

Charlotte Airport Community Roundtable (ACR)

Unapproved Summary Minutes: July 17, 2019

Attendees

Sara Nomellini, County 2, Chair
Kurt Wiesenberger, At Large, Vice Chair
Phil Gussman, City 1
Loren Schofield, City 3
Bobbi Almond, City 5
Alan Sauber, City 7
Sherry Washington, County 4
John Garrett, County 5
Mark Loflin, County 6
Sayle Brown, Cornelius
Bob Cameron, Davidson

Bob Lemon, Huntersville
Thelma Wright, Mecklenburg
Theresa Brunner, Pineville
Kevin Vesely, York
Sean Muckenfuss, York Central
Ed Gagnon, CSS, Inc. (Facilitator)
Gene Reindel, HMMH (Technical Consultant)
Bob Szymkiewicz, FAA (ex-officio)
Sonya Busch, FAA
Dan Gardon, CLT
Kevin Hennessey, CLT
Tracy Montross, AA
Cathy Schroeder, CSS

Call-in Participants: None

Summary Minutes

- ❖ Meeting started at 6:00 PM
- ❖ Open the Meeting
 - Approve Minutes: Gagnon: One slight change, on page 8 - Modifying who from the FAA is working on an interim solution.
 - Gussman moved to approve with change noted. Loflin seconded. All voted to approve.
 - Gagnon: Went around the room to introduce all because of new members.
 - Review Ground Rules by Gagnon: Keywords when communicating in all forms: Respectful. Healthy. Productive. Effective.
 - Review Meeting Packet Information by Gagnon
 - Went through the packet: Cover page and agenda, meeting minutes to be reviewed. Noise Improvement Matrix - will not go through it today. We have the updated request database - We will be taking a look at those, making sure that they are linked into the Noise Improvement Matrix before the next meeting. PowerPoints included. Color grid from HMMH has been updated.
- ❖ Receive Public Input: The following citizens addressed the ACR.
 - Person #1 Todd Douglass
 - Person #2 Jeff Jordan
- ❖ Review 2019 FAA Submittal Work Schedule
 - Gagnon: (In ACR PowerPoint) - We are doing a lot of work in the first phase with draft submittal documents. HMMH and CLT are in touch to look at some draft documents that have been used elsewhere so that we may use them as a starting point here. Second Phase - Analyze and prioritize potential recommendations. This relates to the information that Gene is bringing to us every month. Then (Phase 3) Gaining community input and finally (Phase 4) submitting the formal documents. We had originally projected the community meetings in October with the final Slate to the FAA in December. CLT wants to talk about the schedule.
 - Gardon: Regretfully, the schedule is going to be pushed back a month - basically for funding issues. Anticipating about a one month delay.

- Wiesenberger: Given the financial limitations, are there things that we can position earlier and things that are more costly, position later? Things that may not impact our recommendations? Can you speak to how that all comes together?
- Reindel: You can prioritize. We have developed a schedule as to getting some information and working with Bob from FAA to understand how things are operating. While some things might have a higher priority, it doesn't necessarily mean we can get to it, for example, next month. But, if you want to let us know your priorities, we can certainly take that into account.
- Nomellini: Is HMMH funded for the same amount for this fiscal year?
- Gardon: It is more.
- Nomellini: I'm assuming that a lot of HMMH time was startup time and learning this airspace and collecting initial data, so time going forward will be better spent on solutioning as opposed to setting up databases, etc.
- Reindel: Yes, the databases are set up; we are now altering that. For the next few months, we are running through those alternatives and showing you the results.

