Charlotte Airport Community Roundtable (ACR)

Unapproved Summary Minutes: February 20, 2019

Attendees

Brian Cox, Vice Chair, Charlotte
Kurt Wiesenberger, City 2
Loren Schofield, City 3
John Garrett, County 5
Sara Nomellini, Chair
Bob Cameron, Davidson
Kim Hardee, Matthews
Thelma Wright, Mecklenburg

Ed Gagnon, CSS, Inc. (Facilitator)
Gene Reindel, HMMH (Technical Consultant)
Stuart Hair, CLT (ex-officio)
Dan Gardon, CLT
Kevin Hennessey, CLT
Mark Clark, FAA (ex-officio)
Tracy Montross, American Airlines
Cathy Schroeder, CSS, Inc.

Summary Minutes

- Meeting started at 6:02 PM.
- Open the Meeting
  - Approve Minutes: Cameron moved to approve. Garrett seconded. All voted to approve.
  - Ground Rules: Gagnon Reviewed
  - Meeting Packet Information: Gagnon Reviewed
    - Created one document to show everything from 3 key working papers: First several pages are the **Noise Improvement Matrix**, then **Request Database** – all requests from Day 1 are there – and then the **Motions Database**. This one document is representative of our major working papers.
- Review Public Input: None tonight
- Share Potential Overall Goals/Guiding Principles for Evaluation
  - Gagnon: *Passed around document – Draft of Guiding Principles.* Its purpose is to define Guiding Principles in identifying potential recommendations. *Went over the document.* Last meeting there was lots of discussion, and this document came from my debrief with Brian/Sara, as they noted that we had not really landed on a documentable, measurable, overall goal and set of Guiding Principles to make decisions. Tentative plans for March to have a slate of recommendations to give to HMMH to analyze individually and collectively.
  - Wiesenberger: Could we have different or multiple goals?
  - Nomellini: Yes, these are guidelines. This was a starting point. Would ask that before next meeting have folks look at this and have questions and ideas that can be emailed and compiled. The intent was to set up the framework. The concern seemed to be at the last meeting was "What are we trying to do here?" We have never as a group defined that.
  - Gagnon: The 5 Principles are examples of questions we could ask when we are evaluating/prioritizing recommendations. We will send you a reminder and soft copy of this document in 2 weeks so we can get your feedback and review a refined version in March.
  - Wiesenberger: Do we know what current metrics are related to these goals and clear on where we are today?
  - Nomellini: Probably not. If we are making a change, we need to understand the current condition and what the future condition would be under the recommendation.
  - Cox: Another data point I would want to know is what they were pre the NextGen Metroplex implementation. This document came about because of phone conversation that Ed, Sara and I had after last meeting. There is nothing sacred on here. Any other ideas are welcome. Look at this, weigh in, make suggestions to this document. I think about things as outcomes, strategies and tactics. In my mind talking about dispersion is a tactic. The outcome is we want less people complaining or are negatively impacted by noise. "Spreading the noise" might be a strategy - might not be a good one. Talk about things as strategies.

- Wright: The existing recommendations that we have on this database will not be applied retroactively to anything that is currently in process?
- Gagnon: I think it is more forward looking than retroactive. When HMMH presents, they'll give a sense of whether the recommendation would move the needle relating the Goals/Guiding Principles.
- Nomellini: Yes, that is my understanding – use for upcoming slate. We will not go backwards.

❖ Analyze/Uncover: Request for Analysis – **Gene Reindel, Vice President HMMH (Altitude-based Turns – Additional analysis to assess effects of Altitude-based Turns.)**

