck on the fact that every plane has to stay at 6000', and that is not what we said.
- Reindel: We had to have something to analyze.
- Nomellini: If I am the public, and I am interested enough to show up, I want to know what is going on with me. It might make sense for each Slate item, we set up a computer area with a link to see how each is affected.

- Reindel: We have a way to do that. Program where they can type in their address and zoom into that and show the effects of each of the measures at that particular location. We could include flight tracks.
- Wiesenberger: I think the language in your bullet points is a little ambiguous (e.g., may increase, may decrease). Be a bit more specific.
- Nomellini: My concern is they need to be specific, and we need to be transparent in the information. We need to be well-versed on what the maps show so people can make their own conclusions. If I read this, I think we will be thrown into the government bucket.
- Wright: What do those directions 6 miles north of the airport mean?
- Reindel: These talking points are to be with the graphics. I think with the interactive measures where we can put in people's address we will be most successful with the information.
- Muckenfuss: If they show up, they are only concerned about their address.
- Vesely: This provides transparency.
- Reindel: We have done interactive for a while, and there are usually lines at the computers. It has gone well.
- Nomellini: Either at the debrief or pre-meeting discussion, we need a simplified explanation or legend for the map. We are well-educated now, but need it to be simple for the community. What is 70dB? Are they landing or taking off?
- Wright: Looking ahead, for folks that may be relocating, it will be good information.
- **Request/Address Additional Business Unfinished Business**
- > **Preparations for Community Meetings** CLT Staff
 - Hair: We heard that there is a lot of input and ideas on how we improve the community meetings. At this point, I don't have a good update to share on community meetings. We need to talk more offline.
- > Collective Analyses Noise Levels v. Arrival/Departure Operations
 - Gagnon: Alan Sauber wanted to bring a question but will defer until next meeting, since he was not able to be here tonight due to illness.
- ➢ FAA Submittal Checklist − CLT Staff

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Gagnon: We accomplished some items today. First unchecked box, receive FAA feedback on potential non-starters - we did that. Next - Review full analysis on expanded grid on other recommendations is what Gene has been alluding to for March. HMMH will show the next recommendations as they did today for the 6000' minimum. Review other collective analysis – did that today. Begin planning for community meetings (based on preliminary conversation today) a half a check. Next 2 items: Meet with FAA headquarters representatives before and after community meetings, and inviting communities. This is something Gene gave us guidance on months ago, before you get to the point where you are submitting the document, there would be further dialogue with FAA about the best way to package these items. Then inviting the communities to the meetings. CLT has always given us the guidance that once that date for the meetings is set, 2 months ahead of that you will begin promoting them.

> ACR Government Engagement Project Team Update – Bob Cameron, ACR Project Team Chair

- Cameron: Government Engagement project team has been formed. Core Mission/function: Identify, contact, educate and solicit the support of government representatives and employees who may have an influence on airport noise issues and/or who may be citizens who are impacted by airport noise. Where we are in the process is we have had a couple of conference calls. Team members are: myself, John Garrett, Phil Gussman, Kurt Wiesenberger, Kevin Vesely, Mark Loflin. Tonight we would like to get more members. An elected representative will listen a lot more to a constituent. If you have a particular elected representative, we would like you to join our team. We are going to be collecting who we want to contact.
 - Dan has put a presentation together for us. It is intended to be an introduction for representatives to where we were when we first got here. The briefing is designed that it can go from one representative to another. Dan made this for Sayle, and he took it to Cornelius, and then I took it to Davidson. They were encouraged that there was a group like us. We did not specify things we are recommending. I would think we would not want to get ahead of the ACR. In a couple of months, we might be able to say we have submitted to FAA, and this is what it is. We don't have a timeline. Generally, the process is to collect who the players are and get the players briefed to speak.
 - Our charter notes that we would come back to the ACR and get the ACR approval. Nothing in the charter that we have to take a vote. But we want the ACR to buy-in to go through the general process of collecting names and making initial contact. Sayle got a best point of contact in Cornelius, and I

accidentally got the same thing in Davidson. I have agreed with her – the director of public information – that I will let her know when significant changes occur in our process. She is more briefed up on this than the rest of the town council. As time goes on, we will identify key players. Do any of you have contact with any town aldermen or city council? Do you think we should proceed?

- Nomellini: Clarify the intent of the request to make sure that we are not aggravating any political
 relationship. Before you go out there and do anything, make sure that the airport knows and can weigh in.
 They would probably be helpful in who to reach out to. The intent was to make sure that we are all aware of
 what you are out there doing.
- Cameron: Dan has found that it is difficult to share the briefing because it is big not inflammatory. Factualbased. Fine with me if you think it is appropriate for ACR members to all see it first. So, is it okay for us to compile a list of who we believe are key players and to contact local municipalities and so forth?
- Nomellini: What I would suggest is to put the list together, then let the airport review it to ensure we're hitting the right people.
- Cameron: The airport has a list, and we're getting that.
- Gardon: We can help with that. City council is always a good place to start.
- Cameron: Part of the trick is that SC is harder to get contacts, although Kevin has given us names/contacts. How do we coordinate with the public meetings, because the government is going to be interested in what we are talking to the public about?
- Wiesenberger: Bob Lemon has presented to Huntersville. He should be included in the team.
- Cameron: Each area has a team member, and we have residents. So, for Huntersville, I am on the project team, but I have Bob Lemon on for the local resident. Please solicit for each group.
- Nomellini: Did you say you have all the geographic areas covered at this point? What are you missing?
- Cameron: We don't have anyone for Gaston, Lincoln. Kurt has taken federal and state. John Garrett has taken on Mecklenburg.
- Loflin: I'll take Mecklenburg County.
- Muckenfuss: I'll assist with Tega Cay, Fort Mill and Clover, SC.
- Nomellini: Anyone for Charlotte proper?
- Kurt: I will.
- Gussman: We will have plenty.
- Cameron: If we had a briefing to a particular member of the Charlotte council in a particular part of Charlotte, then we would like to take an ACR member that is in that area. If we have a core team who is familiar with the PowerPoint, then we can walk into an office or event and present.
- Hair: The configuration of the ACR is based around political jurisdictions, so each one of the City Council districts has a representative and each one of the county commission districts. So, I think the idea of a core team would align well with how the membership is configured.
- Vesely: How is that done in SC?
- Hair: In SC we have the 2 York county representatives 1 from central York and 1 for the rest of York.
- Vesely: York has one council and Lancaster has one council. If there is north and south York, I am not sure.
- Gardon: In terms of SC, we structured the ACR differently.
- Muckenfuss: I'll help with that. I am familiar with the municipalities.
- Stowe: I'll help with Gaston. My wife is a councilwoman in Belmont.
- Wiesenberger: The purpose of meeting with officials is to inform them as to what the ACR is doing. You said "make a pitch." Is there an ask?
- Cameron: The ask is to solicit more support and to keep this in mind for the council meetings. Remind people noise is relevant.
- **Written Updates** on Motions/Requests for Support

Request/Address Additional Business – Unfinished Business

- Wright: Back on our presentation. With what we heard from the FAA, do we need to make a decision?
- Nomellini: Not at this time. After Gene does the individual recommendations on the expanded grid, we may need to make decisions. We cannot vote on anything because we do not have a quorum.
- Adjourn: No adjournment because no quorum. Meeting ended at 8:04pm