

Charlotte Airport Community Roundtable

July 8, 2020 Meeting

Handouts

- ❖ Meeting Agenda
- ❖ Submittal Package
- ❖ FAA Submittal Checklist
- ❖ Listing of “What’s Next” Activities
- ❖ FAA Decisioning Flow
- ❖ Listing of Requests for Analysis and Motions from June
- ❖ Written Updates Document
 - Request and Motions Database (pp. 23, 29, 30)

CLT Airport Community Roundtable

Meeting Agenda – 7/8/20, 6p-730p (v2)

- 1) **Open the Meeting (5-10 Mins.)**
 - a) Call Meeting to Order – Sara Nomellini, ACR Chair
 - b) Describe Meeting Approach – Ed Gagnon, Facilitator
 - i) WebEx Process, Confirm WebEx/Phone Functionality with Members
 - (1) Use of “Raise the Hand” Function; Stating Name when Speaking
 - (2) Structure of Meeting Handout Document; Screen Sharing
 - ii) Review Ground Rules
 - c) Approve Minutes from June – Sara Nomellini, ACR Chair
- 2) **Review Submittal Package** – Dan Gardon, Noise Abatement Specialist, CLT **(40-50 Mins.)**
- 3) **Vote on Submittal of Package to FAA** – Sara Nomellini, ACR Chair **(20-30 Mins.)**
- 4) **Request/Address Additional Business (10 Mins.)**
 - a) Unfinished Business
 - i) Discuss “What’s Next” for the ACR, Post-Submittal
 - ii) Note **Written Updates** on Motions/Requests for Support
 - b) New Business
- 5) **Adjourn**

July 9, 2020

Mr. Michael O’Harra
Southern Region Regional Administrator
Federal Aviation Administration
1701 Columbia Ave.
College Park, GA 30337

Mr. O’Harra,

The Charlotte Douglas International Airport Community Roundtable (ACR) is hereby submitting a slate of six recommendations for the FAA to consider implementing to reduce the airplane noise effect on the population resulting from recurring overflights of aircraft arriving and departing Charlotte Douglas International Airport (CLT).

The ACR has spent considerable time and energy to:

1. Become educated on the current CLT aircraft operating procedures
2. Understand the existing noise exposure resulting from CLT aircraft operations
3. Develop a set of criteria for evaluating alternatives to existing procedures
4. Generate potentially viable solutions to provide noise relief to nearby residents
5. Provide a slate of recommendations for FAA consideration for implementation

While the ACR has learned a lot over the past three years in terms of aircraft operations, federal regulations and noise exposure, we are not the experts in these areas and are reliant on the FAA to assist us in our pursuit for noise exposure equity throughout the region. The six recommendations provided in this submittal provide ideas for the FAA to consider, but ultimately the purpose of submitting this slate of recommendations is to have the FAA clearly understand the problems we are attempting to solve and work with the ACR to find solutions.

We are not naïve to think that our recommendations, as presented below, are perfect and fully implementable, but believe we have provided the definitions of the problems along with potential solutions so that the FAA can evaluate the recommendations and implement if they are implementable or return to the ACR with alternative solutions that may achieve the intended results.

The intended results are simple: (1) increased dispersion of aircraft departures and (2) decreased noise levels from aircraft arrivals. We understand that arrivals cannot be dispersed, so we have developed other potential recommendations aimed at reducing noise levels on arrivals rather than increasing dispersion.

Note: an external appendix including various figures and analysis has been provided on a USB drive.

A. Background Information

In June of 2017, the Charlotte Douglas International Airport Community Roundtable (ACR) was created under guidance from the FAA with the following Mission Statement:

To provide the City of Charlotte Aviation Department (Airport) and the Federal Aviation Administration (FAA) with broad-based community input into airport-related noise impacts and to find, where possible, practical solutions and recommendations for the FAA to consider when determining aircraft operating procedures at Charlotte Douglas International Airport.

The ACR is comprised of 25 members representing the greater Charlotte Metropolitan region, including residents from neighboring Gaston, Lincoln, and York Counties. The general public were invited to apply for membership to the ACR through a brief application process, which stated the goals of the ACR and avoided potential conflicts of interest.

In the event that the City of Charlotte Aviation Department was unable to locate interested applicants under these parameters, local government representatives were used to recommend representatives for the group. As such, members of the ACR act as liaisons for their respective communities.

In September of 2018, the Airport contracted with Harris Miller Miller and Hanson Inc. (HMMH) to assist the ACR to assess potential ACR recommendations in terms of feasibility of implementation and effects per the ACR criteria.

After nearly three years of education, research, and feedback, the ACR has drafted a slate of six recommendations for FAA consideration, review and implementation to address two predominant ACR concerns: **concentration of arrival overflights with extended periods of level flight** and **aircraft departures recurring over relatively concentrated areas of the community**.

B. ACR CRITERIA

Nearly all noise complaints and concerns in the Charlotte area come from outside of the 65 DNL contour, and each of the above proposed recommendations involves change outside of this area. In order to reconcile these concepts, the ACR created a set of distinct criteria for judging disturbance from aircraft noise. As noted in the 2011 Volpe study **Dose-response relationship between DNL and aircraft noise annoyance: contribution of TNO** (see Appendix pg 2-29) the primary source of noise disturbance from aeronautical activity is generally not from single event noise, but more closely tied to noise events from repetitious overflights.

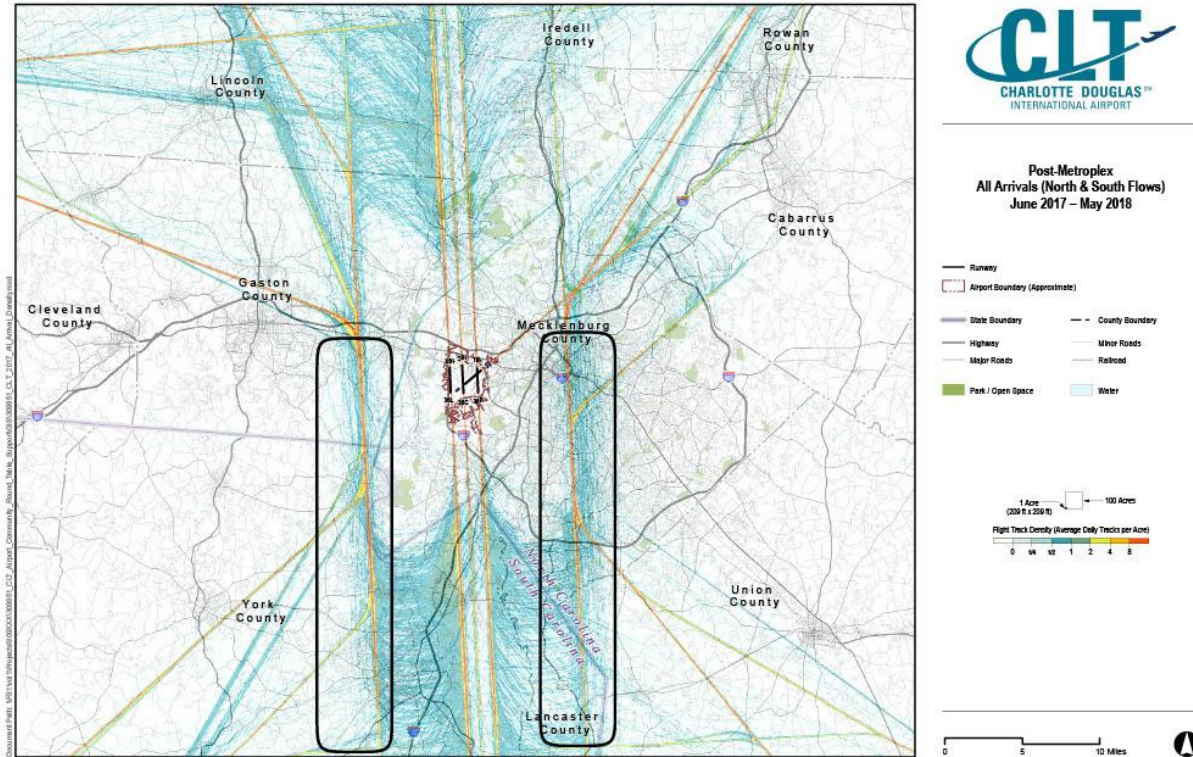
The ACR used the number of noise events during a day above 70 dB, or the NA70 noise metric, to help assess annoyance from repetitious overflights. This simply indicates a single noise event in which an aircraft overflight generates more than 70 dB as it flies by a particular area. Other metrics are also based on the NA70 and seek to calculate about how many of these events happen over a time frame. The ACR developed the following criteria for evaluation based on our experiences of aircraft operations and resulting noise levels:

- 5 events over 70 dB per hour = **Comfort**
- 10 events over 70 dB per hour = **Concern**
- 20 events over 70 dB per hour = **No Go**
-

The objective of the ACR, of course, is to minimize the number of areas experiencing a ‘Concern’ or ‘No Go’ level and to maximize areas experiencing noise within the ‘Comfort’ range. The ACR-proposed recommendations result in a greater number of residents experiencing a reduction in noise under these criteria. An overview of specific estimates on the effect of the population can be found for each recommendation in **Appendix pg 30-32**.

