Appendix F, Public Involvement

Charlotte Douglas International Airport

DRAFT – August 2024

PREPARED FOR
Charlotte Douglas International Airport

PRESENTED BY
Landrum & Brown, Incorporated

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Appendix F Public Involvement

The process of providing opportunities for public review and comment during the development of the Part 150 Study Update includes three techniques: Technical Advisory Committee Meetings, Public Information Meetings, and a formal Public Hearing. Each technique facilitates the active and direct participation of members of the public and the opportunity for them to submit comments to Charlotte Douglas International Airport (CLT or Airport) staff.

This appendix provides the information related to the public involvement process undertaken during the CLT Part 150 Study Update and is divided into the following sections:

- Discussion of the Technical Advisory Committee
- Discussion of the Public Information Meetings
- Discussion of the Public Hearing
- Location of Study Documents for Public Review
- Part 150 Study Update Website

F.1 Technical Advisory Committee

A Technical Advisory Committee was established by CLT staff and was composed of groups representing a broad range of interested stakeholders, including airlines, commerce, community, air traffic controllers, government and planning, as well as interested and affected citizens through representatives of the ACR. The Technical Advisory Committee included participation from public and planning agency officials of the areas within the 65 DNL noise contour per 14 CFR §150.21, which includes the City of Charlotte and Mecklenburg County. The Planning Commission was formed by an Interlocal Agreement as a planning advisory body to the City of Charlotte and Mecklenburg County in 1954. There is no land under state or Federal land use control within the 65 DNL noise contour. The Technical Advisory Committee provided feedback and advice to the consultant team on the contents and preparation of the Part 150 Study Update.

Three meetings have taken place to date to review and receive comments on the development of the Existing (2023) Baseline and Future (2028) Baseline condition, the preliminary noise abatement alternatives, and the noise screening process and preliminary scenario development. A fourth meeting is scheduled in conjunction with the release of this Draft Noise Compatibility Study Update. Presentations were made at each meeting, followed by open discussion. Presentations, meeting materials, and summary meeting notes from each of the meetings are provided at the end of this appendix. The date, time, and location of each Technical Group meeting is provided below.

TAC Meeting #1
September 14, 2022
2:00 p.m. to 4:00 p.m.
CLT Center at Charlotte Douglas International Airport

TAC Meeting #2
March 22, 2023
1:30 p.m. to 3:00 p.m.
Harris Conference Center at Central Piedmont Community College

TAC Meeting #3
November 14, 2023
1:00 p.m. to 3:00 p.m.
CLT Center at Charlotte Douglas International Airport

F.2 Public Information Meetings

During the course of the Study, two sets of public information meetings were held in local communities, and a third set of meetings is scheduled in conjunction with the release of this Draft Noise Compatibility Study Update. Public Information Meetings provided the public with ample opportunity to participate in one-on-one discussions with Airport staff and the Airport consultants, and to review the noise exposure maps, preliminary noise abatement alternatives, and other study analysis. Public outreach efforts for each public information meeting included the publishing of notifications through print media, social media, direct emails, and the project website. Specifically, direct emails were distributed to local community groups and individuals who requested additional information about the Study. Public Information Meetings is included later in this appendix.

Two sets of Public Information Meetings (four meetings total) were held over the course of this Part 150 Study Update during key milestones in the process. The third set of meetings will be conducted concurrently with a Public Hearing. The meetings were conducted on multiple nights at different locations to make it convenient for the public to attend. Appendix G, Public Involvement, includes copies of meeting notifications, sign-in sheets, comments received, copies of the boards presented, and meeting handouts from these Public Information Meetings. The specific meetings dates, times, and locations are shown below.

Public Information Meeting #1

Location #1:
March 22, 2023
6:00 p.m. to 8:00 p.m.
Harris Conference Center at Central Piedmont Community College
3216 CPCC Harris Campus Drive
Charlotte, NC 28208

Location #2:
March 23, 2023
6:00 p.m. to 8:00 p.m.
Aloft Charlotte Airport
3928 Memorial Parkway
Charlotte, NC 28217

Public Information Meeting #2

Location #1:
November 14, 2023
6:00 p.m. to 8:00 p.m.
Harris Conference Center at Central Piedmont Community College
3216 CPCC Harris Campus Drive
Charlotte, NC 28208

Location #2:
November 16, 2023
6:00 p.m. to 8:00 p.m.
Embassy Suites by Hilton Charlotte
4800 South Tyron Street
Charlotte, NC 28217

Public Information Meeting #3

Location #1:
September 18, 2024
6:00 p.m. to 8:00 p.m.
Goodwill Opportunity Campus
5301 Wilkinson Blvd,
Charlotte, NC 2820

Location #2:
September 19, 2024
6:00 p.m. to 8:00 p.m.
Embassy Suites by Hilton Charlotte
4800 South Tryon Street,
Charlotte, NC 28217

F.3 Public Hearing

Public Hearings are scheduled to be held concurrently with the third set of Public Information Meeting to satisfy the requirement that the public be given an opportunity to comment on the Noise Exposure Maps and Noise Compatibility Program prior to submission to the FAA as specified in 14 CFR 150.21(b). A transcript of the oral testimony and the written comments received at the Public Hearing, as well as response to all comments, will be included in the final document. Comments will also be on file with the FAA Southern Region.

F.4 Availability of the Document for Public Review

The Draft Part 150 Study Update document is available for public review from August 5, 2024 through October 4, 2024. Copies of the Draft Part 150 Study Update document are located in the locations listed below and on the project website (https://cltpart150.com/documents-reports/). Newspaper notices were published announcing the availability of the document for review and comment prior to the Public Hearing.

Locations for Draft Part 150 Document Review

1. Steele Creek Library Branch
   13620 Steele Creek Road, Charlotte, NC 28273
2. Mountain Island Library Branch
   4420 Hoyt Galvin Way, Charlotte, NC 28214
3. West Boulevard Library Branch
   2157 West Boulevard, Charlotte, NC 28208
4. Belmont Branch Library
   125 N Central Ave, Belmont, NC 28012
5. Hickory Grove Library
   5935 Hickory Grove Road, Charlotte, NC 28215

6. South Park Regional
   7015 Carnegie Boulevard, Charlotte, NC 28211
7. Charlotte International Airport - Aviation Department, CLT Center, 5601 Wilkinson Boulevard (accessed from Harlee Avenue)
8. CLT Part 150 Study Update Project Website: https://cltpart150.com/documents-reports/

Technical Advisory Committee Meeting #1
September 14, 2022

Meeting Invitations

Sign-in Sheet

Presentation

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August 17, 2022

To Whom It May Concern,

The City of Charlotte is initiating a study to document the noise effects from aircraft operations at Charlotte Douglas International Airport (CLT). The study is commonly referred to as a Part 150 Noise Compatibility Study Update (Part 150 Study Update). The purpose for conducting a Part 150 Study Update is to develop a balanced and cost-effective plan to reduce current noise impacts, where practical, and to limit the potential for future noise impacts.

We are writing to ask for your participation on the Technical Advisory Committee (TAC) that is being formed as part of the Part 150 Study Update. The TAC will consist of airport users and tenants; Federal Aviation Administration (FAA) representatives; local planning organizations; Airport staff and miscellaneous stakeholders. The TAC will review study findings, comment on study recommendations before they are presented to the public at-large and will participate in discussions related to aircraft noise issues.

The TAC will meet four times over the 18 months anticipated to complete the Part 150 Study Update. The first meeting of the TAC is scheduled for 2:00 pm on September 14, 2022 in the Eagle Conference Room at the CLT Center located at 5601 Wilkinson Blvd, Charlotte, NC 28208. If you are not able to attend the meeting in person, a teleconference option will be made available. The meeting will last approximately two hours. TAC members will receive a meeting agenda in advance for all meetings.

We value your input and look forward to your participation in this process. Please RSVP by August 31, 2022 with whether or not you accept this invitation and wish to participate in the TAC. Email your RSVPs to gaby.elizondo@landrumbrown.com.

Sincerely,

Haley H. Gentry
Chief Executive Officer

INVITATION LIST

TECHNICAL ADVISORY COMMITTEE MEETING #1

REPRESENTING	NAME
Charlotte Mecklenburg Police Department, Aviation Unit	Kenneth Anderson
City of Charlotte City Council	Victoria Watlington
City of Charlotte Planning, Design, and Development Department	Alyson Craig
Aircraft Owners and Pilots Association	Chris Hudson - Mid-Atlantic Rep
	Mike Flilucci
	Stacey Heaton
Airport Community Roundtable	Natalie Rutzell (Chair)
	Phillip Gussman (Co-chair)
HMMH	Gene Reindel
Federal Aviation Administration, Air Traffic Division	Anthony Limon
	Mark Libby
Federal Aviation Administration, Airports Division	Jamal Stovall
	Jennifer Adams
	Wes Mittlesteadt
National Air Traffic Controller Association	Anthony Schifano
	Chris Riddle
ABX Air	Andy McAviney
Air Canada	Kevin Oliphant
	Ronald Todd
	Sara Whitley
	Victor Toala
American Airlines	Bob Berlucchi
	Michael Wanner
	Ryan Jorgenson
	Scott Pressley
	Tracy Montross
	Wes Googe
Delta Air Lines	Jose Fernandez
	Keith Fidler
FedEx	Daniel Allen
	Jason Fricke
Frontier Airlines	Taylor Wilson
JetBlue	Matt Detcher
Lufthansa	Rikard Hinrichs
Southwest Airlines	George Hodgson
	Lawrence Turner
Spirit Airlines	Garry Jones
United Airlines	Mike Acosta
	Rob Galbraith
	Vinnie Pestrichella
UPS	Danny Ndingwan
USAF 145th Airlift Wing	Billy Prather
	James R. Eaton II
	Jayce Bass
Wilson Air (FBO)	Vince Papke

CLT Part 150 Study Update

Technical Advisory Committee, Meeting #1

September 14, 2022, 2:00 p.m.

SIGN-IN SHEET – PLEASE PRINT

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Tracy Montross	American Airlines	704/808-9278	Tracy.Montross@aa.com
Chris Riddle	FAA Tower / NATCA	7044915597	CRNATCA@GMAIL.com
Keith Fidler	Delta Air Lines	404 398 5071	Keith.G.Fidler@Delta.com
Jose Fernandez	Delta Air Lines	646 345 4293	jose.l.fernandez@delta.com
Ryan Jorgenson	American Airlines	614-261-1560	ryan.jorgenson@aa.com
Gaby Elizondo	L&B	956 357 2778	

CLT Part 150 Study Update

Technical Advisory Committee, Meeting #1

September 14, 2022, 2:00 p.m.

SIGN-IN SHEET – PLEASE PRINT

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Phillip Gussman	ACA	704-608-1323	phil@Gussmanconsult.com
Dan Cox	~~AA~~ CLT		
Gene Reindel	ACA (HMMH)	339 234 2035	ereindel@hmmh.com
Michael Wanner	AA	904-347-5836	Michael.Wanner@aa.com
Kaun Oliphant	PrimeFlight / AIR CANADA	346.451-5235	ka.phant@primeflight.
JACK CHRISTINE	CLT	704-359-4932	jlchristine@CLTAIRPORT.com
Kevin Hennessey	CLT	704-359-4008	Khuhennessey@cltairport.com
MIKE PILARSKI	CLT	704-240-0838	mwpilarski@cltairport.com

Part 150 Noise Compatibility Study Update

Welcome to the *Technical Advisory Committee Meeting #1*

September 14, 2022

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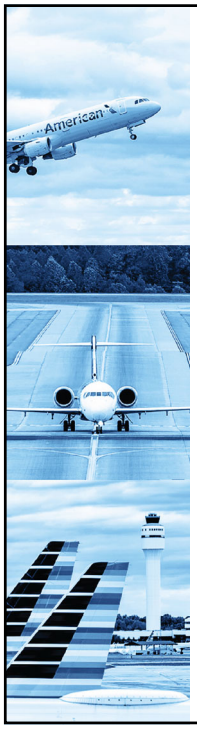

Agenda

- Welcome and Introductions
- Overview of CLT's Part 150 Study Update
- Role of the Technical Advisory Committee
- History of Noise Compatibility Planning
- Overview of Data Collected / Input Model
- Noise Monitoring Program
- Current Procedures and Measures
- Questions & Answers
- Next Steps / Schedule

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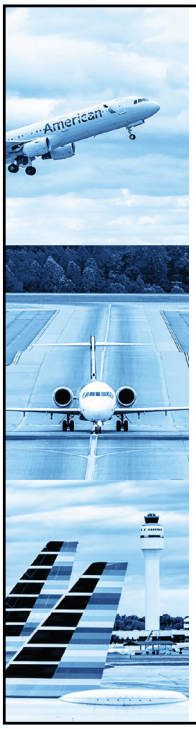

Welcome and Introductions

- Charlotte Douglas International Airport
  - Sponsor of the CLT Part 150 Study Update
  - Team: Amber Leathers, Mike Pilarski, Kevin Hennessey, Dan Gardon
- Consultant Team
  - Landrum & Brown is the lead consultant
  - 70 years of aviation planning
  - Experts in aircraft noise and land use planning
- Federal Aviation Administration
  - Developed guidelines for Part 150 that must be followed
  - Review NEMs for accuracy and determination that guidelines were met
  - Review recommendations for consistency with Part 150 guidelines

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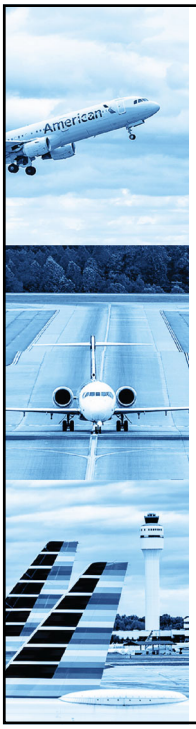

Overview of CLT's Part 150 Study Update

Key Terms

- Federal Aviation Administration (FAA)
  - The FAA is responsible for administering the Part 150 program
    - Guidelines for preparing the study
    - Participates as technical experts (air traffic controllers)
    - Reviews the NEMs and NCP, and issues a record of approval
    - Provide public notice via the Federal Register process
    - Providing funding for studies and implementation of approved recommendations
- Day-Night Average Sound Level (DNL)
  - This is a way of describing average noise from aircraft around an airport
  - DNL takes into account all noise from aircraft and puts extra emphasis on aircraft that operate at nighttime
  - FAA has established 65 dB DNL as where residential land uses are considered incompatible
- New Runway or Fourth Parallel Runway
  - The Airport recently received environmental approval to construct a fourth north-south runway
  - The new runway is expected to be operational by 2028

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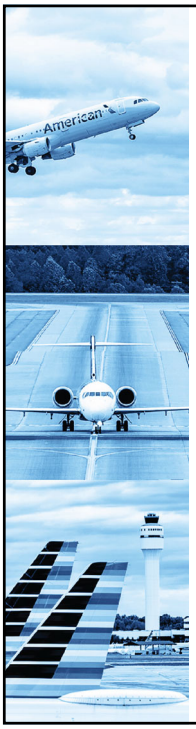

Part 150 Study Update – Overview

- **Part 150 Studies are Planning Studies**
  - Identify noise and land use impacts in accordance with FAA guidance
  - Work to develop solutions within the FAA's framework
  - City council ultimately recommends measures, FAA approves measures
- **Part 150 Studies <u>can</u> open funding sources**
  - May be eligible for grants to implement recommendations
  - Funding is not guaranteed
- **Part 150 Studies do <u>not</u>:**
  - Recommend closing an airport
  - Recommend implementing mandatory restrictions
  - Give environmental approval for implementing measures

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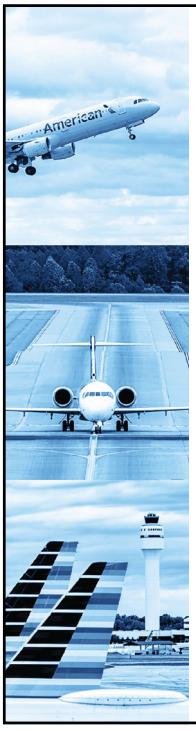

Part 150 Study Update – Primary Elements

- **Noise Exposure Maps:**
  - Description of the noise levels for existing and future (+5 years) conditions
  - Existing conditions
    - Last 12 months of activity
  - Future conditions (2028)
    - Takes into account physical and operational changes
    - Physical changes include: new runway, runway threshold relocation, etc
    - Operational changes include: aircraft operating levels, fleet mix, new flight tracks, new destinations

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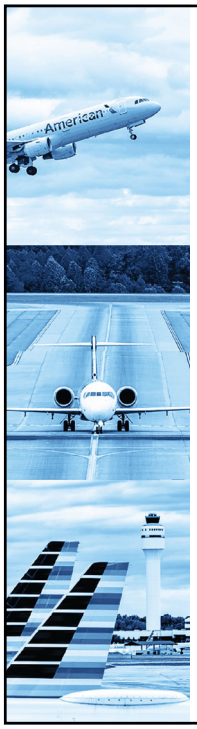

Part 150 Study Update – Primary Elements

- **Noise Compatibility Program:**
  - Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
    - Noise Abatement
    - Land Use Mitigation
    - Implementation Measures
  - May reflect short-term and long-term time periods
    - Short term – pre-runway opening (before 2028)
    - Long term – post-runway opening (after 2028)

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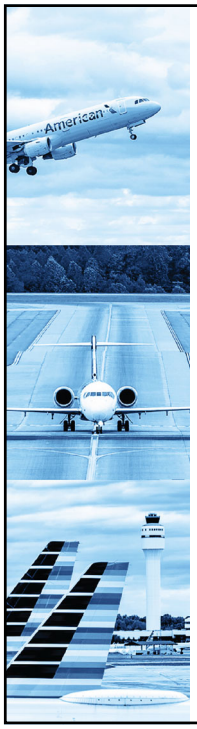

Part 150 Study Update – Primary Elements

- **Public Involvement:**
  - **Technical Advisory Committee** – Group of stakeholders affected by, or having oversight responsibilities for, issues covered by the Part 150 Study Update
    - Airport officials
    - Aircraft operators/airlines
    - Government Officials / Land Use Planners
    - Airport Community Roundtable (ACR)
    - Air Traffic Controllers
  - **Public Workshops** - Informational meetings to discuss and gather comments on potential aviation noise, land use, and other mitigation measures
  - **Public Hearings** - Receive comments (either oral or written) from the public on the Draft Part 150 Study Update document

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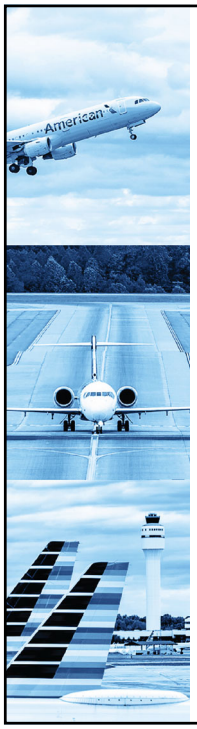
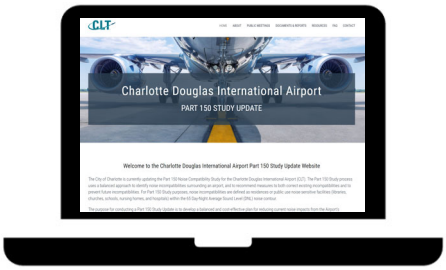


Part 150 Study Update – Primary Elements

- **Public Involvement:**
  - **Project Website / Social Media / Virtual Meeting**
    - Project website and social media will be updated with study information, including images and documents pertinent to the study
    - Posting of all meeting notices
    - Posting of study process and draft findings
    - Active/passive comment collection through website and/or virtual meeting capabilities



Visit us at:
CLTpart150.com

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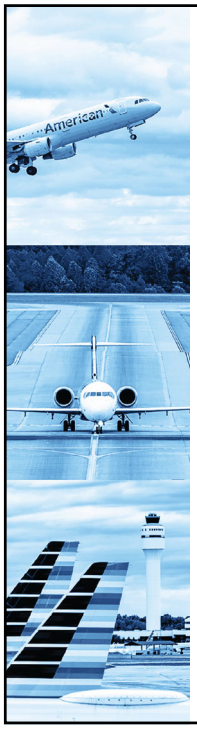
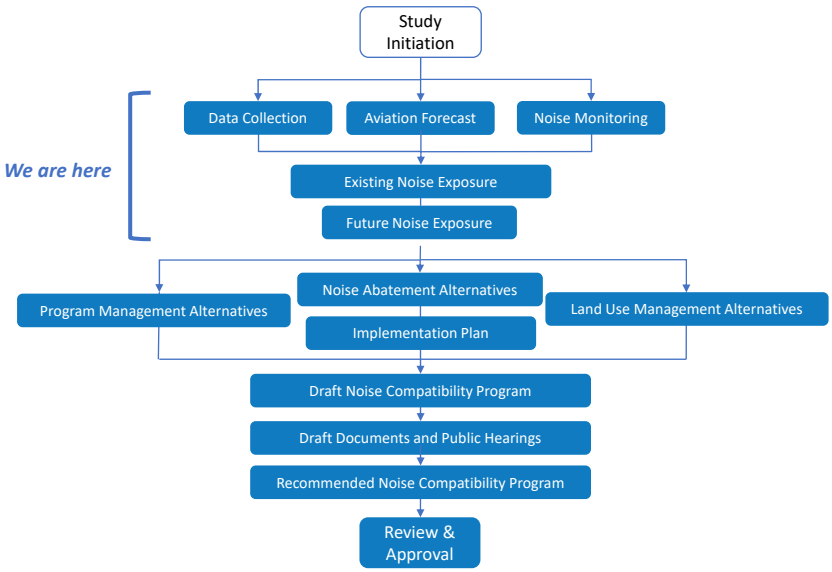


Part 150 Noise Compatibility Study Update Process



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Part 150 Noise Compatibility Study Update Process

Part 150 Task and Subtasks	2022								2023												2024
	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan
Project Kick-Off and Data Collection	■	■																			
Review Aviation Demand Forecasts	■	■	■																		
Conduct Noise Monitoring				■	■	■															
Existing Noise Exposure			■	■	■	■															
Future Noise Exposure Map						■	■														
Noise Abatement Alternatives							■	■	■	■											
Land Use Alternatives									■	■	■	■	■								
Noise Compatibility Program													■	■	■	■					
Draft Part 150 Report and Public Hearing																■	■	■			
Part 150 NCP Adoption by City																			■		
Prepare and Submit Final Part 150 NCP to FAA																			■	■ ★	
FAA Record of Approval *(Summer 2024)*																					
Meetings and Coordination																					
Technical Advisory Committee Meetings					①			②					③					④			
Public Information Meetings								①					②					③			
Public Hearing/Responses																		★			

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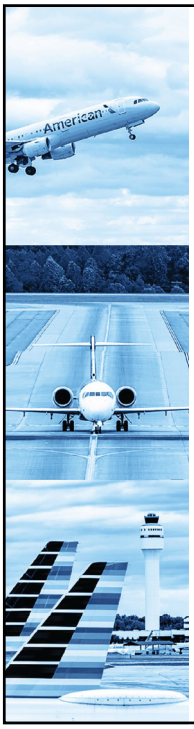

Role of the Technical Advisory Committee

Role of the Technical Advisory Committee (TAC)

- Sounding Board
- Link to the Community
- Technical Review
- Aid to Implementation

TAC Meeting Schedule

- Meeting #1 – September 2022
- Meeting #2 – Winter 2022/2023
  - Review preliminary noise exposure maps, and results of noise measurement program
- Meeting #3 – Summer 2023
  - Analysis of noise abatement measures
- Meeting #4 – Fall 2023
  - Review Draft Noise Compatibility Program

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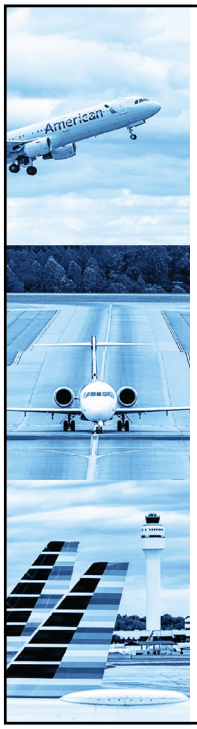

History of Noise Compatibility Planning

Federal Regulations and Guidelines

- Jet Age + Rapid Expansion of Airports + Continued Suburban Development/Sprawl = Adverse Noise Impacts
- Aviation Noise Abatement Policy of 1976
- Aviation Safety and Noise Abatement Act of 1979
  - 14 CFR Part 150 (1981) established requirements for airport owners who choose to submit noise exposure maps and develop noise compatibility planning programs to the FAA for review and approval
  - Typically voluntary on the part of the sponsor and is not an automatic requirement of the Federal government
- Airport Noise and Capacity Act of 1990
  - Established phase-out of Stage 2 aircraft
  - Restricted airports from imposing locally based, non-voluntary restrictions without first completing a Part 161 Study
- FAA Final Policy on Part 150 Noise Mitigation Measures (Oct 1, 1998)
  - New homes constructed within an FAA-approved and published noise exposure contour are NOT eligible for remedial noise mitigation

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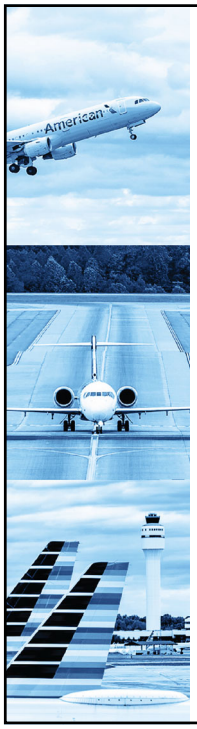
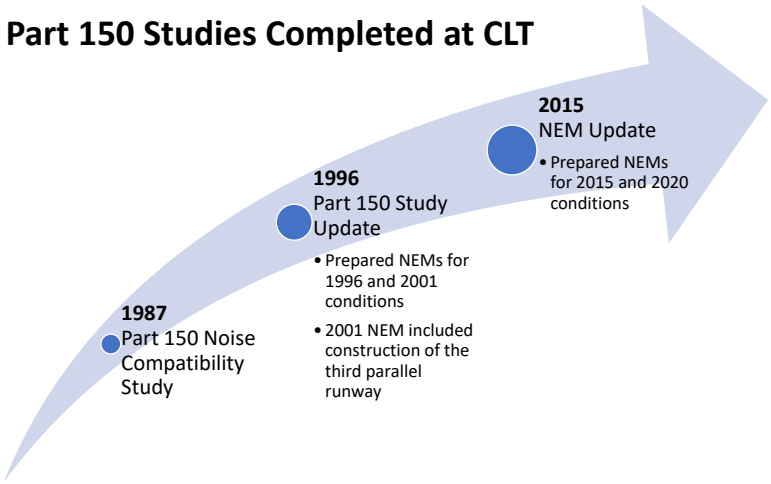


History of Noise Compatibility Planning

Previous Part 150 Studies Completed at CLT



CLT has invested more than $120 million in local community projects directly related to reducing or mitigating airport noise issues through a **Residential Sound Insulation Program** and **Residential Acquisition Program**

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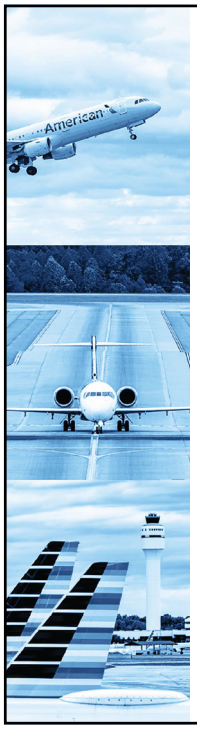
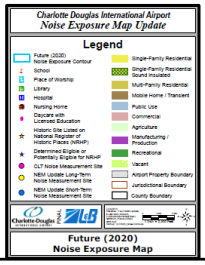
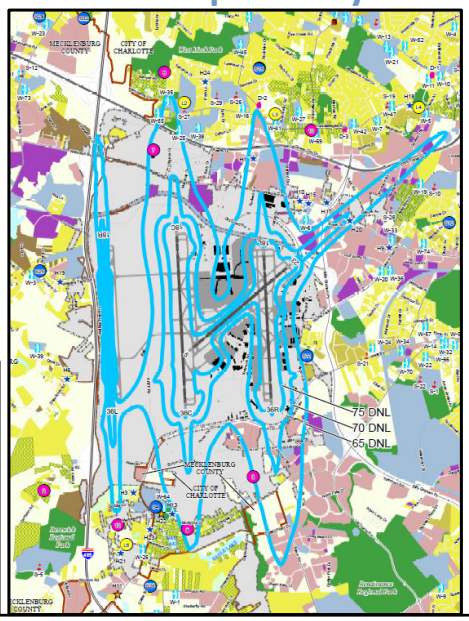


History of Noise Compatibility Planning





Current 2020 NEM

- Based on projections of aircraft operations prepared in 2015
- Approximately 170 residential properties and 500 people within the 65 DNL
- 5 schools and churches within 65 DNL