❖ Analyze/Uncover

- **Update on NADP-2 Recommendation - CLT Staff**
 - Gagnon: (ACR Slide 9) We are going to walk through the 8 Slate recommendations over the next few months. Last month we talked about #3 - NADPs. But today will talk about #8 - the use of CDAs. Prior to doing that, can we get an update on what has transpired since last month relating to the group deciding that the NADP-2 option seemed positive?
 - Wiesenberger: Before that - what is NADP? For new members...
 - Reindel: A little bit of background is needed. FAA, when they adopted the Airport Noise and Capacity Act, they had stated that an airport could use one of two noise abatement departure procedures or a standard procedure when departing an airport. Prior to that, some airports were developing their own departure procedures, and the FAA felt that was a safety risk. So, there are now 2 defined noise abatement departure profiles. Those are developed by aircraft type. An airport can recommend. There are two – NADP-1 (close-in) and NADP-2 (distant). As the names suggest, the close-in helps communities closer to the runways, and the distant helps those further away from the runways. How it helps is by a thrust cut back at certain places. They then have to add thrust at some point to get higher.
 - Gardon: As Gene said, an airport can recommend these procedures and since this doesn't have to go through the FAA, this is something that can be implemented relatively quickly. Two methods of doing this: First is some sort of agreement with our signatory carrier, and another method is updating our chart supplements basically telling all pilots when they are filing their flight plans that this is a preferred procedure. This is really good news. Don't have to go through FAA.
 - Gagnon: During our planning call we had talked about the vote from last month, where 11 voted for NADP-2, and 2 were unsure. Do you think we need another vote, Sara?
 - Nomellini: I think we are okay with last month's vote. This is great news!
 - Gardon: In terms of the implementation, should be relatively simple.
 - Garrett: I was not here last month, and I thought we were already using these procedures.
 - Reindel: A lot of airlines are using NADPs already. The good news about thinking about the fact that you are preferring NADP-2 is it is also typically a fuel savings. The manufacturers are designing these profiles as part of certifying their aircraft. The standard and NADP-2 are almost identical. AA uses NADP-2. You are probably getting the benefit, but they could choose not to use it. If it is known that NADP-2 is the preference, then you might get more people flying it.
 - Nomellini: When we start doing that, do you think we could put a pin in it to see if it is noticeable?
 - Montross: Dan, you said you could update the maps and what else?
 - Gardon: Other airports - Minneapolis comes to mind - have a standing agreement with their signatory carrier. They meet, tell them what they want, they agree, and the airline signs off on it saying we will do this whenever possible. Ideally, we would like to have a similar arrangement. It is symbolic and good PR and good for everybody.
 - Montross: More interested in how to format the agreement. We can chat offline.

- Gardon: It would probably be a letter from the ACR to American asking that they use this whenever possible - non-binding and non-lease.
- Montross: The lease would be a cause for concern.
- Slate Recommendation Analysis - **Utilize Continuous Descent Approaches (CDAs)** - Gene Reindel, Vice President HMMH
 - Gagnon: Passing out a document, similar to one from last month - 2-sided. Slide 17 from the presentation that Gene will present in a minute. Gene would like feedback on this at the end of the presentation, and below that are the Guiding Principles, as a reminder. On the back are some written updates that will be referenced in a few minutes.
 - Reindel: Knowing that we have new members, and knowing that all these concepts are not always at your fingertips, we have another acronym. CDA, Continuous Descent Approach. (He drew on flipchart) Traditionally on descent, stair step. Thrust and off. To do a level flight, you thrust, to descend you let off of the thrust. With CDA, the plane is at idle - a lower power setting.
 - HMMH Slide 2: We used the same 2018 calendar year operations. We communicated quite a bit with the FAA on this. We also looked at the type of aircraft because some are not equipped to do Continuous Descent. CDA takes instrumentation that is relatively new.
 - Nomellini: What is that relatively new timeframe?
 - Reindel: Aircraft built within the last 10 to 15 years. We modified about 19% of arrivals into Charlotte. Equipment and time-of-day are important. If there are a lot of planes coming in at the same time, it doesn't work that all can do CDA - unless you have a sequencing program (TSAS) that the FAA is trying out in Denver right now. Keep in mind, if you see the benefit with just the 19%, imagine that you will get a greater benefit as more aircraft become equipped to fly it and as more technology comes online with the FAA. We modeled the full year and compared the results to the 2018 baseline in terms of # of overflights, the maximum noise level, the number of daily noise events above 70 dB as well as the average day night sound level.
 - Slides 3 and 4: Not a lot of difference between the baseline and CDA modified results. Some areas of difference of where they would fly. That is because a Continuous Descent Approach usually results in them being more concentrated because there are actual spaces where the aircraft would have to fly. CDAs are instrument approach procedure, so by that fact it would concentrate them some.
 - Vesely: Can you point out where Leslie or Catawba are located?
 - Member: It's not there. It is off the grid.
 - Reindel: Level-offs mostly occur off of this grid. So, they come downwind leg, make their turn, and come back.
 - Vesely: Part of the reason I joined this group is there is a significant amount of noise there, especially in the Leslie/Catawba area. Flights that are at 3800' down there are what it sounds like we are experiencing now.
 - Reindel: What they are doing now, they are descending to another altitude, then they maintain that for a certain distance, then they descend again to another altitude. That is what we refer to as the stair step, and that is occurring now.
 - Vesely: On Flight Tracker, it is showing altitudes of about 3800'. If you look at the ILS drawings, it is supposed to be at 6000/7000' at that distance from the airport. I think you might be missing in these drawings. You might want to look north and south of this map.
 - Reindel: For this one, I tend to agree. If we wanted to see the true benefit of CDA, we would have to look to the areas north and south of this grid.
 - Cameron: At what altitude does the Continuous Descent approach begin?
 - Reindel: Depends on where in procedure you release that aircraft. I don't remember where Adam and the FAA decided that would be. It was probably well beyond this grid and probably well above 10000'.
 - Cameron: I have been under the impression that a CDA was a straight-in approach.
 - Reindel: No. No matter where they are in space, they could be coming around a turn, they are still descending.