ACR Concern – Concentration of Arrival Overflights with Extended Periods of Level Flight

Due to the unique configuration makeup of the CLT airport and the lack of any nearby airspace conflicts, the CLT arrival patterns largely follow a standardized pattern of various flight segments at 90° angles (i.e. a standard, definable downwind, base, and final approach leg in a rectangle – see figure below). However, because of the large amount of traffic operating in and out of CLT, downwind patterns often get extended upwards of 30 miles in order to safely space traffic and sequence the arrivals. This results in longer arrival routes, increased fuel burn and higher expenses for airlines to arrive at CLT. We believe a solution to reduce the length of the downwind leg would benefit everyone including the airlines and communities. Unlike departure traffic, which provides arrivals at CLT follow tight RNAV procedures after the FAA implemented the Metroplex.



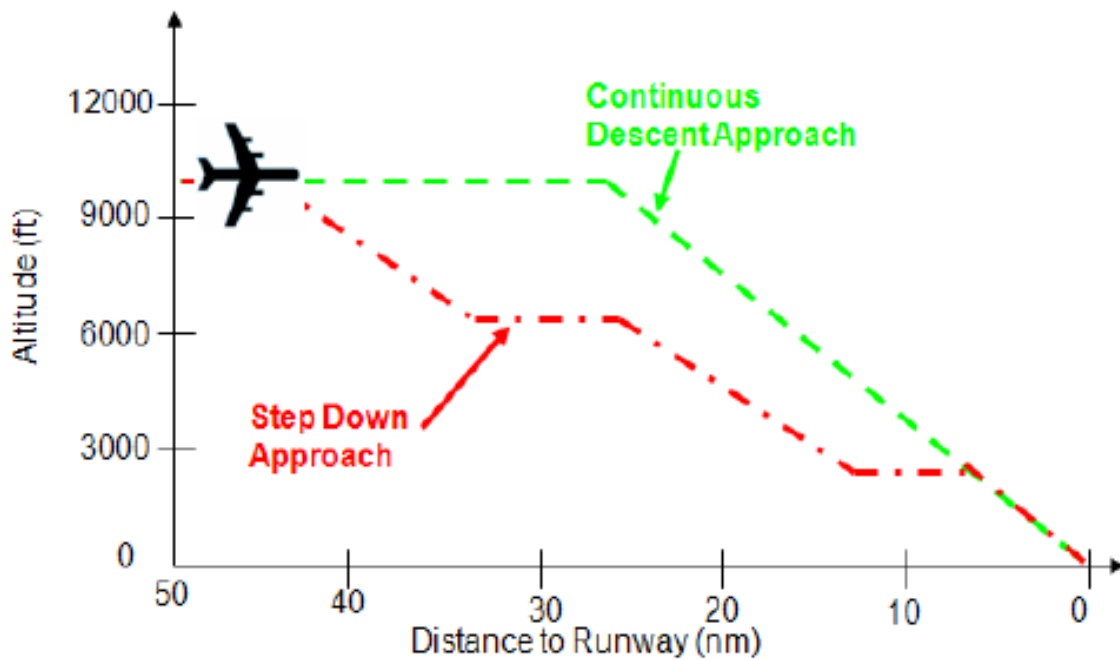
A flight track density map of arrivals at CLT. Note extended downwind indicated in black rectangle. Detailed view found in **Appendix pg. 33**

In general, these procedures lead to a degree of dissatisfaction among residents and lead to concentrations of aircraft with a number of level flight segments at high power settings. As such, the following three recommendations were developed with the intent of reducing noise levels on the ground without modifying arrival routes by either raising altitudes along these paths or using a low-power arrival procedure that also maintains a continuous descent rather than any level flight segments.

The ACR offers the following three recommendations for reducing noise levels in the communities from arriving aircraft. Please review these recommendations to determine feasibility for implementation. If you find reason these recommendations are not feasible, please provide alternatives to our recommendations and/or combine our recommendations for better results. The ACR remains open to other ideas that result in a noise reduction from CLT aircraft arrivals to the communities under the arrival flight segments. Note: these recommendations were developed without the ability to accurately estimate the effect on Airport capacity and throughput.

Recommendation 1: Greater Use of Continuous Descent Approaches

*Implement Continuous Descent Approaches (CDA) under 12,000 feet. Expected to reduce noise levels along current arrival flight paths until aircraft intercept the final approach. In 2019, the FAA indicated that CLT would be receiving TSAS (Terminal Sequencing and Spacing) and EOR (Established on RNAV) procedures estimated for calendar year 2021. The ACR would like the FAA to examine other methods of implementing continuous descent approaches in lieu of having aircraft hold at low altitudes for miles on the downwind phase of flight. Under preliminary analysis using the above ACR criteria this recommendation is expected to have a net benefit in noise reduction to over 276,000 residents in the Charlotte Metropolitan area. More details can be found in **Appendix pg. 34.***



Recommendation 2: Maintain 6,000' Arrival Minimum Altitude until Final Approach Course

Raise the minimum altitude for aircraft to maintain 6,000 feet on arrival until they intercept the 3-degree glide slope for each runway. Raising the minimum altitude on the extended arrival legs is expected to reduce noise levels along the extended arrival legs, particularly for those aircraft at high power to maintain level flight.

Currently arrivals to CLT often fly extended downwind arrival legs for upwards of 20 miles or maintain low altitudes at level flight when arriving straight-in to the Airport. Due to the unpredictability of aircraft being able to join final, air traffic controllers often direct aircraft down to and below 4800 feet so that the arrival can turn base at first availability and join the straight-in arrivals at the same altitude.

Per the understanding of the ACR, this was not always the case at CLT. Previously there had been a preference for controllers to 'keep the aircraft high' as much as possible on the downwind, and part of this recommendation is that this preference be returned.