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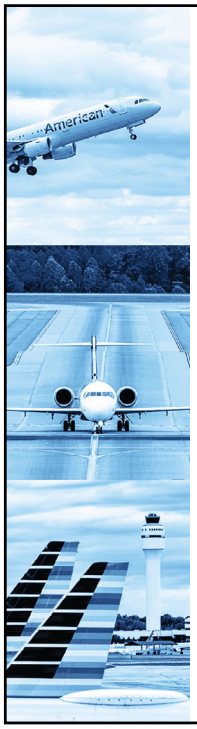

Overview of Data Collected / Input Model

Technical Requirements

- Represents an annual-average day (1 year of operations/365 days)
- Described with a set of continuous lines that represent equal levels of noise
- Prepared using the FAA's Airport Environmental Design Tool (AEDT) Version 3e
- Must use specific noise metric: Day-Night Average Sound Level (DNL)
  - National standard for all Federal agencies
  - DNL represents 24-hour average noise level
  - Penalty for nighttime (10:00 p.m. - 6:59 a.m.) flights (x 10)
  - 65 DNL identified as threshold for impact to noise sensitive land uses

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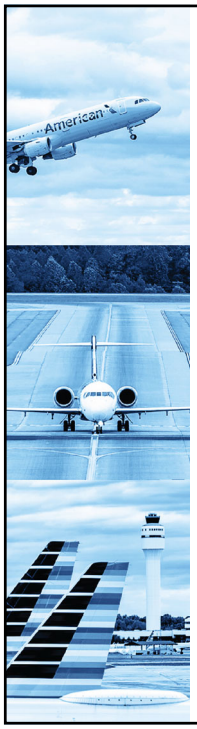

Overview of Data Collected / Input Model

Data Sources
- Airport Layout Plan
- Radar Data
- OAG Data
- Landing Reports
- ATCT Counts

Input Data
- Runway Layout
- Operating Levels
- Fleet Mix
- Runway Use
- Flight Tracks

Airport Environmental Design Tool (AEDT)
- Aircraft Database (over 3,500 aircraft / engine types)
- Aircraft Performance Data
- Aircraft Noise Data

Noise Contours

Tabular Reports

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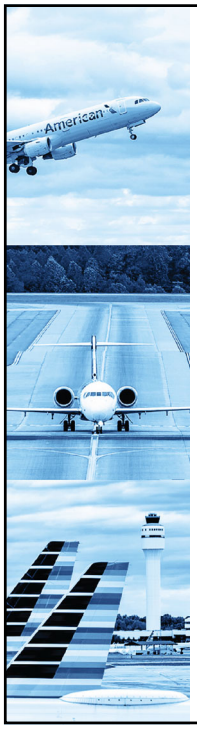
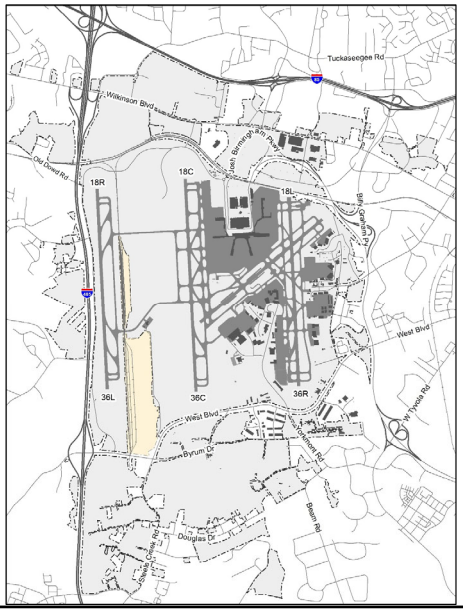
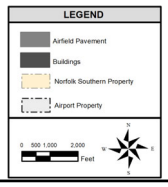


Overview of Data Collected / Input Model

Existing (2022) Runway Layout



Note: Runway 5/23 assumed closed for operations



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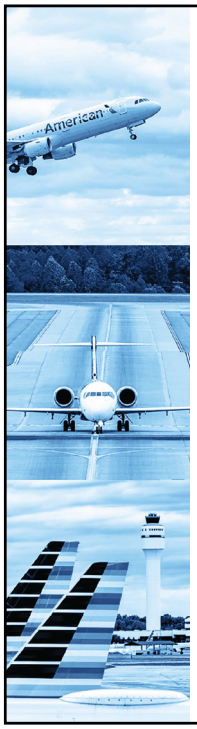


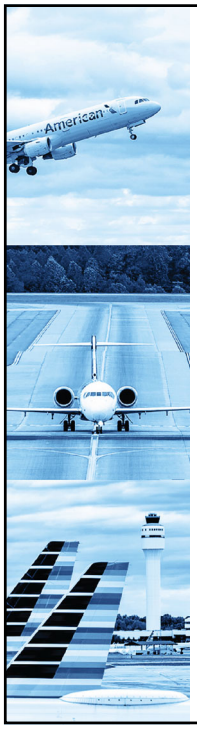
Overview of Data Collected / Input Model

Existing (2022) Operating Levels

Based on FAA Air Traffic Control Tower records for April 2021 through March 2022

Aircraft Category	2022 Existing Operations		
	Actual	Average Annual Day	Percent
Air Carrier & Commuter	499,472	1,368.4	94.9%
General Aviation	25,785	70.6	4.9%
Military	1,197	3.3	0.2%
Total	**526,454**	**1,442.3**	**100.0%**

19



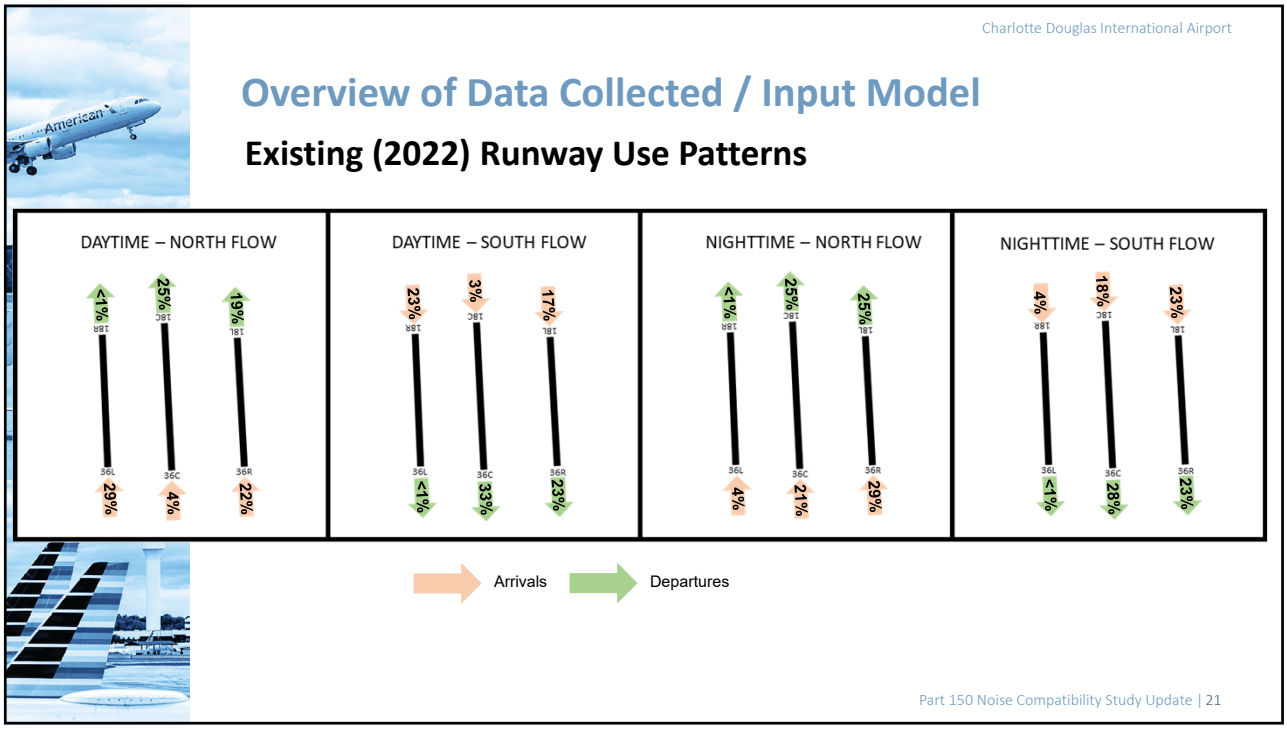
Overview of Data Collected / Input Model

Existing (2022) Fleet Mix

AEDT Airframe Type	Total Daily Operations
Heavy Passenger Jets	
Airbus A350-900 series	0.7
Boeing 777-200-ER	7.6
Subtotal	*8.3*
Large Passenger Jet	
Airbus A319-100 Series	119.4
Airbus A320-200 Series	69.5
Airbus A320-NEO	5.5
Airbus A321-200 Series	192.4
Boeing 717-200 Series	23.8
Boeing 737-700 Series	8.6
Boeing 737-8	2.2
Boeing 737-800	195.4
Boeing 737-900-ER	0.3
Bombardier CRJ-700	4.0
Bombardier CRJ-700-ER	154.6
Bombardier CRJ-900	6.7
Bombardier CRJ-900-ER	283.0
Embraer ERJ170	18.3
Embraer ERJ170-LR	14.5
Embraer ERJ175-LR	78.9
Embraer ERJ190-AR	2.7
Subtotal	*1,179.7*
Regional Jet	
Embraer ERJ135	3.8
Embraer ERJ145-LR	131.9
Subtotal	*135.7*
Cargo Jet	
Airbus A300F4-600 Series	3.3
Boeing 757-200 Series Freighter	2.9
Boeing 767-200 Series Freighter	1.8
Boeing 767-300 ER Freighter	4.6
Boeing MD-11 Freighter	1.4
Subtotal	*14.1*
Commuter / General Aviation Prop	
Cessna 172 Skyhawk	1.5
Pilatus PC-12	6.8
Piper PA-32 Cherokee Six	0.6
Raytheon Super King Air 300	6.2
Subtotal	*15.1*

AEDT Airframe Type	Total Daily Operations
General Aviation Jet	
Bombardier Challenger 300	9.0
Bombardier Challenger 600	2.4
Bombardier Global Express	0.6
Bombardier Learjet 45	0.8
Cessna 550 Citation II	1.0
Cessna 560 Citation Excel	6.7
Cessna 560 Citation V	4.8
Cessna 560 Citation XLS	2.2
Cessna 650 Citation III	0.7
Cessna 680 Citation Sovereign	3.1
Cessna 680-A Citation Latitude	12.0
Cessna 750 Citation X	1.6
Dassault Falcon 2000	4.6
Dassault Falcon 50	0.7
Dassault Falcon 900	4.4
Dassault Falcon 900-EX	1.9
Gulfstream G280	2.9
Gulfstream G400	2.0
Raytheon Beechjet 400	3.5
Raytheon Hawker 800	1.9
Raytheon Premier I	0.8
Cessna 525	2.9
Cessna 525A	1.9
Cessna 525B	2.7
Embraer Phenom 100	0.8
Embraer Phenom 300	4.8
Gulfstream G650	1.4
Gulfstream G-5 Gulfstream 5 / G-5SP Gulfstream G500	1.2
Subtotal	*83.2*
Helicopter	
Agusta A119	0.3
Eurocopter EC-130	2.3
Bell 407 / Rolls-Royce 250-C47B	0.4
Subtotal	*3.0*
Military	
Boeing C17A	3.3
Subtotal	*3.3*
Grand Total	**1,442.3**

20


Charlotte Douglas International Airport
Overview of Data Collected / Input Model
Existing (2022) Runway Use Patterns
DAYTIME – NORTH FLOW
18R <1%
18C 25%
18L 19%
36L 29%
36C 4%
36R 22%
DAYTIME – SOUTH FLOW
18R 23%
18C 3%
18L 17%
36L <1%
36C 33%
36R 23%
NIGHTTIME – NORTH FLOW
18R <1%
18C 25%
18L 25%
36L 4%
36C 21%
36R 29%
NIGHTTIME – SOUTH FLOW
18R 4%
18C 18%
18L 23%
36L <1%
36C 28%
36R 23%
Arrivals
Departures
Part 150 Noise Compatibility Study Update | 21

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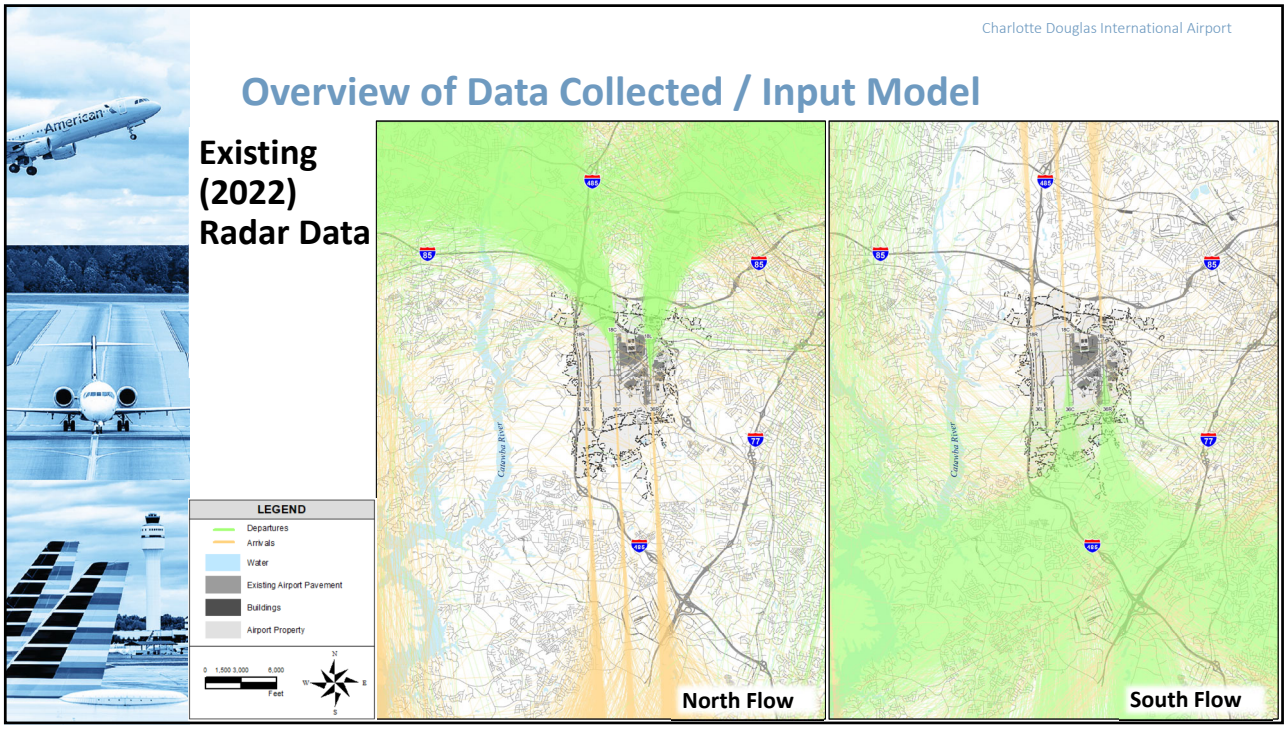
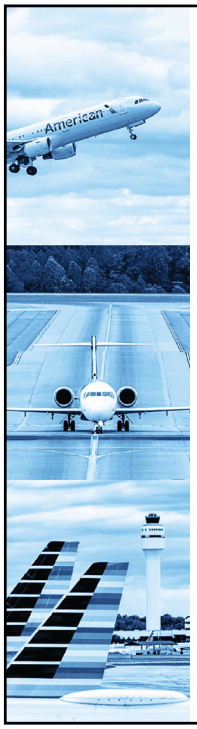
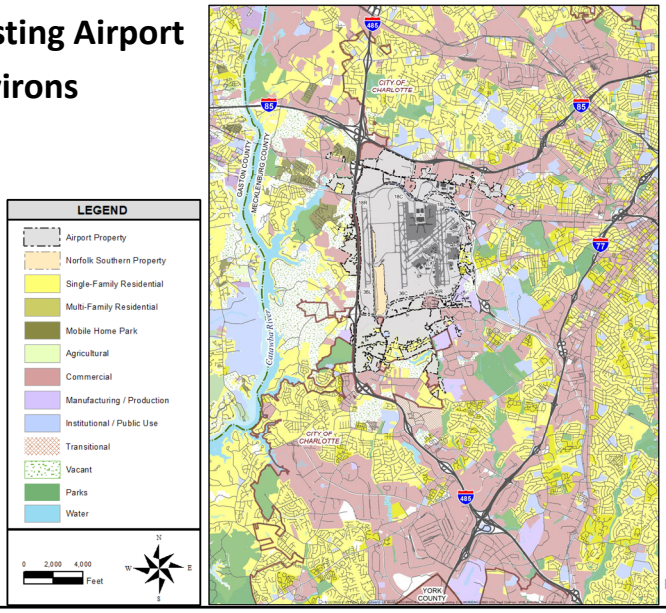

Charlotte Douglas International Airport
Overview of Data Collected / Input Model
Existing (2022) Radar Data
LEGEND
Departures
Arrivals
Water
Existing Airport Pavement
Buildings
Airport Property
North Flow
South Flow

22



Overview of Data Collected / Input Model

Existing Airport Environs



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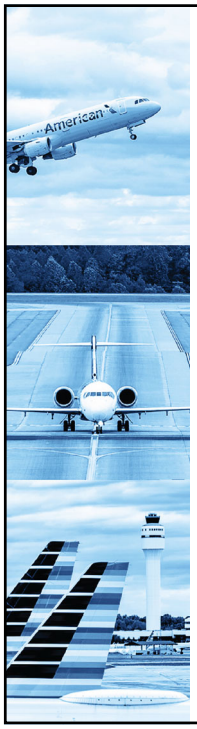
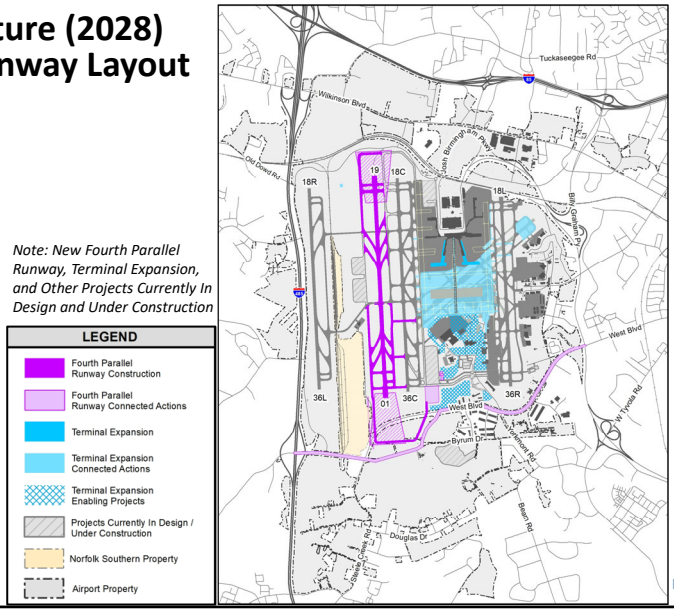


Overview of Data Collected / Input Model

Future (2028) Runway Layout

Note: New Fourth Parallel Runway, Terminal Expansion, and Other Projects Currently In Design and Under Construction



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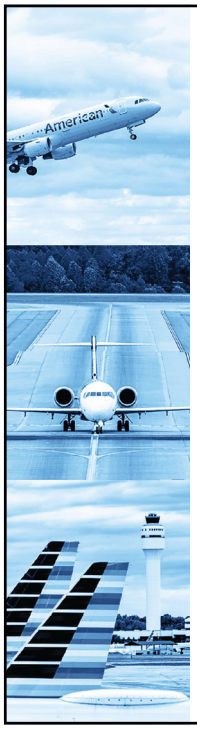


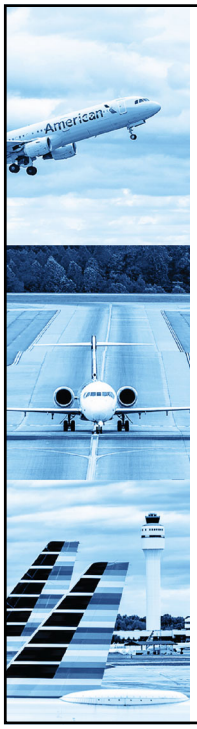
Overview of Data Collected / Input Model

Future (2028) Operating Levels

Based on aviation activity forecast used in the Capacity Enhancement Projects Environmental Assessment (FONSI / ROD issued March 2022).

Aircraft Category	2028 Forecast Operations		
	Forecast	Average Annual Day	Percent
Air Carrier & Commuter	611,620	1,675.7	95.6%
General Aviation	25,487	69.8	4.0%
Military	2,676	7.3	0.4%
Total	**639,783**	**1,752.8**	**100.0%**

25



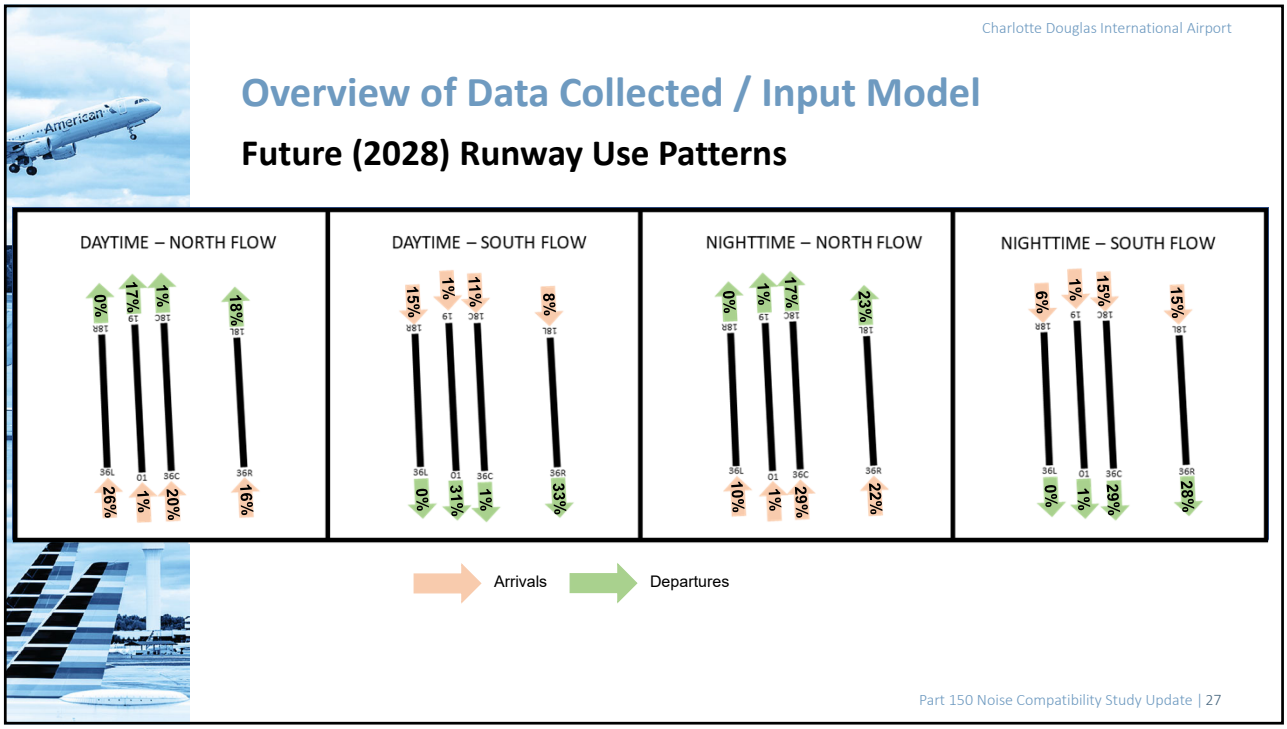
Overview of Data Collected / Input Model

Future (2028) Fleet Mix

AEDT Airframe Type	Total Daily Operations
Heavy Passenger Jets	
Airbus A330-200 Series	7.3
Airbus A350-900 series	1.5
Boeing 787-9 Dreamliner	7.3
Subtotal	*16.0*
Large Passenger Jet	
Airbus A319-100 Series	215.9
Airbus A320-100 Series	24.8
Airbus A320-200 Series	7.3
Airbus A321-200 Series	218.8
Airbus A321-NEO	42.3
Boeing 717-200 Series	10.2
Boeing 737 MAX 7	1.5
Boeing 737 MAX 8	55.4
Boeing 737 MAX 9	2.9
Boeing 737-700 Series	11.7
Boeing 737-800 Series	16.0
Boeing MD-90	2.9
Bombardier CRJ-700-ER	249.5
Bombardier CRJ-700-LR	2.9
Bombardier CRJ-900-ER	319.5
Embraer ERJ170	7.3
Embraer ERJ175	93.4
Embraer ERJ190-AR	11.7
Subtotal	*1,294.0*
Regional Jet	
Bombardier Challenger 300	10.1
Bombardier CRJ-200-LR	236.3
Bombardier Global Express	7.0
Bombardier Learjet 45	10.7
Cessna 525 Citation Jet	5.4
Cessna 560 Citation XLS	5.4
Cessna 750 Citation X	16.1
Dassault Falcon 2000	14.9
Dassault Falcon 50	7.0
Dornier 328 Jet	5.4
Embraer 505	21.5
Subtotal	*355.7*
Cargo Jet	
Airbus A300F4-600 Series	9.6
Boeing MD-10-1 Freighter	1.6
Subtotal	*11.2*

AEDT Airframe Type	Total Daily Operations
Commuter / Cargo Prop	
Embraer EMB120 Brasilia	10.7
Raytheon Super King Air 300	5.4
Subtotal	*16.1*
General Aviation Jet	
Bombardier Challenger 600	1.6
Bombardier Learjet 60	1.6
Cessna 525A Citation Jet	1.6
Cessna 525B Citation Jet	1.6
Cessna 550 Citation II	3.2
Cessna 560 Citation Excel	4.9
Cessna 560 Citation V	4.8
Dassault Falcon 900	1.6
Gulfstream G150	1.6
Gulfstream G200	1.6
Gulfstream G280	3.2
Gulfstream G500	1.6
Gulfstream G650	1.6
Subtotal	*30.3*
General Aviation Prop	
Cessna 303 Crusader (FAS)	1.6
Cirrus SR22	1.6
DAHER TBM 900/930	1.6
Pilatus PC-12	9.5
Raytheon Beech Baron 58	1.6
Raytheon King Air 90	1.6
SOCATA TBM 850	1.6
Subtotal	*19.0*
Helicopter	
Agusta A119	0.3
Eurocopter EC-130	2.3
Bell 407/Rolls-Royce 250-C47B	0.4
Subtotal	*3.0*
Military	
Boeing C17A	7.3
Subtotal	*7.3*
Grand Total	**1,752.8**

26


Charlotte Douglas International Airport
Overview of Data Collected / Input Model
Future (2028) Runway Use Patterns
DAYTIME – NORTH FLOW
0%
17%
1%
18%
26%
1%
20%
16%
DAYTIME – SOUTH FLOW
15%
1%
11%
8%
0%
31%
1%
33%
NIGHTTIME – NORTH FLOW
0%
1%
17%
23%
10%
1%
29%
22%
NIGHTTIME – SOUTH FLOW
6%
1%
15%
15%
0%
1%
29%
28%
Arrivals
Departures
Part 150 Noise Compatibility Study Update | 27

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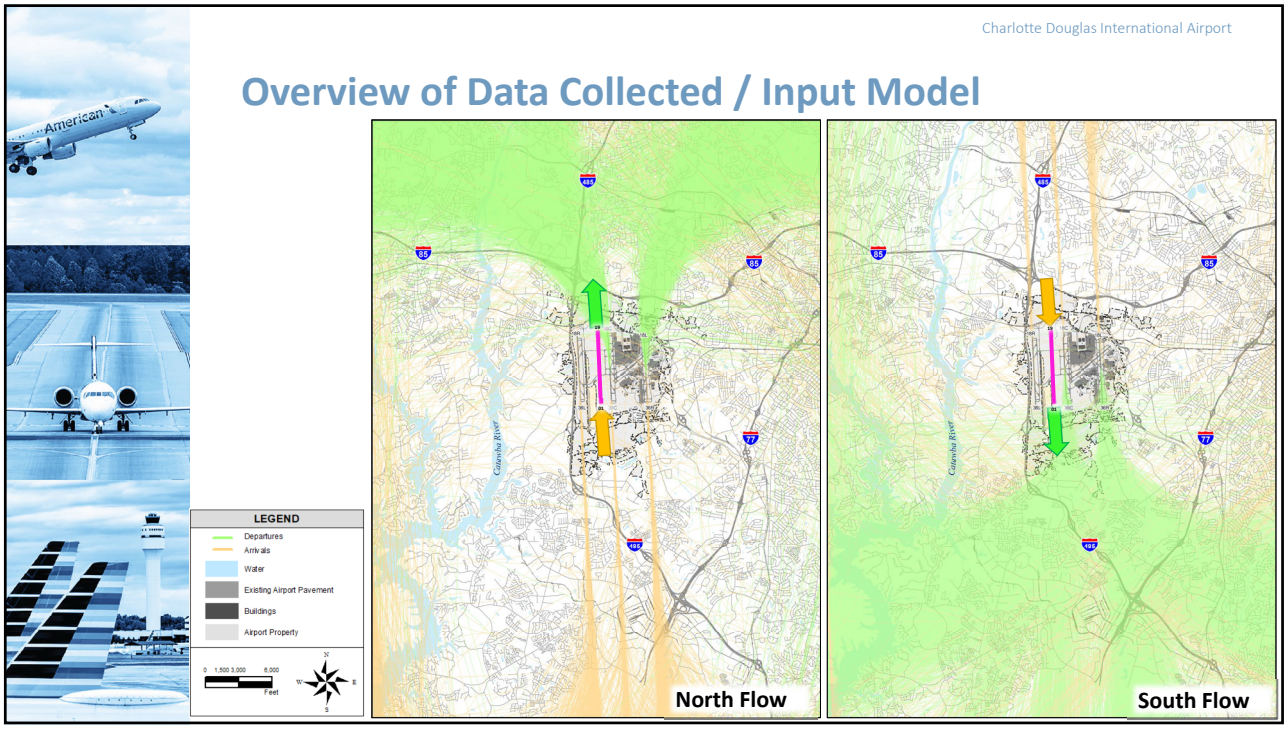
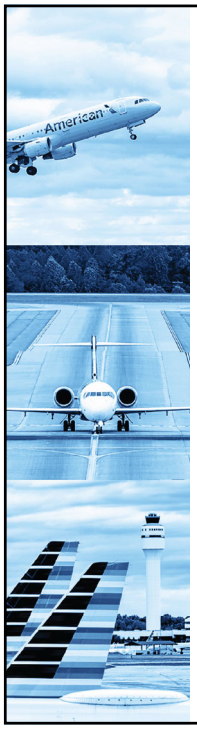

