Charlotte Douglas International Airport is updating its 1996 Noise Exposure Map (NEM) for 2015 and creating a 2020 map for the future due to aircraft fleet changes and recent changes in runway operations.

**Purpose of the NEM Update**
The NEM Update is designed to identify noise-sensitive land uses surrounding CLT for existing conditions and for five years in the future. For the purpose of an NEM Update, noise-sensitive land uses are generally defined as residences or public use facilities (libraries, places of worship, schools, nursing homes, and hospitals) within the 65 Day-Night Average Sound Level (DNL) noise contour, the area the Federal Aviation Administration defines as significantly impacted by aircraft noise.

The NEM Update will not recommend changes to airport or runway use, implement mandatory restrictions on aircraft, recommend levying fines for not following procedures, limit access to the airport based on size, type or noise created by aircraft, or alter the noise compatibility measures already in place.

**Data Included in NEM Update**
Within the NEM Update, the following operational conditions are included - airport departure and arrival procedures, daytime and nighttime flights and aircraft engine run-ups.

**Timeframe for Collection of Data**
Existing noise conditions are based on 12 months of data. Future conditions map out noise levels five years into the future and take into account any changes (physical or operational) that may have an effect on the noise levels around the Airport.

NEM Process Enters Final Stages
As part of the NEM Update process, the Aviation Department has held five public meetings that drew more than 300 residents.

Landrum & Brown, Inc., based out of Cincinnati, Ohio, is spearheading CLT’s NEM Update. Company representatives have already collected data to form noise contours. Preliminary draft contours were on display at the December and February public meetings.

To receive Neighborhood Update electronically, scan the QR code below or email YouAreFirst@cltairport.com. Place “Neighborhood Update” in the subject line, and enter your name and address in the body of the email.

For more information about CLT, visit cltairport.com.
NOTE: The noise exposure map contours are in draft form. The FAA must approve the NEM Update before the contours become official.
How are noise levels presented?
Noise levels are presented in terms of the Day-Night Average Sound Level (DNL) metric, which is a function of the loudness and frequency of noise events on an average-annual day. DNL adds a 10 decibel penalty to noise that occurs at night (10 p.m. - 6 a.m.). A 65 DNL is the level at which noise-sensitive land users are considered to be incompatible without treatment to reduce interior noise levels (sound insulation).

How will the Airport mitigate?
Properties that fall within the 65 DNL and meet other qualifications as specified within the Airport’s Noise Compatibility Program can receive mitigation assistance such as storm windows, storm doors, attic insulation and installation of air conditioning units if the home does not currently have these features. The Airport will notify the homeowner through a written letter if a home qualifies for mitigation.

What has CLT done to mitigate aircraft noise impacts?
To date, Charlotte Douglas International Airport (CLT) has sound insulated over 1,000 homes. This forthcoming Noise Exposure Map Update will prepare new NEMs that identify properties that are within the 65 DNL noise level based on current conditions and conditions expected five years into the future at CLT. These updated NEMs will be the basis for the continuation of the residential sound insulation program at CLT. Based on federal guidelines, CLT can only receive federal funding to sound insulate homes that are inside the 65 DNL noise exposure contour.

How do I submit a question or comment about the NEM?
To submit a comment or question regarding the Noise Exposure Map Update, email: clt-nem@landrum-brown.com. To view information presented at previous public meetings and other information on the study visit: www.airportsites.net/CLT-NEM/.

Continued on back page.

How Noise Contours Are Generated

1. Collect Relevant Data Including Flight Information, Area Climate and Area Topography
   - Data
     - Airport Information
     - Aircraft Flight Tracks
     - Aircraft Fleet
     - Number of Operations
     - Runway Utilization
     - Time of Day
     - Aircraft Climb Profiles
     - Departure Trip Length
     - Meteorological Data
     - Topographic Data
   - Source
     - Airport Layout Plan
     - FAA Radar Data
     - Tower, Airport Records, Official Airlines Guide (OAG)
     - Tower, Airport Records, OAG
     - Radar/Wind Data, Airport Records
     - Radar Data, OAG, Airport Records
     - INM, Radar Data, Airline Records
     - Tower, Airport Records, OAG
     - Climatic Data, Airport Records
     - Airport Layout Plan, U.S. Geological Survey

2. Analyze and Combine Data to Produce Noise Contours Showing Patterns of Aircraft Traffic and Environmental Effects on Aircraft Noise
   - INM-Provided Information
     - Aircraft Noise Levels
     - Aircraft Performance Data
   - Types of Aircraft Noise Considered within INM
     - Arrival
     - Departure
     - Flyover
     - Reverse Thrust (Braking)
     - Run-up Noise

3. Publish Noise Contours for Presentation to Local Government, Citizen Organizations and Businesses

   Noise Contours
   Tabular Reports
   Grid Point Analysis
NEM Process

The third set of public meetings will be held as public hearings, tentatively scheduled for May.

The final noise exposure map is scheduled to be submitted to the FAA for review in the spring and finalized in the summer.

How do I keep up with the latest news at CLT?

Keep up with all the latest Airport news and information by following CLT on social media. Charlotte Douglas interacts with its customers and neighbors on a daily basis through CLT’s Facebook, Twitter, YouTube and recently launched Instagram. Go behind the scenes and get sneak peeks about what’s new at the Airport. For links to all of our social media accounts, visit our website: cltairport.com.

Noise Exposure Contour Map

What are the next steps?

The third set of public meetings will be held as public hearings, tentatively scheduled for May. At least 30 days prior to these hearings, the NEM Update draft document will be published and available to the public in local libraries and on the NEM Update website.

The Airport will submit the draft document to the FAA for review after the final set of hearings. Once the FAA approves the noise contours, the Airport will notify the homeowner through a written letter if a home qualifies for mitigation.

Need more information?
Visit www.airportsites.net/CLT-NEM/.