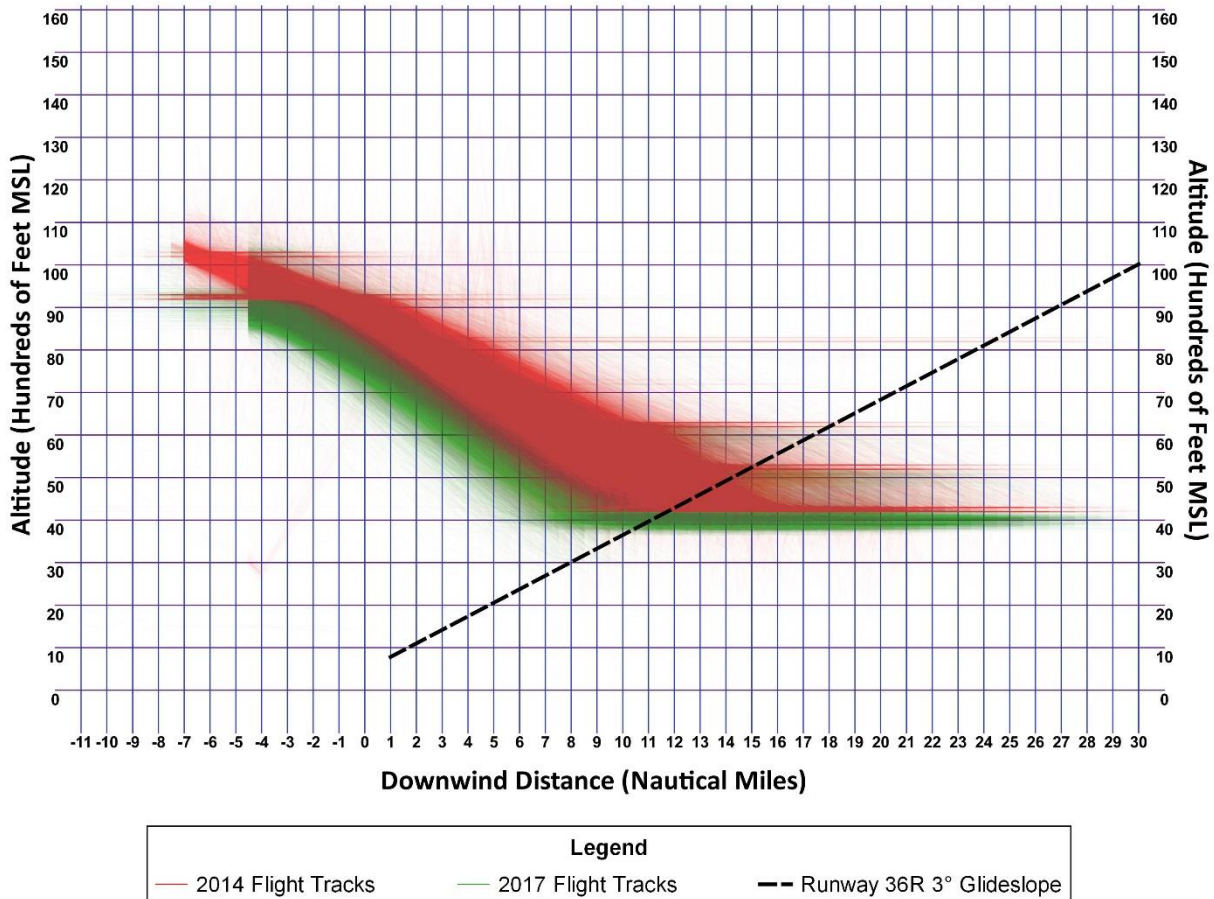
*The ACR is proposing that no aircraft be permitted to descend below 6,000 feet until a reasonable estimate of joining the final approach on the 3-degree glideslope can be made. This adjustment to arrival procedures would provide a clear, demonstrable reduction in noise levels in areas along the existing downwind approach and straight-in arrivals, which encompasses nearly 320 square miles. **Further details can be found in Appendix pg. 35.***

Recommendation 3: Return CAATT Waypoint to Pre-Metroplex location

Bring altitudes on CHSLY arrival closer to pre-Metroplex altitudes. As noted in Recommendation 2, raising the altitude on the downwind arrival legs is expected to reduce noise levels along the downwind leg, particularly for those aircraft at high power to maintain level flight.

Note: a memo detailing the requested changes was forwarded to the FAA by the City of Charlotte Aviation Department dated November 7th, 2018. To the understanding of the ACR this recommendation was previously accepted by the FAA, but the preference of the Administration is to also include this recommendation with all other ACR recommendations.

*Under preliminary analysis using the above ACR criteria this recommendation is expected to have a net benefit in noise reduction to over 80,000 residents in the Charlotte Metropolitan area. More details can be found in **Appendix pg. 36**.*



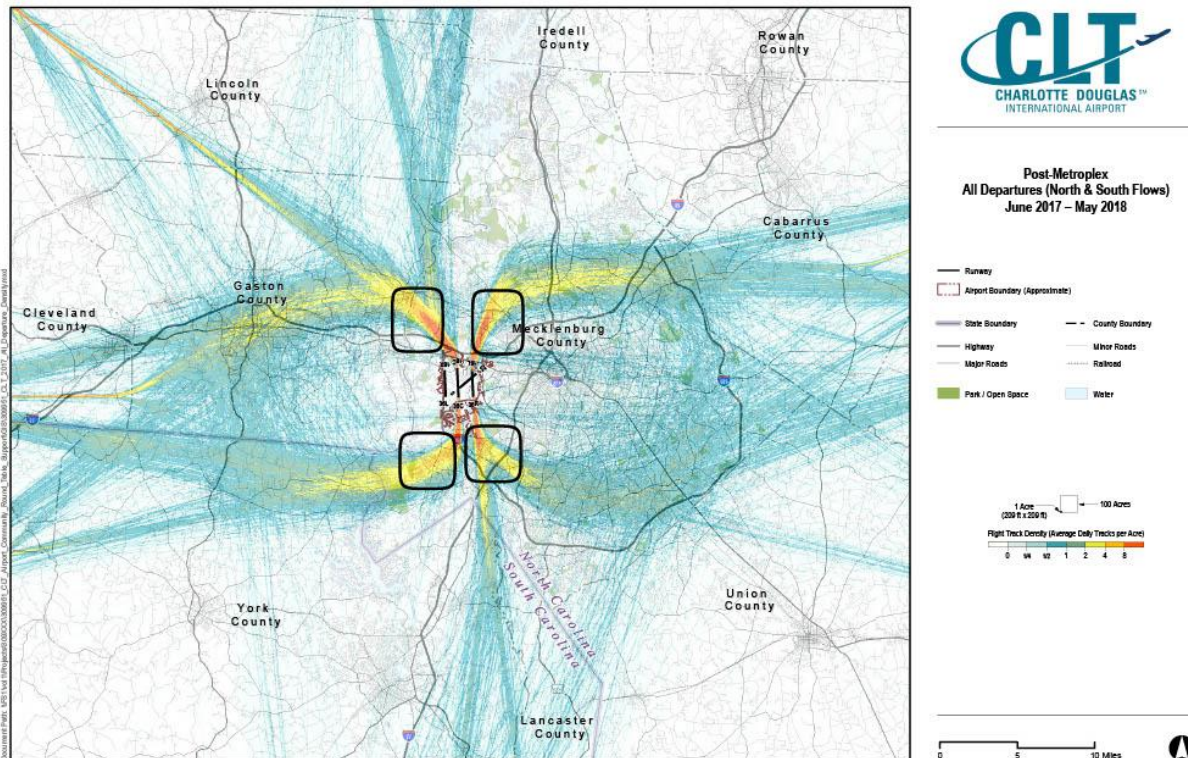
Above: diagram showing altitudes above CAATT/EPAYE both pre- and post-Metroplex

Possible Outcomes of Implementation of Recommendation

Each of the above measures are expected to have some effect on the arrival rate of the Airport. At this time, the exact effect on the arrival rate is unknown and speculative at best. Preliminary analysis by HMMH indicates that changes to the arrival rate may in fact be less than initial estimates by the FAA. However, we are reliant on the FAA to determine the effects on CLT throughput. Knowing that throughput may be an issue to overcome, the ACR modified the implementation of the 6,000-ft minimum altitude for extended downwind segments to allow for lower altitudes if the aircraft need not be extended on the downwind. We believe this should relieve any issues on throughput with that particular recommendation, but await the FAA's review of throughput for the arrival recommendations.

ACR Concern – Recurring Departures over Specific Areas

CLT currently utilizes a series of Open-SID procedures for departures, combined with a longstanding noise abatement procedure which forces aircraft departing to the south to fly runway heading for two miles DME¹ before making turns to the east or west. While the open-SID provides for greater dispersion than a standard RNAV departure experienced at other U.S. airports, this combination of procedures continues to be perceived as having little variation from the ground level (residences). The following three recommendations all seek to address this issue and strive to create greater levels of dispersion, resulting in fewer aircraft flying repeatedly over any one particularly narrow area.