Charlotte Douglas International Airport
Overview of Data Collected / Input Model
LEGEND
Departures
Arrivals
Water
Existing Airport Pavement
Buildings
Airport Property
North Flow
South Flow

28

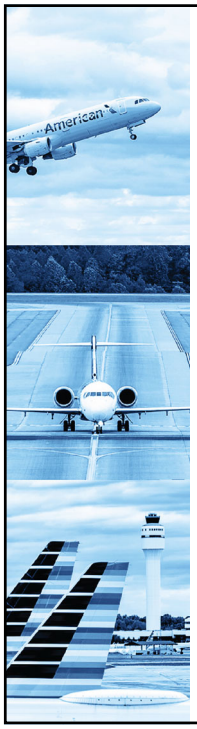


Overview of Data Collected / Input Model

Noise Monitoring Program

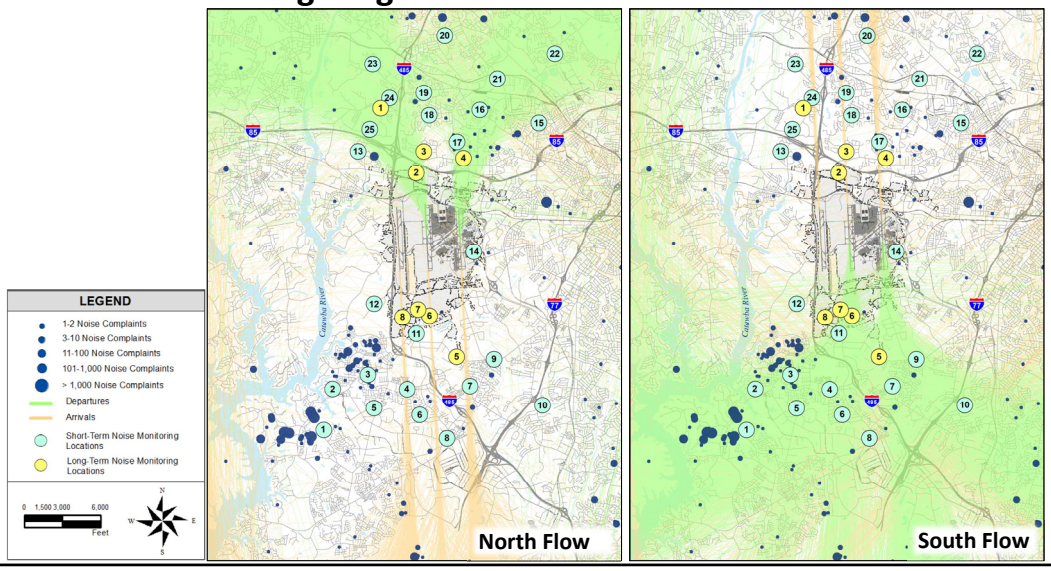
- Purpose
  - Validate/verify the input data in the AEDT (focus on departures)
  - Obtain "real-life" noise measurements to assist in understanding the total noise environment
- Collect noise readings at short-term and long-term sites
  - Sites selected to provide wide coverage within residential areas and areas of noise complaints
  - Preference given to sites monitored for the Capacity EA
- To be conducted for one week in Fall 2022

29



Overview of Data Collected / Input Model

Noise Monitoring Program



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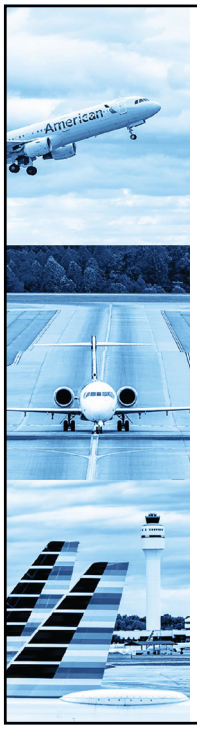


Current Procedures and Measures

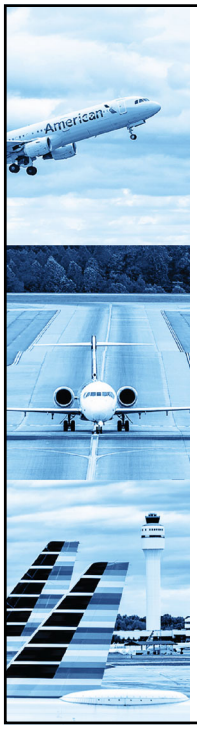
Types of Noise Compatibility Measures

1. Noise Abatement Measures

Measures to control noise at the source (i.e. aircraft)

- Flight location (e.g., departure flight corridors)
- Runway use program (e.g., how often runway ends are used)
- Ground activity restrictions (e.g., run-up locations/time)
- Facility modifications (e.g., runway extensions, berms)
- Flight management (e.g., mandatory curfews / restrictions)

31



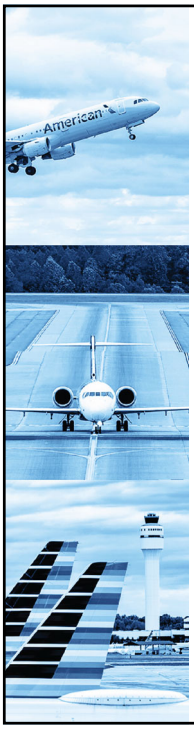
Current Procedures and Measures

Types of Noise Compatibility Measures

2. Land Use Measures

Preventive Strategies	Corrective Strategies
• **Prevent** the introduction of additional noise-sensitive land uses within existing and future noise exposure contours • May also be applicable outside of the 65 DNL noise contour • Examples: ✓Zoning Codes ✓Subdivision Regulations ✓Airport Environs Overlay Zone	• **Mitigate** existing and projected future unavoidable noise impacts in areas of existing incompatible land use • Applicable to 65+ DNL noise contour • Examples ✓Property acquisition ✓Sound Insulation ✓Avigation Easements

32



Current Procedures and Measures

Types of Noise Compatibility Measures

3. Implementation Measures

Measures designed to assist with the implementation and management of the Noise Compatibility Program (NCP)

- Noise Program Office and Staff Support
- Flight tracking / Noise Monitoring System
- Focus Groups / Roundtables
- Periodic Review / Update to the Program

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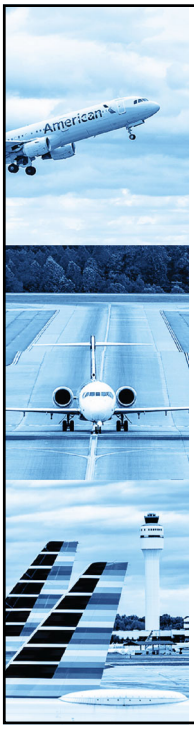
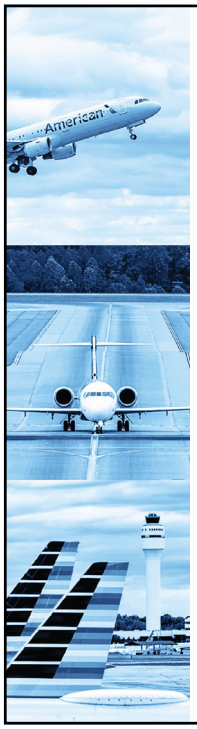


Current Procedures and Measures

What is Currently Included in CLT's Part 150 Program?

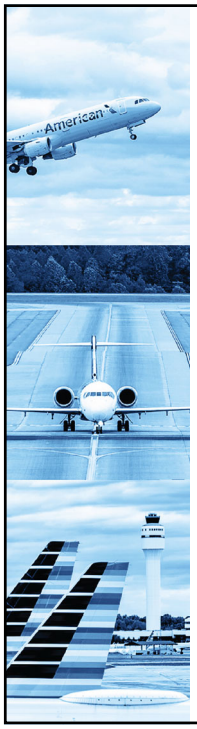
- **Current CLT Noise Abatement Measures**
  - Nine measures that address monitoring, reporting, designating certain runways for different times of day, and prescribing certain flight patterns
- **Current CLT Land Use Control Measures**
  - Nine measures that promote compatible land use planning, disclosures to the public
- **Current CLT Land Use Mitigation Measures**
  - Nine measures that provide mitigation for homes and other noise sensitive uses within the 65 DNL (sound insulation, acquisition, purchase assurance, and easements)

34



Questions & Answers

35

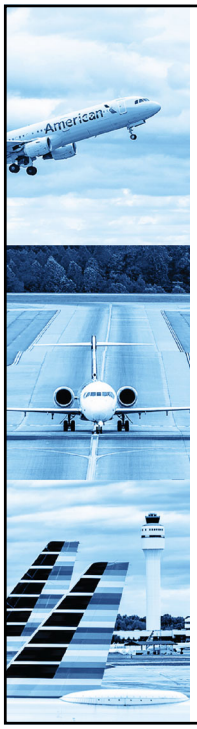


Group Discussion

Question #1:

What issues / concerns do you have related to airport noise compatibility?

36

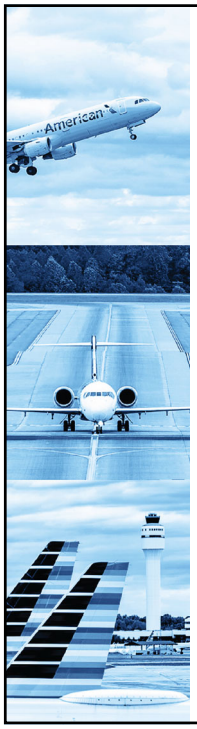


Group Discussion

Question #2:

The TAC includes representatives from airport users, planning and zoning officials, and ACR. Is there anyone else you would recommend be included? If so, who?

37

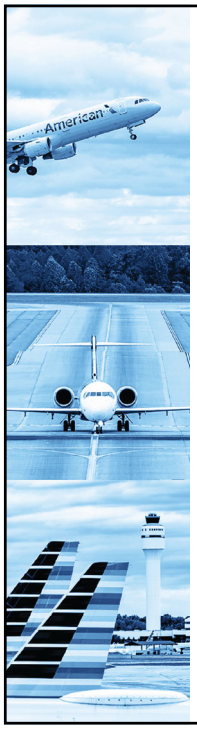


Group Discussion

Question #3:

Does your organization have any data that might be helpful to this study – e.g. growth projections, proposed developments in the area? If so, what?

38

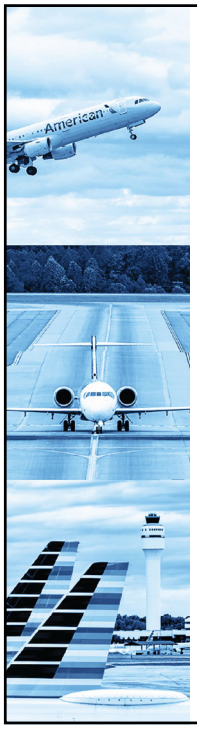


Group Discussion

Question #4:

How can you help get the word out when we are ready to promote public meetings?

39

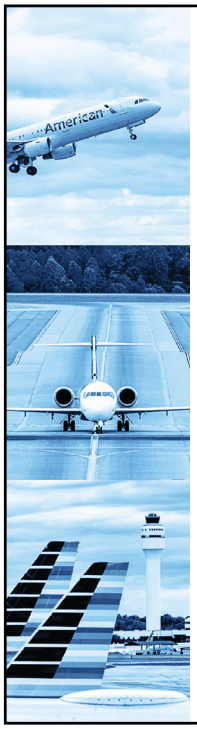


Group Discussion

Question #5:

Any questions regarding the proposed noise monitoring program?

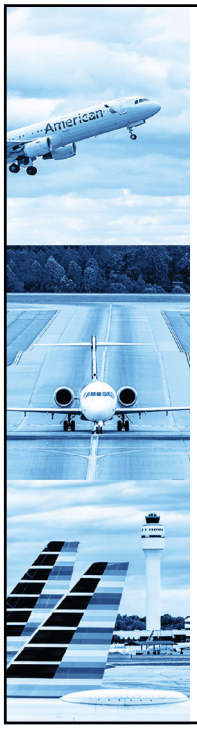
40



Group Discussion

Other Questions or Comments to aid this process

41



Next Steps / Schedule

Complete review of Noise Measurement Data

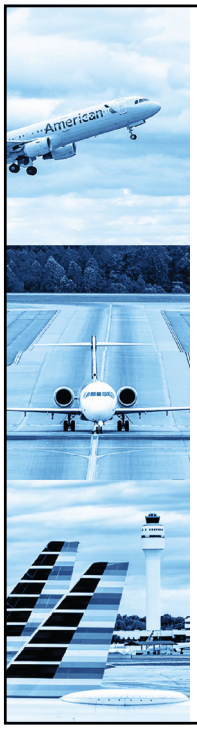
Prepare the Existing and Future Noise Exposure Contours

Identify Preliminary Noise Abatement, Land Use Management, and Implementation Alternatives

Analysis and discussion of potential alternatives

Next TAC Meeting – Winter 2022/2023

42



Next Steps / Schedule

May 2022
Project Kickoff

2022–2023
Technical Work

Fall 2023
Final Recommendations

First Public Workshops
Fall 2022

Release of Draft Findings
Spring/Summer 2023

FAA Review & Approval
End of 2023 / Start of 2024

Technical Advisory Committee Meeting #2
March 22, 2023

Meeting Invitations

Sign-in Sheet

Presentation

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February 27, 2023

To Whom It May Concern,

The City of Charlotte is conducting a Part 150 Study Update is to develop a balanced and cost-effective plan to reduce current noise impacts, where practical, and to limit the potential for future noise impacts. We are writing to ask for your participation on the second meeting of the Technical Advisory Committee (TAC) formed as part of the Part 150 Study Update. The TAC consists of airport users and tenants; Federal Aviation Administration (FAA) representatives; representatives of the Airport Community Roundtable (ACR); local planning organizations; and Airport staff. The TAC will review study findings, comment on study recommendations before they are presented to the public at-large and will participate in discussions related to aircraft noise issues.

The second meeting of the TAC is scheduled for **Wednesday, March 22, 2023** from 1:30 pm to 3:00 pm. It will be held in the Ash Conference Room at the Harris Conference Center at Central Piedmont Community College, 3216 CPCC Harris Campus Drive, Charlotte, NC 28208 . TAC members will receive a meeting agenda and other pertinent material in advance of the meeting.

We value and look forward to your input and participation in this process. Please RSVP by March 9, 2023 with whether or not you accept this invitation and wish to participate in the TAC. Contact Gaby Elizondo via phone at (513) 530-1205 or gaby.elizondo@landrumbrown.com to submit your RSVP or with any questions.

Sincerely,

Haley Gentry
Chief Executive Officer

PO Box 19066
Charlotte, NC 28219
P. 704.359.4000
cltairport.com

INVITATION LIST

TECHNICAL ADVISORY COMMITTEE MEETING #2

REPRESENTING	NAME
Charlotte Mecklenburg Police Department, Aviation Unit	Kenneth Anderson
City of Charlotte City Council	Victoria Watlington
City of Charlotte Planning, Design, and Development Department	Alan Goodwin
	Alberto Gonzales
	Alyson Craig
Aircraft Owners and Pilots Association	Chris Hudson - Mid-Atlantic Rep
	Mike Flilucci
	Stacey Heaton
Airport Community Roundtable	Natalie Rutzell (Chair)
	Phillip Gussman (Co-chair)
HMMH	Gene Reindel
Federal Aviation Administration, Air Traffic Division	Anthony Limon
	Mark Libby
Federal Aviation Administration, Airports Division	Jamal Stovall
	Lopa Naik
	Peggy Kelley
National Air Traffic Controller Association	Anthony Schifano
	Chris Riddle
ABX Air	Andy McAviney
Air Canada	Kevin Oliphant
	Ronald Todd
	Sara Whitley
	Victor Toala
American Airlines	Bob Berlucchi
	Michael Wanner
	Ryan Jorgenson
	Scott Pressley
	Steven Holt
	Tracy Montross
	Wes Googe
Delta Air Lines	Jose Fernandez
	Keith Fidler
FedEx	Daniel Allen
	Jason Fricke
Frontier Airlines	Ben Booker
JetBlue	Matt Detcher
Lufthansa	Rikard Hinrichs
Southwest Airlines	George Hodgson
	Lawrence Turner
Spirit Airlines	Garry Jones
United Airlines	Mike Acosta
	Rob Galbraith
	Vinnie Pestrichella
UPS	Danny Ndingwan
	Seth Garrett
USAF 145th Airlift Wing	James R. Eaton II
	Jayce Bass
Wilson Air (FBO)	Vince Papke

CLT Part 150 Study Update

Technical Advisory Committee, Meeting #2

March 22, 2023, 1:30 p.m.

SIGN-IN SHEET – PLEASE PRINT

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Tommy Dupree	FAA	901-322-8181	tommy.dupree@faa.gov
Chris Riddle	FAA	704 421 5597	crnatca@gmail.com
Gene Reindel	HMMH	339 234 2035	ereindel@hmmh.com
STUART HAAR	CLT	7-280-0223	STUART.HAAR@CLTAIRPORT.COM
Jayce Bass	NCANG	704-813-1094	jayce.bass@us.af.mil
Natalie Rutzell	ACR	980-307-0093	nrutzell@gmail.com
Kevin Hennessey	CLT	704 359 4008	Kevin.hennessey@cltairport.com
Tony Limon	FAA	754 717 1272	Anthony.Limon@FAA.GOV
JACK CHRISTINE	CLT	704-359-4932	
MIKE WANNER	AA	904.347.5836	MIKE.WANNER@AA.COM
Jude Starrett	CLT	980-364-3240	jude.starrett@cltairport.com
Tracy Montross	AA	704-808-9278	tracy.montross@aa.com
Ryan Jorgenson	AA	614-264-1560	ryan.jorgenson@aa.com

CLT Part 150 Study Update

Technical Advisory Committee, Meeting #2

March 22, 2023, 1:30 p.m.

SIGN-IN SHEET – PLEASE PRINT

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Anthony Schifano	NATCA | FAA	317-698-1431	ASCHIFANO20@GMAIL.COM
Dan Gard	CLT	980-257-1382	~~dgard~~ daniel.gard@cltairport.com

CLT Part 150 Study Update

Technical Advisory Committee, Meeting #2

March 22, 2023, 1:30 p.m.

SIGN-IN SHEET – PLEASE PRINT

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Peggy S. Kelley	FAA MEM-ADO	901-322-8286	peggy.kelley@faa.gov

Part 150 Noise Compatibility Study Update

Welcome to the *Technical Advisory Committee Meeting #2*

Wednesday, March 22, 2023

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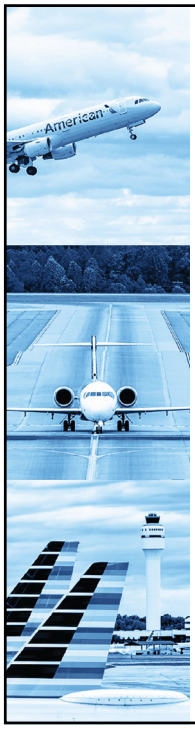
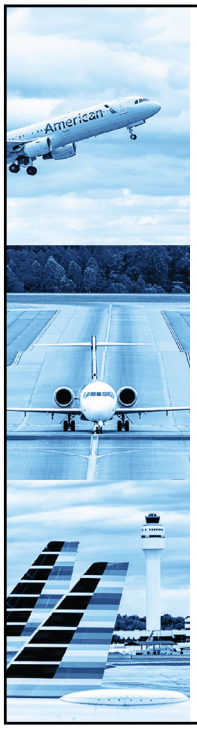


Agenda

- Welcome and Introductions
- Summary of Part 150 Study Update Process
- Noise Monitoring Program
- Baseline Noise Exposure
- Current Noise Compatibility Program Measures
- Preliminary Noise Abatement Measures
- Next Steps / Schedule

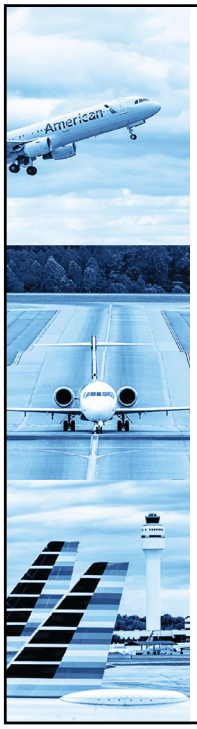
2



Welcome and Introductions

- Charlotte Douglas International Airport
  - Sponsor of the CLT Part 150 Study Update
  - Team: Amber Perry, Mike Pilarski, Kevin Hennessey, Dan Gardon
- Consultant Team
  - Landrum & Brown is the lead consultant
  - 70 years of aviation planning
  - Experts in aircraft noise and land use planning
- Federal Aviation Administration
  - Developed guidelines for Part 150 that must be followed
  - Review NEMs for accuracy and determination that guidelines were met
  - Review recommendations for consistency with Part 150 guidelines

3



Summary of Part 150 Study Update Process

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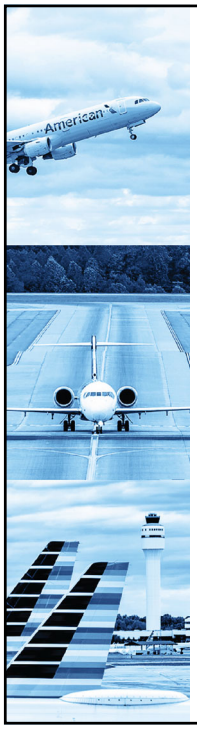

Part 150 Study Update – Primary Elements

- **Noise Exposure Maps:**
  - Description of the noise levels for existing and future (+5 years) conditions
  - Existing conditions
    - Last 12 months of activity
    - April 2021 through March 2022
  - Future conditions (2028)
    - Takes into account physical and operational changes
    - Physical changes include: new runway, runway threshold relocation, etc
    - Operational changes include: aircraft operating levels, fleet mix, new flight tracks, new destinations

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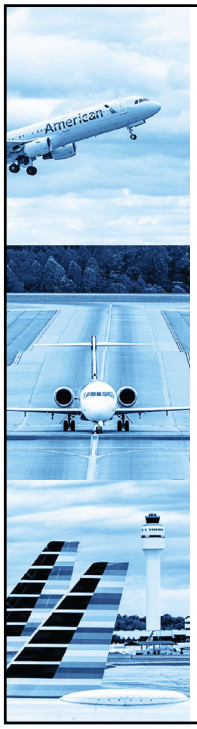

Part 150 Study Update – Primary Elements

- **Noise Compatibility Program:**
  - Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
    - Noise Abatement
    - Land Use Mitigation
    - Implementation Measures
  - May reflect short-term and long-term time periods
    - Short term – pre-runway opening (before 2028)
    - Long term – post-runway opening (after 2028)

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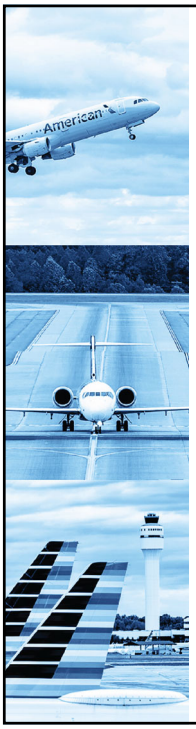
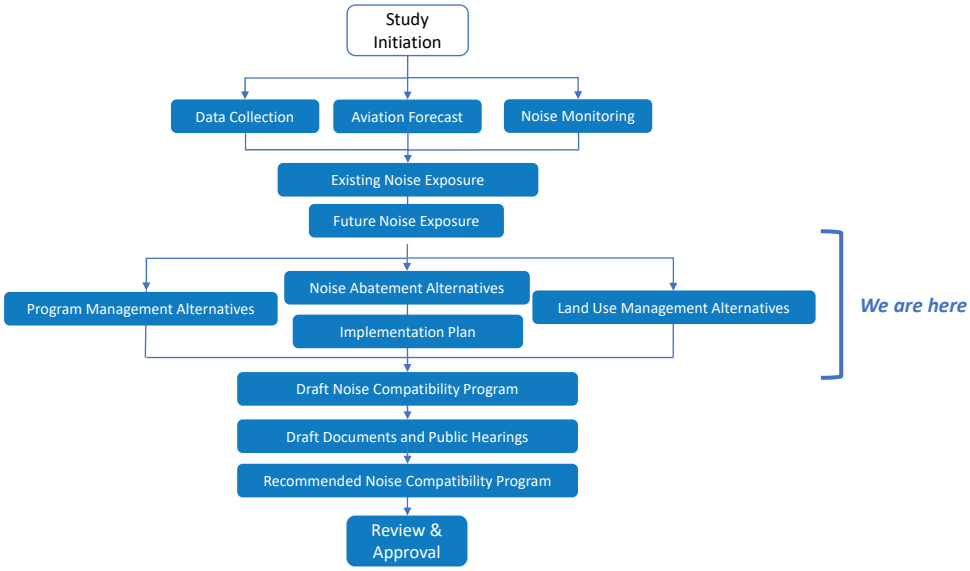


Part 150 Noise Compatibility Study Update Process



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Part 150 Noise Compatibility Study Update Process

Part 150 Task and Subtasks	2022								2023												2024			
	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Mar
Project Kick-Off and Data Collection	■	■																						
Review Aviation Demand Forecasts	■	■	■																					
Conduct Noise Monitoring				■	■	■																		
Existing Noise Exposure			■	■	■	■																		
Future Noise Exposure Map						■	■																	
Noise Abatement Alternatives							■	■	■	■	■	■	■											
Land Use Alternatives											■	■	■	■	■	■								
Noise Compatibility Program																■	■	■	■					
Draft Part 150 Report and Public Hearing																			■	■	■			
Part 150 NCP Adoption by City																						■		
Prepare and Submit Final Part 150 NCP to FAA																						■	■ ★	
FAA Record of Approval *(Summer 2024)*																								
Meetings and Coordination																								
Technical Advisory Committee Meetings					①						②						③					④		
Public Information Meetings											①						②					③		
Public Hearing/Responses																						★		

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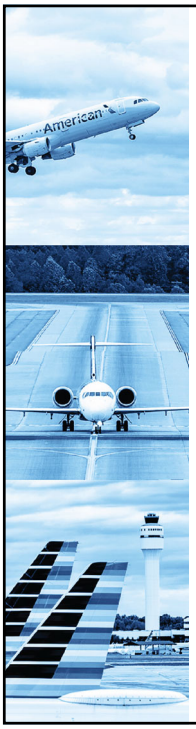

Role of the Technical Advisory Committee

Role of the Technical Advisory Committee (TAC)

- Sounding Board
- Link to the Community
- Technical Review
- Aid to Implementation

TAC Meeting Schedule

- Meeting #1 – September 2022
- **Meeting #2 – Spring 2023**
  - Review preliminary noise exposure maps, results of noise measurement program, and preliminary noise abatement alternatives
- Meeting #3 – Summer/Fall 2023
  - Analysis of noise abatement measures
- Meeting #4 – Winter 2023/2024
  - Review Draft Noise Compatibility Program

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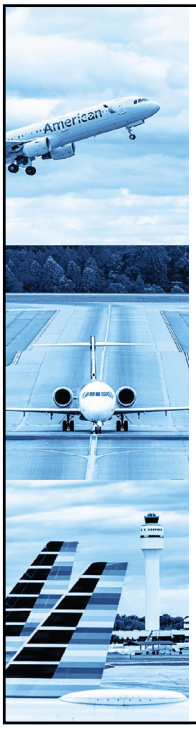