- Reindel: Slide 2: Altitude-based departure turns – additional analysis of 3500'. Entire year of operations. We will look at this, and we were also able to get the Noise Abatement Departure Procedures from AA so we can briefly discuss that.
- Reindel: Slide 4: South flow departures. I think that this shows the differences quite well without looking at noise evaluations, but we will look at both. Notice in the green you have denser color that represents most flights. You don't have that with the red. They are more evenly spread in the red. Red is turns at 3500' (greater dispersion, and we are taking in seasonality also); green is today. Aircraft on a hot day take longer to reach 3500'. What was "modified" was taking the green flight tracks until they hit 3500', and then they turn.
- Schofield: What is the 3rd graphic?
- Reindel: Overlay of the first two.
- Wright: When you are expanding the time period, is that dispersing the data? You have an average of the flights…you have accumulated a lot of data, so if there were rails that were continuous, you would get absorbed in the year's worth of data.
- Reindel: It makes sense; I would say that is not what we are doing here. We are taking the year's worth of flight tracks data and extending it until 3500', then we allow them to turn. It is not an average. It is taking every individual flight track and requiring that flight track to be extended.
- Garrett: Looking at the legend, does that make it 4 nautical miles. Does that not make the dispersion 4 NM or more? It did not seem to fill in the wedge.
- Reindel: You bring up a good point. If they are going straight, we did not turn them.
- Hennessey: It does look like the wedge was filled in some. Not as much as we thought.
- Cox: On the left, it is my understanding that when the turn is executed, it is around 2 miles?
- Clark: No sooner than 2 miles.
- Cox: So, at 3500', what is that distance? 3 miles? 4 miles?
- Reindel: We haven't calculated that yet. It is all in the data.
- Cameron: You can, by default, by looking at the graph, determine that in the green the turn is happening before 3500'.
- Reindel: Probably the majority are below 3500'.
- Cameron: Any idea how many decibels if you fly over someone's house at 3000' verses at 3500? What kind of decibels that represents?
- Reindel: We will show the decibel level change in future slides. You do get a change in noise.
- Cox: Question for Mark: Is the point at where (# miles) they turn important for the ATC?
- Clark: We are dependent on it. We are dependent on the predictability of where they are going to turn. I had relayed some concern about altitude-based turns, and when you look at this particular graphic an additional concern would be – I believe I've mentioned before when we depart on parallel runways we have to immediately have 15 degrees divergence. We don't have that in Charlotte because of the noise constraints. We have a waiver in Charlotte that allows us to fly straight out to 4 miles but no further. Even if altitude-based turn happened after 4 miles, we would have to intervene and turn them early because of the requirement.
- Cox: I know this is hypothetical, but we have to turn between 2-4 miles regardless of altitude?
- Clark: With the current requirements, that is true.
- Reindel: Slide 5. Next, we looked at the maximum noise level based on the year's worth of flights where maximum noise level was at 70 dB and greater. Note the reference sheet at each person's place that will help

better understand what the levels mean. On the left is baseline. On the right is what they fly today. The warmer to hotter colors, the noise is higher. Moving out to the yellows, it is lower noise levels. Turning at higher altitudes, noise is lower because they are higher. So, the noise extends down south more. Need to look at legend to know what the colors mean.

- Slide 6: Bands of green where you have reduced maximum noise levels and then areas of reddish and orange, areas that have increased noise levels.

- Wiesenberger: If the flights are higher in altitude than they are currently, they are turning before reaching those geographies, right?
- Reindel: Yes.
- Wiesenberger: Theoretically, it should be less noise than is currently going over the area?
- Reindel: That is correct. After the turn, it is a net decrease in noise. But before they turn there is an area where the noise will be higher because they are turning later. Runways center line north and south probably have no net benefit. But east and west, yes you would probably get a net benefit from this procedure.
- Cox: Can you roughly show 2, 3, 4 miles from the runway?
- Gagnon: To help illustrate the distance, runways are 2 miles long.
- Reindel: We can add that to the slides since we cannot go beyond 4 miles. One other thing we could do is limit that on all these other slides as well. Make another illustration where when we get to 4 miles, we turn regardless. That would give you another concentrated flight path at that point.
- Clark: Clarify, the turn has to take place prior to the 4 nautical miles.
- Garrett: What stipulates that 4 mile-mark? Is it something that has to be adjudicated?
- Clark: The requirement is they turn right off the runway. We have a waiver, and every 2 years we hope we don't lose that waiver. I'm not saying extending it beyond 4 miles is impossible but improbable. The 4 miles starts at the departure end of the runway. The handbook requirement for departures on parallel runways is 15 degrees divergence between them immediately after departure. The only way to do that in Charlotte is to get relief from the 2-mile current noise requirement, and that is something that we have and will continue to advocate for. Since we cannot do that, we treat the 2 runways as dependent departure runways which means we have to space departures on one runway based on traffic on another runway. This would slow things down immensely. The other thing is to have a handbook waiver that allows us to ride side-by-side out to 4 miles. There is a safety concern as the planes are 5000' apart at 4 miles.
- Reindel: Slide 7: Number of events. I believe this goes to the idea of dispersed departure procedures as well. Note the legend: Lightest blue color is 26-50 events. Fewer events because of dispersing. Another note is with the modified procedure, the events don't go as far east or west because you are climbing higher before making the turn. You do get a good relief from the number of events by doing the modified procedure.
- Gardon: Can you count the dots in color?
- Reindel: We can, and we will want to do that.
- Wright: Explain again the location of the dots both baseline and modified.
- Reindel: Since we have extended the flight path before they turn, you see fewer events north; they are pushed to the south, but also they don't extend to the west because they are higher up before they make their turns.
- Reindel: Slide 8: Change in number of events. Greens showing fewer events above 70, and reds and yellows showing more event.
- Garrett: *Asking about total events over 70 and under 70.* It makes you think that all the people in the red area are getting the shaft, but that is not really what it is saying. They are getting more, but other people are getting less. Trying to figure out percentage increases.
- Reindel: The red is where you are getting an increase of 25 to 75 events. This is the full year.
- Garrett: What is the increase in percentage?
- Reindel: That is not shown here.
- Garrett: If dispersal is what we are after and if it is more evenly dispersed throughout the area and the other chart seemed to show that visually, but it does not give us statistics, right?
- Cox: I don't know if we have said that dispersal is what we are after.