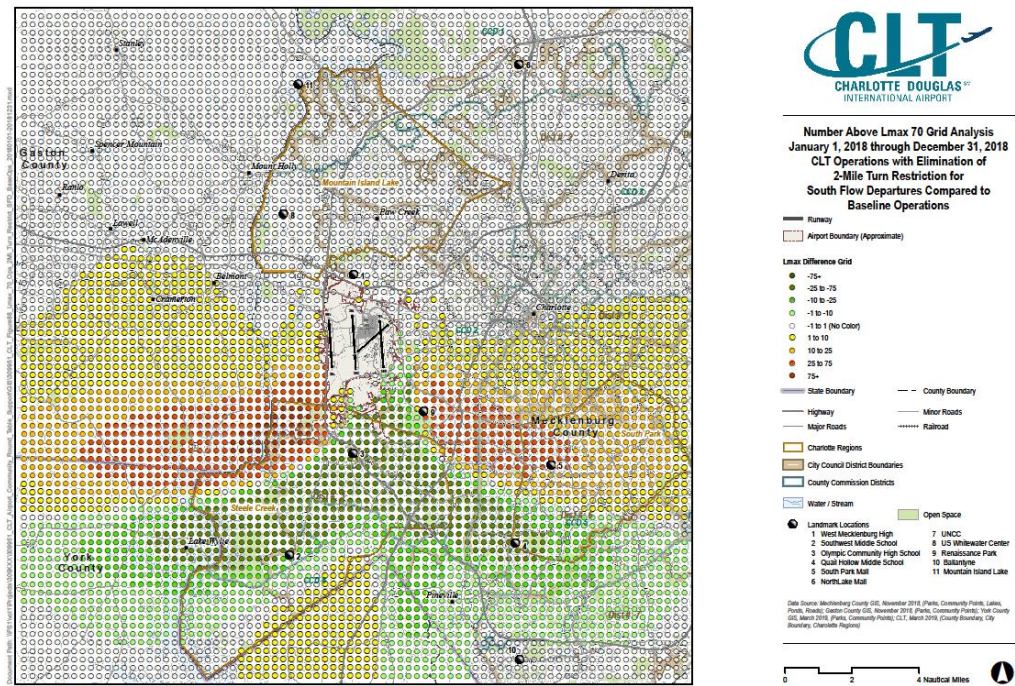
A flight track density map for departures at CLT. Note greater concentration of flights closer to the Airport.
Expanded view found in **Appendix pg. 37**.

¹ Distance Measuring Equipment

Recommendation 4: Remove the 2-Mile Restriction on Departure²

Currently, southern departures from CLT cannot turn until they are 2 miles from the runway end. Eliminating this restriction would allow aircraft to turn on course sooner, thereby reducing noise impact over communities along the extended southern centerlines but shifting the noise closer to the airport and along east and west areas where turns would then occur. This alternative modified flight tracks so that aircraft turned on course upon reaching a safe altitude near the runway’s departure end. Implementation of this recommendation would be dependent on other departure-based recommendations, i.e.; this recommendation would not be supported without implementation also of divergent headings, changed initial turns, etc. See Section C: Grouping and Prioritization.

Under preliminary analysis using the above ACR criteria, this recommendation as a standalone is expected to have a net **increase** in noise for over 166,000 residents. As such this recommendation cannot be implemented without an appropriate reduction in noise over an associated area by implementing one or more of the other departure recommendations. Further details found in Appendix pg. 38.

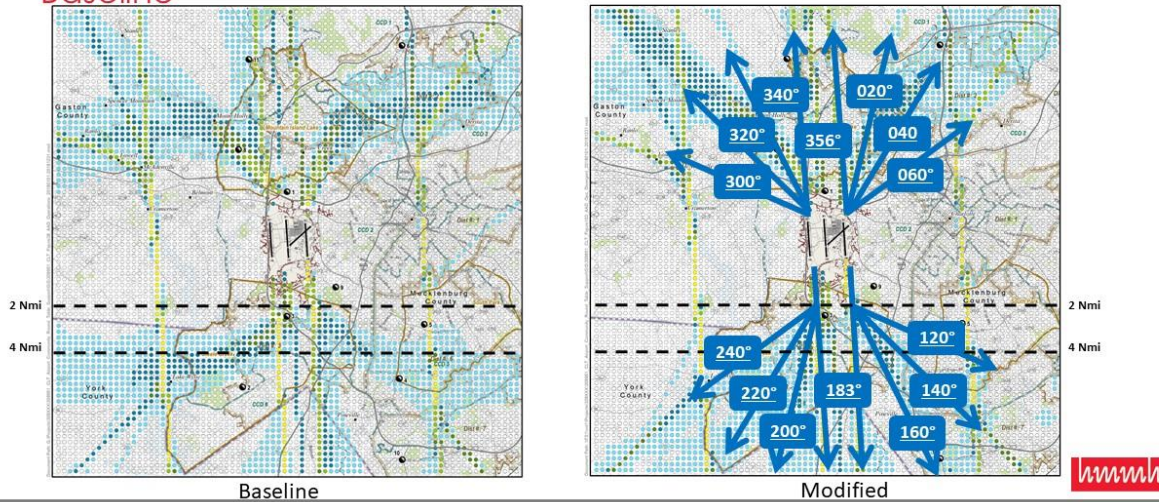


The above diagram shows projected changes in the daily number of noise events over 70 decibels.

² Refers to Part 150 Measure NA-7. See Appendix pg. 50.

Recommendation 5: Utilize Divergent Departure Headings

Annual Average Day Aircraft Overflights Analysis: 2018 Operations with Multiple Divergent Headings Compared to Baseline

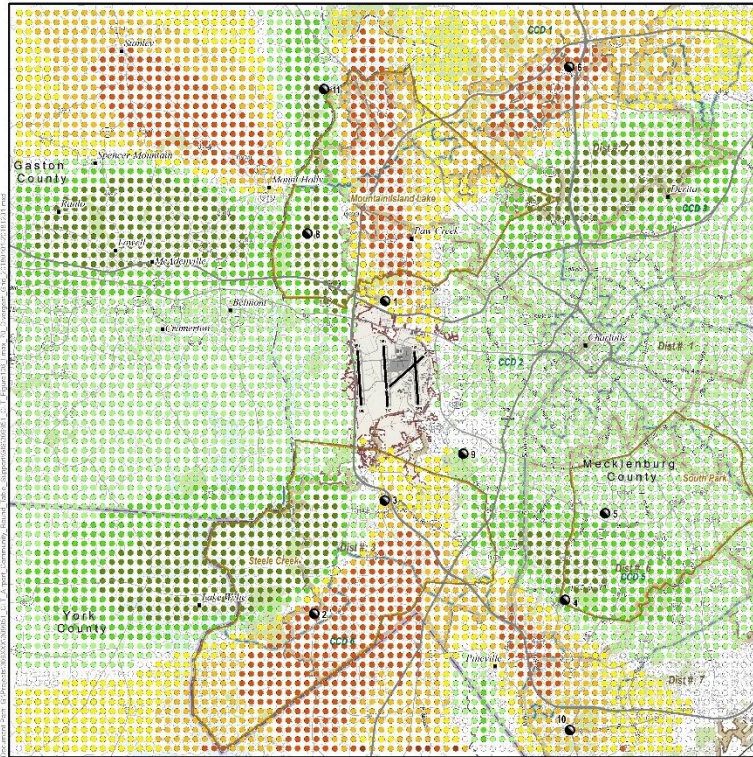


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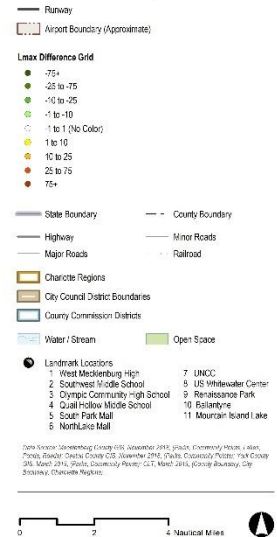
Above: potential divergent headings modeled in AEDT

The divergent departure heading alternative assigns departure headings based on the aircraft's destination. These variable headings not only allow aircraft to fly a more direct path to destination, resulting in time and fuel savings for operators, but also disperse traffic over a wider area, dividing the noise effects over multiple communities. This analysis used 7 headings for both north and south flow departures, for a total of 14 headings. These headings diverged at the runway end for north flow and at 2 miles from the runway end for south flow. However, it is possible that this recommendation be combined with the removal of the two-mile restriction recommendation to improve efficiency as long as those aircraft are relatively equally dispersed among all divergent headings.

Under preliminary analysis using the above ACR criteria, this recommendation is expected to have a net benefit in noise reduction to over 112,000 residents in the Charlotte Metropolitan area.