Noise Monitoring Program

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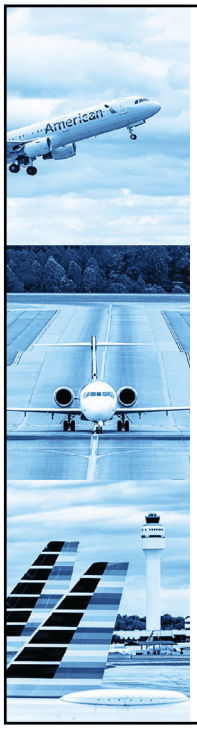

Noise Monitoring Program

- Purpose:
  - Validate and verify the input data in the AEDT
  - Obtain "real-life" noise measurements to assist in understanding the total noise environment
- Conducted from October 4, 2022 to October 10, 2022
- Long-Term Sites
  - Conducted at 8 sites for five continuous days
  - Sites were selected based on location along flight corridors, property access, and avoidance of high background noise levels
- Short-Term Sites
  - Conducted at 20 sites for about an hour at each site
  - Sites were selected to provide additional sampling within residential areas and near public facilities
- Provided a sample of single events for comparison to AEDT input data

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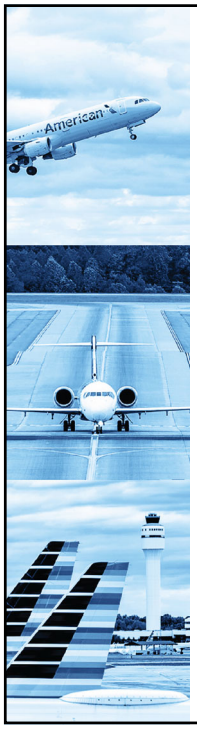
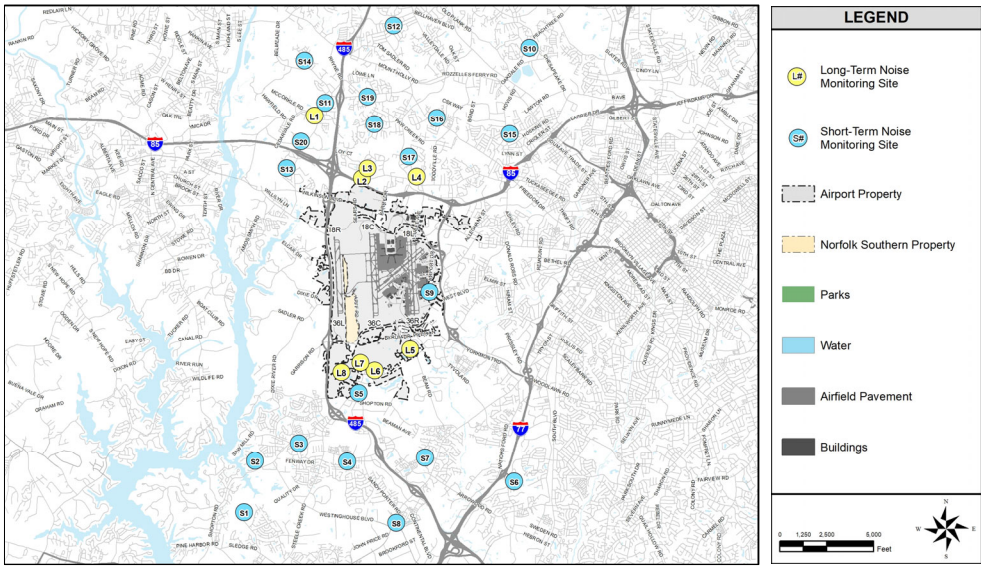


Noise Monitoring Sites



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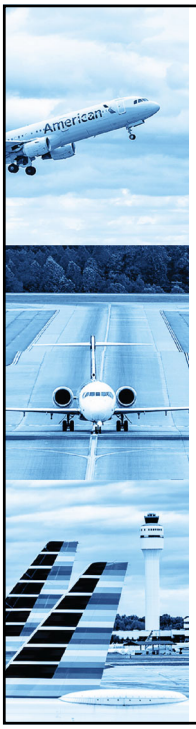

Noise Monitoring Program Results

LONG-TERM SITE RESULTS:

- Results showed that the AEDT profiles were consistent with actual conditions

SHORT-TERM SITE RESULTS:

SITE ID	SITE DESCRIPTION	DATE	TIME OF MEASUREMENT	TYPE OF EVENT	# EVENTS	LOUDEST AIRCRAFT
1	Winget Park	10/6/2022	3:42 pm to 4:18 pm	Departures	11	B737
2	River Cabin Lane	10/6/2022	5:45 pm to 6:32 pm	Departures	19	A319
3	Berewick Commons Parkway near Loch Lomond Drive	10/6/2022	4:46 pm to 5:24 pm	Departures	27	A320
4	Griers Fork Drive & Brown Grier Rd	10/10/2022	1:59 pm to 2:51 pm	Arrivals	15	A321
5	Gerald Drive at Sullivan Trace Drive	10/6/2022	9:21 am to 10:08 am	Arrivals	34	A319
6	Treetops Apartments	10/6/2022	2:37 pm to 3:12 pm	Departures	15	B737
7	Thornfield Road west end cul-de-sac	10/11/2022	8:33 am to 9:18 am	Arrivals	5	B737
8	Central Steele Creek Church	10/5/2022	9:06 am to 9:49 am	Arrivals	30	CRJ9
9	Harvest Center Church	10/6/2022	10:46 am to 11:46 am	Departures	30	A321
10	Peachtree Road & Emmanuel Drive	10/10/2022	12:40 pm to 13:27 pm	Departures	13	A321
11	Prairiegrouse Lane	10/4/2022	10:12 pm to 11:12 pm	Departures	11	A306
12	Coulwood Drive & Fielding Road	10/11/2022	10:29 am to 10:55 am	Departures	7	CRJ9
13	Community west of Sam Wilson Road on Farrhill Road	10/5/2022	5:55 pm to 6:37 pm	Departures	16	CRJ9
14	Verde Creek Road west of San Gabriel Avenue	10/5/2022	11:12 am to 11:53 am	Departures	25	B737
15	Chappell Baptist Church	10/5/2022	3:36 pm to 4:49 pm	Departures	13	A320
16	Eagles Landing Drive	10/4/2022	9:05 am to 10:05 am	Departures	3	B757
17	Still Pond Court	10/5/2022 10/6/2022	7:09 pm to 8:03 pm 1:19 pm to 1:51 pm	Departures Arrivals	23 11	B737 B737
18	Cabe Lane	10/5/2022	2:35 pm to 3:33 pm	Departures	22	A321
19	St Johns Chapel Baptist Church	10/10/2022	4:23 pm to 5:24 pm	Departures	55	B777
20	Taimi Drive	10/5/2022	4:51 pm to 5:32 pm	Departures	25	A321

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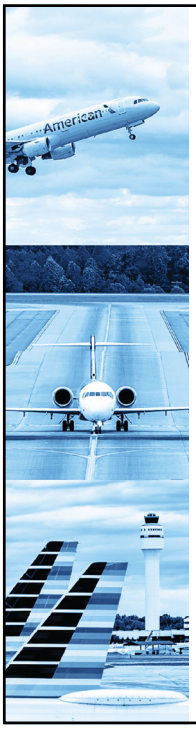

Baseline Noise Exposure

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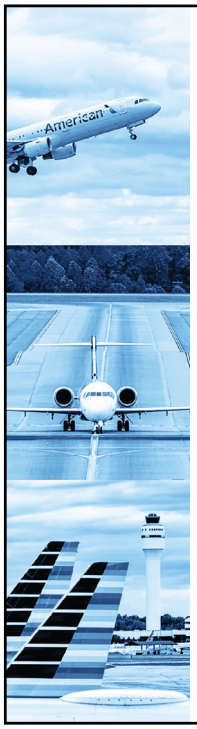
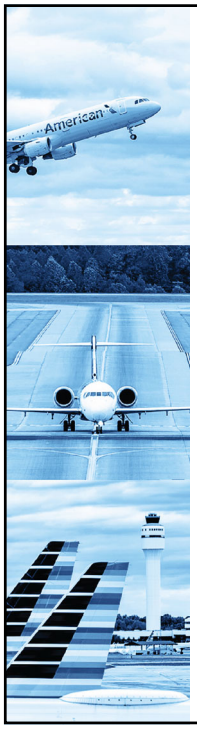


Overview of Data Collected / Input Model

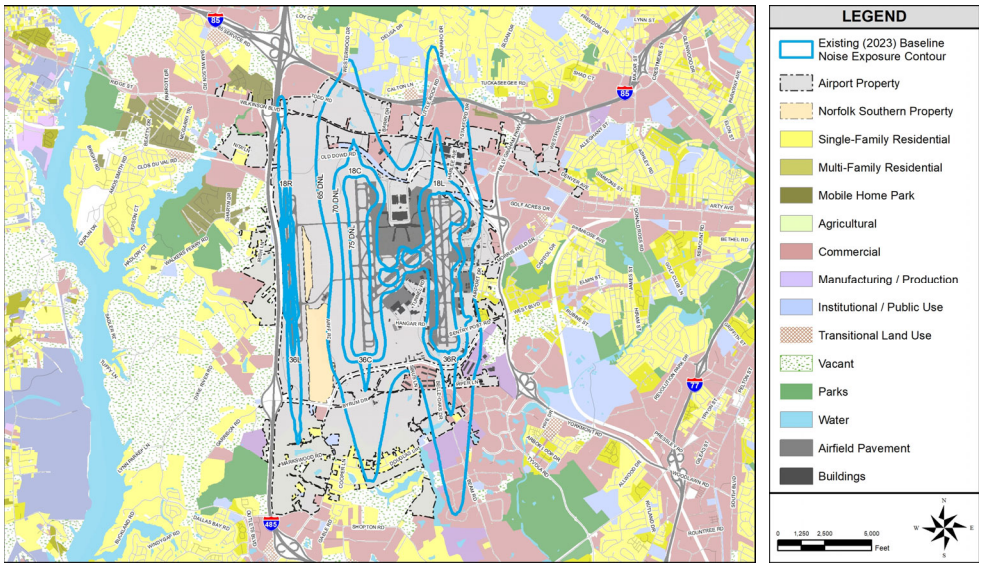
Technical Requirements

- Represents an annual-average day (1 year of operations/365 days)
- Described with a set of continuous lines that represent equal levels of noise
- Prepared using the FAA's Airport Environmental Design Tool (AEDT) Version 3e
- Must use specific noise metric: Day-Night Average Sound Level (DNL)
  - National standard for all Federal agencies
  - DNL represents 24-hour average noise level
  - Penalty for nighttime (10:00 p.m. - 6:59 a.m.) flights (x 10)
  - 65 DNL identified as threshold for impact to noise sensitive land uses

15



Existing (2023) Baseline Noise Exposure Contour



DRAFT – Deliberative Material

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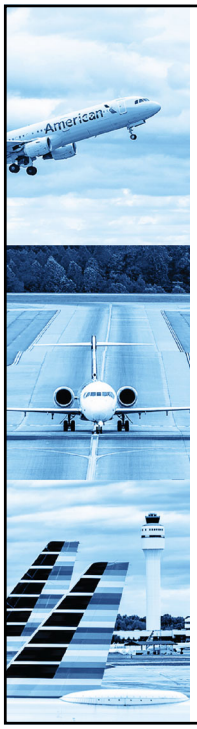

Existing (2023) Baseline Land Use Incompatibilities

	65-<70 DNL	70-<75 DNL	75+ DNL	65+ DNL
HOUSING UNITS				
Housing Type				
Single-Family	51	0	0	51
Multi-Family	90	0	0	90
Manufactured Home	1	0	0	1
Total Housing Units	**142**	**0**	**0**	**142**
POPULATION				
Total Population[1]	**412**	**0**	**0**	**412**
NOISE-SENSITIVE FACILITIES				
Schools / Daycares	3	0	0	3
Churches / Places of Worship	4	0	0	4
Libraries	0	0	0	0
Hospitals	0	0	0	0
Nursing Homes	0	0	0	0
Outdoor Music / Amphitheaters	0	0	0	0
Other Uses[2]	n/a	0	0	0
Total Noise-Sensitive Facilities	**7**	**0**	**0**	**7**

Notes: 1. Total population estimated based upon the housing counts multiplied by the 2010 Census average household size for each Census Block Group.
2. Other uses that are considered noise-sensitive at or above 70 DNL include sports arenas, zoos, nature exhibits, amusement parks, camps, resorts, golf courses, stables, and office or publicly accessible portions of commercial or manufacturing facilities

Source: Landrum & Brown, 2023

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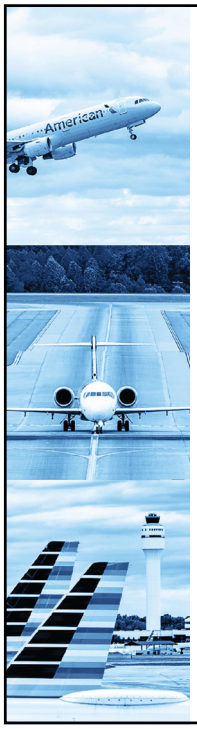
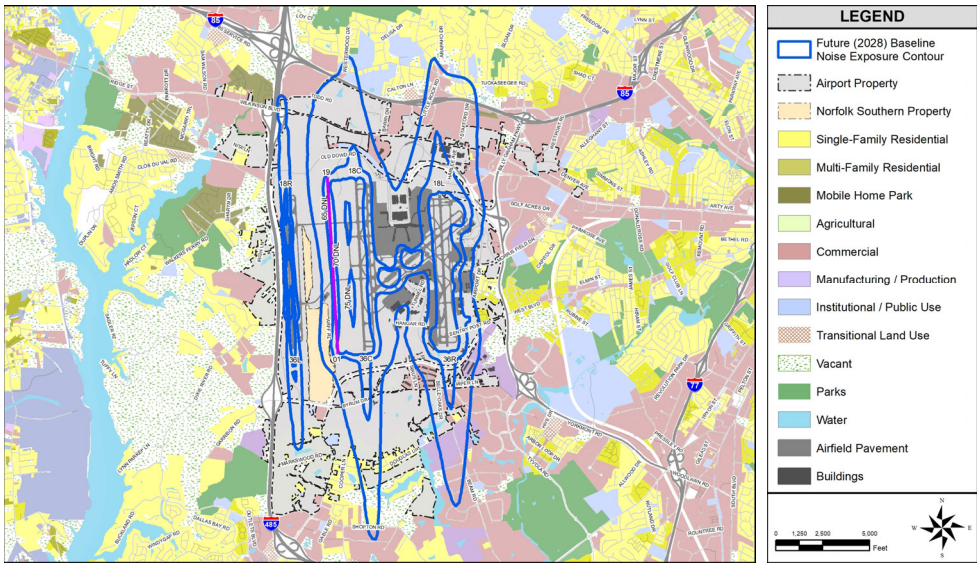


Future (2028) Baseline Noise Exposure Contour



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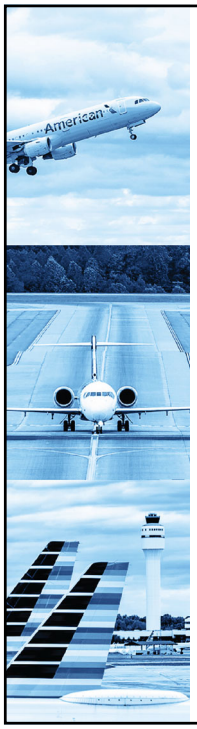


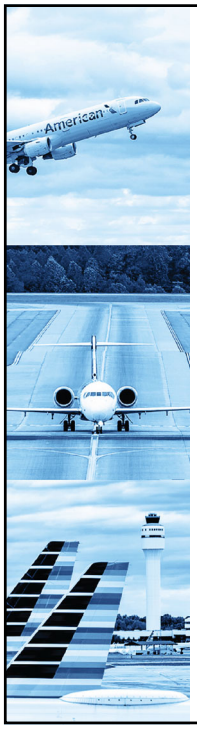
Future (2028) Baseline Land Use Incompatibilities

	65-<70 DNL	70-<75 DNL	75+ DNL	65+ DNL
	HOUSING UNITS			
Housing Type				
Single-Family	85	0	0	85
Multi-Family	96	0	0	96
Manufactured Home	63	0	0	63
Total Housing Units	**244**	**0**	**0**	**244**
	POPULATION			
Total Population[1]	**675**	**0**	**0**	**675**
	NOISE-SENSITIVE FACILITIES			
Schools / Day Cares	4	0	0	4
Churches / Places of Worship	4	0	0	4
Libraries	0	0	0	0
Hospitals	0	0	0	0
Nursing Homes	0	0	0	0
Outdoor Music / Amphitheaters	0	0	0	0
Other Uses[2]	n/a	0	0	0
Total Noise-Sensitive Facilities	**8**	**0**	**0**	**8**

Notes: 1. Total population estimated based upon the housing counts multiplied by the 2010 Census average household size for each Census Block Group.
2. Other uses that are considered noise-sensitive at or above 70 DNL include sports arenas, zoos, nature exhibits, amusement parks, camps, resorts, golf courses, stables, and office or publicly accessible portions of commercial or manufacturing facilities

Source: Landrum & Brown, 2023

19



Current Noise Compatibility Program Measures

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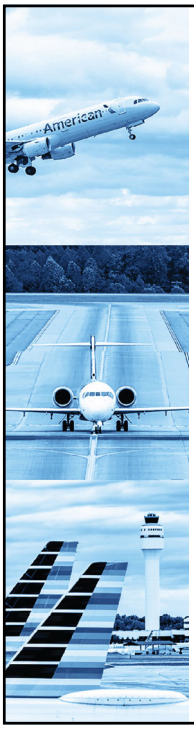

Current Procedures and Measures

What is Currently Included in CLT's Part 150 Program?

- **Current CLT Noise Abatement Measures**
  - Nine measures that address monitoring, reporting, designating certain runways for different times of day, and prescribing certain flight patterns
- **Current CLT Land Use Control Measures**
  - Nine measures that promote compatible land use planning, disclosures to the public
- **Current CLT Land Use Mitigation Measures**
  - Nine measures that provide mitigation for homes and other noise sensitive uses within the 65 DNL (sound insulation, acquisition, purchase assurance, and easements)

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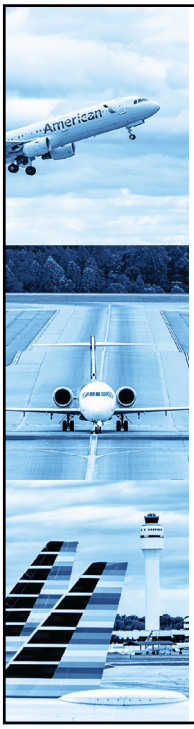

Preliminary Noise Abatement Alternatives

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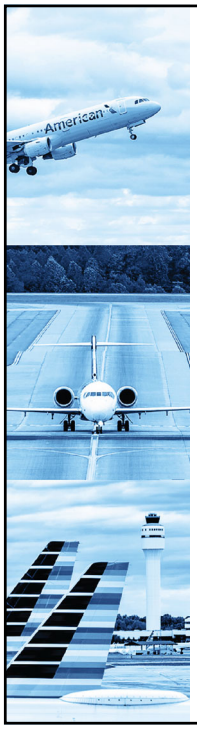


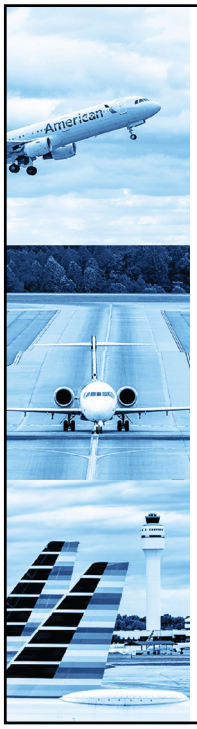
Proposed Preliminary Noise Abatement Alternatives

Facility Modifications
(e.g. run-up locations, runway extensions, etc)

Flight Procedures
(e.g., departure flight corridors, etc)

Preferential Runway Use
(e.g., how often runway ends are used, etc.)

23

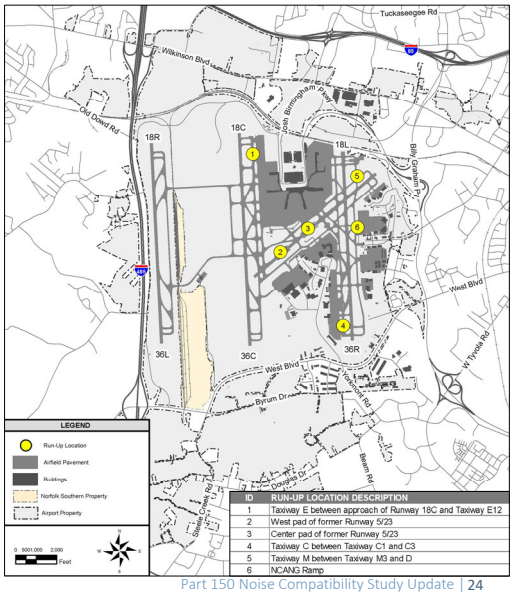


Proposed Preliminary Noise Abatement Alternatives

NA-A-1
Facility Modification

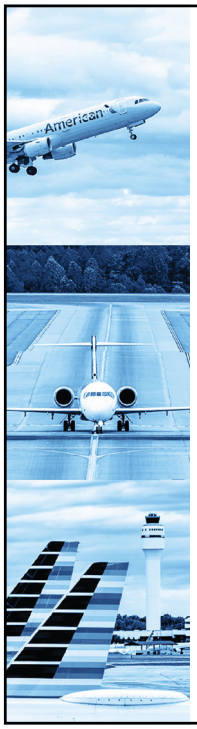
Maximize the use of midfield run-up locations (ID 2, 3) over those located on the east side of the Airport (ID 4, 5, 6).

Short-Term



ID	RUN-UP LOCATION DESCRIPTION
1	Taxiway E between approach of Runway 18C and Taxiway E12
2	West pad of former Runway 5/23
3	Center pad of former Runway 5/23
4	Taxiway C between Taxiway C1 and C3
5	Taxiway M between Taxiway M3 and D
6	NCANG Ramp

24



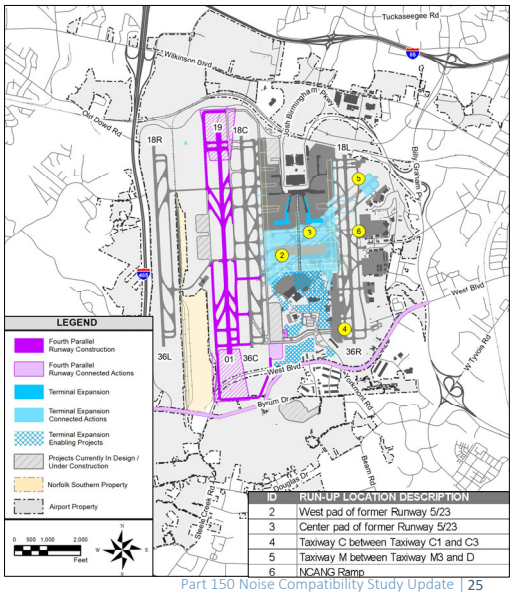
Proposed Preliminary Noise Abatement Alternatives

NA-A-2

Facility Modification

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.

Long-Term



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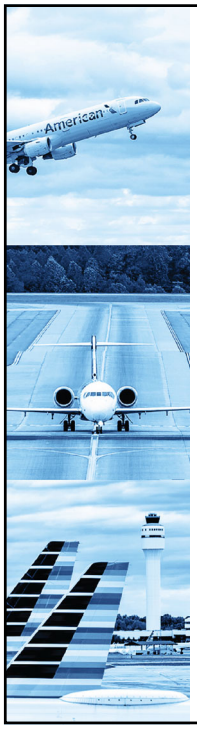


Proposed Preliminary Noise Abatement Alternatives

NA-B-1

Flight Procedure

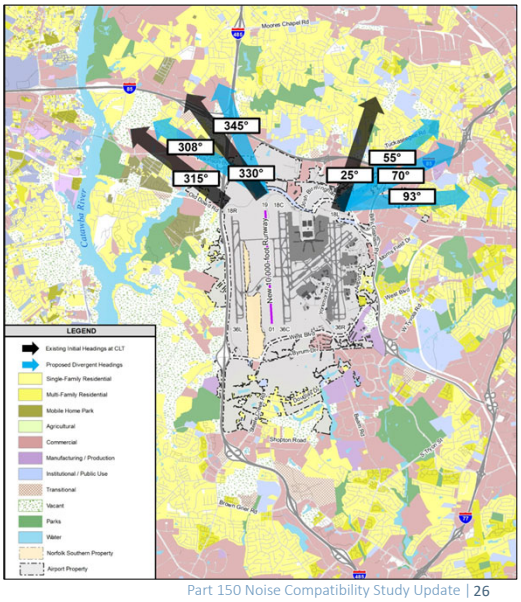
Increase the number of departure headings for north flow operations while maintaining existing approved headings and maximizing departure corridors.

Keep existing headings as follows:

- Runway 36R: 25°
- Runway 36L: 315°

Add additional divergent headings as follows:

- Runway 36R:
  - 93° to follow the Wilkinson Boulevard corridor
  - 55° and 70° to follow the Interstate 85 corridor
- Runway 01:
  - Implement the existing Runway 36C's approved 330° heading
  - 345° to overfly the Interstate 85/485 Interchange and follow the Interstate 485 corridor
  - 308° to follow the Wilkinson Blvd corridor



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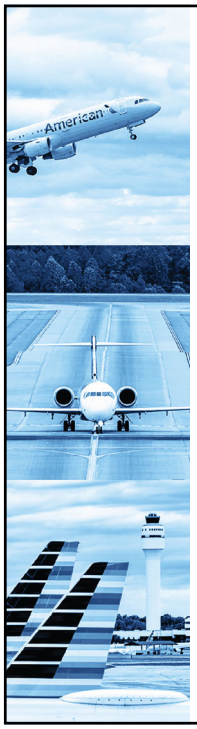


Proposed Preliminary Noise Abatement Alternatives

NA-B-2

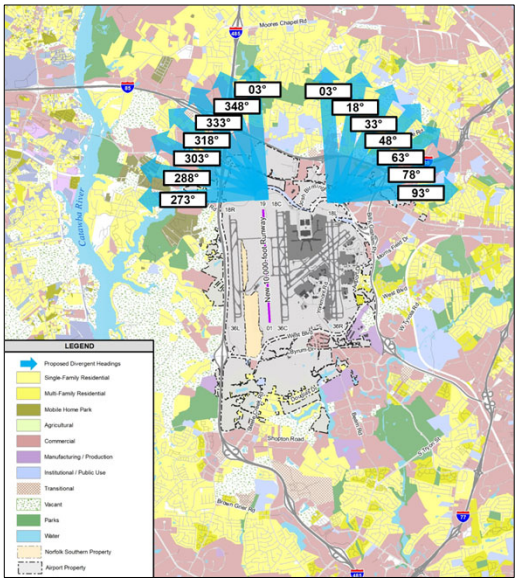
Flight Procedure

Maximize the number of divergent headings for north flow operations while maintaining a 15° separation between headings.

Add additional divergent headings as follows:

- Runway 36R:
  - 03°, 18°, 33°, 48°, 63°, 78°, 93°
- Runway 01:
  - 03°, 348°, 333°, 318°, 303°, 288°, 273°

While a straight-out heading is identified for Runways 36R and 01, these headings cannot be used simultaneously because a 15-degree separation is required per 7110.65Z.



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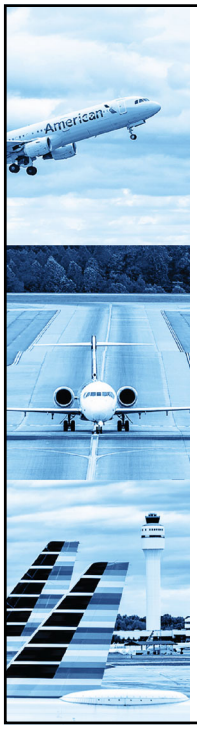


Proposed Preliminary Noise Abatement Alternatives

NA-C-1

Flight Procedure

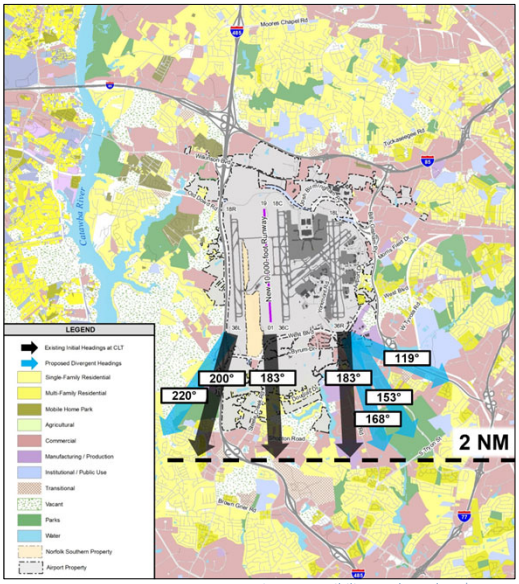
Increase the number of departure headings for south flow operations while keeping the 2-mile restriction on the new Runway 19.