- Cameron: Even though your descent rate in a turn at the same airspeed and the same power setting is going to be a greater descent rate than straight without a turn? You fall faster.
- Reindel: Yes, and that is why it is an instrument procedure - you take into account the turn.
- Brown: You start off at around 10K-12K feet. You have a chart. This is an RNAV approach. Gives you a route - measures the distance on that route. You might be 10 miles from the airport, but you are going to fly 20 miles to get there (downwind/base/final). It takes into account your turns and everything - final approach fix is about 1600'.
- Cameron: So, a CDA ends when you “dirty up” the aircraft?
- Brown: At the initial approach fix or final approach fix - wherever they dictate it. There is only about a 5-mile difference between the initial and final approach. It is all on the approach map fix. “Dirty up” = extending the gear flaps.
- Garrett: On the downwind leg, since one of the things we are complaining about is the concentration or narrowing of that corridor, would CDA disperse that, or would it be the same rail?
- Reindel: It would be on the same rail, and in fact as more aircraft get equipped to fly that CDA, there would be more on that exact same rail.
- Garrett: There is not very much variation that I can see on the rail right now.
- Brown: The stair step is a dive and drive. You get the noise with the repetition. CDA is no noise (it’s on idle power), just the wind over the wings.
- Cameron: What we are saying is that the advantage of the CDA is going to be for people on the downwind and base legs more than the people on the final approach course, is that correct?
- Reindel: Once you are on final approach, the airframe noise dominates the engine noise anyway. Airframe noise is called dirty - flaps and landing gear go down. It becomes a less efficient aircraft for flight. That helps slow the aircraft down. The benefit usually ends about 7-10 nautical miles out of the airport, and that’s on your final approach. You will not get the benefit right as you are approaching the airport but you will, as Sayle said, every time you go to a level flight you have to increase the power, and that is an increase in the noise level.
- Wright: Two questions: Does the procedure being used have an effect on the Continuous Descent, and then for those who are close to the airport, for those that are already experiencing the noise level at the stair step, is it going to increase that noise level for those who are close to the airport?
- Reindel: No, because the stair step is finished by the time you get to final approach. You are not going to be increasing power because you are trying to slow the aircraft once you get to the final approach phase.
- Reindel: Slide 5: Not a big change with CDAs. Moving on to the Lmax analysis, see Slide 7: Baseline and modified - there is an area to the very left of the slide that is where there is a level segment. There are a number of reasons for that, but the effect is that the noise level goes down 10 dBs. There is a noise reduction to be had, and most of the benefit is going to be outside of the grid. Slide 8: Summary at bottom of slide - no one would experience increased noise levels, and 386 grid points would experience reduced noise levels with CDAs.
- Muckenfuss: Can you say that if you extended the grid outward that percentage would go up?
- Reindel: Yes. That is exactly what I am saying.
- Wiesenberger: And if I can add, one of your set up conditions is that this only applies to 19% of aircraft from 2018, and only those aircraft between 9:30 pm and 5:30 am are what you used to make these projections?
- Reindel: About 20% total, but yes. We chose those between that time period.
- Wiesenberger: So, theoretically if it was applied to 80%-90%, we would have much greater impact, especially on those areas outside of this visual grid, right?
- Reindel: Yes.
- Cameron: From an FAA perspective, can you mix CDA aircraft with non-CDA aircraft?
- Reindel: You can. It would be easier to do in that time period where traffic is lower. But the biggest issue is, remember when we showed the graphics of where they all turn, and that was a 10-mile swath of where