Number Above Lmax 70 Grid Analysis
January 1, 2018 through December 31, 2018
CLT Operations with Divergent Headings Compared to
Baseline Operations

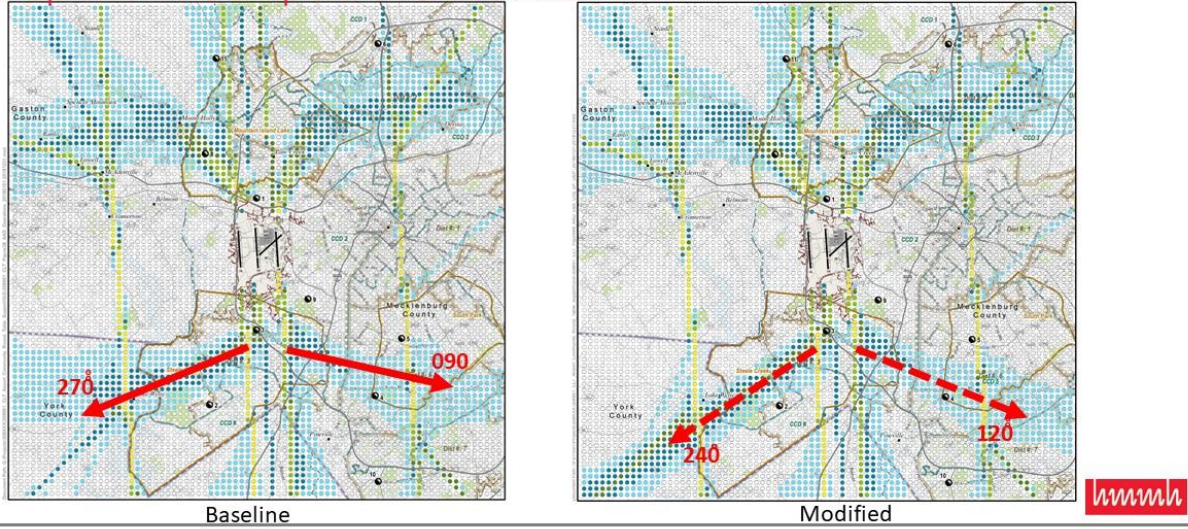


More details can be found in Appendix pg. 39-48.

Recommendation 6: Change Headings of First Turns off Runways 18L and 18C

After departure, aircraft turn to a given heading. This alternative proposes a change to this specified heading so that they fly over communities that they flew over prior to the FAA's implementation of the Metroplex, which tend to be less populated areas. This reduces the effect of noise on more densely populated areas and fosters the desire by the ACR to return to pre-Metroplex flight paths. This analysis changes the headings for east and west departures by 30 degrees, from 270 to 240 degrees for west departures and 090 to 120 degrees for east departures.

Annual Average Day Aircraft Overflights Analysis: 2018 Operations with Change in Initial Heading on South Flow Departures Compared to Baseline



10

above: demonstration of potential headings proposed. Further information found in Appendix pg.42.

Possible Outcomes of Implementation of Recommendations

As discussed above, the primary intent of these recommendations is to increase the existing level of dispersion between departing aircraft at CLT. Implementation of any one or more of these recommendations may have varying effects on Airport throughput and efficiency. However, it must be noted that CLT has *historically* placed an emphasis on balancing noise abatement and throughput: procedures such as current Open-SIDs, the two-mile departure restriction, and the exclusion of departures from current RWY 18R/36L are all pertinent examples of this priority.

C. Grouping and Prioritization

The ACR is supportive of grouping our recommendations to better achieve success, which is achieved through increased dispersion for departures and reduced noise levels for arrivals. In terms of priority, we place equal prioritization on increasing departure dispersion and reduced noise levels on arrivals. We understand that CDA is not possible at this time for most of the arrivals into CLT. Therefore, we place emphasis on what is more easily implemented, such as raising the CAATT/EPAYE waypoint altitude and raising the minimum downwind leg altitude to 6,000 feet for those aircraft being extended great distances. For the departures, we also want greater dispersion as soon as possible and we are not sure how to prioritize our recommendations as we want the greatest dispersion possible. It appears that nearly all six proposed recommendations can be implemented simultaneously.

Note: Recommendation 4: Remove the 2-Mile Restriction on Departure is unique among the six recommendations proposed. The 2-mile turning restriction is considered a long-existing noise abatement strategy by the Charlotte Douglas International Airport, and simply removing this measure as written today would only shift departure operations closer to the Airport with no appreciable benefit. Therefore, it is the intent of the ACR that Recommendation 4 ***only be considered in conjunction with one of the other departure recommendations or another measure proposed by the FAA that increase the level of dispersion seen today.***

The ACR does not wish to set priority to the six recommendations or to the two categories of recommendations (arrivals and departures). Both arrivals and departures are equally important and affect different communities, and at this time the ACR does not want to imply that certain communities are affected by aircraft noise more harshly than others.

However, the ACR does have a desire for the FAA to consider **combining** multiple recommendations in order to maximize the benefit to the community.

Thank you for your consideration.

Sincerely,

Sara Nomellini, Chair, Airport Community Roundtable

Kurt Wiesenberger, Vice Chair, Airport Community Roundtable

Charlotte Douglas International Airport

Airport Community Roundtable

CLT ACR 2019-20 FAA Submittal Checklist - as of 6-10-20

	Sequence							
	1	2	3	4	5	6	7	8
✓ Finish Analysis of Recommendations and Finalize Slate								
✓ Review/Approve Expanded Baseline Grid	■							
✓ Review Full Analysis on 6000' Minimum Arrival Altitude Recommendation on Expanded Grid; Determine Whether to Consider for the Slate	■							
✓ Vote to Finalize Slate – <i>no further items added after this</i>		■	■					
✓ Select Groupings for Collective Analysis								
✓ Receive FAA Feedback on Potential “Non-starters”								
✓ Perform Collective Review								
✓ Receive Full Analysis on Expanded Grid of Other 8 Recommendations			■					
✓ Review Collective Analyses			■					
✓ Plan/Conduct Community Meetings – Deferred								
✓ Begin Planning for Community Meetings - <i>Partial</i> ✓ Deferred			■					
✓ Meet with FAA headquarters representatives before/after community meeting, engaging in informal dialogue about Recommendations, priorities, submittal process, etc. Deferred the “After” meeting since no public meetings before Submittal				■		■		
<input type="checkbox"/> Invite all communities affected by the ACR proposed “change” to presentation of Slate and discussion (about 2 months before they are held) – Deferred				■				
<input type="checkbox"/> Conduct 2 Public Meetings – Deferred					■			
<input type="checkbox"/> Perform Final Review								
<input type="checkbox"/> Review Results of Public Input – Deferred						■		
<input type="checkbox"/> Review/Refine Submittal Documentation					■	■	■	
✓ Decide on Final Submittal Recommendations – <i>Partial</i> ✓							■	
<input type="checkbox"/> Submit Recommendations to FAA								■