- Nomellini: This is over a year?
- Reindel: Yes. Full year's worth of traffic.
- Schofield: This is not taking in the 4-mile limit that we have heard about tonight?
- Reindel: Correct. Clearly some of these are turning after 4 miles.
- Wright: Is that populated areas where there are now increased events, or is that area open?
- Reindel: We have not evaluated the population at this point. That is one of the things we would evaluate as we go into the spring and fall. What we want to do now is provide you with enough information to decide whether to move forward with this recommendation. Certainly you want to know the population that you are affecting with the increases and the decreases.
- Cameron: Looking at Southwest Middle School - if they are getting 25 to 75 more events a year, that would average out to one more flight per week?
- Reindel: I see that as orange there, so that is less, but your logic is correct. Need to check if that's a year or not. It might be on an annual average day.
- Reindel: Conclusions: Confirms what we saw from a single day but provides increased dispersion because on a hot day it will take longer for some planes to reach the altitude to turn. Next steps are to repeat what we have done with 2500 and 3000'. We will look at how much longer it takes an aircraft to get to its turn point than today. That helps determine when we can release the next aircraft. We can continue looking at this, if that is what the ACR wants us to do.
- Cox: Without that 2-mile point, what distance would they travel before they'd turn?
- Clark: In a perfect world they would turn right off the end of the runway. Different directions, different degrees. North headings are set. We still have to go out 2 miles after turning at those headings. If we're able to turn right off the runway, we would use multiple headings because it creates efficiencies for us and divergence. Losing that 2-mile restriction is a huge benefit for this operation.
- Nomellini: How did we get to that 2-mile, and what would be involved in changing it?
- Hennessey: We can do some research on that. Seems like it has been in effect from the '60s. My personal thought is north and south of the airport we have bought out within the contours, insulated noise mitigation, and if we change we may lose the mitigated area much quicker and get into areas that we haven't been able to mitigate and probably cannot mitigate. That would be my assumption why they developed a corridor, but we need to research that and look.
- Clark: When the airport built the center runway, Steele Creek area took the airport, the city, to court. In the judge's ruling, there were assumptions made on how those runways were currently used back in the early '70s, and because the judge's ruling was based on those current procedures, they became in effect a non-official court ordered requirement. It has evolved through the Part 150 studies, but those requirements have been in place since I got here in 1987, and every time we have tried to deviate from them it has required the airport to do so in writing. As a test, we have tried that for brief periods of time, and we quickly get a call from the airport saying "go back to the runway heading."
- Nomellini: I believe I have heard Brent say before that it is something that we need to reexamine because it is somewhat antiquated.
- Clark: The FAA wants relief from the 2-mile requirement. We want to be able to use divergent headings off the end of the runway for a number of reasons, not the least being safety.
- Cox: Providing relief is going to look different for flights that are taking off from the westernmost runway heading west as opposed to those heading north or east. What's the correct term for the westernmost runway? That runway is only for arrivals. So, flights departing on center going to western destinations - if you look at google earth, the sooner you could make that turn for those flights, the fewer rooftops by far you would be going over. Not as many people there now even as they plan to develop it. Maybe the exercise that we have been doing with this altitude-based turns is going to provide less of a positive outcome for many southwest residents. For the east, it would be different but for the west, the airport owns a lot of that property.
- Reindel: For Clark: Because you need to have the separation between the two runways, could you separate on one runway and maintain what you are doing now and go to altitude-based turns on the left runway?

