John Glenn Columbus International Airport
Part 150 Noise Compatibility Update Study

Technical Advisory Committee Meeting 1

Date: Wednesday, December 11, 2019
Time: 2:00-4:00 P.M.
Location: John Glenn Columbus International Airport
Emergency Operations Center
4600 International Gateway, Columbus, OH 43219

Meeting Summary

Meeting Purpose

- To review:
  - The Part 150 Noise Compatibility Study process
  - Role of the Technical Advisory Committee
  - History of noise planning at the airport
  - Existing data, alternative, schedule and next steps
- To gather input and ask questions about the study

Welcome and Introductions

Justin Anderson, Columbus Regional Airport Authority (CRAA) Project Manager, welcomed everyone to the Technical Advisory Committee (TAC) meeting and thanked them for participating. He mentioned that one of CRAA's goals is to be a great neighbor to the Airport's surrounding communities, residents and businesses. He hopes that by holding these TAC meetings, this goal is further fulfilled, through being open and honest with the Airport's neighbors and partners with the information and process of the noise study.

Rob Adams, L&B Principal-in-Change, introduced himself and then asked for everyone in the room to introduce themselves. Rob acknowledged the diverse perspectives and different voices in the room, stating this is how we'll work together to uncover and solve any issues that may arise during the Part 150 Noise Compatibility Study.

Part 150 Noise Compatibility Study

Rob gave an overview of federal regulations, requirements and process of the Part 150 Noise Compatibility Study – discussing what a Part 150 Study is and is not. A Part 150 is similar to a master planning process in that it starts with looking at existing conditions, forecasts for the future, and then planning for the future. In this case, we are focused specifically on noise compatibility. By following federal guidelines, airports are able to apply for grants to implement study recommendations. Part 150 studies do not recommend closing an airport or implementing mandatory restrictions on aircraft or give environmental approval for implementing noise abatement or land use programs. The three main elements of a Part 150 Study include:

1. ***Noise Exposure Maps*** – represents noise levels around the airport and includes an existing conditions map and a map forecasting future noise contours five years in the future. There are very specific Federal Aviation Administration (FAA) criteria the study must follow.
2. ***Noise Compatibility Program*** – this is a group of recommendations, which can include noise abatement measures (what can be done at the source), land use measures (e.g. sound insulation) and implementation measures (designed to assist the program implementation – e.g. noise monitoring systems, noise complaint system, etc.). These might be eligible for FAA funding.
3. ***Public Involvement*** – Includes TAC meetings, public meetings with open house format, public hearings, project website and social media (outreach campaign).

Rob then provided an overview of the study process and schedule, discussing the steps from study initiation to review and approval. He also noted the schedule includes four TAC meetings, two public information meetings and one public information meeting/public hearing.

Role of the Technical Advisory Committee

Rob briefly discussed the role of the TAC and during this discussion he reiterated that the project team would like the TAC to serve as a sounding board. The TAC is a link to the community, which provides technical input and review and helps implement the program. Four TAC meetings will be held over the course of the study.

History of Noise Compatibility Planning

Chris Sandfoss, L&B Project Manager, provided a history of noise compatibility planning nationally and locally at CMH. The first Part 150 study at the Airport was in 1987, while the most recent was completed in 2007 concurrently with an Environmental Impact Statement for relocating the south runway. The 2007 study recommended expanding the sound insulation program boundary and proposed an Airport Land Use Management District for noise compatibility planning. The south runway was relocated and opened in August 2013. The north runway was rehabilitated in 2016. FAA asked CRAA not to conduct another Part 150 study until those two projects were completed.

This study is a continuation of CRAA's commitment to be a good neighbor and proactively plan for the future. While the last Part 150 was completed in 2007, it included a Future 2012 Noise Exposure Map, which Chris shared.

Chris explained that DNL stands for average Day-Night Average Noise Level. This metric reflects the average level of noise over 24-hours. Nighttime events (between 10:00 pm and 6:59 a.m.) have a penalty applied of 10 decibels. The noise model mathematically averages out the noise over 24 hours. In addition to the DNL metric, we are able to display maps that shows maximum levels and time above levels (such as how many hours a day an area has above 65 decibels over 24-hours), which is a little easier for some people to understand.

Over the years, CRAA has provided sound insulation to nearly 800 homes through Part 150 programs and acquired 35 homes impacted by the south runway relocation. CRAA operates a WebTrack System with 16 permanent noise monitors, allowing staff and the public the ability to track flight activity and noise levels. CMH has staff to respond to complaints and inquiries about aircraft operations and noise. A noise hotline is utilized to collect noise complaints.