the aircraft are turning onto final. They would still have to maintain that. That is how they get so many aircraft in here is having that long segment of turning aircraft in. The efficiency of the airport depends on that. This would degrade that some until they get better software or tools to do that.

- Brown: It would enhance the nighttime operation - noise-wise for the people close to the airport. It would greatly reduce the noise doing CDAs.
- Szymkiewicz: It's absolutely less volume at night. I would think it would be easier to implement the CDAs at night. We predicated the downwind off of EPAYE - that's where that turn would come in. Validated what the designers said that all flights that came into Charlotte could make a stable approach.
- Reindel: Number of noise events above 70dB. Slide 9: Shows the counts of grid points and population. The benefit is outside of the area of map. The number above 70 has not substantially changed. Where you are getting an increase in operations you will get an increase in number above. Where you decrease the number of operations, the number above decreases.
 - Day night average sound level. We did get some benefit - 123 grid points/17k people would experience reduced noise levels with CDAs. CDA benefit is more effective further out.
 - Slide 15: Observations. Greater number of grid points, and people increased than decreased and that is due to concentration of flight tracks. Sound level: No grid points increased in Lmax. You did get a good number of grid points that decreased as a result of not having the level-offs and increased thrusts for those level-offs. You did get a greater number of grid points, and more people decreased than increased with # of noise events above 70 dB. And not much of a change in terms of DNL.
 - Other observations: CDAs provide greatest benefits for areas north and south of analysis grid. Potential noise reductions from CDAs are realized at south edge of analysis grid over communities of Pineville and Steele Creek and north edge near and north of Mountain Island Lake. Flight paths will become more concentrated with CDAs, because of RNAV and NextGen. With continued improvements of terminal sequencing and spacing tools available to air traffic controllers (like they're testing in Denver), the percentage of aircraft eligible and able to conduct CDAs will likely increase which may result in additional noise reduction.
- Gagnon: Slide 17: Two questions from Gene: Do these changes meet the goals of the ACR, considering the Guiding Principles? Does the ACR want to recommend CDA implementation? The Guiding Principles talk about what we are hoping to effect through these recommendations. Desired effect: Point #4 might affect CDAs. Sara, how would you like to get some feedback for Gene re: CDAs?
- Nomellini: Do we want to continue to pursue this? That is what Gene is asking.
- Reindel: Do you find benefit in this, and do you want this (CDAs) to move forward to be part of the Slate?
- Garrett: Can you remind everyone of the full process?
- Gagnon: Yes. Earlier I showed a slide of these 8 recommendations that we want analyzed and potentially sent to the FAA as a package. Since HMMH did individual analysis on CDAs in the past, for example, since then they've come out with baseline data for all of 2018. So, we wanted to come back for these 8 for an entire year of data, and compare whether these are providing some benefit based on a full year's analysis. Every month HMMH is providing information on 1 or 2 of these recommendations so you feel comfortable putting it on the final slate of recommendations. Today, slides 5, 8 and 11 - those are the population changes. Now that you have seen a full year of data on CDAs, is this something you still want to keep in that group that will be voted on to submit to the FAA?
- Reindel: Whatever you do recommend to go on the Slate, we are going to put together into a model, and you can see the benefit of **all** the recommendations you will provide to the FAA. So far, we have not gotten to any that would contradict each other or you could not do them. Maybe next month, I will not need to ask this question as you will need more analyses before seeing greater benefit. Not the case here.
- Nomellini: Basically, we started with easy/standalone ones.
- Reindel: Yes. Next month, it will be multiple rails of the downwind. That can also standalone.
- Brown: Will this be presented to the FAA as a night operation?