- Clark: Absolutely. Let me qualify. The altitude-based turns are still an issue because we lose that predictability. Right now, the ATC issues a turn at a particular point in space, they know that turn has been issued, they know the pilot has acknowledged that, and they can base their operation on that. To wait and visually see an airplane initiate a turn is not very effective in a high-density airport.
- Wiesenberger: In looking at next steps, it seems as if we look at 2500' and 3000' the results will be much of the same. You have done a tremendous amount of research. It seems that we are somewhere close to 2000' now, so those incremental increases will not really tell us a different story. Any comments on that?
- Reindel: With 500' increments, you are going to get a more narrow corridor, and it will not be as far south. It could be that we don't need to go and do the other 500 increments and I tend to agree, but we don't know where we are going to end up. Maybe we wait to do the others.
- Garrett: You brought up negotiation which I think is key; if the FAA is resisting altitude-based turns because of the throughput and the efficiency of the airport, at some point we will have to negotiate. There will have to be some compromise, otherwise there is no point in analyzing any more data. There will have to be negotiation, otherwise this is just academic.
- Clark: (Slide 4) The leftmost slide is current. No one starts turning prior to 2 miles, and it looks like you have a 2-mile spread today. So, I would consider the one in the middle or on the far right, if you have to turn before 4 miles, those are going to look very similar to what you have today.
- Schofield: The 4-mile limit seems like it has to be built in. So, we are not deceiving ourselves thinking that something can happen that cannot.
- Clark: That's what I think it would look like - the left picture.
- Cox: What if we now translate what would it look like using a point (1 mile or immediately turning, etc.). It sounds like the FAA is going to be dependent on that sort of data. What would it look like to make an immediate turn to the west or southwest?
- Reindel: Typically, what we see at airports where they do an immediate turn is it is usually at or above 500'. You'll still have dispersion. You will have a narrower corridor as some planes get to 500' at different times.
- Cox: If that was favorable with the FAA, airlines, and area surrounding, you don't have to do the same thing on every runway. I don't know what would be more beneficial for folks to the east. Maybe turning immediately on the westward flights and 3 miles on those going east? Don't know. That is how I'm thinking.
- Nomellini: If I'm understanding, if one runway is turning sooner than the 4-mile stipulation it can be extended because the longer you fly out straight the greater the distance between planes?
- Clark: The requirement is 15 degrees. How we accomplish that - one can go straight out 30 miles as long as the other one turns at 15 degrees.
- Cox: It could even open the door for more options. This is all hypothetical.
- Clark: The one thing about turning the west bound planes immediately is we are landing planes on the far west runway. We have to protect for an aircraft who misses approach on the west runway. We are more constrained to the west, but I understand where people live is to the east.
- Wright: Regarding newer airplanes that are quieter, that would affect this altitude-based proposal?
- Reindel: With the newer aircraft, they climb faster, are more efficient, and they are also quieter.
- Wright: How many of those planes are in this analysis?
- Reindel: There are some in there and more are coming. It will happen over a long time.
- Montross: What is the trial period that you had mentioned, Mark? What kind of engagement would you need from this group and from CLT?
- Clark: I think you mean when I had referenced "trial period," in the past. We have not done one in 10 years. From FAA standpoint, we want relief from that 2-mile requirement. Beyond that, the headings we use are wide open. That kind of falls to the airport. The airport requires to turn at 2-miles.
- Montross: So Kevin, in your follow-up asking about the history of the 2-mile heading, if you could see how CLT would respond to the idea of a trial. It is hard for you to analyze some procedure we have never done before - divergent headings. I would be curious if there was a trial that was conducted over a few weeks, if that would help you see what neighborhoods would be affected.