Keep existing headings as follows:

- Runway 18R: 200°
- Runway 18L: 183°

Add additional divergent headings as follows:

- Runway 18R:
  - 220° to follow the Garrison Road corridor
- Runway 19:
  - Implement the existing Runway 18C's approved 183° heading
- Runway 18L:
  - 119° to follow the Billy Graham Parkway corridor
  - 153° and 168° to follow the W Tyvola Road corridor



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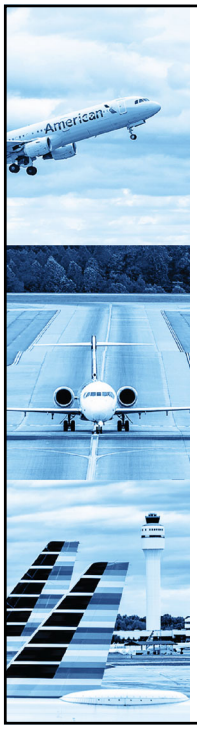


Proposed Preliminary Noise Abatement Alternatives

NA-C-2

Flight Procedure

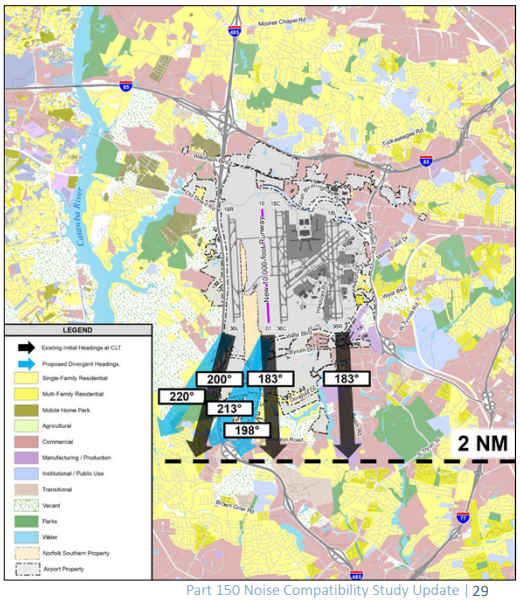
Increase the number of departure headings for south flow operations while keeping the 2-mile restriction on Runway 18L.

Keep existing headings as follows:

- Runway 18R: 200°

Add additional divergent headings as follows:

- Runway 18R:
  - 220° to follow the Garrison Road corridor
- Runway 19:
  - Implement the existing Runway 18C's approved 183° heading
  - 198° and 213° to follow the Steele Creek Road corridor



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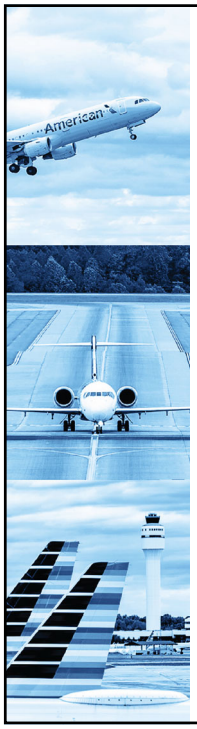


Proposed Preliminary Noise Abatement Alternatives

NA-C-3

Flight Procedure

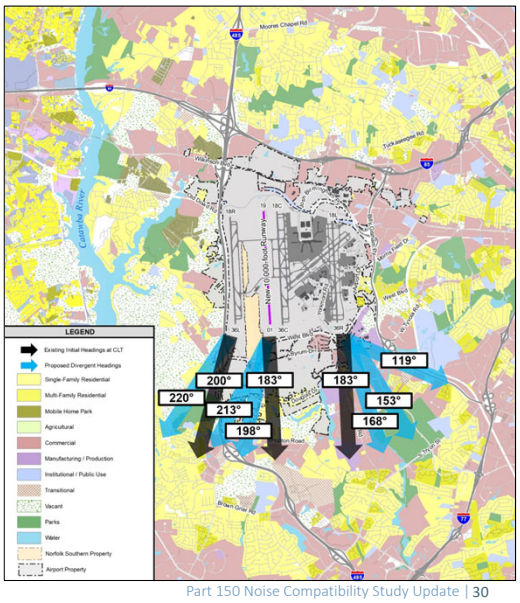
Increase the number of departure headings for south flow operations while maintaining existing approved headings and maximizing departure corridors. This requires eliminating the 2-mile restriction.

Keep existing headings as follows:

- Runway 18L: 183°
- Runway 18R: 200°

Add additional divergent headings as follows:

- Runway 18L:
  - 119° to follow the Billy Graham Parkway corridor
  - 153° and 168° to follow the W Tyvola Road corridor
- Runway 18R:
  - 220° to follow the Garrison Rd corridor
- Runway 19:
  - Implement the existing Runway 18C's approved 183° heading
  - 198° and 213° to follow the Steele Creek Road corridor



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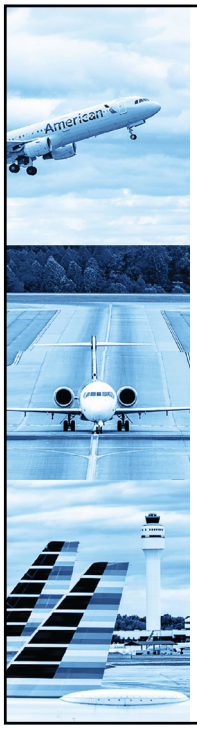


Proposed Preliminary Noise Abatement Alternatives

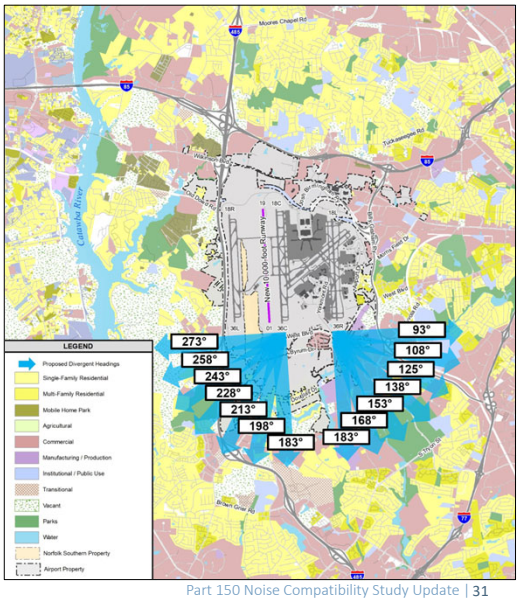
NA-C-4

Flight Procedure

Maximize the number of divergent headings for south flow departures while maintaining a 15° separation between headings. This would require the elimination of the 2-mile restriction.

Add additional divergent headings as follows:

- Runway 18L:
  - 183°, 168°, 153°, 138°, 123°, 108°, 93°
- Runway 19:
  - 183°, 198°, 213°, 228°, 243°, 258°, 273°



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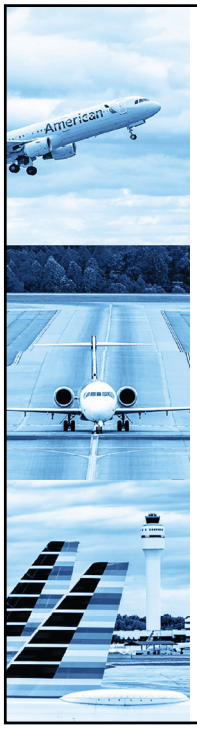
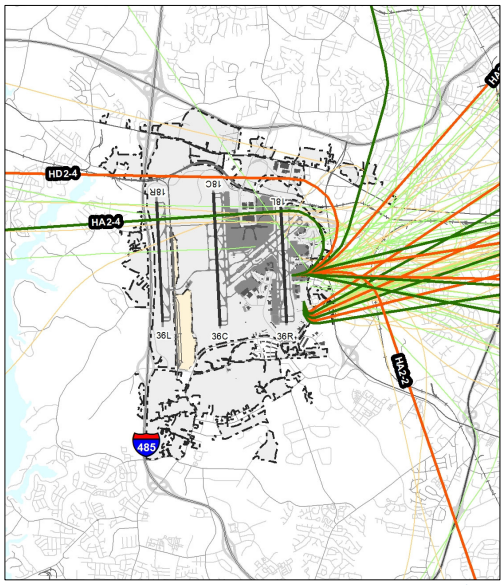


Proposed Preliminary Noise Abatement Alternatives

NA-K

Flight Procedure

Evaluate helicopter operations in the south general aviation apron to takeoff towards the south (stay between Yorkmont and Billy Graham Parkway before turning on course)



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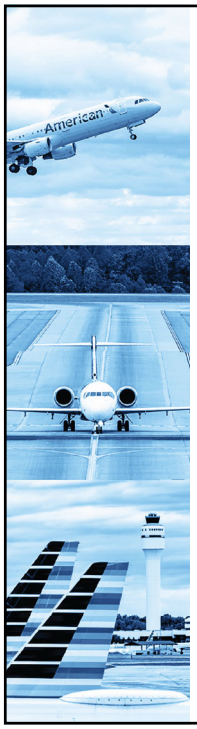
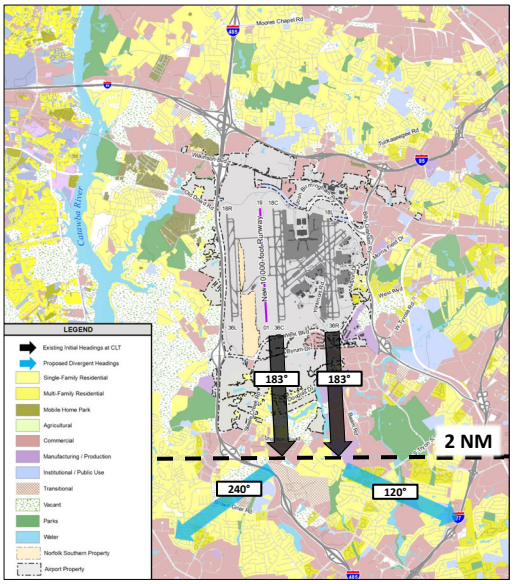


Proposed Preliminary Noise Abatement Alternatives

NA-L
Flight Procedure

Change Headings of First Turns off Runways 18L and 18C
Reduce the effect of noise on more densely populated areas and foster the desire by the ACR to return to pre-Metroplex flight paths.



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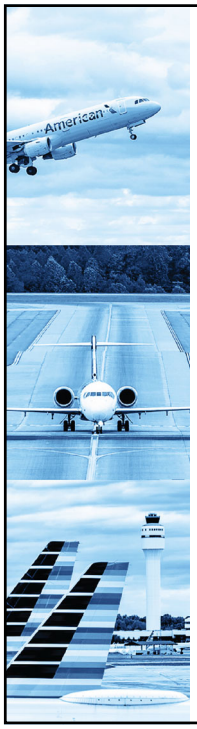


Proposed Preliminary Noise Abatement Alternatives

NA-D
Facility Modification / Flight Procedure

- Implement a 1,235-foot displaced arrival threshold on Runway 36C

NA-E
Facility Modification / Flight Procedure

- Implement a 1,376-foot displaced arrival threshold on Runway 36R

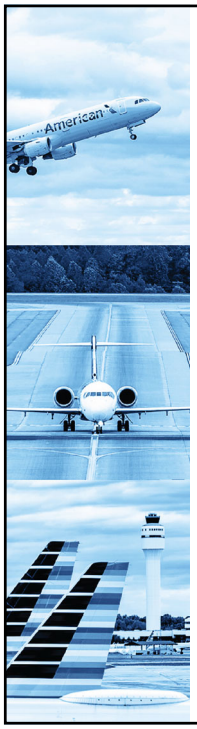
NA-F
Facility Modification / Flight Procedure

- Implement a 1,376-foot displaced arrival threshold on Runway 18L

NA-G
Facility Modification / Flight Procedure

- Implement a 1,100-foot arrival displaced threshold on Runway 01
- Only applicable in conjunction with NA-J (evaluate the new runway as an arrival runway)

34



Proposed Preliminary Noise Abatement Alternatives

NA-H

Preferential Runway Use

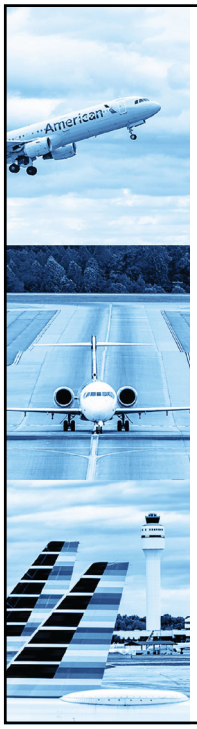
Designate Runway 36L and 36R as preferred for north flow arrivals by turbojet and large four-engine prop aircraft between 10:00 p.m. and 7:00 a.m.

NA-I

Preferential Runway Use

Increase use of Runway 18R for south flow arrivals by turbojet and large four-engine prop aircraft between 10:00 p.m. and 7:00 a.m.

35



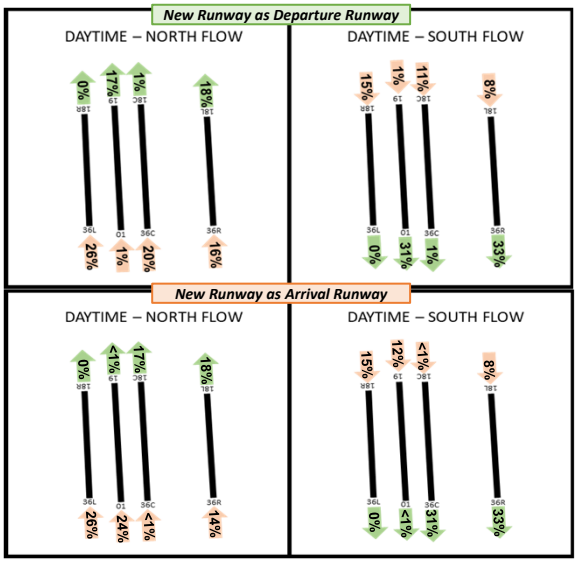
Proposed Preliminary Noise Abatement Alternatives

NA-J

Preferential Runway Use

Evaluate the new runway as an arrival runway

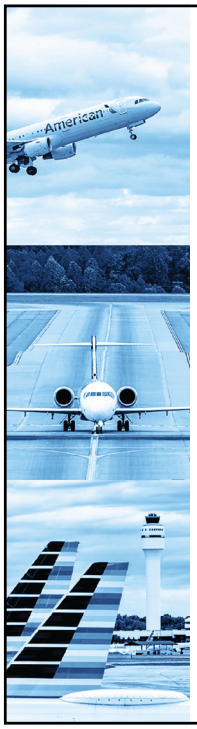
Designate Runways 18R/36L and 01/19 as preferred for arrivals and Runway 18C/36C and 18L/36R as preferred for departures by turbojet and large four-engine prop aircraft between 7:00 a.m. and 10:00 p.m.



Arrivals

Departures

36



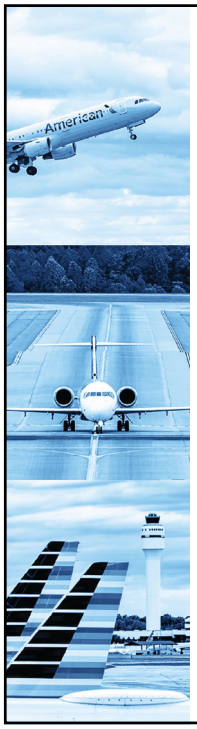
Alternative Evaluation

Safety / Feasibility → Reduces Impacts in 65 DNL → Operational Impacts → Implementation Considerations → Move to Recommend

↓ ↓ ↓ ↓

Eliminate from Evaluation

37



Alternative Evaluation

Safety / Feasibility → Reduces Impacts in 65 DNL → Operational Impacts → Implementation Considerations → Move to Recommend

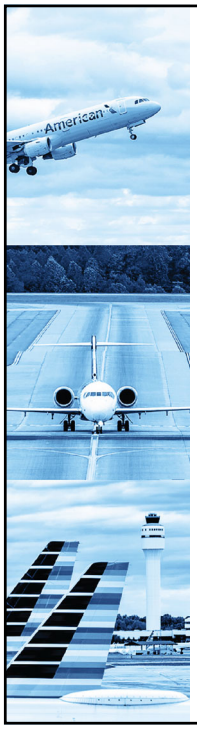
↓ ↓ ↓ ↓

Eliminate from Evaluation

Safety / Feasibility

- Our team of experts will evaluate each alternative for safety/feasibility issues
- Outreach to airport, airlines, and FAA ATCT to provide feedback on any safety/feasibility concerns
- If no safety or feasibility issues identified, move to the next step

38



Alternative Evaluation

Safety / Feasibility → Reduces Impacts in 65 DNL → Operational Impacts → Implementation Considerations → Move to Recommend

Eliminate from Evaluation

Reduces Impacts in 65 DNL

- Build alternative assumptions into noise model
- Would the alternative result in a net reduction in non-compatible land uses within the 65 DNL?
- If there is a net reduction in impacts within the 65 DNL, move to the next step

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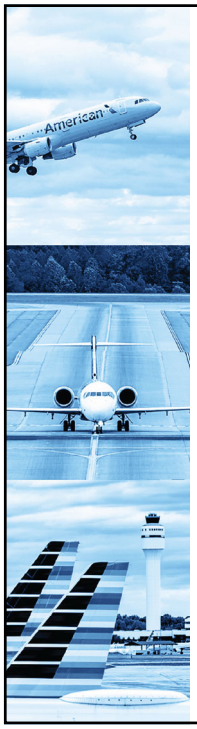

Alternative Evaluation

Safety / Feasibility → Reduces Impacts in 65 DNL → Operational Impacts → Implementation Considerations → Move to Recommend

Eliminate from Evaluation

Operational Impacts

- Does the alternative negatively impact operational efficiency (increased delays, reduced capacity, increased flight time, etc.)?
- Outreach to airport, airlines, and FAA ATCT to provide feedback on any operational concerns
- If there are no operational impacts identified, move to the next step

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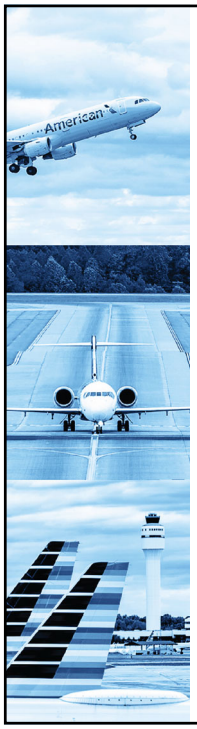

Alternative Evaluation

Safety / Feasibility → Reduces Impacts in 65 DNL → Operational Impacts → Implementation Considerations → Move to Recommend

Eliminate from Evaluation

Implementation Considerations

- Discuss implementation with Airport, ATCT, and other stakeholders
- Who is responsible to implement or support the implementation of the alternative?
- Consideration of the process, timeline, and cost of implementation
- If no implementation issues are identified, move to the next step

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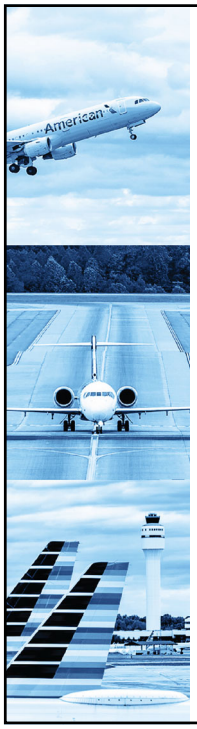


Alternative Evaluation

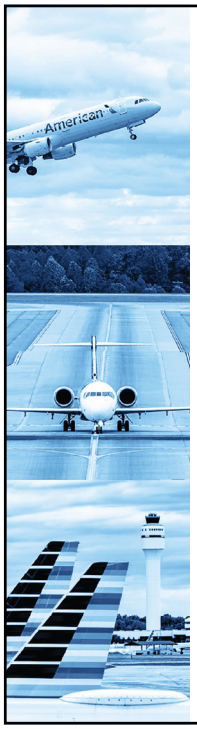
Safety / Feasibility → Reduces Impacts in 65 DNL → Operational Impacts → Implementation Considerations → Move to Recommend

Eliminate from Evaluation

Move to Recommend

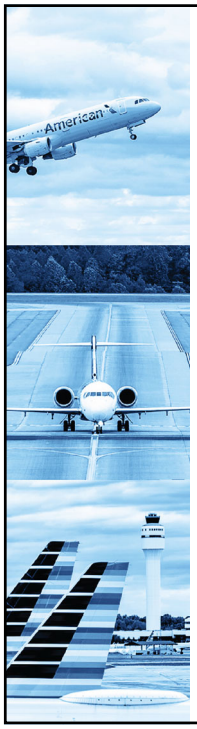
- Include the alternative as a recommended measure for further evaluation with other recommended measures
- Various scenarios of recommended measures will be evaluated

42



Next Steps

43



Next Steps / Schedule - requests

- TAC to provide feedback on baseline noise exposure contour memo
- TAC to provide feedback on noise abatement alternatives
  - Feasibility or safety concerns?
  - Additional alternatives that should be investigated?
- Part 150 Study Update team to conduct follow-up meetings with ATCT and airlines to discuss alternatives
- Part 150 Study Update team to follow up with ACR

Please submit all comments by

April 5, 2023 to:

gaby.elizondo@landrumbrown.com

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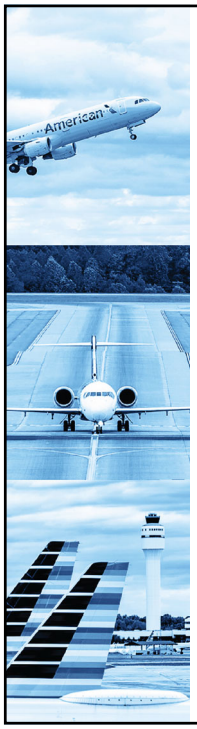


Next Steps / Schedule

May 2022
Project Kickoff

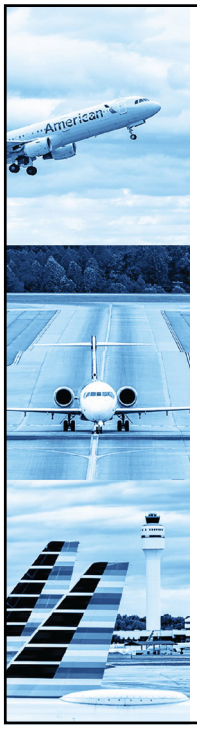
Summer / Fall 2023
Release of Draft Findings

Spring 2024
FAA Review & Approval

Initiate and Conduct Technical Work
2022–2023

Final Recommendations
Start of 2024

45



Questions & Answers

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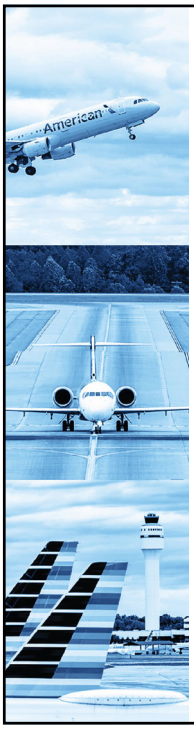

Please submit all comments by

April 5, 2023 to:

gaby.elizondo@landrumbrown.com

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Technical Advisory Committee Meeting #3
November 14, 2023

Meeting Invitations

Sign-in Sheet

Presentation

October 17, 2023

To Whom It May Concern,

The City of Charlotte is conducting a Part 150 Study Update to develop a balanced and cost-effective plan to reduce current noise impacts, where practical, and to limit the potential for future noise impacts. We are writing to ask for your participation on the third meeting of the Technical Advisory Committee (TAC) formed as part of the Part 150 Study Update. The TAC consists of airport users and tenants; Federal Aviation Administration (FAA) representatives; representatives of the Airport Community Roundtable (ACR); local planning organizations; and Airport staff. The TAC will review study findings, comment on study recommendations before they are presented to the public at-large and will participate in discussions related to aircraft noise issues.

The third meeting of the TAC is scheduled from 1:00-3:00 pm on **Tuesday, November 14, 2023,** in the Eagle Conference Room at the CLT Center. TAC members will receive a meeting agenda and other pertinent material in advance of the meeting.

Please RSVP by November 1, 2023, to Gaby Elizondo via phone at (513) 530-1205 or email gaby.elizondo@landrumbrown.com with whether you accept this invitation and wish to participate in the TAC. Gaby can also answer any questions you may have.

We value your input and look forward to your participation in this process.

Sincerely,

Haley Gentry
Chief Executive Officer

PO Box 19066
Charlotte, NC 28219
P. 704.359.4000
cltairport.com

INVITATION LIST

TECHNICAL ADVISORY COMMITTEE MEETING #3

REPRESENTING	NAME
Charlotte Mecklenburg Police Department, Aviation Unit	Kenneth Anderson
City of Charlotte City Council	Victoria Watlington
City of Charlotte Planning, Design, and Development Department	Alan Goodwin
	Alyson Craig
	Kathy Cornett
Aircraft Owners and Pilots Association	Eric Gallinek
Aircraft Owners and Pilots Association	Stacey Heaton
Airport Community Roundtable	Natalie Rutzell (Chair)
Airport Community Roundtable	Phillip Gussman (Co-chair)
HMMH	Gene Reindel
Federal Aviation Administration, Air Traffic Division	Anthony Limon
	Mark Libby
Federal Aviation Administration, Airports Division	Lopa Naik
	Peggy Kelley
	Stephanie Saloom
	Tommy Dupree
National Air Traffic Controller Association	Anthony Schifano
	Chris Riddle
Air Canada	Kevin Oliphant
Air Canada	Ronald Todd
Air Canada	Sara Whitley
Air Canada	Victor Toala
American Airlines	Amanda Zhang
	Michael Wanner
	Reshma Soni
	Ryan Jorgenson
	Scott Pressley
	Steven Holt
	Tracy Montross
	Wes Googe
Delta Air Lines	Jose Fernandez
	Keith Fidler
FedEx	Daniel Allen
	Jason Fricke
Frontier Airlines	Ben Booker
	Mike Cox
	Tosha Sonderson
	Kip Turner
JetBlue	Matt Detcher
Southwest Airlines	George Hodgson
	Lawrence Turner
Spirit Airlines	Garry Jones
United Airlines	Mike Acosta
	Rob Galbraith
UPS	Danny Ndingwan
	Seth Garrett
USAF 145th Airlift Wing	James R. Eaton II
	Jayce Bass
Wilson Air (FBO)	Vince Papke

CLT Part 150 Study Update

Technical Advisory Committee, Meeting #3

November 14, 2023, 1:00 p.m.

SIGN-IN SHEET -- PLEASE PRINT

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Shane C Jackson	FAA		Shane.C.Jackson@FAA.gov
Lopa Naik	FAA		lopa.naik@faa.gov
Peggy Kelley	FAA MEM-ADO		peggy.kelley@faa.gov
ANTHONY SCHIFANO	NATCA		ASCHIFANO20@GMAIL.COM
Reshma Soni	AA		reshma.soni@aa.com
Kevin Hennessey	CLT		

CLT Part 150 Study Update

Technical Advisory Committee, Meeting #3

November 14, 2023, 1:00 p.m.