- Reindel: That will be part of what we discuss after the Slate is complete. I would suggest that. My thought is let's start with night because we can do that now, but why limit it? The airlines want to use it because it is a fuel savings.
- Wright: Trying to reconcile the observations on slide 15 and number of daily average overflights and slide 16 - where it describes which areas would have the most benefit, and most of those with benefits are off the grid. Can you explain that?
- Reindel: Number of average daily overflights - all of this analysis is on a grid basis. Because the CDA has the potential of concentrating the tracks, some people did get an increase of flights overhead. On 2nd question, that is correct. It is important to remember the level flight segments, and that is where you get your noise reduction where you don't currently have those level segments. Most of those happen north and south of the grid area.
- Cameron: Is the increase due to them flying an RNAV approach?
- Reindel: Yes.
- Cameron: In the future will not more and more aircraft be flying RNAV approaches as opposed to having a static sample right now? It seems that you've taken your sample and said you are going to increase your RNAV approaches when really time will also increase these, whether or not you have CDAs.
- Reindel: I don't know that is completely true. More aircraft could do RNAV today. But because of the volume of traffic here, they are not ready to do it. If TSAS - Terminal Sequencing and Spacing - is beneficial and works, like they are hoping for in Denver, it may be implemented in more places. Bob, is that right?
- Szymkiewicz: That is right. I think what Adam was trying to catch was a realistic number of airplanes that could possibly fly this from top of descent. Whether you are clearing someone for a visual approach, ILS approach or an RNAV, we have to manipulate them manually in the airspace. Looking at nighttime hours, more of them would be able to fly on a consistent basis.
- Brown: RNAV is coming, and it will be prevalent. If you do the CDA in RNAV, it is going to be quieter. It is going to be on the rail, but it will be quieter because the engine will be at idle.
- Vesely: When you have multiple runways and you have both downwind legs and base legs, and they are turning at the same time, concentrating that noise, is there any method to stagger those flights? That is another thing we experience down in Leslie and Catawba. They get on the rail, they come down - we are at the end of the rail - and they turn around at the same time. I will watch 4 planes - 2 are coming in and 2 are turning at the same time. It definitely concentrates the noise.
- Reindel: I could have a graphic for you next time, I think it is a 10 nautical mile width of where they actually turn. It is not a concentrated turn. If you go to RNAV arrivals, it will be greatly more concentrated than it is today.
- Vesely: It seems that the more flights, the more you back up on the downwind.
- Gagnon: In terms of this particular recommendation, back to handout, are you seeing less plane noise, for example, with CDAs? Any thoughts?
- Brown: It may be less noisy, but the concentration is the same. As Charlotte becomes more proficient with RNAV arrivals - it's going to happen. How do you design the RNAV, Bob?
- Szymkiewicz: It would be up to the design team. They would look at traffic/airspace/parameters in Charlotte. Adam was working with subject matter experts. Have to bring in a lead designer from the lead carrier, you have to get input from all of the other users, you have to take in the air traffic needs; there is a whole lot of issues that have to be resolved, etc.
- Member: Bottom line is we are concerned with less noise.
- Gagnon: Sara, do you want to conduct a poll in order to get feedback?
- Nomellini: Yes. I think that makes sense.
- Gagnon: Similar to last month - With CDA, do you think it will reduce the noise effect? Vote yes, no, unsure?
- Wright: Theresa is new, and can she speak to what she sees in Pineville?

