



Client: City of Charlotte Aviation Department
Project: Part 150 Study Update for the Charlotte Douglas International Airport (CLT)

To: Charlotte City Council Members
From: City of Charlotte Aviation Department
CC: Rob Adams, Landrum & Brown (L&B)
Date: November 18, 2024

Subject: Summary of the Recommended 2024 Noise Compatibility Program

This memo includes a summary of the measures recommended for implementation in the CLT Part 150 Study Update, which are collectively referred to as the 2024 Noise Compatibility Program (2024 NCP). This includes existing measures approved in the 1996 NCP for CLT, and new measures recommended for implementation.

The 2024 NCP includes noise abatement, land use compatibility, and land use mitigation measures designed to reduce or mitigate the impact of aircraft noise upon the surrounding community. The measures recommended for implementation have resulted from the planning process and public involvement described throughout this document. Appendix F, *Public Involvement*, in the Part 150 Study Update contains meeting materials and summaries of the Technical Advisory Committee (TAC) meetings and public meetings that took place leading up to the development of the 2024 NCP.

The 2024 NCP measures fall within one of three categories:

- ✓ Noise Abatement Measures that address noise at the source (i.e., aircraft and how they operate);
- ✓ Land Use Compatibility Measures that are intended to prevent new development that is noncompatible with airport noise; and
- ✓ Land Use Mitigation Measures that are intended to correct existing noncompatible land uses.

Each measure is described in **Table 1**.



Table 1, Recommended 2024 Noise Compatibility Program Measures

MEASURE	SUMMARY OF MEASURE	STATUS
EXISTING Noise Abatement Measures		
<p><u>NA-4, Monitor Late Night Runway Use Monitoring</u> <i>Existing measure to be revised read as such:</i> Monitor late night (11:00 p.m. to 7:00 a.m.) runway utilization and variances from NCP assumptions. Conduct follow-up with FAA Air Traffic Control Tower (ATCT) and carriers as needed to enhance voluntary adherence to existing program. Continuation with modification to remove reference to monthly reporting</p>	<ul style="list-style-type: none"> • Airport will continue to monitor late night operations. • Measure is modified to remove reporting requirements because coordination between Airport staff and ATCT is ongoing on a daily basis. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ Only the modification to the measure requires FAA approval.
<p><u>NA-5, Late Night Runway Use for Departures</u> <i>Revise measure to read as such:</i> Designate Runway 18C or 18L as preferred for takeoffs by turbojet aircraft between 11:00 p.m. and 7:00 a.m. when wind, weather, and operational conditions allow. Continuation with modification to remove reference to Runway 05/23 and large four-engine prop aircraft, and to update the names of the existing runways</p>	<ul style="list-style-type: none"> • Airport will manage late night departures as it does today. • Measure is modified only to update the language. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ No approval needed.
<p><u>NA-6, Airport Run-Up Policy</u> <i>Revise measure to read as such:</i> Reaffirm Airport user policy which designates locations and procedures for aircraft engine run-ups. Establish a run-up location on the deice pad and northeast airfield that are currently under construction. Maximize the use of midfield run-up locations over those located on the east side of the Airport. (NA-A-1) Continue with modification to add two new run-up locations and encourage maximizing the use of midfield run-up locations</p>	<ul style="list-style-type: none"> • Operators will continue to follow the Airport’s run-up policy • Measure is modified to add two more run-up locations in the midfield of the Airport • Measure is modified to increase use of midfield locations over those on the east airfield to reduce sideline noise on residences to the east of the Airport. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ Only the modification to the measure requires FAA approval. Anticipated implementation of modification is September 2025



Table 1, Recommended 2024 Noise Compatibility Program Measures (Continued)

MEASURE	SUMMARY OF MEASURE	STATUS
EXISTING Noise Abatement Measures		
<p><u>NA-7, Concentrated Procedure for North Flow Departures on Departure Runways</u> <i>Revise measure to read as such:</i> Departing Runways 36R and 36C, all turbojet aircraft initiate turns at 2.5 DME (36C) and 2.6 DME (36R) north of the CLT VOR/DME, respectively. Continue with modification to update the name of the existing runways and remove reference to large four-engine prop aircraft</p>	<ul style="list-style-type: none"> • North flow departures to continue use of concentrated flight procedures • Measure is modified only to update the language. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ No approval needed.
<p><u>NA-8, Procedure for South Flow Departure on Arrival Runway</u> <i>Revise measure to read as such:</i> Departing Runway 18R, turbojet aircraft initiate turns as soon as practicable to a heading of 195 degrees. Continuation with modification to update the name of the existing runways and remove reference to large four-engine prop aircraft</p>	<ul style="list-style-type: none"> • South flow departures to continue use of heading on west runway (arrival operations) on an as-needed basis • Measure is modified only to update the language. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ No approval needed.
<p><u>NA-9, Procedure for North Flow Departure on Arrival Runway</u> <i>Revise measure to read as such:</i> Departing Runway 36L, turbojet aircraft initiate turns as soon as practicable to a heading of 315 degrees. Continuation with modification to update the name of the existing runways and remove reference to large four-engine prop aircraft</p>	<ul style="list-style-type: none"> • North flow departures to continue use of heading on west runway (arrival operations) on an as-needed basis • Measure is modified only to update the language. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ No approval needed.