- Reindel: We could. Thinking out loud, we could also look at where they are going so not only would we turn them at 500' but also turn them toward their next fix. We could simulate that. With a trial, we could look at that data as well.
- Montross: I would like to see that data; don't know if group wants that; could help define dispersion better.
- Reindel: At the last meeting, we presented "if we did divergent headings." We divided it up as to where they would each turn on their headings. We have already done preliminary analysis; it's just deciding the tracks.
- Nomellini: I think we are in agreement that we do not need to do more detailed analysis on the other elevations at this time. Slide 9: Second bullet point, the intent is to address what Mark is saying that if we implemented it would be a problem with planes moving through the airport.
- Reindel: We would have to work with FAA. We have been thinking that we could at least determine the time difference between where they turn now and where they would turn at 3500'. We would need more data to give FAA, and they could hopefully determine what that would mean for throughput. At HMMH, we have also been thinking about a divergence from this - during peak hours when you need to get aircraft off the ground, you go back to what you are doing today, and that creates even greater dispersion over a year.
- Nomellini: That does not change anything or solve the problem. That is repeating what is going on now. It is during the high peak hours where you have consistent planes every 90 seconds. I think we have to go back to our Guiding Principles. It is the consistent frequency that drives people nuts. Also, if we cannot go to 4 miles, that is a non-starter.
- Cox: I would be interested in looking at analysis like this to look at flights headed west on the center runway turning at 500'. I don't know what the right metric is.
- Nomellini: Don't waste more time on the other altitudes. It would be interesting to see how that 4-mile limit affects us. To your point, Mark, it might just replicate what we have now.
- Reindel: My hunch is that this thick part here would move down south.
- Cox: The reason I would like to look at the west is that if it provides relief to the west and southwest and opens the door to dispersion as a strategy.
- Gagnon: Is the ask of HMMH to potentially look at 500 off the west?
- Cox: That might open a can of worms.
- Reindel: I'd want to work with the FAA and see what their procedures are for the missed approach to ensure we're outside the missed approach location.
- Cox: I'd be happy to hear what you think Mark: Altitude or distances?
- Clark: Again, altitudes are not something we do because it is not predictable.
- Nomellini: How quickly could we turn?
- Reindel: Could you give us a point in space that we could turn before?
- Clark: I can do that inside of 2 miles. Also, degree to turn.
- Nomellini (in response to Reindel question): Take what's on the left graph (Slide 4) and drop it down so turn occurs within 4 miles.

❖ Analyze/Uncover: Request for Analysis – **Gene Reindel, Vice President HMMH (Departure Profiles – *Review of American Airlines profiles.*)**

- Next, Slide 10. Departure Profiles: We got information that we had requested from AA. Our earlier analysis showed there was not much difference between NADP-2 and the standard procedure in the FAA's noise model. We saw differences in NADP-1 (close in). American's normal takeoff procedure is compliant with NADP-2. We were using the right model. AA is flying NADP-2, and not much difference between standard and NADP-2. I could check with Boeing, but I imagine most newer airplanes are recommending NADP-2 as they fly their aircraft.

❖ Unfinished Business

- **ACR Motion - Mark Clark, FAA:** Return the CAATT Waypoint (on the CHSLY3 arrival pattern for arrivals to the 36 parallels) to Pre-Metroplex (Raising Altitudes on Downwind Leg)
  - Clark: The regional administrator did send a letter to Brent saying they had received the recommendation, and it is under review. Had planned for a team to come to Charlotte to help us begin.

The shutdown stopped that. Still looking at 3 proposals and one other proposal being considered. Don't want to bring to you until we know that it would work.

- Gagnon: Bob Sz. mentioned via e-mail about PBN leads coming to CLT. Can you describe their role?
- Clark: PBN is performance-based navigation. Leads are the team that I was talking about coming to Charlotte. We have co-leads - a Management representative and a labor representative. They would come and talk to the locals about the recommendations.