- Brunner: I would not say that I experience a lot of significant noise. Certainly, we do notice arrivals over our neighborhood. I cannot say I have noticed increased noise - we've been there about 4 years.
- Muckenfuss: I live between the downwind leg and approach leg in Tega Cay, SC. I can hear the stair step. Sometimes you cannot see the plane but hear it. The noise is like a crescendo. When they start to turn you can hear them.
- Sauber: The CDAs will not have a bearing on frequencies, is that correct? And the RNAV when implemented will increase the frequency of those planes?
- Reindel: Part of RNAV is not only the continuous descent but also where they are going to be in space and time.
- Sauber: So, while you have noise and frequency as the primary drivers, this really is about stemming some noise through this process but not affecting frequency of planes arriving.
- Reindel: We showed where the frequency may increase in some areas.
- Gagnon: The three net numbers were Slide 5, net 14K people would have an increase in number of operations, Slide 8, a net 26K people would have a lower or a decreased Lmax, and Slide 11, 58K people would have a decrease in number of operations over 70. When we are looking at a year of data, baseline data v. a year of CDAs, primarily nighttime operations.
 - ACR Poll on would CDAs have a positive benefit on the Guiding Principles: Yes: 12, No: 2, Unsure: 2. Not asking for a formal vote yet, but the sense I get is to keep this recommendation among that group that you want analyzed. Any comments?
- Vesely: I am concerned about the map that it doesn't go south enough. It is going to have an impact. But we don't know because we are off the map. I'm wondering how that will be addressed?
- Gagnon: Is that a question for CLT and HMMH, or Sara?
- Brown: I think maybe for Bob Sz., once the designers get an eye on it.
- Reindel: We have not decided to expand the map. I do think that this analysis and the fact that it didn't show the results to the communities where they would get the benefit - I think it is worth having the discussion to do that. Remember it increases the amount of work involved, but if we are really missing something here...when we voted on the map size, we thought it was okay.
- Nomellini: I think we should expand north and south based on this specific solution.
- Reindel: Based on the results of the survey here, let's think about it and probably do it for the final Slate. Let's revisit this; the FAA would be hard pressed to say "yes" if we don't show where the real benefits are.
- Vesely: Elevation of the planes is part of the problem as well but concentrating the rails, especially with multiple runways, I think that would be important.

❖ Request/Address Additional Business

➤ Unfinished Business (**Written updates**)

- Gagnon: Look on the back of that document. We are not formally presenting on every update. Here are some additional updates. Just look at it, please.
- Montross: I will update on vortex generators going forward. Update now: Currently 77 aircraft have been updated on vortex generators. That is an increase from the last time I was here.
- **Update on Noise Threshold Methodology** - Kurt Wiesenberger, ACR Member
 - Gagnon: Kurt is about to go through a revised version of what was presented last month (Bob Cameron's methodology). Front of handout is daytime, and back is nighttime.
 - Wiesenberger: I relied on my Excel experience and tried to create a visually more understandable graph. Bob Cameron defined 3 levels of noise for us. I took the liberty of renaming them. One is tolerable/comfort, next is noticeable concern, and excessive limit. These are per hour. Took Bob's numbers, some of my own and some of the ones that folks here described, and comprised this table. Notice the reference index. This gives you a visual of number of noise events. The grey line is excessive limit. Not highly scientific. Repeated events tend to annoy me, and it seems that it does you all as well. Any comments?