Table 1, Recommended 2024 Noise Compatibility Program Measures

MEASURE	SUMMARY OF MEASURE	STATUS
NEW Noise Abatement Measures		
<p><u>NA-10 (Long-Term), Reassess Airport’s Run-Up Policy</u> Conduct an assessment of ground run-up procedures after construction of the new fourth parallel runway to identify run-up locations in the midfield of the Airport. (NA-A-2)</p>	<ul style="list-style-type: none"> • Reassess Airport’s run-up policy after the new fourth parallel runway is operational. 	<ul style="list-style-type: none"> ✓ New measure requires FAA approval ✓ Also requires operation of the new runway ✓ Anticipated implementation September 2027
<p><u>NA-11 (Long-Term), Nighttime Runway Use for North Flow Arrivals</u> Designate Runway 36L and 36R as preferred for north flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m. (NA-E-1)</p>	<ul style="list-style-type: none"> • Implement new runway use that focuses nighttime north flow arrivals on the west and east runways • Shifts noise from residential areas to industrial/transportation land uses south of the Airport 	<ul style="list-style-type: none"> ✓ New measure requires FAA approval ✓ Also requires environmental review and approvals, updates to CLT Tower Order, and operation of the new runway. ✓ Anticipated implementation September 2027
<p><u>NA-12 (Long-Term), Nighttime Runway Use for South Flow Arrivals</u> Designate Runways 18L, 18C, and 18R for south flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m. (NA-E-2)</p>	<ul style="list-style-type: none"> • Implement new runway use that distributes nighttime south flow arrivals to all existing runways, with the largest share designated to the west runway • Shifts noise from residences to transportation corridors 	<ul style="list-style-type: none"> ✓ New measure requires FAA approval ✓ Also requires environmental review and approvals, updates to CLT Tower Order, and operation of the new runway. ✓ Anticipated implementation September 2027
<p><u>NA-13 (Long-Term), North Flow Diverging Headings</u> Maximize the number of divergent headings for north flow departures while maintaining a 15° separation between headings on Runway 36C, Runway 36R, and Runway 01. (NA-F-2)</p>	<ul style="list-style-type: none"> • Implement new diverging headings on departure runways • Disperses noise over as wide of an area as possible 	<ul style="list-style-type: none"> ✓ New measure requires FAA approval ✓ Also requires environmental review and approvals, updates to CLT Tower Order, development of flight procedures ✓ Replace Measure NA-7, <i>Concentrated Procedure for North Flow Departures on Departure Runways</i> ✓ Anticipated implementation early 2027
<p><u>NA-14 (Long-Term), South Flow Diverging Headings</u> Maximize the number of divergent headings for south flow departures while maintaining a 15° separation between headings on Runway 18C, Runway 18L, and Runway 19. This would require the elimination of the 2-mile restriction. (NA-G-4)</p>	<ul style="list-style-type: none"> • Implement new diverging headings on departure runways • Eliminate 2-mile restriction • Disperses noise over as wide of an area as possible 	<ul style="list-style-type: none"> ✓ New measure requires FAA approval ✓ Also requires environmental review and approvals, updates to CLT Tower Order, development of flight procedures ✓ Anticipated implementation early 2027



Table 1, Recommended 2024 Noise Compatibility Program Measures

MEASURE	SUMMARY OF MEASURE	STATUS
EXISTING Land Use Compatibility Measures		
<p><u>LU-1, Compatible Land Use Planning</u> <i>Revise measure to read as such:</i> Promote compatible land use planning within the Airport Noise Disclosure Overlay District (ANDO) (DNL 65 dB of the combined 1996 NEM and 1996 NCP contours). Continuation with modification to clarify the area of reference.</p>	<ul style="list-style-type: none"> • Airport to continue efforts to promote compatible land use planning within the ANDO. • Measure is modified only to update the language. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ No approval needed.
<p><u>LU-2, Zoning for Compatible Development</u> Pursue zoning for compatible development. Continuation</p>	<ul style="list-style-type: none"> • Airport to continue efforts to promote zoning that is compatible with Airport land uses within the ANDO. • Measure is modified only to update the language. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ No approval needed.
<p><u>LU-7, Airport Overlay District</u> Pursue the establishment of an Airport Overlay District that corresponds to the Airport Environs in which there will be special requirements relating to developing, rezoning, and transferring residential property. Continuation</p>	<ul style="list-style-type: none"> • Airport to continue efforts to keep the ANDO boundary in place. • No modification. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ No approval needed.
<p><u>LU-9, Airport Overlay District Notice for New Homeowners</u> <i>Revise measure to read as such:</i> Continue efforts to maintain the use of the Airport Noise Disclosure Overlay District Notice. Continuation with modification to remove the requirement to pursue method of enforcement.</p>	<ul style="list-style-type: none"> • Airport to continue encouraging City’s efforts to notify new homeowners within the ANDO that their property may experience noise annoyances. • Modified to remove the requirement for enforcement. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ Only the modification to the measure requires FAA approval.