- **ACR Motion Discussion - CLT Staff:** Update on Voluntary Curfew Request (Motion: *To send a request for a voluntary curfew to airlines, allowing CLT to identify the process of doing so.*)
  - Gardon: Following talks with Brian/Sara, looks like we will have two separate procedures. The ACR will come up with something they would like to see regarding night flights, and we will help support that. At same time, the airport is working with some of our base operators on an airport policy. Hopefully in the next week or so, we will have more update from the ACR side.
  - Wiesenberger: Is there a timeframe for completing this?
  - Gardon: The process is slower than we anticipated. Once we have a draft letter from ACR and get it approved, it should be fairly quick. Nothing ACR can do right now; the airport is going to pursue something a bit different but in the same spirit.
  - Nomellini and Cox: We want to note that Dan went above and beyond the ACR's expectations. The airport is looking at a policy change, and that is good. We would like to go ahead and send our letter. Then, the airport policy could take weeks or more for their policy process.
  - Cameron: What is our timetable on our ACR letter?
  - Gardon: I am currently working on a draft for the ACR; that will go to Sara/Brian. They would share with you. It is just my workload that is holding back; I can get a draft in a week probably.
  - Garrett: Does the ACR need to vote on that?
  - Nomellini: Since the ACR is signing it, we will share with all. My concern was that Dan has been working on this policy, which has more weight than ours, and not taking the credit for it. We will get the letter in a week or two with expectation of circulating it, and then we send it.
  - Garrett: Next meeting before we can get it out?
  - Cox: We already voted to send a letter, so we can move forward without waiting until the next meeting?
  - Gagnon: Yes, you passed a motion in September to send a request for a voluntary curfew to the airlines.
  - Montross: Are you engaging operators in the creation of the policy? And all carriers?
  - Gardon: Yes. The ACR letter is more targeted towards transient operators. Cargo, Military, GA is where it will have most effect. When we do our policy, we will get input from all sides and see what we can do to work together.
  - Cameron: I thought we were not going to exclude the base operators. I thought we were going to ask everybody to make their best effort to not fly between this and that.
  - Nomellini: The letter will ask everyone, regardless of who they are.
  - Wright: Amazon?
  - Gardon: Yes.
- Request for Support – Update: **Support for Phase Out of Stage 3 Aircraft - CLT Staff** (Update on Letter of Support for the FAA Reauthorization bill)
  - Gardon: In this case we are in similar situation. Likely will be 2 letters (1 from ACR; 1 from city). We are working on draft letters, and I believe that one of those is in legal review; in the reauthorization bill there are 14 measures that relate to airport noise. There are 11 that I think affect noise in Charlotte - a few don't. The letter will support those 11 measures that have already been signed into law. We want to make sure the Federal Government does not forget and gives some priority to those 11 measures.
- Request for Support – Update: **Decisioning Flow for FAA-level Recommendations - Mark Clark, FAA**
  - Gagnon: This addresses what kind of communication is going to come back to the ACR once the slate of recommendations is sent to the FAA.

- Clark: No formal process of communicating back to the ACRs because all are different. What we have committed to here is not making any procedural changes without coming back through the ACR. For example, we have 3 recommendations (relating to moving the Waypoint). They were sent to our service area. The PBN teams will evaluate and say if they are feasible. Once they come back, I or someone from the FAA will come back and tell the ACR "this is what we can do and why." I've said before changing procedures is a long process that always evolves. Changes will not take place without ACR knowing. It is an informal process but a commitment on the part of the FAA to communicate back to the ACR.

➢ **Developing Slate of Recommendations for the FAA – CSS**

- Gagnon: Next we will look at draft slate of recommendations for analysis to make sure that we are not coming in cold next month on a slate of recommendations. *Went over the handout.* **Top**: Why is a slate preferred? (FAA likes slate as recommendations might overlap/conflict; allows for more efficiency). **Next section**: Why do we send to HMMH first? (It allows us to more fully understand these recommendations. Gives them time to look at data. Understand collective effect of various groups of recommendations, and determine which recommendations would help ACR achieve its goals). **Bottom**: 6 potential recommendations we have discussed; 2 others on the back that came from breakouts. Do we want to add these? What you end up putting on the slate is up to you. In talking with Sara and Brian, we wanted to make sure you had a sense of what might be in that package. **Next Step:** Ed/Sara will send a reminder email in 2 weeks; this is a preview.
- Wright: We started with the Guiding Principles. Will that document be used to evaluate these 6 items?
- Gagnon: Potentially. Say you decide to present these 6 items at the March meeting. HMMH might come back and say "What if we do altitude-based turns and weave in divergent departure headings on those turns." If our Guiding Principle is that we want fewer people with > 50 flights a day average over 70dB, they could tell us by using those 2 strategies whether we reduced the number of people with that number of flights above that noise level. The Guiding Principles would be like your evaluation criteria to determine whether we should submit to FAA. That is my understanding of how they would work together.
- Cox: This is potential. This is telling me that the March meeting is going to be busy. This is a way to nudge us in the right direction looking at a basket of items, not using a siloed approach.
- Gagnon: The Request/Motion #s cross-reference to the Noise Improvement Matrix.
- Cox: Looking at other things we talk about (west turns), someone could say they want to add to slate.