- Brown: 60 dBs is different when speaking than airplane noise/whining. Jet noise is more annoying than listening to someone talk. Just wanted to clarify that from last month.
- Wiesenberger: Just a visual to better understand the frequency and noise relationship.
- Gagnon: Sara and Kurt had asked me to compare this to member feedback prior to the June meeting from 12 of you as well as additional feedback from 4 members received after Bob Cameron's June presentation. What Kurt has done with this is a good representation of what folks in this room hear. This gives metrics to judge by; we can discuss offline with CLT/HMMH about - when analysis is done down the road - how those results can be viewed through this lens. Next steps, we can use this framework to ask "*Are we moving people from concern to comfort, from no-go to concern, etc.?*"
- Garrett: I feel like 40 events in an hour at 50 dB is too much.
- Cameron: 50 dB is a quiet street.
- Wiesenberger: The wind blowing the trees today was 50 dB.
- Muckenfuss: I think that looking at the graph, the line would get wider at the bottom as some people are more sensitive. Trying to provide a framework, and that is what this is.
- Wiesenberger: It is not just DNL, Lmax and decibel level, but the noise and frequency in a period of time that gives us angst.
- Schofield: I wholeheartedly support the model and the concept, but the 55 and 50 are like non-events to me. To me it is distracting to have it in this chart. I would like it to be simplified and not even talk about it until 60dB. I would rather focus on things I could argue about.
- Gagnon: Update: I always have a debrief with CLT and HMMH the next morning after meetings. This data was presented last month, and in the debrief they were already discussing opportunities to create metrics to get the information that we need to make decisions. There has already been a good bit of discussion about this.
- Wiesenberger: When noise happens overhead, it is not just one second of noise. It is 20-30 seconds of noise - at least on arrivals. Dan provided a graphic, and here's a slide that explains noise impact from aircraft cycle. The sound level grows. As we are thinking about noise events in an hour, I think we need to take that noise duration into account. Maybe we need to look at how to increase the quiet time between events.
- Vesely: We are talking about frequency in time, not frequency in decibels?
- Wiesenberger: Correct.
- Vesely: Because dB has frequency. The thunderous sounds of engines and whining as they are coming down is different than dogs barking.
- Wiesenberger: Just using the energy as decibels.
- **Motion Update and Next Steps - Return the CAATT Waypoint** (on the CHSLY3 arrival pattern for arrivals to the 36 parallels) **to Pre-Metroplex** (Raising Altitudes on Downwind Leg) - Bob Szymkiewicz, FAA
 - Szymkiewicz: Still in Phase one. Has not been looked at in that initial review. Mark Clark has made phone calls. I talked to one of the designers this morning, and he assured me that he would be in the office in Atlanta next week. I have made a note to call him Monday at 6 am. The facility is looking into an interim solution. They have not come up with anything yet, but they continue to look at it.
 - Nomellini: Is there anything citizens can do to help put pressure on them?
 - Szymkiewicz: I honestly don't think that would help; they're so busy, and so few people doing the work. It's just taking more time than we want it to.
 - Gagnon: Update on EPAYE: John Garrett reached out to several of us. When Bob was presenting an update on the proposed procedure relating to the ACR Motion to raise the altitude at the CAATT waypoint, he also noted that the proposed procedure would raise EPAYE from 6000 to 7000. Current procedure is that EPAYE is at 6000' on arrivals. John had pulled some information and looked at flights around that EPAYE waypoint, and it appeared that they were much lower than 6000'.

- Szymkiewicz: Before last meeting, Dan presented some data to me, and I knew it was coming, so I pulled some data. The data was good; we know the airplanes are at the altitude where you say they are. EPAYE is designed to be at 6000'. The purpose of that altitude is, as the plane is descending on the downwind, the arrival controller is the individual who works that airplane. When it reaches EPAYE at 6000' and departs on a 183 heading, the purpose of that design is to protect from the airspace. The reason you protect from the final's airspace is that we also have airplanes that are being fed into the side of that airspace at 4000' and at 5000'. You design a procedure so that you protect from other procedures or from airspace. In this case, it was from airspace. So, when the final controller gets that airplane, they already know what is coming the side and over the airport because of radar, and they manually descend the airplane to 4000'. They cannot turn the airplane back in to the airport until they get to 4000'. That is the reason they are lower than 6000'. Our departures are designed to have a top altitude of 8000' or 4000'. If you look at that data, you will see that they are routinely well above those altitudes. The altitudes are there almost as a paper stop. We do this all throughout the system. There is nothing untoward about it. It is how the system is designed to protect itself.
- Garrett: Good explanation. EPAYE is basically at 5100' at Pineville-Matthews Road. Sometimes they are turning. That 6000' altitude at EPAYE is like a guideline. If we raise that 1000', we still could have aircraft at 4, 5, or 6000'. Is that correct?
- Szymkiewicz: The short answer is yes, but the airplanes only have a certain rate of descent that they can input into the computer from 10000' at CAATT. Today's airplanes are not designed to descend that quickly or steeply - have to remember the customers. While theoretically they could be at 4000', my guess is that they will be about 1000' higher. I don't feel like that is a guess, actually.
- Brown: That is a high rate of descent.
- Garrett: So, they are following the procedure, and in that procedure the maximum is 6000? Is that right?
- Szymkiewicz: In that area the final controller - the airspace is shaped like an upside-down wedding cake - the final owns from surface up to 5000'. We generally work at 4K in that particular sector before we can turn them in, so they'd probably never go lower than 4K.
- Vesely: I'm having difficulty understanding why is there a discrepancy about where I am in York, 20 nautical miles out and the planes are at 4000' coming in for arrival?
- Szymkiewicz: As someone who's actively worked that area for about 30 years, it is routine. Air traffic control is really an assembly line application. I would expect to see planes almost 30 miles SE and SW within 10 miles of the final at those altitudes.
- Vesely: Why do the ILS charts show coming down from 7000, 8000 on your sheets?
- Szymkiewicz: Similar to what we mentioned about EPAYE being at 6, it is an altitude in which you can fly the ILS, but as long as you are below the glide slope when you join you create a stabilized approach. It is a way to work safely to get them to those altitudes as quickly as possible.
- Vesely: Are we talking about arrivals?
- Szymkiewicz: Yes.
- Vesely: So, it's going for 20 miles before it gets to the last 3-4 miles.
- Brown: 20 miles for an airplane is not that far. It happens that fast.
- Szymkiewicz: Often it is an accordion effect so that the first few airplanes on the downwind will turn in 12-14 miles, and then as you get more full on the downwind, you start that accordion or trombone starts to move further and further to the south. It is repeatable and predictable, even as it is dynamic.
- Vesely: It just seems like in the south we are experiencing more and more sound lower. We are experiencing more and more planes at very low altitude. At 20 miles out, it's really low. We are experiencing a lot of noise that we didn't have 10 years ago.
- Szymkiewicz: I think with altitude information, you are probably going to see eastside at 4 almost all the time and southwest side at 5 unless it's at 4.