SIGN-IN SHEET – PLEASE PRINT

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Phillip Gussman	ACR	704-608-1323	Phil@Gussmanconsulting.com
Stephanie Saloom	FAA - MEM-ADO	901-322-8161	stephanie.saloom@faa.gov
Chris Riddle	NATCA	7044915597	christopher.t.riddle@faa.gov
Eric Gallinek	AOPA volunteer	646-236-1756	egallinek@earthlink.net
Gene Reindel	HMMA	339-234-2035	ereindel@hmmh.com
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2

Part 150 Noise Compatibility Study Update

Welcome to the

Technical Advisory Committee Meeting #3

Tuesday, November 14, 2023

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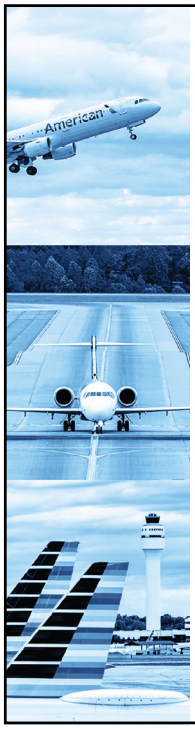
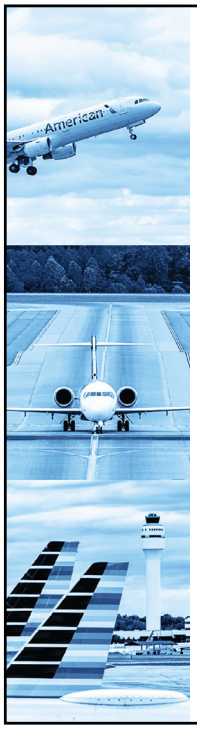


Agenda

- Welcome and Introductions
- Screening Process
- Noise Abatement Alternatives
- Preliminary Noise Compatibility Program Scenarios
- Next Steps / Schedule

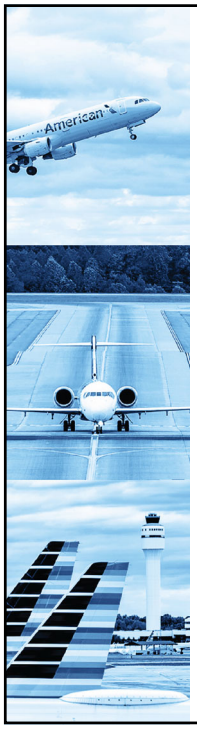
2



Welcome and Introductions

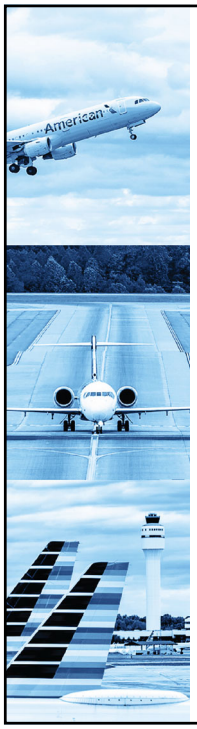
- Charlotte Douglas International Airport
  - Sponsor of the CLT Part 150 Study Update
  - Team: Amber Perry, Mike Pilarski, Kevin Hennessey, Alex Helmke, Matt Reese
- Consultant Team
  - Landrum & Brown is the lead consultant
  - 70+ years of aviation planning
  - Experts in aircraft noise and land use planning
- Federal Aviation Administration
  - Developed guidelines for Part 150 that must be followed
  - Review NEMs for accuracy and determination that guidelines were met
  - Review recommendations for consistency with Part 150 guidelines

3

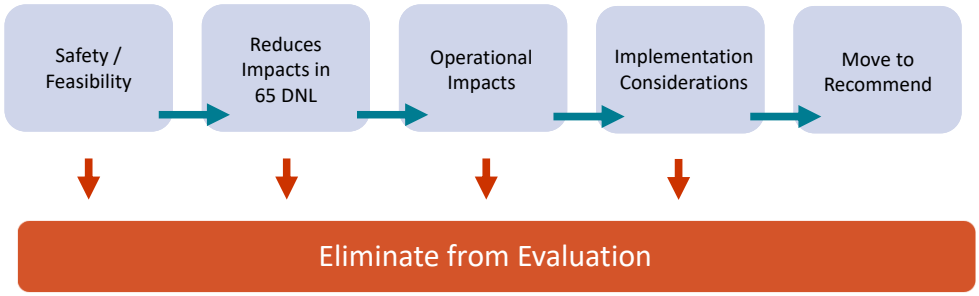


Alternative Screening Process

4



Alternative Evaluation



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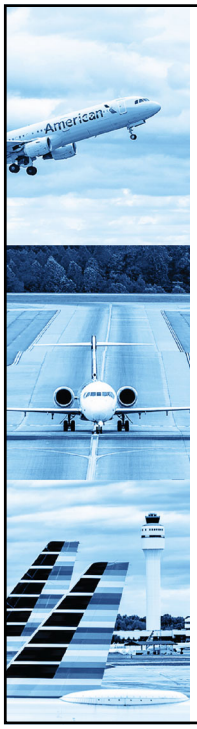

Noise Abatement Alternatives

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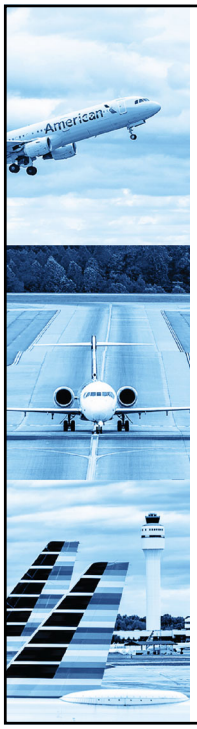


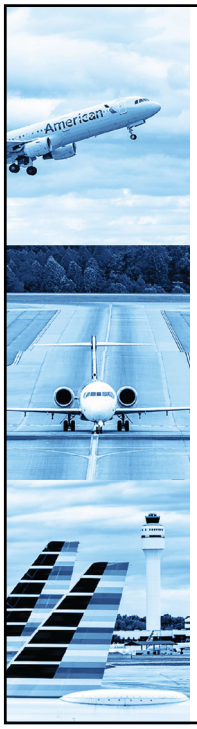
Proposed Noise Abatement Alternatives

Facility Modifications
(e.g. run-up locations, runway extensions, etc.)

Preferential Runway Use
(e.g., how often runway ends are used, etc.)

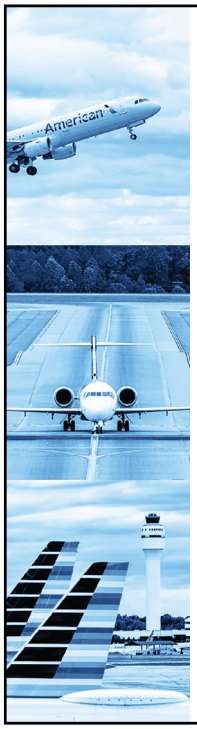
Flight Procedures
(e.g., departure flight corridors, etc.)

7



Facility Modification: Run-Ups

8



Facility Modification: Run-Ups

NA-A-1

Maximize the use of midfield run-up locations (ID 2, 3) over those located on the east side of the Airport (ID 4, 5, 6).

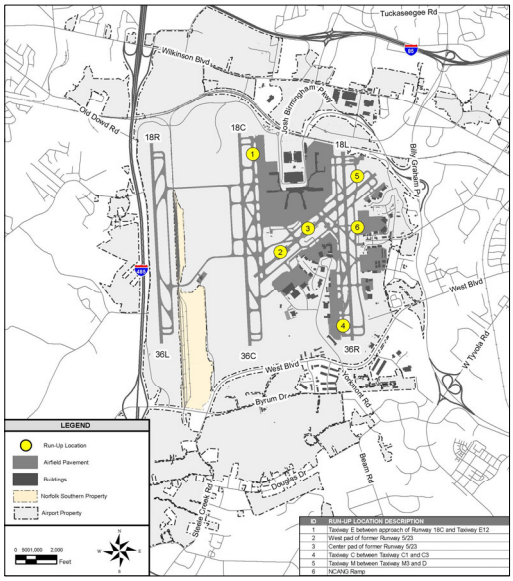
Short-Term

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? Has potential

Operational impacts: No operational impacts identified.

Continue in Evaluation



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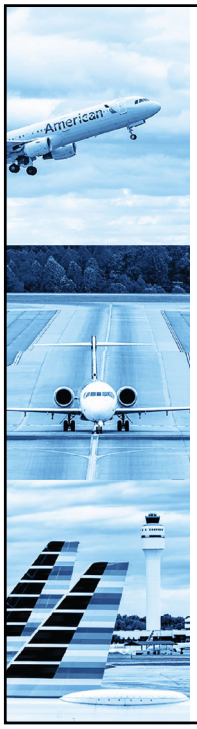


Facility Modification: Run-Ups

NA-A-2

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.

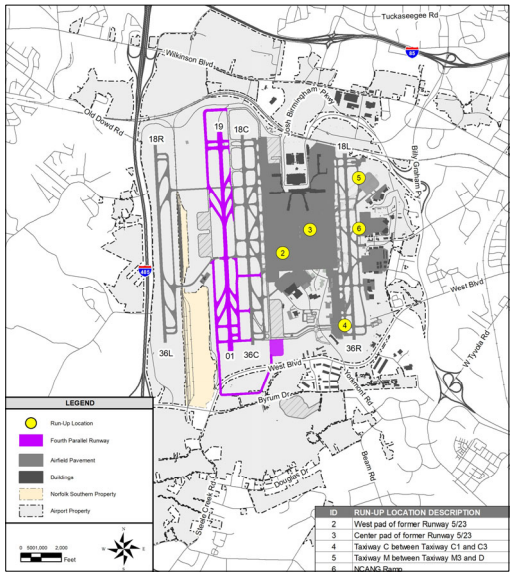
Long-Term

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? Has potential

Operational impacts: No operational impacts identified.

Continue in Evaluation



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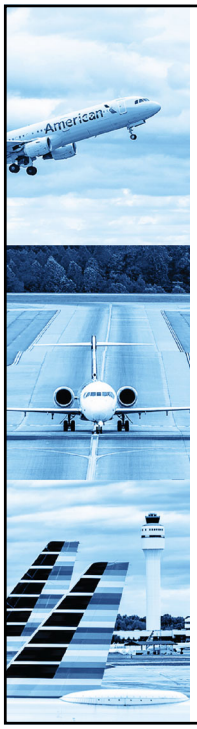
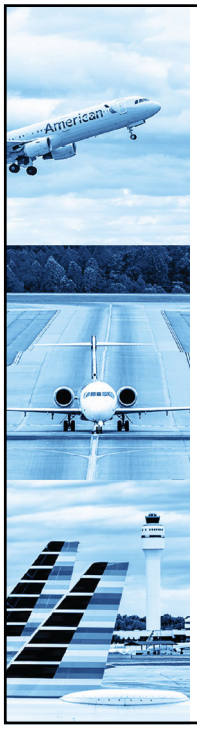


Facility Modification: Displaced Arrival Threshold

11



Facility Modification: Displaced Arrival Threshold

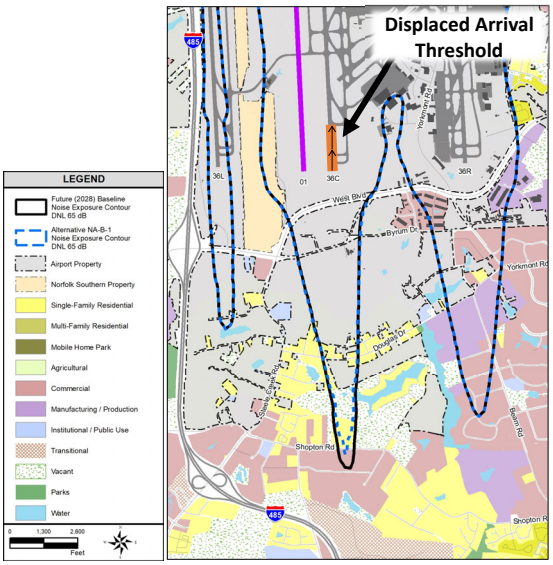
NA-B-1

Implement a 1,235-foot displaced arrival threshold on Runway 36C

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.

Eliminate from Evaluation



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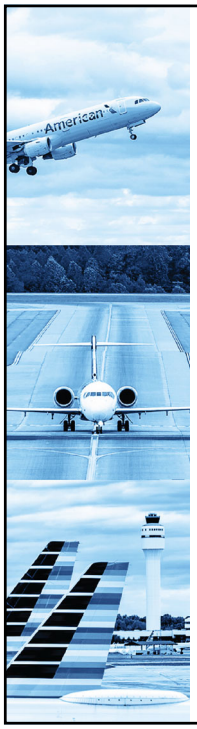


Facility Modification: Displaced Arrival Threshold

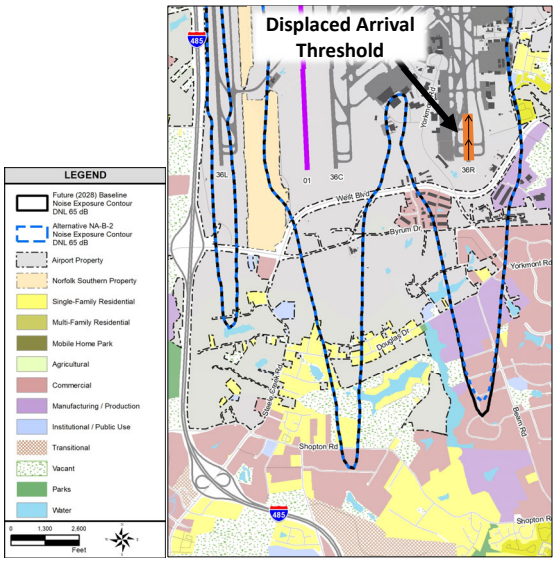
NA-B-2

Implement a 1,376-foot displaced arrival threshold on Runway 36R

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.

Eliminate from Evaluation



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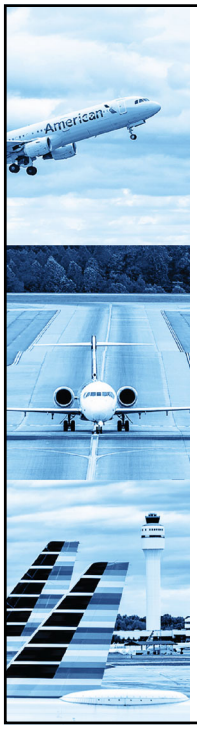


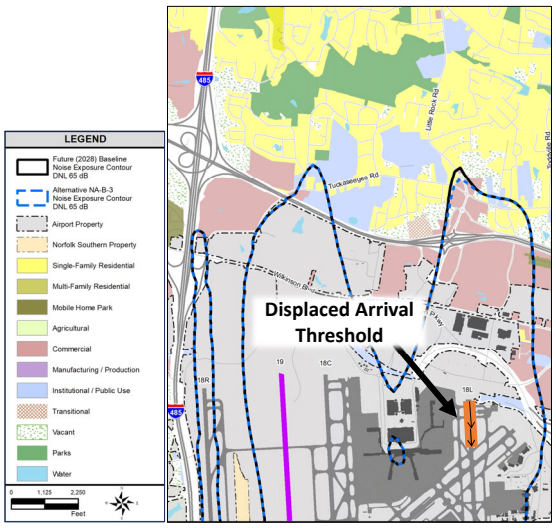
Facility Modification: Displaced Arrival Threshold

NA-B-3

Implement a 1,376-foot displaced arrival threshold on Runway 18L

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? Yes. Reduces impacts compared to the Future (2028) Baseline by **6 housing units** and **1 day care** within the 65+ DNL.



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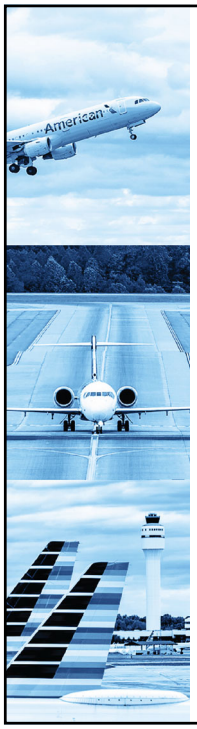


Facility Modification: Displaced Arrival Threshold

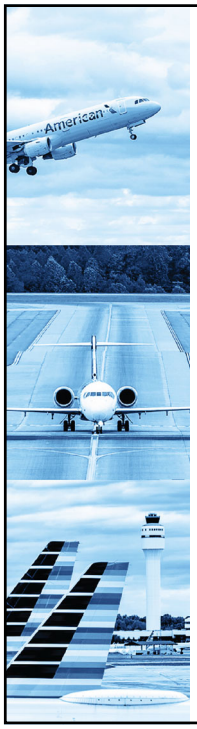
NA-B-3

Operational impacts:

- Negative operational impacts would occur due to the existing high-speed taxiways not being positioned for a displaced threshold.
- The results would be **greater runway occupancy times, longer taxi distance, and potentially increased congestion** due to where aircraft would exit the runway.
- These operational impacts could be resolved by redesigning and reconstructing all of the taxiways along the runway. However, the cost of that would far exceed any benefits.

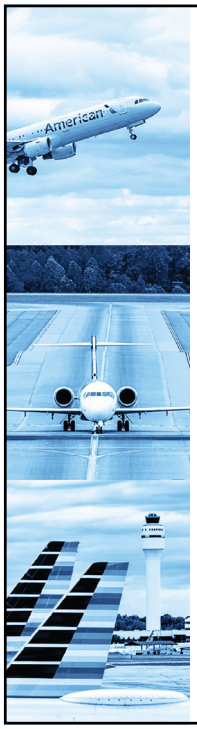
Eliminate from Evaluation

15



Preferential Runway Use: Airport Flow

16



Preferential Runway Use: Airport Flow

NA-C-1

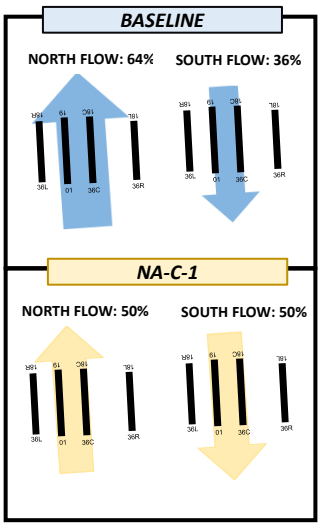
Balanced Mix of North v. South Flow:

Increase the amount of time the Airport operates in south flow to achieve a 50/50 balance of north v. south flow

Safety/Feasibility: Direction of flow is primarily determined by **wind direction and wind speed on the surface and aloft (at higher altitude).** It is also determined by the **location of severe weather** for a hundred miles from the Airport.

Based on these factors, **it is not feasible for the ATCT to maintain a balanced runway flow and to try and force it would reduce safety**.

Eliminate from Evaluation



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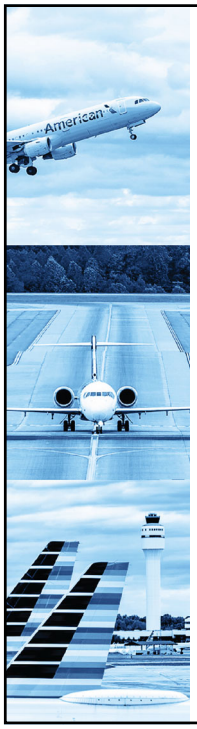


Preferential Runway Use: Airport Flow

NA-C-2

Limit One Direction Flow to a Maximum # Days:

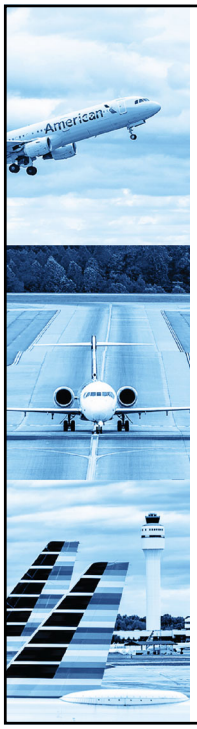
Prevent continuous flow in one direction over more than [two consecutive days] to bring relief to people who have been getting noise/flow from one type of operation continuously for multiple days. After [two consecutive days] of flow in the same direction, flow should be reversed at the first reasonable opportunity and maintained in the reverse direction for a reasonable period.

Safety/Feasibility:

- Direction of flow is primarily determined by **wind direction and wind speed on the surface and aloft (above the ground)**. It is also determined by the **location of severe weather** for a hundred miles from the Airport.
- **Based on these factors, it is not feasible for the ATCT to alternate runway flow counter to weather conditions and to try and force it would reduce safety.**

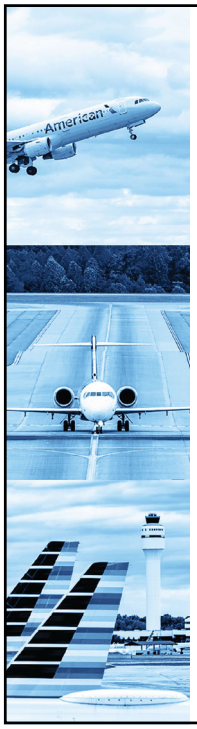
Eliminate from Evaluation

18



Preferential Runway Use: Daytime Runway Use

19



Preferential Runway Use: Daytime Runway Use

NA-D-1

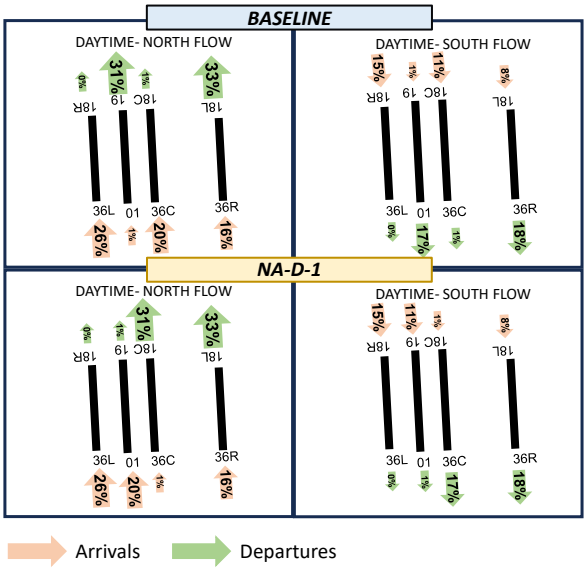
Evaluate the new runway as an arrival runway

Designate Runways 18R/36L and 01/19 as preferred for arrivals and Runway 18C/36C and 18L/36R as preferred for departures by turbojet aircraft between 7:00 a.m. and 10:00 p.m.

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Increases impacts compared to the Future (2028) Baseline by **18 housing units** within the 65+ DNL.

Eliminate from Evaluation



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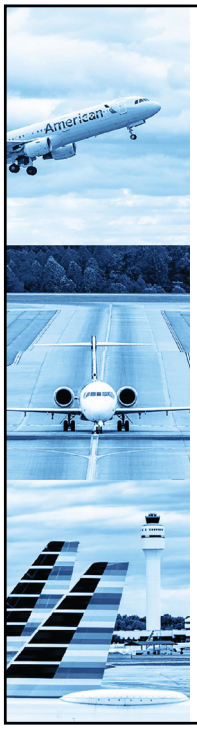
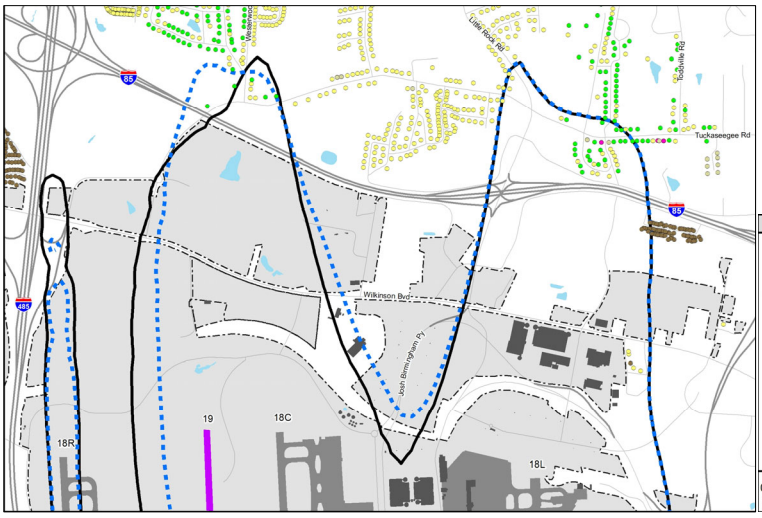


Preferential Runway Use: Daytime Runway Use

NA-D-1



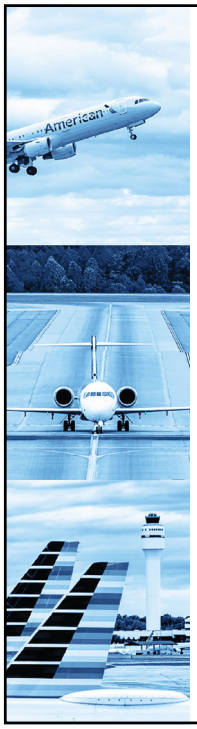
NORTH OF AIRPORT
+ 5 (increase)
- 0 (no decrease)
+ 5 (increase)

SOUTH OF AIRPORT
+ 19 (increase)
- 6 (decrease)
+ 13 (increase)

Total increase of 18 housing units

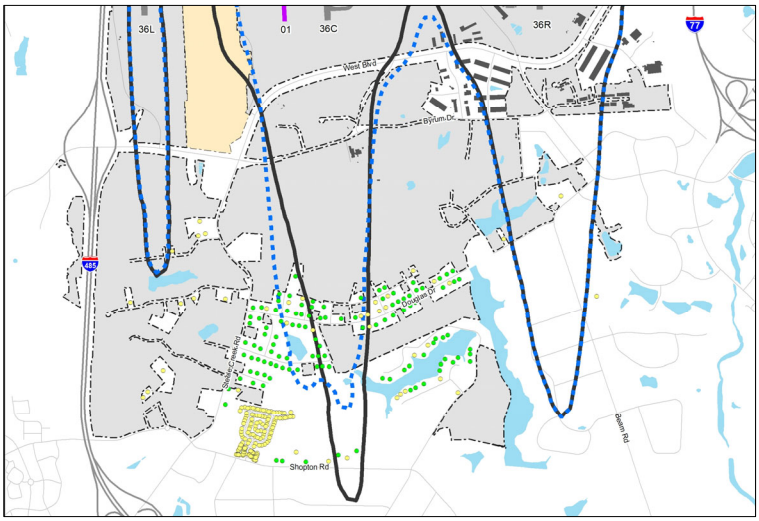
LEGEND
- Future (2028) Baseline Noise Exposure Contour DNL 65 dB
- Alternative NA-D-1 Noise Exposure Contour DNL 65 dB
- Airport Property
- Norfolk Southern Property
- Mitigated Multi Family Home
- Mitigated Single Family Home
- Unmitigated Multi Family Home
- Unmitigated Single Family Home
- Unmitigated Mobile Home

0 1,125 2,250 Feet



Preferential Runway Use: Daytime Runway Use

NA-D-1



NORTH OF AIRPORT
+ 5 (increase)
- 0 (no decrease)
+ 5 (increase)

SOUTH OF AIRPORT
+ 19 (increase)
- 6 (decrease)
+ 13 (increase)

Total increase of 18 housing units

LEGEND
- Future (2028) Baseline Noise Exposure Contour DNL 65 dB
- Alternative NA-D-1 Noise Exposure Contour DNL 65 dB
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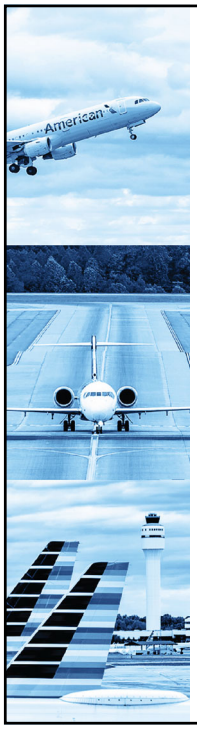


Preferential Runway Use: Daytime Runway Use & Displaced Arrival Threshold

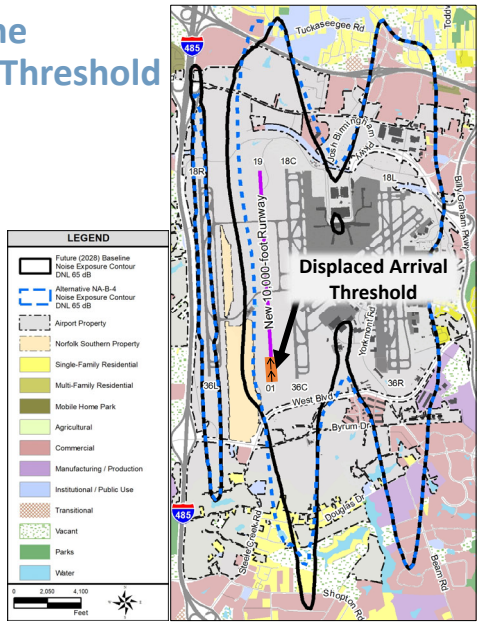
NA-B-4

Evaluate the new runway as an arrival runway and implement an 1,100-foot arrival displaced threshold on Runway 01

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Increases in impacts compared to the Future (2028) Baseline by **15 housing units** within the 65+ DNL.

Eliminate from Evaluation



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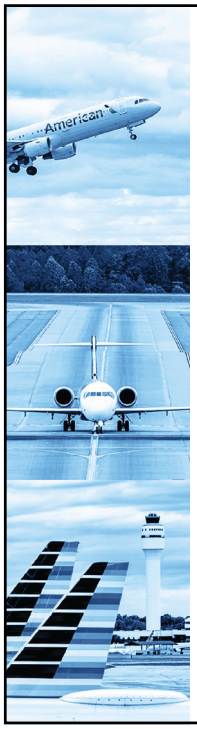


Preferential Runway Use: Daytime Runway Use

NA-D-2

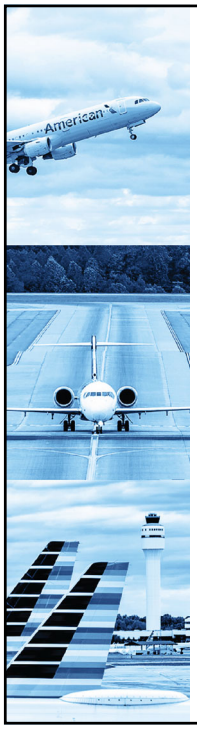
At low periods, spread operations to avoid concentration of a particular mode of operation (e.g., most/all departures or most/all arrivals) to a single runway, leaving others underutilized for the same mode of operation. For example: Avoid sending all arrivals to Runway 18R while Runways 18L and 18C are held open for occasional departures.

Safety/Feasibility: No safety/feasibility issues identified. In general, this is how the Airport currently operates.

Reduces impacts in 65 DNL? No. This recommendation is already accounted for in the Future (2028) Baseline scenario. There would be no reductions in impacts compared to the Future (2028) Baseline within the 65+ DNL.