➢ **ACR Strategic Framework Update - Kurt Wiesenberger, ACR Member**

- Gagnon: We are hoping to use this Matrix to address all the potential issues and causes of noise as well as to see if we can identify those that can be controlled locally. As a reminder, discussion of the Matrix led to the ACR deciding to draft a letter in support of the reauthorization bill.
- Wiesenberger: Last month looked at first page. From last meeting we updated one of the columns titled Local Control Levels. We want to target things that we have more control over. So, we updated and populated a number of columns on page 1. Please turn to page 2. It is a continuation of Equipment/What. The area we are focused on is Inadequate Noise Monitoring Network and metrics that go beyond the current dba levels. We assigned it a Medium level of Local Control. Are there additional initiatives or ACR recommendations that you all see as potentially helpful in addressing this cause of noise?
- Gagnon: In particular, since there are existing noise monitoring initiatives, does someone from CLT have anything to add as an update?
- Hennessey: Noise monitoring. The general trend is to get away from traditional noise monitoring because it has no correlation to the actual 65 DNL contours that are drawn. Dropping a monitor in your yard does not do anything - burns time and money for no great impact. Trying to work with virtual monitoring to identify virtual contours. The contour lines determine who is potentially eligible for mitigation. I think most people think that the noise metrics the FAA uses, they don't agree with them. Unfortunately, those are what we have to use at this time. We are testing those virtual monitors. Separate from that every 5 years, we will be updating our noise contours; that is the line that matters for noise mitigation.
- Gagnon: What is a virtual noise monitor?

- Hennessey: Placing a dot on flight tracking software, and it acts like putting a real monitor in a yard. It knows the number of flights going over, noise profile, and it will in theory spit up a DNL for that time period. I have dropped a virtual and real monitor at my house - pretty much the same. With a real monitor you have ambient noise (lawn mowers, etc.) that is not picked up with the virtual. The tool for CLT is that there is not a great discrepancy. Are these contours still good? It's faster than the 5 years.
- Nomellini: Under the Benchmarking Opportunities, it notes to examine the 65dB benchmark itself. I think we all are in agreement that is not an adequate measure of pain and discomfort. Have you seen what the level is that causes people to be uncomfortable with the noise level?
- Wiesenberger: I am familiar with the National Quiet Skies Coalition. It has recommended 7 changes to the reauthorization bill, 1 reducing that level to a 55 average. There are studies associated with stress and heart disease and learning related to noise. Another point – another way of tracking noise is a system called Webtrack - used in Florida, Europe, a number of airports around the world. Not only tracking actual noise levels as flights arrive and depart but a way of communicating with the citizens of that area.
- Hennessey: It sounds like what Webtrack is - public portal used in places like Los Angeles and San Diego. It is not necessarily taking a count of the noise, but for instance in LA there are lots of permanent noise monitors around the airport. So, a person could click on that plane and if it is near a monitor, they can see how loud it is at that place. In addition, a person could click on an airplane and make a complaint on that particular aircraft. It is a public system - like a public portal. We have those systems, but they are separate. We don't have fixed noise monitors, and you cannot click on the plane with our system.
- Montross: I think that an obvious addition to Equipment is adding a portal that the community can use and submit complaints - evaluate whether the portal we have now is adequate and we want to continue to use. Whether staff can analyze the data in the most efficient way - that can be an investment.
- Nomellini: Taking that point further, the complaint system does not effectively measure quality of life. Need a more reliable indicator of what people are feeling and how they are affected by noise. We had talked of surveys.
- Wiesenberger: What about the 65dB level? Do we want to consider looking at it harder?
- Nomellini: I will take that on.
- Reindel: For our studies we are not looking at DNL. We have been looking at noise levels from single events and what are the number of events and where they are. We have avoided DNL.
- Nomellini: It needs to be meaningful. I think 65 is too loud. If you look at the contours of the airport, those levels are too loud. What is acceptable? I don't know if we have ever defined that.
- Cameron: The problem is not 65, it's the noise average concept. You're including nighttime - the quiet time as part of the average. It's the frequency with which we have planes at 65 over homes. When we come out with recommendations, I'd love to say "we have this many households where this recommendation would reduce the # of flights above a certain noise level."
- Nomellini: National Quiet Skies Coalition. I will try to find out more information about how they came up with that (55 DNL).
- Cameron: I would love to have a data point as a reference in the worst areas that notes "this many events above a certain decibel level."
- Cox: That is why the Guiding Principles were developed – that's the first one. This is the metric that Ed came up with. For whatever recommendation, we want to note the effect.
- Garrett: Website and monitoring needs to be moved to the "People" section on Page 5.
- Gagnon: Look to Sara and Brian in terms of time. Do you want to continue or move?
- Wiesenberger: Add one thought. Is there a means with which we should be communicating to city government, State government, Federal government as an ACR body about our goals and asking for more relief and attention? And how do we go about doing that?
- Cox: Yes. Sara has asked how we should do that on multiple occasions. We did get a response from Dan. CLT communicates with the city manager's office on an as needed basis. There is not a standing committee or meeting with CLT director or city manager or any other formal structure. We as an ACR are supported by CLT staff which leaves us hanging as an ACR body. We're in a difficult position.