Table 1, Recommended 2024 Noise Compatibility Program Measures

MEASURE	SUMMARY OF MEASURE	STATUS
EXISTING Land Use Mitigation Measures		
<p><u>NM-1, Public Information Program</u> Establish a public information program which distributes noise and noise abatement information to the public. Continuation</p>	<ul style="list-style-type: none"> • Airport to continue its public information program (such as <i>Connections</i> and <i>Neighborhood Update</i>). 	<ul style="list-style-type: none"> ✓ Currently active. ✓ No approval needed.
<p><u>NM-2, Sound Insulation Program for Public Buildings</u> <i>Revise measure to read as such:</i> Sound insulate noise-sensitive public building intended for public use, instruction (e.g., schools) or assembly (e.g., churches) located within the Future (2028) NEM/NCP Noise Exposure Contour. Continuation with modification to update the sound insulation area to refer to the area within the Future (2028) NEM/NCP Noise Exposure Contour</p>	<ul style="list-style-type: none"> • Airport to continue its sound insulation efforts for public buildings. • Modified to include public buildings within the Future (2028) NEM/NCP Noise Exposure Contour. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ Modification requires FAA approval. ✓ Implementation may be based on the availability of Federal and local funding. ✓ Anticipated implementation September 2025
<p><u>NM-3, Sound Insulation Program for Residences</u> <i>Revise measure to read as such:</i> Sound insulate eligible houses located within the 2024 NCP sound insulation program boundary which may be benefited under FAA design criteria. Continuation with modification to update the sound insulation area to refer to the 2024 NCP sound insulation program boundary</p>	<ul style="list-style-type: none"> • Airport to continue its sound insulation efforts for residences. • Modified to incorporate a new sound insulation program boundary that was developed based on the identification of homes within the Future (2028) NEM/NCP Noise Exposure Contour and block rounding. Block rounding means the whole neighborhood was incorporated into the boundary. • Eligible homes are those located within the new sound insulation program boundary. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ Modification requires FAA approval. ✓ Implementation may be based on the availability of Federal and local funding. ✓ Anticipated implementation September 2025



Table 1, Recommended 2024 Noise Compatibility Program Measures

Measure	Summary of Measure	Implementation Status
EXISTING Land Use Mitigation Measures		
<p><u>NM-7, Voluntary Acquisition Program</u> <i>Revise measure to read as such:</i> At the Airport's option, purchase avigation easements, sound insulate, or acquire houses within the 2024 NCP sound insulation program boundary, where sound insulation is infeasible or not cost-effective because the property does not comply with the building code. Continuation with modification to update the sound insulation area to refer to the 2024 NCP sound insulation program boundary</p>	<ul style="list-style-type: none"> • Airport to continue its voluntary acquisition program for residences where sound insulation is not feasible. • Modified to incorporate the new sound insulation boundary. • Eligible homes are those located within the new sound insulation program boundary and those where sound insulation is not feasible. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ Modification requires FAA approval. ✓ Implementation may be based on the availability of Federal and local funding. ✓ Anticipated implementation September 2025
<p><u>NM-9, Voluntary Acquisition Program for Mobile Homes</u> <i>Revise measure to read as such:</i> Acquire mobile homes located within the 2024 NCP sound insulation program boundary. Continuation with modification to update the sound insulation area to refer to the 2024 NCP sound insulation program boundary</p>	<ul style="list-style-type: none"> • Airport to continue its voluntary acquisition program for mobile homes. Mobile homes are not eligible for sound insulation due to the material type. • Modified to incorporate the new sound insulation boundary. • Only one mobile home park is located within the new sound insulation program boundary. The mobile home park was previously offered acquisition, which was declined. 	<ul style="list-style-type: none"> ✓ Currently active. ✓ Modification requires FAA approval. ✓ Implementation may be based on the availability of Federal and local funding. ✓ Anticipated implementation September 2025