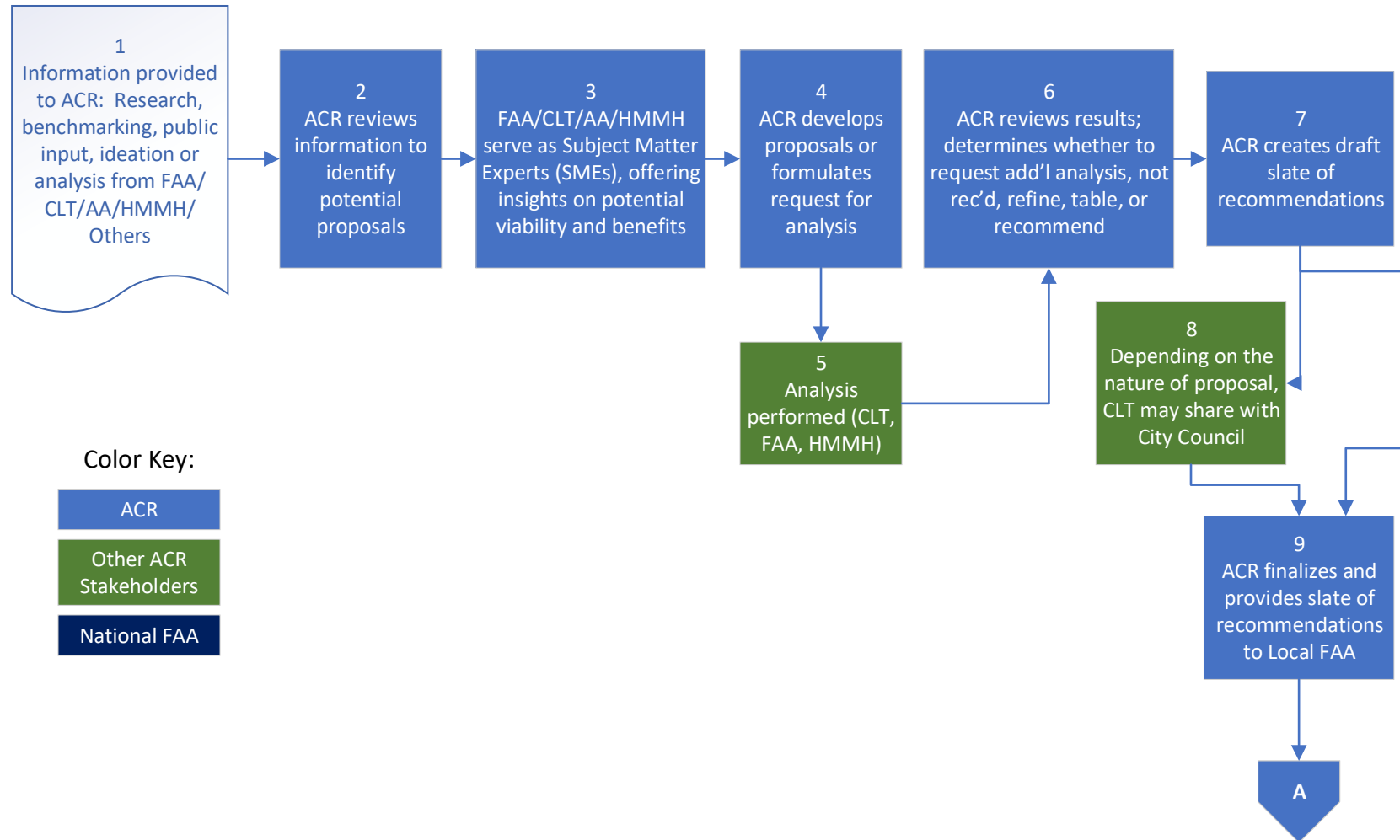
Charlotte Airport Community Roundtable

Post-submittal Activities

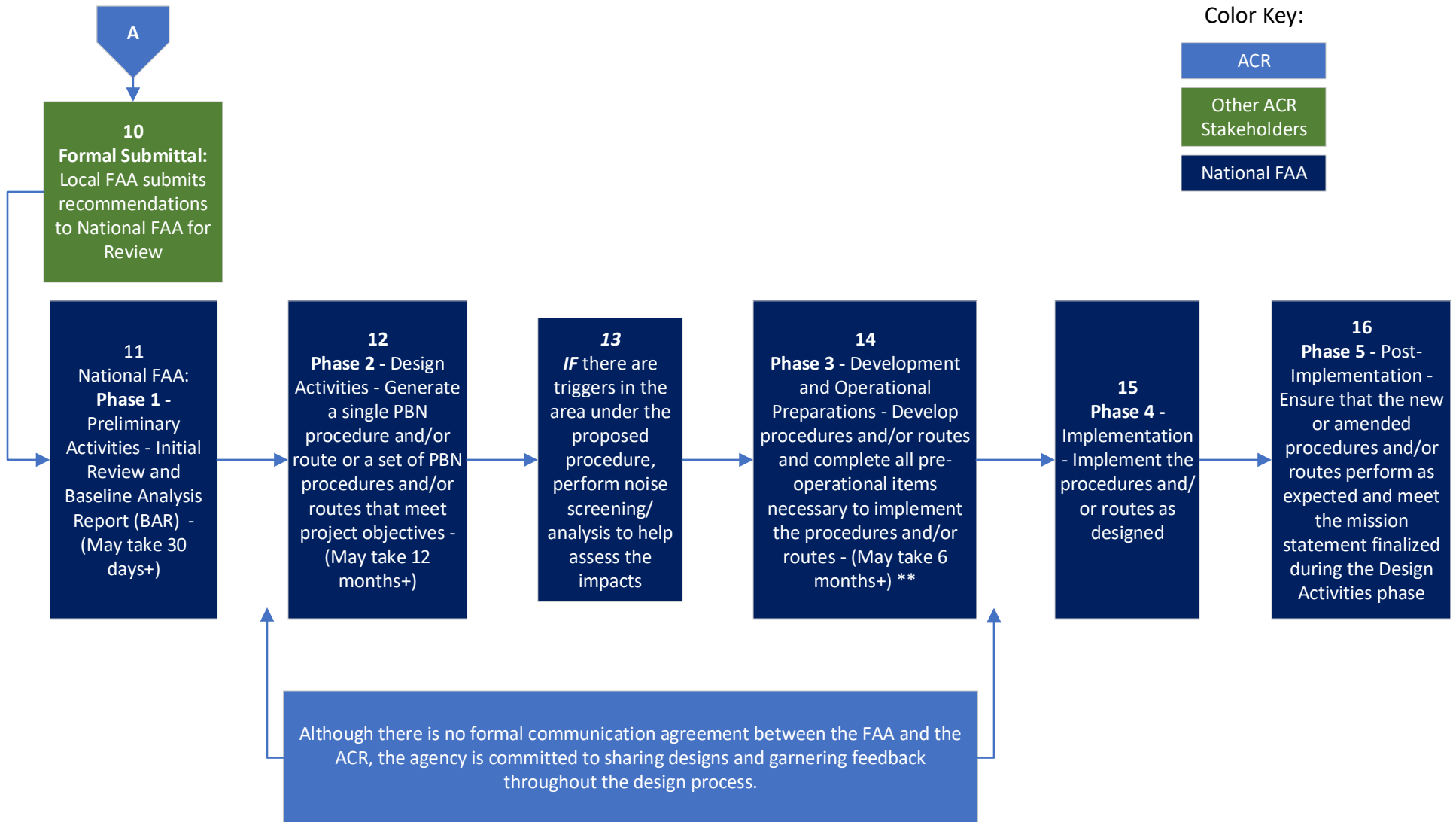
What's Next...

- ❖ Meeting Frequency May Change
 - In the near future, may go to bi-monthly meeting frequency after August.
- ❖ Immediate Actions
 - If approved, submit Slate to the FAA.
 - FAA Submittal documents will be posted on the CLT website AFTER the FAA has received them.
 - ACR still may meet on August 12 to celebrate Submittal, update on delivery of Slate to FAA, share accomplishments, discuss the plan forward, etc.
- ❖ Examples of Future Actions
 - Refine Government Engagement and Community Engagement Project Team Plans; begin implementing the plans
 - Note that the Project Teams have drafts of communications documents and presentation frameworks developed
 - Monitor FAA Progress (see FAA Decisioning Flow)
 - Revisit Noise Improvement Matrix for Brainstorming/Identifying Additional Ideas

CLT ACR – High-level Process Overview for Recommendations Requiring FAA Approval – v7 (3/9/20) - ACR and CLT-related Steps



CLT ACR – High-level Process Overview for Recommendations Requiring FAA Approval – v7 (3/9/20) - FAA-related Steps



**** Step 14 Update** from FAA on 3/9/20: The FAA approval process is still the same, however the duration for Step 14 is really indefinite and will be based on many different variables, including workload at the time, complexity of the submittals, and the prioritization process.

Charlotte Douglas International Airport

Airport Community Roundtable

Analysis/Support Requests and Motions from the June 2020 Meeting

Motions on Recommendations to Consider Including in the Submittal Package

Vote on Top 6 Recommendations based on ACR Member Survey Results

The ACR voted on the following Motion:

- ❖ To include the following Recommendations in the documentation being prepared for submittal to the FAA:
 - 2-Utilize Divergent Departure Headings
 - 10-Return CAATT Waypoint to Pre-Metroplex location (aka, Raising the Altitude by 1000' at CAATT/EPAYE)
 - 3-Modify Use of Departure Profiles
 - 8-Utilize CDA (Continuous Descent Approach)
 - 7-Remove the 2-mile Restriction on Departures
 - 6-On South Departures, change heading at first turns off 18L (East) and 18C (West)

The ACR passed this Motion via voice vote (all in Favor except for 1 Against).