Existing Data Collection

Chris reviewed the data collection to date, stated the technical requirements for the study and discussed the Airport Environmental Design Tool (AEDT). The AEDT is a computer model which lets the team input a plethora of data and data sources into a model that provides future noise contours, tabular data and analysis. He also explained the type of data that this study will collect, which includes flight operations, fleet mix, and runway use. The FAA Air Traffic Control Tower provides the team additional information on existing operations.

During this discussion several TAC members had questions relating to the data being collected for the study:

Tony Celebreeze (City of Columbus) asked if other factors than weather affect flight operations and direction of land use? Chris Sandfoss (L&B) and Barry Payne (FAA): Runway direction is dictated primarily by weather – mostly wind.

Barry Payne (FAA) asked if the Part 150 accounts for magnetic variation. Will you allow for that? Five years from now the magnetic headings will change slighty. Will your noise study account for that? Chris Sandfoss (L&B): if there is a change in flight path or waypoints. Rob Adams (L&B): a couple of years ago here at CMH, we looked at that to see what the change was. There wasn't a real notable change, but we have seen that at other airports, particularly to the south. At Ft. Lauderdale it was a full five-degree difference, which also affected runway naming. Chris noted there is a difference between magnetic north and true north. It's less of an issue in the Midwest. Usually less than three or four degrees off from true north. It's more pronounced on the coasts. The magnetic field does change over time. It's not as big of an issue here.

Duffy Cooper (ALPA) asked if one end of the airport is more sensitive to noise concerns over the other? Chris Sandfoss (L&B): more residential properties are to the west, so that area is more sensitive than to the east of the airport. The east and west ends get the bulk of the noise because arrivals and departures come from east and west.

Barry Payne (FAA): Looking at the noise contour, how can I differentiate the penalty for nighttime? Is there any difference in the noise contour at all? Chris Sandfoss (L&B): without the penalty for nighttime operations that we've already account for here, the contour would be smaller. We don't have a map that shows that. We'd have to look at night operations to determine that. We could demonstrate what that increase would be.

Jim Bryant (ODOT): do you collect any data that shows the when the/where the maximum exposure is? Chris Sandfoss (L&B): yes, we published that in the 2007 document. We had a map and table that showed what the noise levels were – from maximum and actual DNL level, including the time above the 65 and 85 Decibels. Jim asked if you can show the impacts of the maximum DBL. Rob Adams (L&B): we have compared OSHA standards to the noise exposures. We look at the noise exposure levels and during certain times. None of those would extend off the airport area.

Kyle Lewis (AOPA): Regarding fleet mix, what is the largest aircraft? Justin Anderson (CRAA) said we've had 757s, 767s are the largest and MD80s and MD90's are the loudest, but industry is retiring them. Even larger aircraft are quieter now. Tom McCarthy (CRAA) noted they are usually not as loud as military jets. Kyle: is there a difference between jet noise, piston engine and turbo prop noise considered? Chris Sandfoss (L&B): yes, the noise model has the noise generated by the various types of aircraft. The model has the ability to account for those different engine types.

Casey Denny (CRAA): On the fleet mix, you collect how many aircraft operate here with those types of engines, and then your model pulls the specific info on what noise is generated. Will we get to see that? Chris Sandfoss (L&B): Yes. The 2007 Part 150 goes into detail on this methodology and is available on the website if you are interested and the same level of detail will be provided for this Study.

Chris also discussed how flight tracks are modeled for noise impacts too. The maps showed how most of the operations operate to the west (about 75 percent of all operations). Chris then explained noise monitoring was also conducted via portable noise monitors in 30 locations for approximately one hour at each location. While the model has a database of aircraft, the team will compare the real data collected onsite to the modeled data as a way to validate the model input. This was conducted during the week of November 11, 2019. The loudest aircraft recorded happened to be an Embraer ERJ-175. We observed around 11 or 12 operations per site, per hour. Final results will be presented to the TAC at an upcoming meeting.

Types of Noise Compatibility Program Measures

Chris then discussed noise abatement measures and shared that one goal for the study was to identify measures that should be retained or introduced to CMH. Land use measures, both preventive and corrective, could also be implemented. This is where local planners and zoning officials could provide information to inform this discussion. He noted the City of Columbus has an Overlay Zone which requires the city to notify future buyers of properties within the zone.

Next Steps

Chris then reviewed the next steps (shown below) before ending the meeting with a group discussion.

- Complete review of Noise Measurement Data
- Submit Aviation Activity Forecast to FAA for Review & Approval
- Prepare the Existing and Future Noise Exposure Contours
- Identify Preliminary Noise Abatement, Land Use Management, and Implementation
- Alternatives
- Analysis and discussion of potential alternatives
- Next TAC Meeting – Spring 2020

During this review of action items, TAC member Kyle Lewis (AOPA) asked: how many noise complaints do you receive a year? Luke Curtis (CRAA) said they've received approximately 150 complaints a year (including Rickenbacker and Bolton Field) with about 80 of them coming from one caller in 2019.