Eliminate from Evaluation

24



Preferential Runway Use: Daytime Runway Use

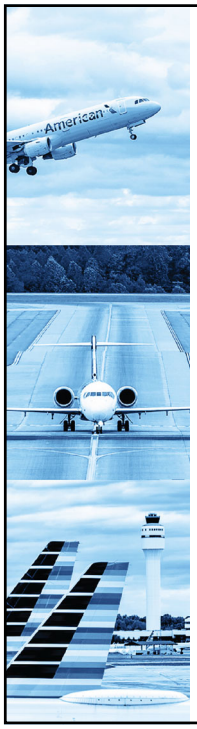
NA-D-3

Ensure that the new fourth parallel runway (Runway 01/19), Runway 18R/36L (for arrivals), and Runway 18C/36C (for departures) will never have more, in the aggregate, than [50%] of arrivals/departures over any single daily period.

Safety/Feasibility: The suggestion of caps on runways inherently creates barriers to implementation from a feasibility perspective because the airport is a dynamic environment that may require the use of runways that would exceed the limits of this alternative. **To force caps and percentages into a complex system like the one at CLT would reduce operational capability and potentially reduce safety.** As such, this alternative is not feasible for implementation.

Eliminate from Evaluation

25



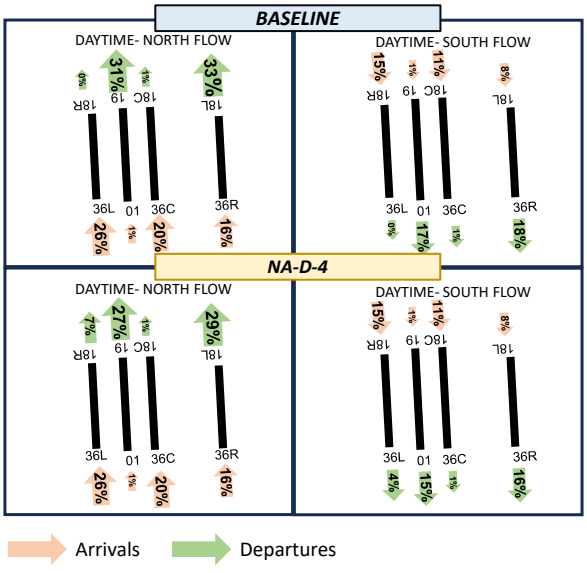
Preferential Runway Use: Daytime Runway Use

NA-D-4

Set guidelines that require a minimum allocation of departures for Runway 18R/36L for a given timeframe (e.g., over the course of a quarter or year), with the goal of achieving at least ten percent of daily departures on that runway.

Safety/Feasibility: No safety/feasibility issues identified.

Reduces impacts in 65 DNL? Yes. Reduces impacts compared to the Future (2028) Baseline by **12 housing units** in the 65+ DNL.



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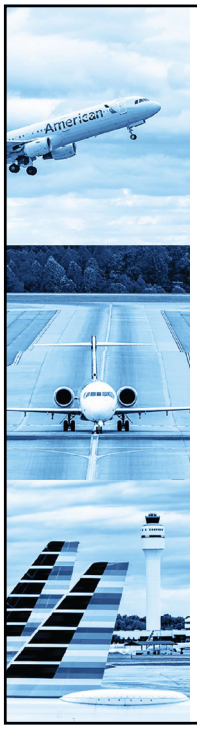


Preferential Runway Use: Daytime Runway Use

NA-D-4

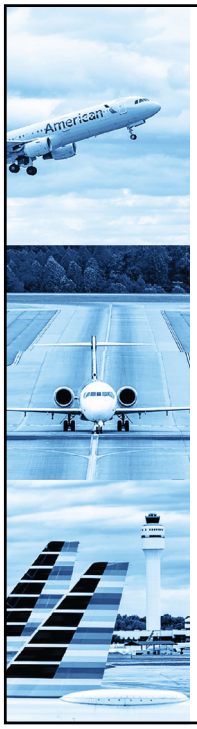
Operational impacts:

- Runway 18R/36L was planned (location) and designed (length) to primarily be used as an arrival runway.
- It has the capability to be used for departures, but **due to its location in relationship to the terminal area it is used for departures only under extenuating circumstances**.
- Implementation of this alternative would **require aircraft to routinely taxi across two active runways (Runway 18C/36C and Runway 01/19)**, which reduces the operational efficiency of those active runways due to the need to create safe gaps. This would result in significantly **increased delay to ensure no runway incursions occur**. Therefore, this alternative is **not considered feasible due to operational and safety concerns**.

↓

Eliminate from Evaluation

27



Preferential Runway Use: Daytime Runway Use

NA-D-5

Between 7am-10pm, do not use the new fourth parallel runway (Runway 01/19) and Runway 18R/36L to receive arrivals in “dual stream” mode during non-peak periods.

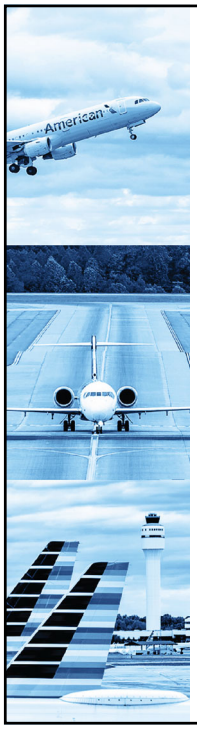
Safety/Feasibility: No safety/feasibility issues identified. In general, this is how the Airport currently operates.

Reduces impacts in 65 DNL? No. This recommendation is already accounted for in the Future (2028) Baseline scenario. There would be no reductions in impacts compared to the Future (2028) Baseline within the 65+ DNL.

↓

Eliminate from Evaluation

28



Preferential Runway Use: Daytime Runway Use

NA-D-6

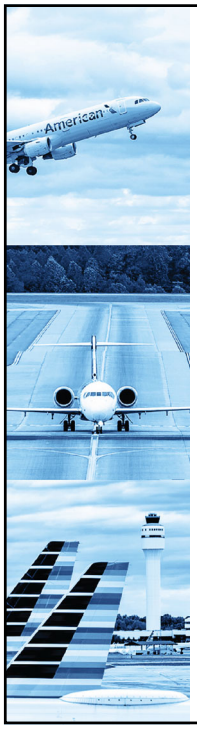
Alternate use of runways so that no two adjacent runways will be used primarily for the same mode of operation (arrival or departure) over a daily period.

Safety/Feasibility: No safety/feasibility issues identified. In general, this is how the Airport currently operates.

Reduces impacts in 65 DNL? No. This recommendation is already accounted for in the Future (2028) Baseline scenario. There would be no reductions in impacts compared to the Future (2028) Baseline within the 65+ DNL.

Eliminate from Evaluation

29

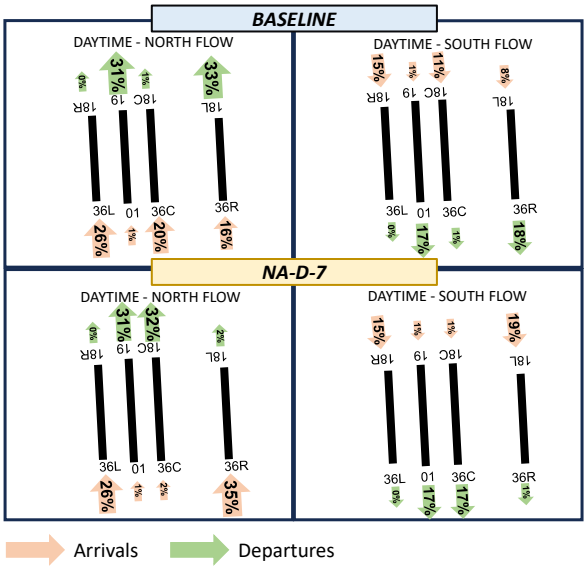


Preferential Runway Use: Daytime Runway Use

NA-D-7

Utilize Runway 01/19 and Runway 18C/36C primarily for departures and Runway 18R/36L and Runway 18L/36R primarily for arrivals

Currently under review



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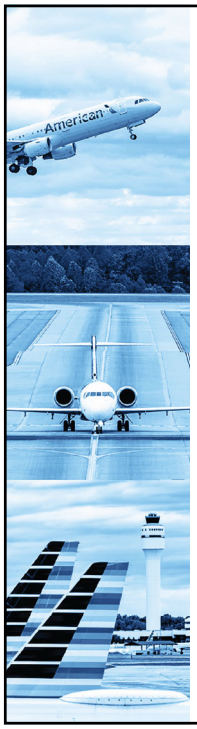
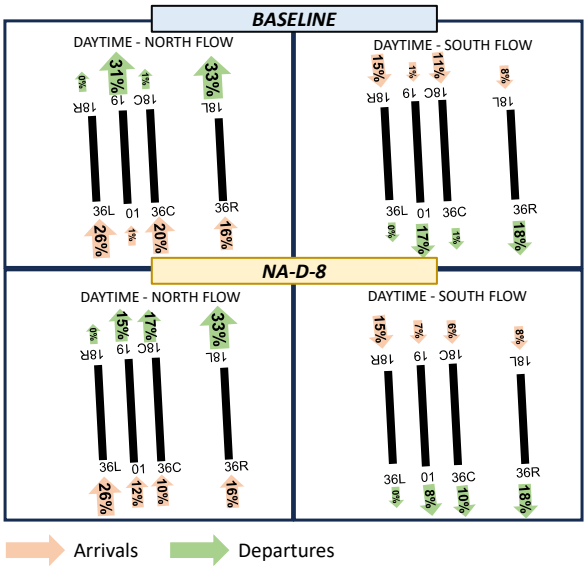


Preferential Runway Use: Daytime Runway Use

NA-D-8

Utilize Runway 01/19 and Runway 18C/36C for both arrivals and departures

Currently under review



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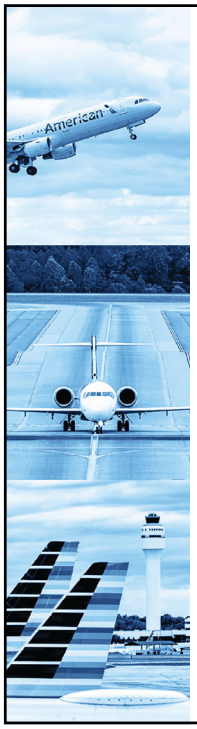
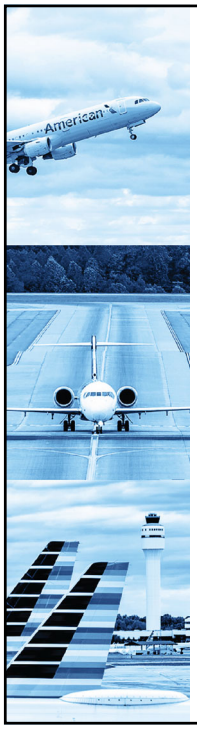


Preferential Runway Use: Nighttime Runway Use

32



Preferential Runway Use: Nighttime Runway Use

NA-E-1

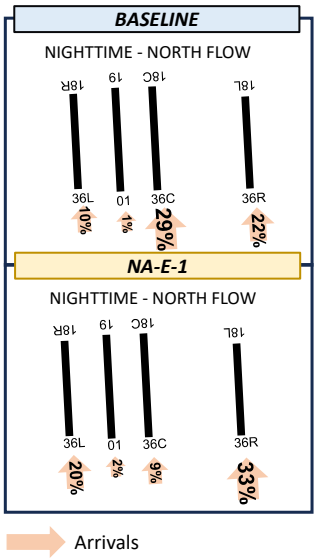
Designate Runway 36L and 36R as preferred for north flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m.

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? Yes. Reduces impacts compared to the Future (2028) Baseline by **13 housing units** in the 65+ DNL.

Operational impacts: No operational impacts identified.

Continue in Evaluation



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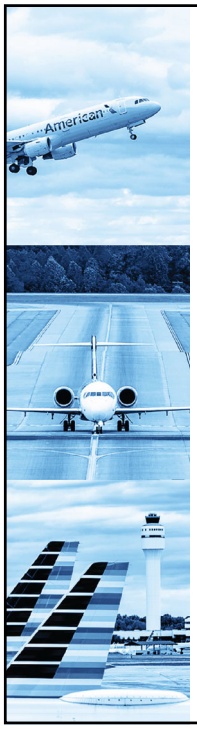
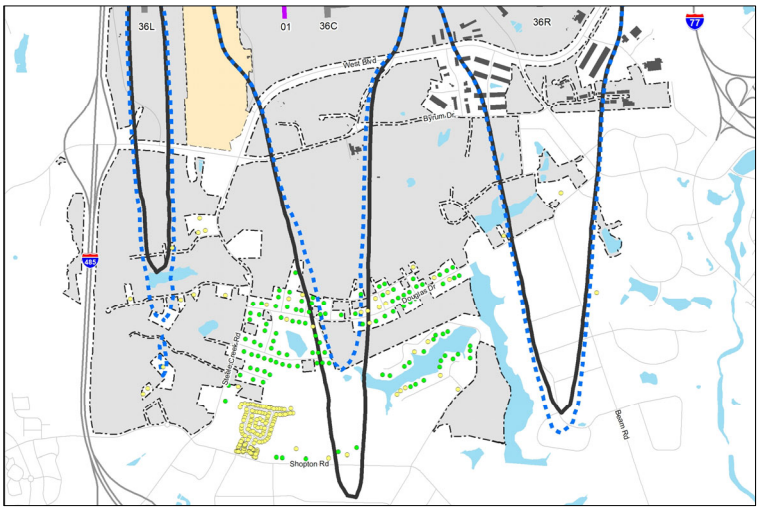


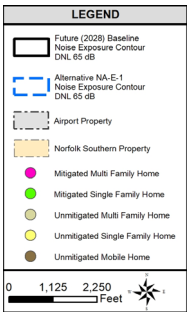
Preferential Runway Use: Nighttime Runway Use

NA-E-1



+ 3 (increase)
- 16 (decrease)
-13 (decrease)

Total reduction of 13 housing units



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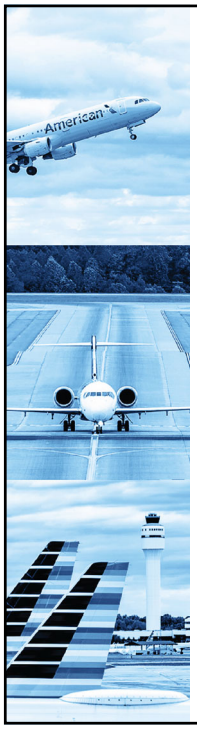


Preferential Runway Use: Nighttime Runway Use

NA-E-2

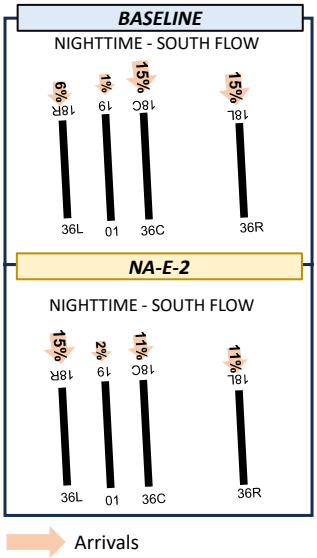
Designate Runways 18L, 18C, and 18R for south flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m.

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? Yes. Reduces impacts compared to the Future (2028) Baseline by **7 housing units** in the 65+ DNL.

Operational impacts: No operational impacts identified.

Continue in Evaluation



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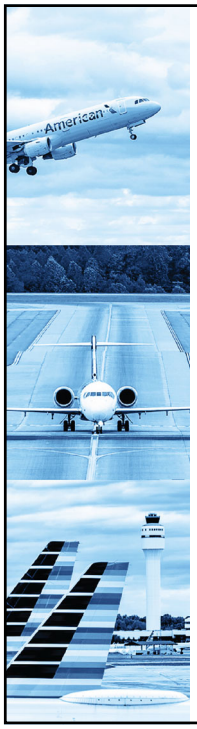
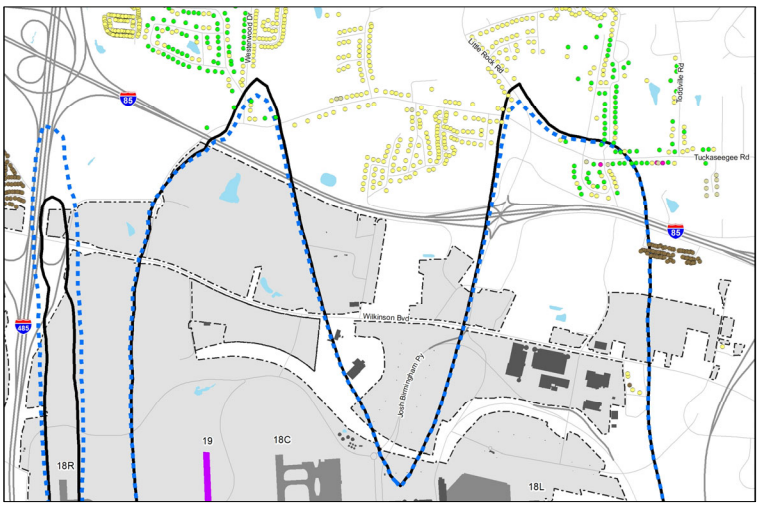


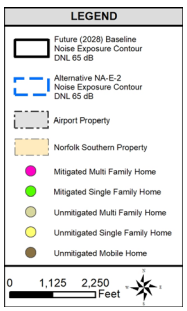
Preferential Runway Use: Nighttime Runway Use

NA-E-2



+ 0 (no increase)
- 7 (decrease)
-7 (decrease)

Total reduction of 7 housing units



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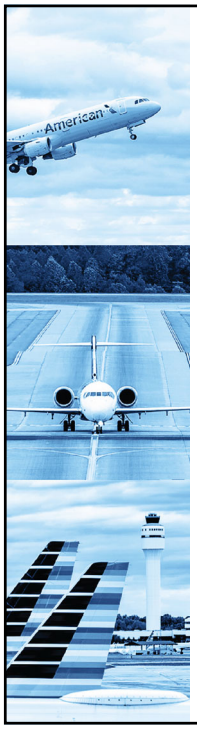


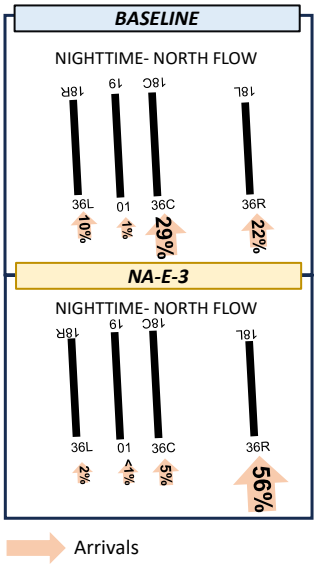
Preferential Runway Use: Nighttime Runway Use

NA-E-3

Focus nighttime north-flow arrivals on the runway that typically receives fewer arrivals during the full 24-hour period (Runway 36R). Due to their close proximity, consider Runways 1/19 and 18C/36C as one runway by aggregating their volumes when determining which runway receives fewest arrivals.

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? Yes. Reduces impacts compared to the Future (2028) Baseline by **19 housing units** in the 65+ DNL.



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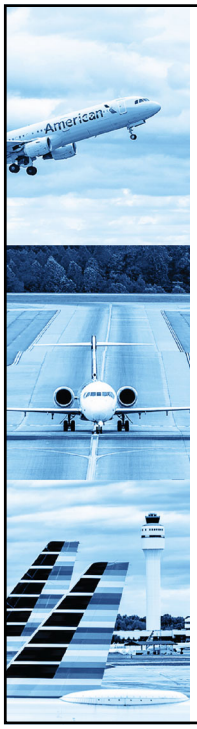
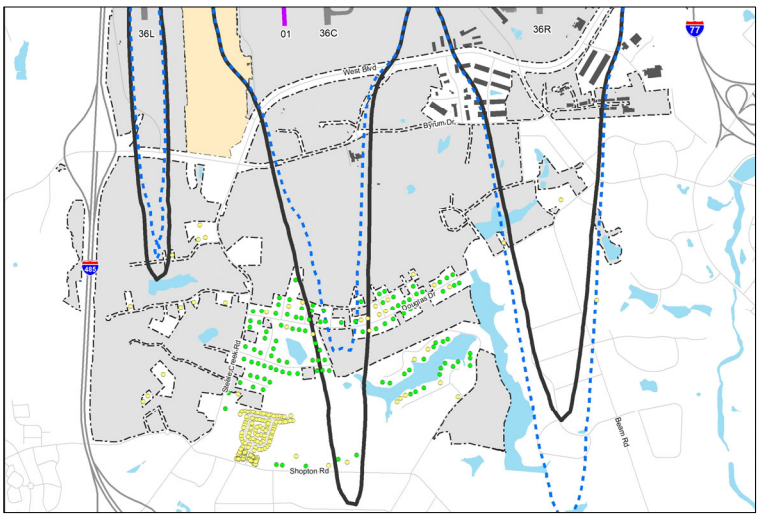


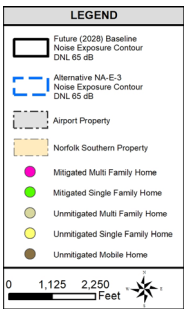
Preferential Runway Use: Nighttime Runway Use

NA-E-3



+ 2 (increase)
- 21 (decrease)
- 19 (decrease)

Total reduction of 19 housing units



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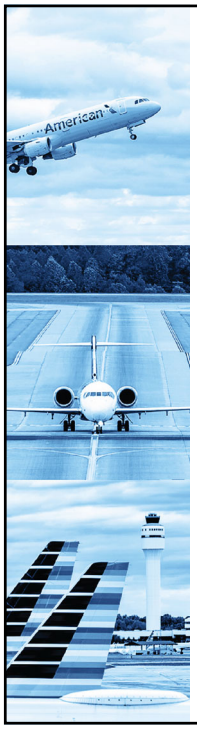


Preferential Runway Use: Nighttime Runway Use

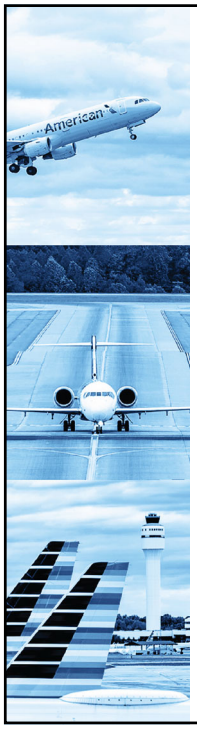
NA-E-3

Operational Impacts:

- Nighttime runway use is highly dependent on runway closures due to maintenance and/or construction.
- Nighttime is the only time extended runway closures can be accomplished without impacting operational efficiency of the Airport
- This is anticipated to continue into the future as maintenance to the airfield will continue
- Therefore, further investigation is needed to determine how often this measure can be implemented without affecting maintenance schedules

Currently under review

39



Preferential Runway Use: Nighttime Runway Use

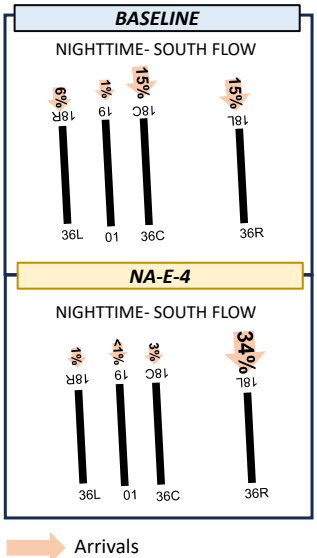
NA-E-4

Focus nighttime south-flow arrivals on the runway that typically receives fewer arrivals during the full 24-hour period (Runway 18L). Due to their close proximity, consider Runways 1/19 and 18C/36C as one runway by aggregating their volumes when determining which runway receives fewest arrivals.

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Increases impacts compared to the Future (2028) Baseline by **28 housing units** in the 65+ DNL.

Eliminate from Evaluation



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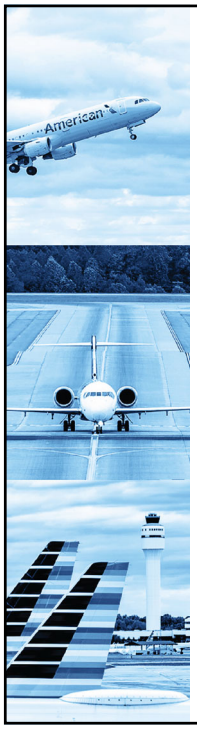
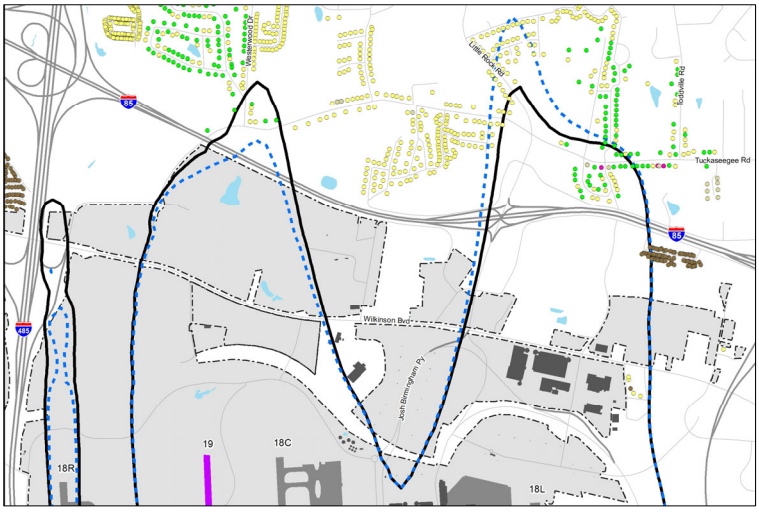


Preferential Runway Use: Nighttime Runway Use

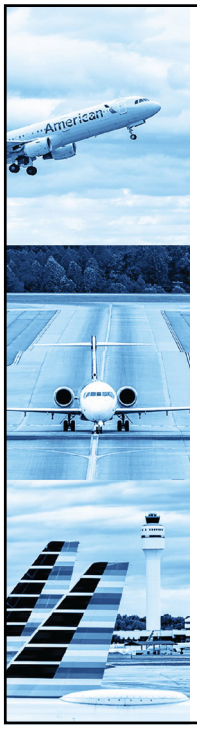
NA-E-4



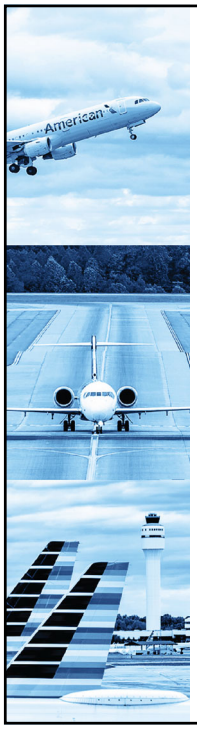
NORTH OF AIRPORT
+ 36 (increase)
- 8 (decrease)
+ 28 (increase)

SOUTH OF AIRPORT
+ 0 (increase)
- 0 (decrease)
+ 0 (no change)

Total increase of 28 housing units



Flight Procedure: Divergent Headings - North Flow



Flight Procedure: Divergent Headings- North Flow

NA-F-1

Increase the number of departure headings for north flow operations while maintaining existing approved headings and maximizing departure corridors.