Vote on Recommendation #9 - Maintain 6,000' Arrival Altitude until Final Approach Course

The ACR voted on the following Motion:

- ❖ To **include** the following Recommendation in the documentation being prepared for submittal to the FAA: **9-Maintain 6,000' Arrival Altitude until Final Approach Course**. This Recommendation will include language to be crafted by CLT/HMMH in the Submittal Documentation to note that the ACR supports altitudes below 6,000' before turning to Final Approach Course as long as aircraft are continuing to descend, not holding at lower altitudes.

The ACR voted to approve this Motion with 13 votes in Favor, 2 Against, and 1 Abstention.

Vote on Recommendation #4 - Utilize Alternating Arrival Rails

The ACR voted on the following Motion:

- ❖ To **exclude** the following Recommendation from the documentation being prepared for submittal to the FAA: **-4-Utilize Alternating Arrival Rails**.

The ACR unanimously voted to approve this Motion.

Vote on Recommendation #5 - On South Departures, delay Turns off 18L (East) and 18C (West)

The ACR voted on the following Motion:

- ❖ To **exclude** the following Recommendation from the documentation being prepared for submittal to the FAA: **5-On South Departures, delay Turns off 18L (East) and 18C (West)**.

The ACR unanimously voted to approve this Motion.

No Motion/Vote on Recommendation #1 - Utilize Altitude-based Turns

Please note that there was no Motion made about Recommendation #1-Utilize Altitude-based Turns when the Chair asked if anyone wanted to make a Motion to include this Recommendation in the Submittal Package.

Request of ACR Project Teams**Preparing for Community Engagement Project Team and Government Engagement Project Team Activities Post-submittal**

The Vice Chair requested that the Community Engagement Project Team and Government Engagement Project Team schedule initial meetings of their respective teams to be held before the July ACR meeting or soon thereafter to begin planning for activities to undertake after submittal of the Slate to the FAA.

CLT Airport Community Roundtable

Updates on Requests/Motions – 7/8/20 ACR Meeting

CLT Operational Update

Update on Current State of CLT Operations, Traffic Volume, Revenue

Dan J. Gardon, Noise Abatement Specialist, CLT on July 6

Traffic is slowly increasing. I believe last Friday (July 3) had the highest traffic numbers since March at about 750 total flights.

Community Engagement/Communications Updates

ACR Government Engagement Project Team Update

Bob Cameron, Project Team Chair on June 26

Government Engagement Project Team held a project team meeting on June 25. Working on a “backbone” briefing document in Word (included in ACR meeting handout) which will be converted into a PowerPoint with Dan Gardon’s support.

ACR Community Engagement Project Team Update – ACR Members

Phillip Gussman, ACR and Community Engagement Project Team Member on June 26

Community Engagement Project Team held a project team meeting on June 24. Created a draft media alert. *There are 3 main areas we will need the support of Dan or resources he can acquire for us but certainly open to edits or suggestions:*

- 1) *Layman's description of the recommendations with impacted areas*
- 2) *Timeline expectations*
- 3) *How we can accumulate interested parties' information and add it to the database of complaints that we currently have. [if we don't have access to resources through the CLT media team, I would suggest we develop our own database with an online resource like mailchimp or constant contact]*

Remember we don't want this to get too long but we want enough for our communities to notice that we have made a significant step in the right direction.

Requests for Support – Communication Plan Development – CLT Staff

Dan J. Gardon, Noise Abatement Specialist, CLT on July 6

Our media team has prepared a statement following the submittal of the slate. I am also working with both the Government and Public engagement teams on next steps forward.

FAA-Related Items

Understanding of Internal FAA Review Process relating to CAATT/EPAYE Raising Altitude Motion

John Carraher, Office of the ASO Regional Administrator - Senior Advisor, FAA on March 9

We can arrange to have someone at the April or May ACR meetings to discuss the process for the CAATT/EPAYE Raising the Altitude motion with the understanding that the ACR would like to better understand the process while they finalize the rest of the slate.

Request of FAA for Tower Orders (FOIA)

Dan J. Gardon, Noise Abatement Specialist, CLT on July 6

No update on Request for Tower Orders.

North v. South Flow Decision-making

Dan J. Gardon, Noise Abatement Specialist, CLT on July 6

No update at this time for North V. South flow decision making.

Airlines-related Updates

Update on NADP-2 Recommendation

Dan J. Gardon, Noise Abatement Specialist, CLT on July 6

Limited update on NADP-2. I suspect this will be worked behind the scenes as this has already gone to AA.

American Airlines Retrofit of Airbus Aircraft with Vortex Generators

Tracy Montross, American Airlines Regional Director of Government Affairs as of June 15

American has now modified 170 of 283 aircraft with vortex generators. No changes to the completion date so far. [previously noted as 3/1/22].

Voluntary Restraint Program (Scheduling of Flights at Night)

Dan J. Gardon, Noise Abatement Specialist, CLT on July 6

No update on Voluntary Restraint Program.

Additional Updates

EA Process

Dan J. Gardon, Noise Abatement Specialist, CLT on July 6: *No update on the EA at this time.*

Update Requests/Motions Databases – CLT/CSS

Pages 23, 29, and 30 of Request Database includes and update to Request #116 – Preparing for Project Teams' Activities Post-submittal (p. 23) and 2 of the 6/10/20 Approved Motions (addressing the 7 Slate Items Approved)

ACR Government Engagement Project Team: Draft Outline for PowerPoint and Comments to Consider - ACR Intro .ppt1

(**Bold** indicates what's on the actual slide. Non-bold are the verbal points to make)

1. **Title: Charlotte Douglas International Airport (CLT) , then Airport Community Roundtable (ACR) + date and name of presenter(s)**

2. **CLT Area Overhead view with most recent typical noise levels**

Factoids: - 6th busiest in country, 34% increase since 2008, & continuing topped 50 million passengers in 2019

\$23B economic contribution, 60% of all NC airports, 132,000 jobs related

Point out runways, note 4th parallel coming in 2024, thus even more traffic

Background:

In 2016, the FAA introduced it's "NextGen" project, which took advantage of technological advances in air traffic control, increasing the precision of flight following of aircraft, and enabling an increase in air traffic throughput in the National Airspace, and as a result, increased air traffic at CLT and other locations nationwide.

Part of NextGen was to introduce the Metroplex concept at Charlotte, which significantly increased aircraft noise due to increased traffic and due to more precise navigation, producing precise arrival "rails" in the air that aircraft fly on, and at lower altitudes than previously. At the same time, departure paths were shifted over areas not previously affected. As a result of Metroplex, airport noise complaints in the CLT region rose significantly, reflecting a widespread dissatisfaction among residents concerning the amount of aircraft noise they were experiencing.

In 2017, FAA and CLT co-chartered the ACR, with the goal of finding practical solutions to the problem of airport-generated aircraft noise within the CLT metropolitan area (generally Mecklenburg County, subsequently expanded to include border areas of SC, and Iredell County to the North)

Geographic Orientation:

On the overhead of the CLT area, point out:

General scheme (how to look at the overhead view), including where downwind legs are, north/south flow practices, etc., to get oriented

Parallel Runways 18/36 L/C/R

Runway 05/23, formerly used during night operations, now defunct, which in turn increases traffic on the other runways

Various neighborhood areas that may pertain to the specific audience receiving the briefing

3. **A/C Noise**

Measured in dB (decibels), 65 dB is a typical "too noisy" threshold, & the only legal limit

All homes in CLT area > 65 dB DayNightLevel (a 24-hr. average) have been remedied

Aircraft noise repetition is more disturbing than peak, and some subjectivity applies.

Noise = function of: aircraft model/distance/speed/power, wind, geography

Not a consideration in FAA metrics: Within parameters of safety and regulatory compliance, the FAA's primary metric is Efficiency = operations per timeframe. No community byproducts are a consideration in that.

4. Noise Complaints

Anyone can make them: <https://www.cltairport.com/community/noise/file-a-noise-complaint/>
 put following data into a line chart on the slide: (see end of this file for example, which needs update to 2020 total and households, revised since this was drafted)

2017: 144,840 complaints, 679 residents.

inflated by computer-auto-file "black box" used by residents to file a complaint anytime dB level exceeded threshold.