- Gardon: It's splitting hairs, but Flight Tracker shows altitude at AGL.
 - Sauber: Arrivals have less options than departures. They have high volume, cost efficiency for the airlines, and you have to bring the planes down. The only alternatives are either reduce the frequency of what flies over a particular section - move the rails - or you in some way bring them way back up and start that descent in a more graduated level - which they don't have much of an appetite for. I don't know how much this will change with arrivals - unless moving the rails or we flex the rails so that certain areas don't take the brunt 100% of the time.
 - Garrett: We have 7-8 proposals to study for departures, and only 2 address arrivals. The reality is that there are not many levers to pull with arrivals.
 - Sauber: But to his point, it wasn't that way prior to NextGen. Somebody else was experiencing that then; now you are. It is just a matter of distributing it to make it more equitable.
 - Szymkiewicz: I don't think that NextGen changed the way traffic was running in the final boxes, though. Historically, and I am talking from 1988 - the final controllers work on the east side at 4 and west side at 5. That is what you do. The difference is that there are more flights. I don't know if there is going to be a way to change the way arrivals are done.
 - Vesely: When they are higher, they are less noisy. I believe that the further out you go, they should be further up.
 - Gagnon: Maybe Dan can do a gate analysis for Kevin's area and see what he is experiencing and how it's changed over the years – see what change has occurred, when it occurred, and what's the magnitude of that change to identify the root cause of what Kevin's experiencing.
 - **Requests for Support - Update on Overall Communications Strategy and Near-term Actions - CLT**
 - Gardon: Last month, we shared that the primary communications consultant left the company. To my understanding they got a replacement, so the process is going along as it should. Currently they are going through an internal process so not ready for input from ACR or CLT. Should be relatively soon. Couple or three weeks.
 - EA contract is going to city council on July 22 for approval. No public meetings for EA have been set yet, but they will work around the ACR schedule.
 - **ACR Member Survey Results and Subcommittee Development - Ed Gagnon, CSS and Sara Nomellini, ACR Member**
 - Gagnon: Update on member survey: 14 have responded to member survey. Will send e-mail to new members re: why involved and additional interests. Five potential subcommittees were suggested.
 - Nomellini: The intent of this is that there were certain topics that kept coming up, and we could not address as a group in this meeting, so we're creating these subcommittees to do work outside these meetings.
- New Business
- **ACR 2020 Meeting Schedule** (2nd Wednesday of the month: Jan. 8 - Dec. 9, 2020) - CLT Staff
 - Gardon: Third Wednesday of the month is a popular date for community events. There are conflicts with other roundtables in the country. We are looking at moving to the 2nd Wednesday of the month for the year 2020.

❖ Adjourn

- Schofield motioned to adjourn. Garrett seconded, all in favor.
- Meeting adjourned at 8:04 pm