- Cameron: Sayle has briefed Cornelius City Council, and I have briefed planning staff at Davidson. Dan put together an excellent briefing for Sayle and then he modified for me to take to Davidson. Getting together with the planning staff in Charlotte seems important.
- Cox: City council, they're all fine people, has spent more time talking about scooters than the airport. Not a reflection on CLT. The city is getting ready to embark on a 2040 planning process. We have been invited as the parks commission. I hope the airport is. We need to put on a future agenda "How do we get into the legislative system?"
- Wiesenberger: I know we have individually reached out to our local representatives, but we should be working collectively rather than individually.
- Hair: I think what's most effective on a local basis is contacting your individual council members. So much of what we are talking about is mandated by federal law. I know that Tillis has been briefed on this, but our house representatives might need to be involved.
- Nomellini: The House basically defers to the Senate. Our neighborhood has reached out to our State Senator and our House Representative. Let's you and I (Hair) have a sidebar about that.

➢ **Alternating Downwind Rails (Consideration of Motion) - John Garrett, ACR Member**

- Garrett: Want to make a motion, but I feel like it might be unproductive to do by itself. We should wait until March and include on the slate.

❖ New Business

➢ **CLT Planned Major Runway Renovations – CLT Staff**

- Hennessey: Beginning in April, runway 5/23 will be shut down 7-8 months as construction on airfield and taxi ways. Runway 5/23 is our preferred nighttime noise abatement runway. We'll give more information in March.
- Nomellini: Can you identify your airport communication plan - how the public will be notified?
- Wright: I thought it was already shut down.
- Hennessey: It was closed for roughly 8 months the past 2 years in a row. We have had closings of runways because we are always doing construction. When it is going to be shut down for an extended period of time is when the communication plan kicks in and city council is informed.

➢ **April Meeting Date**

- Gagnon: The next meeting is during CMS Spring Break. Did we want to move it?
- Members: No.

➢ **Other New Business**

- Use of the ACR Meeting Conference Line
  - Wright: In the minutes, we had opened conference line for requests. I think the 2 members who had asked for that are not a part of the ACR now. Do we still need to do it?
  - Gagnon: Can someone from CLT respond to that?
  - Hair: There has been no need that past couple times, but we can conference a member in.
  - Hennessey: It is a public meeting for those that you represent; they can call in and listen.
  - Wiesenberger: I don't think we're able to show all our items - value of just listening is hard.
  - Hennessey: We do have the agenda posted on the website. They could pull up the slides.
  - Wright: Someone who had done it said it was hard to hear and difficult to follow.
- Montross: AA is opening the Admirals Club. Stop by if you are a member. Adding more flights this summer. Goal of 700 flights this summer (at 664 now). Average of 700 flights a day.

❖ Adjourn

➢ Cox motioned to adjourn. Garrett seconded; all in favor.

➢ Meeting adjourned at 8:08 PM.