2018: 27,351 / 597.

drastic reduction due to CLT implementing "captcha" technology to require human intervention to file a complaint, eliminated auto-file black box use.

2019: 83,134 / 343.

new software enabled users to do "push-button" filing of complaints, making filing easier to complete by residents

2020 YTD through June 2020: 27,998 / 161.

Covid may have contributed both to reduced filings due both to residents being concerned with other matters, and due to reduced air traffic at CLT

2017: FAA & CLT chartered ACR to investigate and recommend remedies to alleviate airport/aircraft related noise.

The human element indicates that since we don't complain until our threshold is exceeded (because complaining is in itself takes time and effort), the noise is actually worse than complaint level

The human element also "gives up" after multiple complaints with no responsive action. "What's the use?" syndrome is common in neighborhoods.

It's hard to tell just what has influenced the varying data in the chart, but these factors are pretty undeniable.

5. ACR Activities

25 community volunteer reps, similar groups in DC, LA, NYC, etc.

Assisted by consultant (paid by CLT): HHMH, an aviation consultancy firm

Process of

get up to speed on understanding situation and potentials,

collect ideas for remedies, get consultant analysis

make formal request to FAA

rinse, repeat, but FAA queue is 18 mo.

Initially, ACR pursued "nice guy" approach. In 2019, ACR sent letter to aircraft operator companies at CLT, requesting they voluntarily avoid scheduling flights between the hours of 2300-0600. Answers were either not received, or couched in business terms (i.e. if it doesn't impact our bottom line, we'll consider it). No reduction in flights occurred, but it demonstrated that asking nicely did not produce substantive results.

6. Slate After considering dozens of ideas, narrowing down to 10, the ACR analyzed detailed HHMH analysis of impacts on community and feasibility, then approved a slate of 7 recommendations to forward to FAA, completed in July 2020.

Note that only FAA will be decider, not CLT, not the ACR. and that there is an extensive process of FAA internal review before any recommendations will be approved and implements - expect at least two years from now.

Current 7 slate items,

Go through the items, time permitting - recall this is just an intro brief

- Utilize Divergent Departure Headings**
- Raise the Altitude at CAATT/EPAYE by 1,000 feet**
- Modify Use of Departure Profiles**
- Utilize CDA (Continuous Descent Approach)**
- Remove the 2-mile Restriction on South Departures**
- Change heading at first turns off 18L (East) and 18C (West)**
- Maintain 6,000' Arrival Altitude until Final Approach Course**

Slate has been (?) provided to the FAA. HHMH analysis and informal discussions with the FAA confirm that we have not asked for anything that is not feasible. Each of our slate items will result in net decreased noise for the community at large, and none conflicts with others. The FAA may implement all, or one/some, or none.

7. Help (wrap-up)

Your constituents have a problem.

No specific legislation is pending, but this topic has been the subject of front page Charlotte Observer articles and TV coverage in the past. This briefing has been to bring to you the current status and the activities of the ACR. Any time you have any questions or concerns, please contact (briefer provide this information at time of brief - essentially the briefer is the point of contact), and we will revisit/update.

We will also update with significant changes as we proceed

The project to add a 4th parallel runway at CLT is already underway.

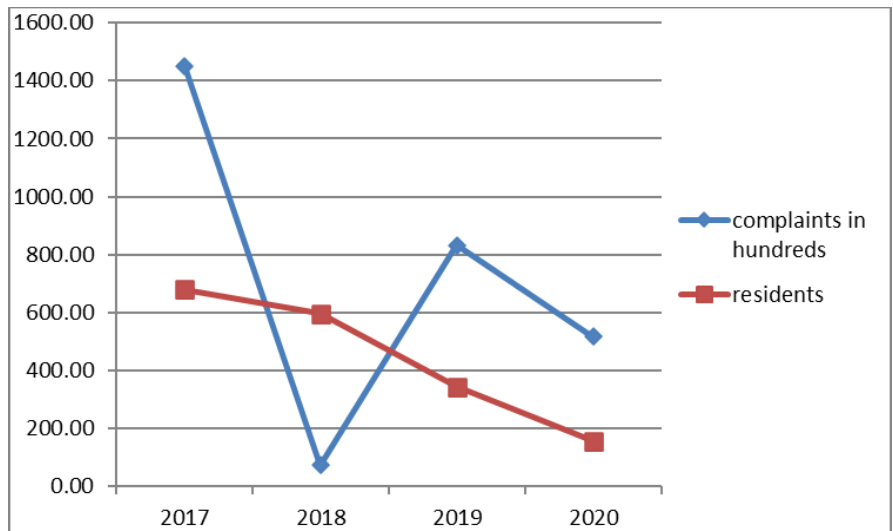
There will be an EPA study, and there will be public meetings.

You can be a real factor in supporting the quality of life in the community

(by ensuring that the study will incorporate community quality of life as the expansion is designed, potentially approved, and implemented.

This concludes our briefing. Do you have any questions?

Example of complaints vs residents graph (note that if you use whole numbers for the complaints, you have 144,000 in 2017, which makes the residents look like flat line; if you make the graph tall enough to show the residents, the blue line goes through the roof - this was the only way I could figure to show both, am open to suggestions):



CLT Airport Community Roundtable – Request Database

ID	REQUESTED TO	REQUESTED BY	METHOD	DATE OF REQUEST	TITLE	STATUS	NOTES AND NEXT STEPS	COMPLETION DATE
115	CLT	ACR	In-Person	5/13/20	HMMH Expanded Grid Files and Links	Completed	The ACR requested that they be sent the PowerPoint files and KML links provided in March to help prepare for the June meeting.	5/14/20
116	ACR Project Teams	ACR	In-Person	6/10/20	Preparing for Community Engagement Project Team and Government Engagement Project Team Activities Post-submittal	In Progress	The Vice Chair requested that the Community Engagement Project Team and Government Engagement Project Team schedule initial meetings of their respective teams to be held before the July ACR meeting or soon thereafter to begin planning for activities to undertake after submittal of the Slate to the FAA.	

ACR DATE	Motion #	MOTION	DESCRIPTION	RESULT/NEXT STEP	STATUS
5/13/20	02-20	Approved Motion – Moving Forward without Public Meetings	The ACR Voted on the following Motion that: The ACR will adopt Option #3, moving forward without public meetings, and the ACR’s Community Engagement Project Team will move forward to address interim community engagement needs regarding the Slate, working in conjunction with CLT.	CLT and Community Engagement Project Team to work on community engagement near-term approach. CLT to begin development of Submittal Documentation.	In Progress
6/10/20	03-20	Approved Including Top 6 Recommendations based on ACR Member Survey Results in Submittal Package	The ACR voted on the following Motion: To include the following Recommendations in the documentation being prepared for submittal to the FAA: 2-Utilize Divergent Departure Headings 10-Return CAATT Waypoint to Pre-Metroplex location (aka, Raising the Altitude by 1000’ at CAATT/EPAYE) 3-Modify Use of Departure Profiles 8-Utilize CDA (Continuous Descent Approach) 7-Remove the 2-mile Restriction on Departures 6-On South Departures, change heading at first turns off 18L (East) and 18C (West) The ACR passed this Motion via voice vote (all in Favor except for 1 Against).	CLT to include these recommendations in development of Submittal Documentation.	In Progress

ACR DATE	Motion #	MOTION	DESCRIPTION	RESULT/NEXT STEP	STATUS
6/10/20	04-20	<p>Approved Including Recommendation #9 - Maintain 6,000' Arrival Altitude until Final Approach Course in Submittal Package</p>	<p>The ACR voted on the following Motion: To include the following Recommendation in the documentation being prepared for submittal to the FAA: 9-Maintain 6,000' Arrival Altitude until Final Approach Course. This Recommendation will include language to be crafted by CLT/HMMH in the Submittal Documentation to note that the ACR supports altitudes below 6,000' before turning to Final Approach Course as long as aircraft are continuing to descend, not holding at lower altitudes.</p> <p>The ACR voted to approve this Motion with 13 votes in Favor, 2 Against, and 1 Abstention.</p>	<p>CLT to include this recommendation in development of Submittal Documentation.</p>	<p>In Progress</p>