Kenneth Van Pelt (Northeast Area Commission) then asked for electronic copies of the presentation to share with others from their organization. Marie Keister (MurphyEpson) replied that we would send a PDF out to all members of the TAC.

Group Discussion

Marie Keister, Murphy Epson engagement lead, then facilitated an interactive discussion with TAC participants asking them to write down on Post-it Notes what issues or concerns they or

their constituents may have regarding noise compatibility. A list of themes which emerged from the discussion is listed below.

- Potential federal changes to DNL standards and guidance and impacts for nearby communities
- Impacts of noise to residential and non-residential uses
- Confusion between a Part 150 Study and a noise insulation program
- Will future forecasting of operations (additional carriers) be taken into consideration?
- Effects to airline operation disruptions over potential noise curfews and maintaining 24-hr access
- Impacts to pilots/aircraft safety if traffic patterns are changed
- New modes of air mobility (i.e. drone delivery, 'Uber' air buses etc.)
- Changes in nearby land use policies or zoning
- Is any specific data needed for a successful Part 150 plan? (i.e. land use or from airline operators)

These themes will assist the project team while they develop and implement the Part 150 Noise Compatibility Study.

Conclusion

As the end of the meeting drew near a few more questions and comments were given by TAC members and project team staff.

A discussion was held discussing a potential federal change to decibel level requirements from 65 to 60 DNL. A TAC member asked if a 60 DNL boundary would be shown on mapping for this study and the project team confirmed. This led to a conversation on the evaluation of noise contours and how additional a noise insulation study isn't guaranteed as an outcome of this study. A CRAA representative mentioned that most of the affected homes and residences have been fitted with noise cancelling doors and windows inside the required areas. In fact, 30-plus homes within the 65 DNL boundary were purchased during the last planning study and CMH.

A TAC member asked the team for the distance of the study area and a Chris replied the study area is approximately 4.5 miles east and west of the CMH and 1 mile north and south. The current 65 DNL is located within this study area.

Concerns were raised if recommendation were made that changed airspace take-off and landings which resulted in possible safety concerns for pilots? This could also affect noise levels for residences around CMH. Chris replied that the AEDT model would be able to take all this information and data into consideration as well as the ability to forecast five years into the future. It was mentioned that future FAA route changes would be published in September 2020. A TAC member asked if Future modes, like Uber Air, were being considered. Chris mentioned that they are not being considered because they currently don't exist and aren't included as an aircraft in the model. Though once they do exist their data, or a similar substitute aircraft would be added to the model.

Marie Keister asked if there were any planning or zoning representatives were in the room and two TAC members raised their hands. She asked Chris and Rob, if the team still needed any additional land use data or modeling. Chris replied no, but their expertise would be needed in reviewing the results and data collected for the study.

Justin Anderson closed the meeting and thanked everyone for attending. He also mentioned that the next TAC meeting would occur in April 2020 in which the group would be discussing forecasts and baseline data. He also asked if there were any other groups or organization not at the meeting that should be invited in the future as part of the TAC. None of the current TAC members raised any concern and the meeting was adjourned.

Meeting Participants

The following participants were in attendance at the meeting:

Duffy Cooper	Airline Pilots Association (ALPA)
Dilli Dhital	American Airlines
Kyle Lewis	Aircraft Owners and Pilots Association (AOPA)
Ben Kessler	City of Bexley
Tony Celebrezze	City of Columbus
Michael Blackford	City of Gahanna
Justin Anderson	Columbus Regional Airport Authority
Luke Curtis	Columbus Regional Airport Authority
Casey Denny	Columbus Regional Airport Authority
Kristen Easterday	Columbus Regional Airport Authority
Mark Kelby	Columbus Regional Airport Authority
Benjamin Kirtley	Columbus Regional Airport Authority
Tom McCarthy	Columbus Regional Airport Authority
Betsy Taylor	Columbus Regional Airport Authority
Connie Tracy	Columbus Regional Airport Authority
Barry Payne	FAA CMH ATCT
Kevin White	Frontier Airlines
Robert Adams	Landrum and Brown
Chris Sandfoss	Landrum and Brown
Chris Lottridge	Limited Brands
Thomas Graham	Mid-Ohio Regional Planning Commission
Gib Harris	Nationwide Insurance
Artie Clark	NetJets
Eric Lange	NetJets
Wallace McLean	North Central Area Commission
Kenneth Van Pelt	Northeast Area Commission
James Bryant	ODOT Office of Aviation
Tim Cavanagh	Southwest Airlines
Stephanie Morgan	The Ohio State University Air Transportation/Aerospace Campus
Marie Keister	Engage Public Affairs
Nick Hoffman	MurphyEpson Inc.