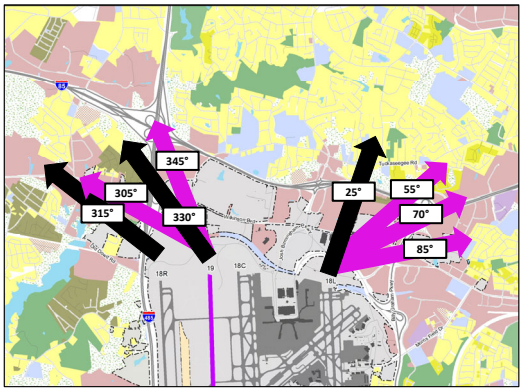
Keep existing headings as follows:

- Runway 36R: 25°
- Runway 36L: 315°

Add additional divergent headings as follows:

- Runway 36R:
  - 85° to follow the Wilkinson Boulevard corridor
  - 55° and 70° to follow the Interstate 85 corridor
- Runway 01:
  - Implement the existing Runway 36C's approved 330° heading
  - 345° to overfly the Interstate 85/485 Interchange and follow the Interstate 485 corridor
  - 305° to follow the Wilkinson Blvd corridor

Safety/Feasibility: No safety/feasibility issues identified



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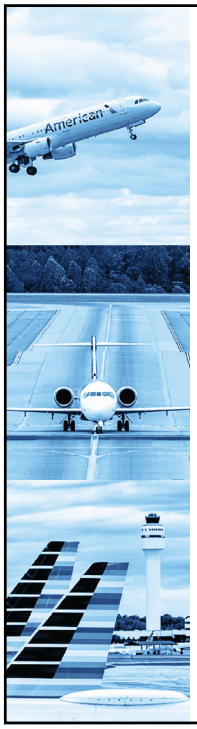
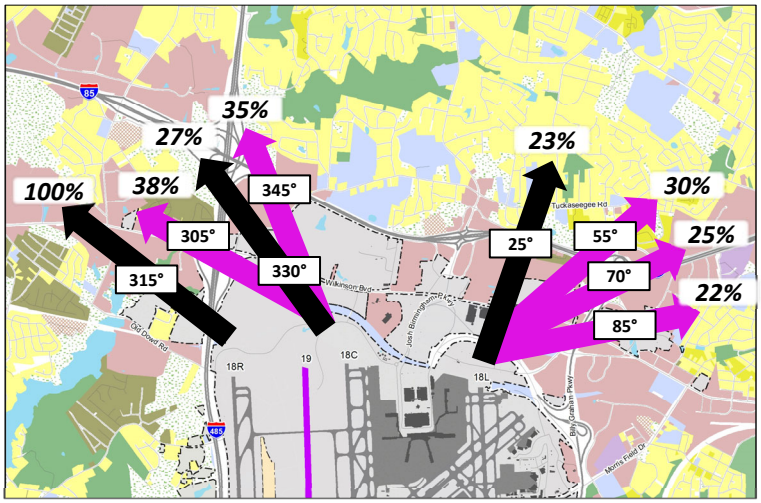


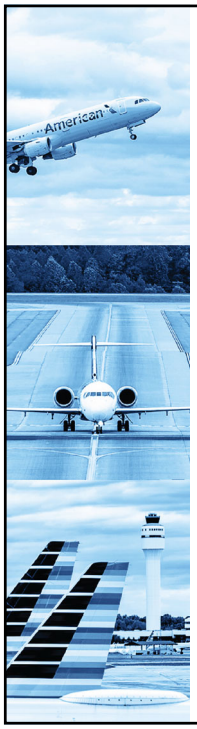
Flight Procedure: Divergent Headings - North Flow

NA-F-1



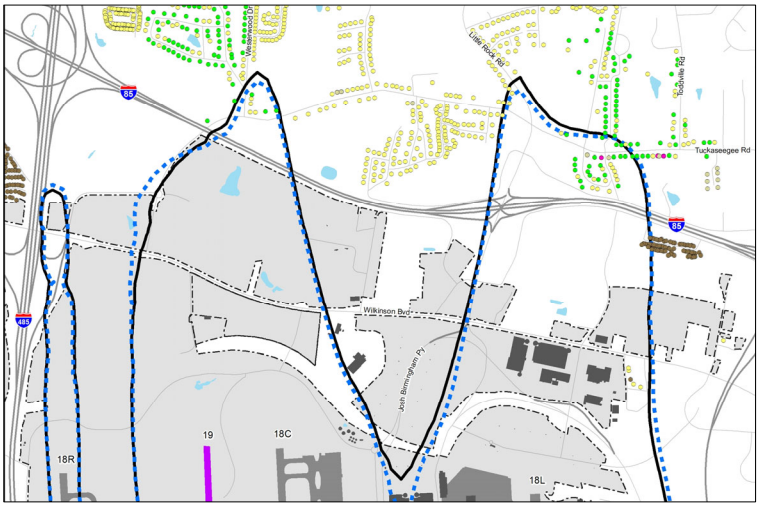
- *% denotes percentage of jet aircraft modeled on each heading for each runway*
- *modeling methodology assumes the same headings and percent use on both Runway 36C and Runway 01*

44

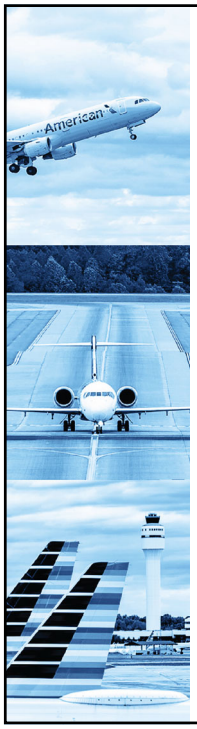


Flight Procedure: Divergent Headings - North Flow

NA-F-1



+ 1 (increase)
- 6 (decrease)
- 5 (decrease)
Total reduction of 5 housing units



Flight Procedure: Divergent Headings - North Flow

NA-F-1

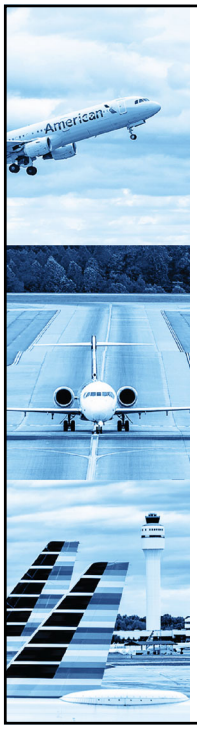
	65-<70 DNL	70-<75 DNL	75+ DNL	65+ DNL	Future (2028) Baseline 65+ DNL
HOUSING UNITS					
Housing Type					
Single-Family	80	0	0	80	85
Multi-Family	94	0	0	94	94
Manufactured Home	63	0	0	63	63
Total Housing Units	**237**	**0**	**0**	**237**	**242**
POPULATION					
Total Population[1]	**670**	**0**	**0**	**670**	**685**
NOISE-SENSITIVE FACILITIES					
Schools / Day Cares	3	0	0	3	4
Churches / Places of Worship	4	0	0	4	4
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0
Outdoor Music / Amphitheaters	0	0	0	0	0
Other Uses[2]	n/a	0	0	0	0
Total Noise-Sensitive Facilities	**7**	**0**	**0**	**7**	**8**

Notes: 1. Total population estimated based upon the housing counts multiplied by the 2010 Census average household size for each Census Block Group.
2. Other uses that are considered noise-sensitive at or above 70 DNL include sports arenas, zoos, nature exhibits, amusement parks, camps, resorts, golf courses, stables, and office or publicly accessible portions of commercial or manufacturing facilities
Source: Landrum & Brown, 2023

Reduces impacts in 65 DNL?
Yes. Reduces impacts compared to the Future (2028) Baseline by **5 housing units** and **1 day care** within the 65+ DNL.

Operational impacts:
No operational impacts identified.

Continue in Evaluation



Flight Procedure: Divergent Headings - North Flow

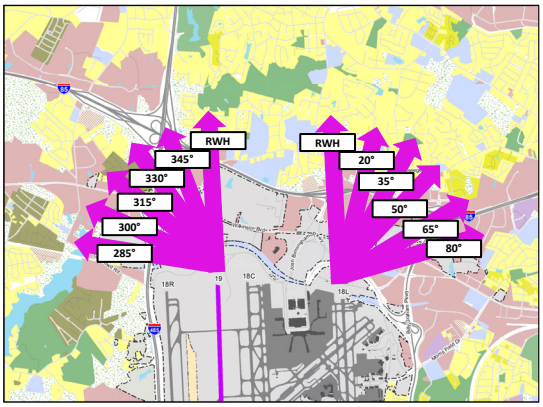
NA-F-2

Maximize the number of divergent headings for north flow operations while maintaining a 15° separation between headings.

Add additional divergent headings as follows:

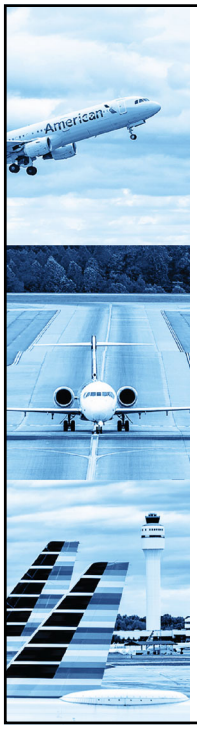
- Runway 36R: RWH, 20°, 35°, 50°, 65°, 80°
- Runway 01: RWH, 345°, 330°, 315°, 300°, 285°

While a straight-out heading is identified for Runways 36R and 01, these headings cannot be used simultaneously because a 15-degree separation is required per 7110.65Z.



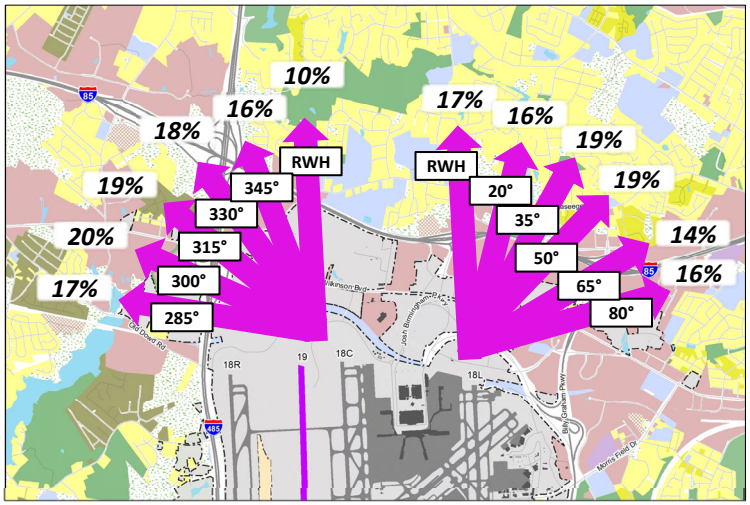
Safety/Feasibility: No safety/feasibility issues identified

47



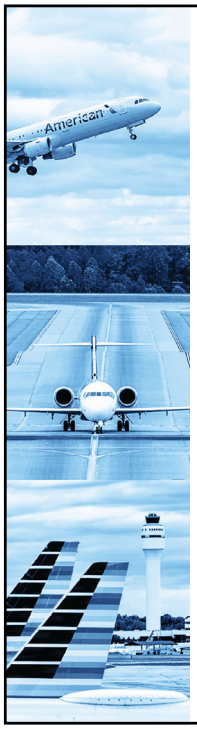
Flight Procedure: Divergent Headings - North Flow

NA-F-2



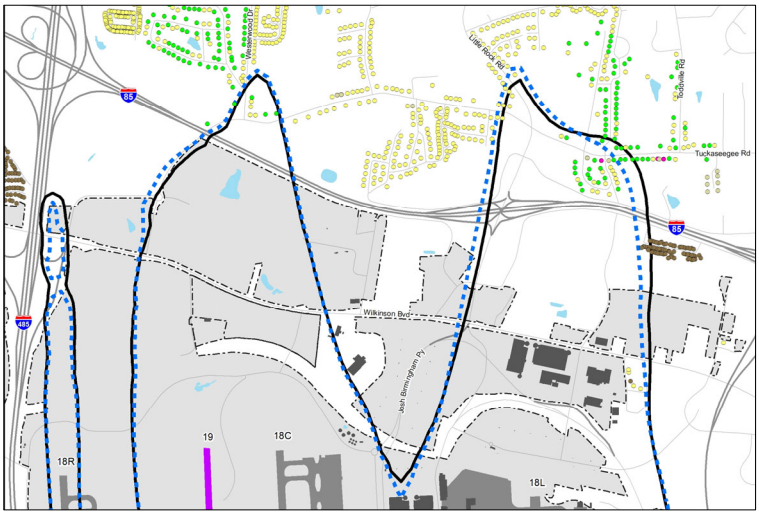
- *% denotes percentage of jet aircraft modeled on each heading for each runway*
- *modeling methodology assumes the same headings and percent use on both Runway 36C and Runway 01*

48

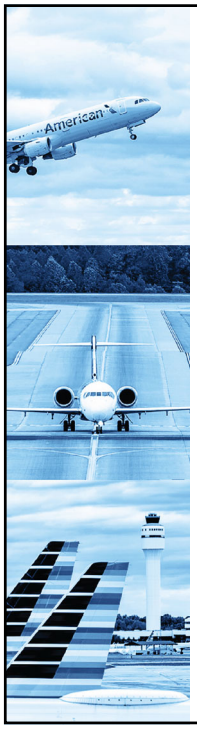


Flight Procedure: Divergent Headings - North Flow

NA-F-2



+ 5 (increase)
- 7 (decrease)
- 2 (decrease)
Total reduction of 2 housing units



Flight Procedure: Divergent Headings - North Flow

NA-F-2

	65-<70 DNL	70-<75 DNL	75+ DNL	65+ DNL	Future (2028) Baseline 65+ DNL
HOUSING UNITS					
Housing Type					
Single-Family	83	0	0	83	85
Multi-Family	94	0	0	94	94
Manufactured Home	63	0	0	63	63
Total Housing Units	**240**	**0**	**0**	**240**	**242**
POPULATION					
Total Population[1]	**679**	**0**	**0**	**679**	**685**
NOISE-SENSITIVE FACILITIES					
Schools / Day Cares	4	0	0	4	4
Churches / Places of Worship	4	0	0	4	4
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0
Outdoor Music / Amphitheaters	0	0	0	0	0
Other Uses[2]	n/a	0	0	0	0
Total Noise-Sensitive Facilities	**8**	**0**	**0**	**8**	**8**

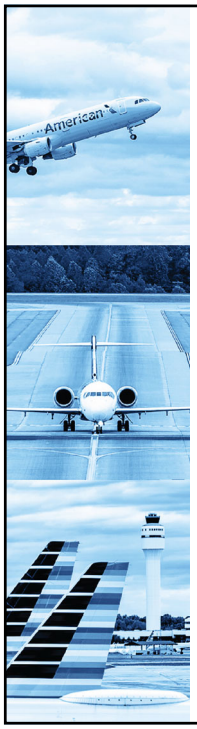
Notes: 1. Total population estimated based upon the housing counts multiplied by the 2010 Census average household size for each Census Block Group.
2. Other uses that are considered noise-sensitive at or above 70 DNL include sports arenas, zoos, nature exhibits, amusement parks, camps, resorts, golf courses, stables, and office or publicly accessible portions of commercial or manufacturing facilities

Source: Landrum & Brown, 2023

Reduces impacts in 65 DNL?
Yes. Reduces impacts compared to the Future (2028) Baseline by 2 housing units within the 65+ DNL.

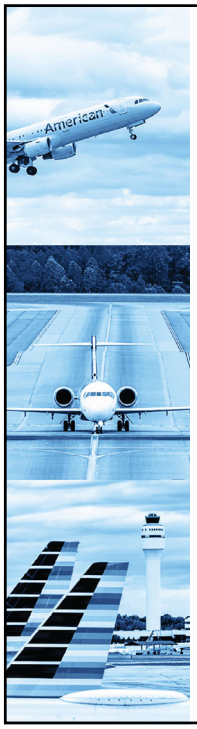
Operational impacts:
No operational impacts identified.

Continue in Evaluation



Flight Procedure: Divergent Headings - South Flow

51



Flight Procedure: Divergent Headings - South Flow

NA-G-1

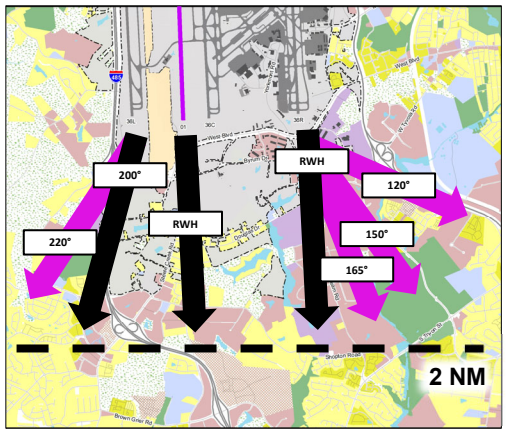
Increase the number of departure headings for south flow operations while keeping the 2-mile restriction on the new Runway 19.

Keep existing headings as follows:

- Runway 18R: 200°
- Runway 18L: RWH

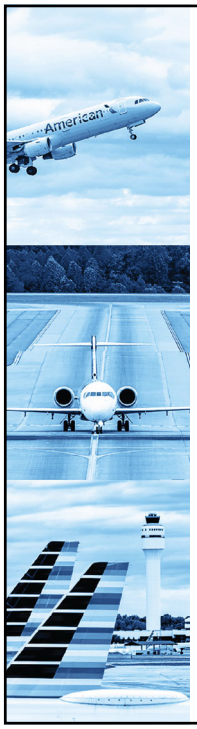
Add additional divergent headings as follows:

- Runway 18R (remove 2-mile restriction):
  - 220° to follow the Garrison Road corridor
- Runway 19 (keep 2-mile restriction):
  - Implement the existing RWH
- Runway 18L (remove 2-mile restriction):
  - 120° to follow the Billy Graham Parkway corridor
  - 150° and 165° to follow the W Tyvola Road corridor



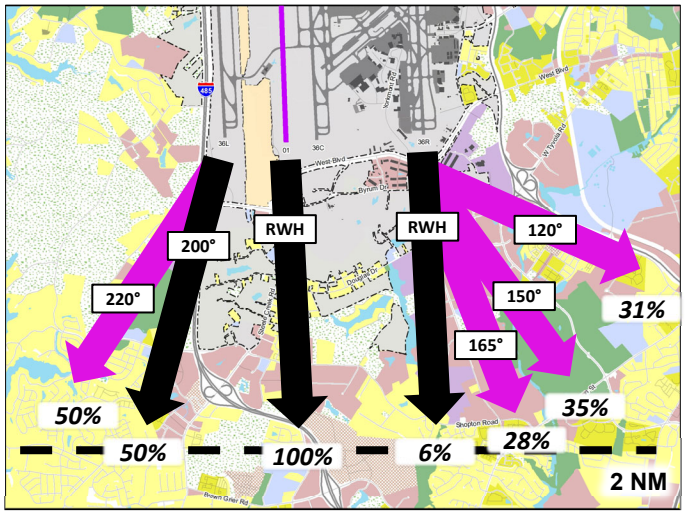
Safety/Feasibility: No safety/feasibility issues identified

52



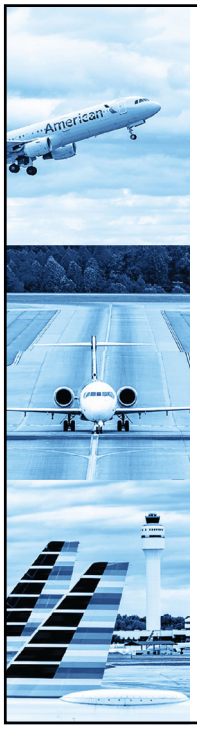
Flight Procedure: Divergent Headings - South Flow

NA-G-1



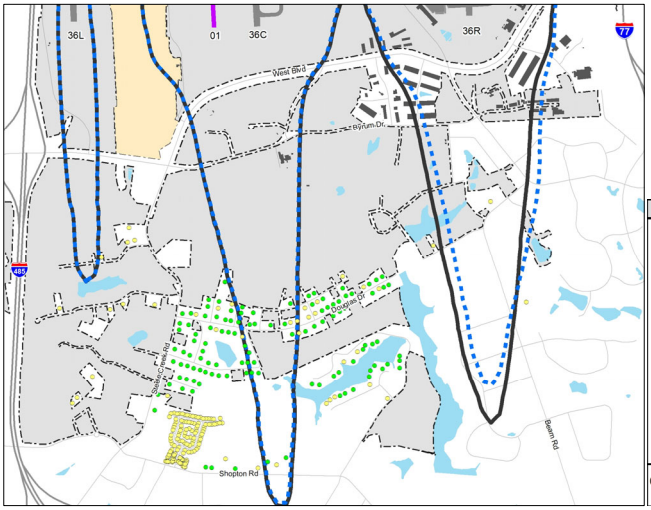
- *% denotes percentage of jet aircraft modeled on each heading for each runway*
- *modeling methodology assumes the same headings and percent use on both Runway 18C and Runway 19*

53



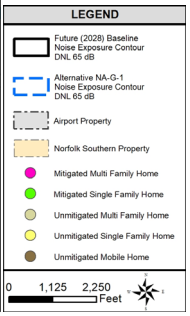
Flight Procedure: Divergent Headings - South Flow

NA-G-1



Reduces impacts in 65 DNL?
No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.

Eliminate from Evaluation



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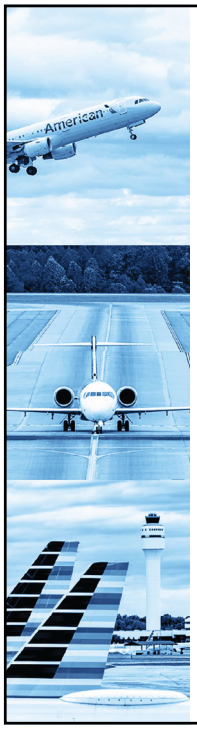


Flight Procedure: Divergent Headings - South Flow

NA-G-2

Increase the number of departure headings for south flow operations while keeping the 2-mile restriction on Runway 18L.

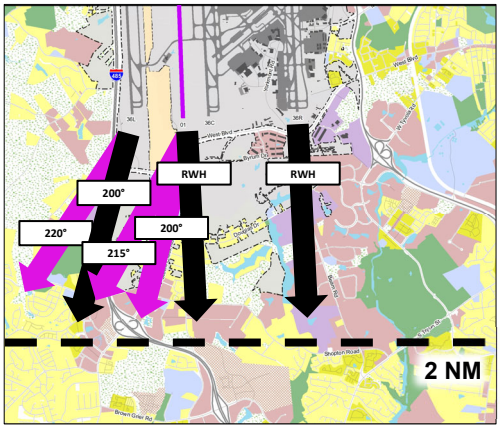
Keep existing headings as follows:

- Runway 18R: 200°
- Runway 18L: RWH (keep 2-mile restriction)

Add additional divergent headings as follows:

- Runway 18R (remove 2-mile restriction):
  - 220° to follow the Garrison Road corridor
- Runway 19 (remove 2-mile restriction):
  - Implement the existing RWH
  - 200° and 215° to follow the Steele Creek Road corridor

Safety/Feasibility: No safety/feasibility issues identified



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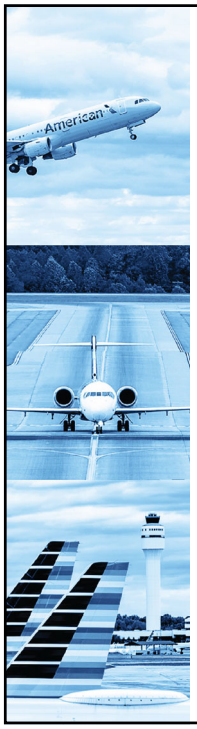
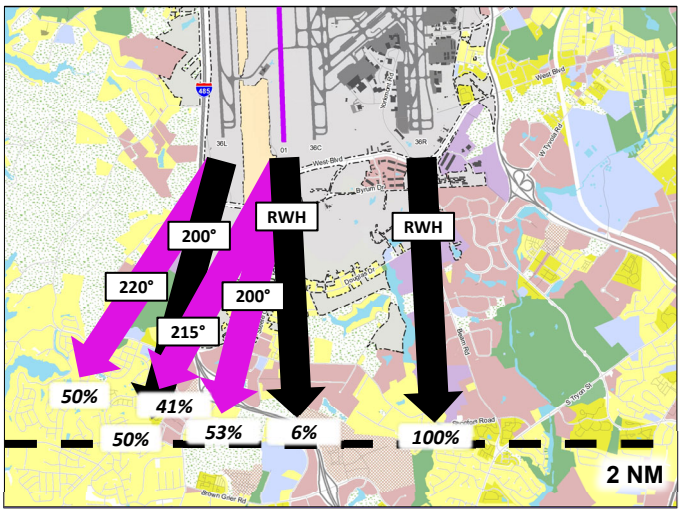


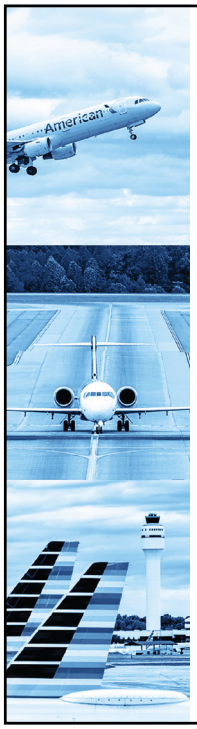
Flight Procedure: Divergent Headings - South Flow

NA-G-2



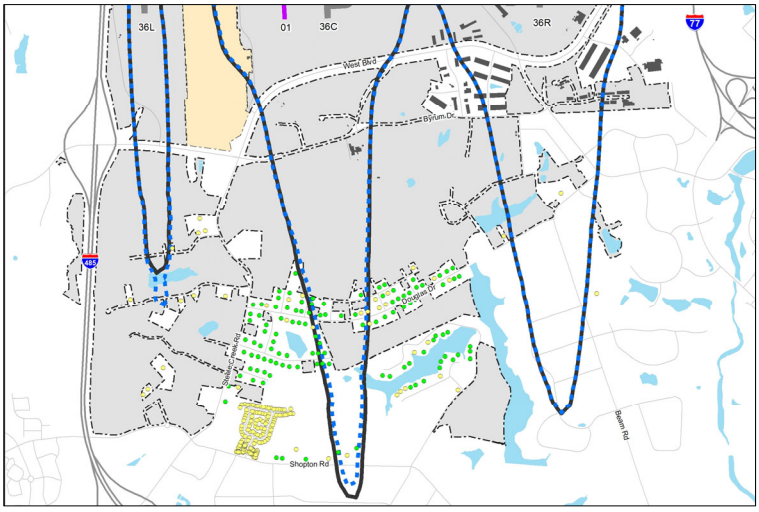
- *% denotes percentage of jet aircraft modeled on each heading for each runway*
- *modeling methodology assumes the same headings and percent use on both Runway 18C and Runway 19*

56



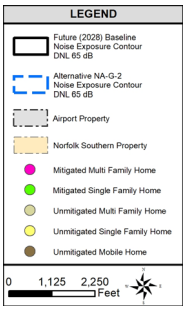
Flight Procedure: Divergent Headings - South Flow

NA-G-2



+ 1 (increase)
- 2 (decrease)
-1 (decrease)

Total reduction of 1 housing unit



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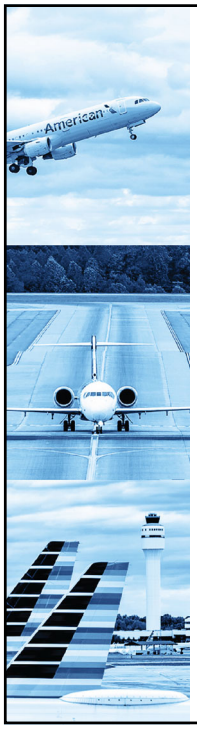


Flight Procedure: Divergent Headings - South Flow

NA-G-2

	65-<70 DNL	70-<75 DNL	75+ DNL	65+ DNL	Future (2028) Baseline 65+ DNL
HOUSING UNITS					
Housing Type					
Single-Family	84	0	0	84	85
Multi-Family	94	0	0	94	94
Manufactured Home	63	0	0	63	63
Total Housing Units	**241**	**0**	**0**	**241**	**242**
POPULATION					
Total Population[1]	**682**	**0**	**0**	**682**	**685**
NOISE-SENSITIVE FACILITIES					
Schools / Day Cares	4	0	0	4	4
Churches / Places of Worship	4	0	0	4	4
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0
Outdoor Music / Amphitheaters	0	0	0	0	0
Other Uses[2]	n/a	0	0	0	0
Total Noise-Sensitive Facilities	**8**	**0**	**0**	**8**	**8**

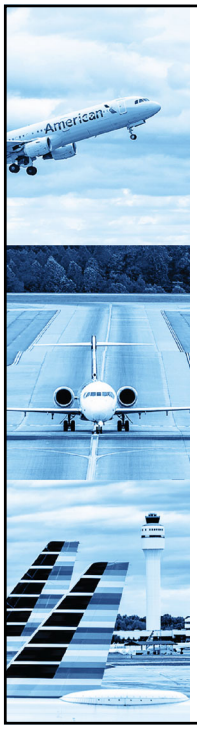
Notes: 1. Total population estimated based upon the housing counts multiplied by the 2010 Census average household size for each Census Block Group.
2. Other uses that are considered noise-sensitive at or above 70 DNL include sports arenas, zoos, nature exhibits, amusement parks, camps, resorts, golf courses, stables, and office or publicly accessible portions of commercial or manufacturing facilities
Source: Landrum & Brown, 2023

Reduces impacts in 65 DNL?
Yes. Reduces impacts compared to the Future (2028) Baseline by **1 housing unit** within the 65+ DNL.

Operational impacts:
No operational impacts identified.

Continue in Evaluation

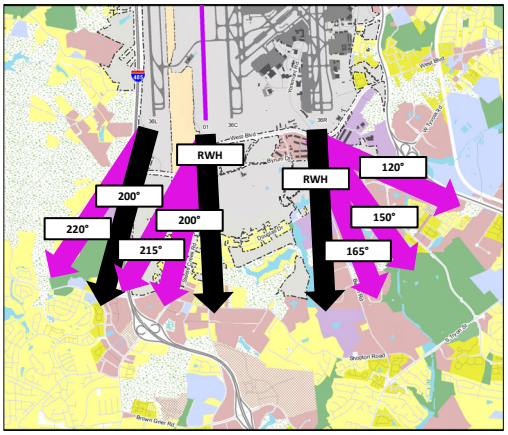
58



Flight Procedure: Divergent Headings - South Flow

NA-G-3

Increase the number of departure headings for south flow operations while maintaining existing approved headings and maximizing departure corridors. This requires eliminating the 2-mile restriction for all runways.



Keep existing headings as follows:

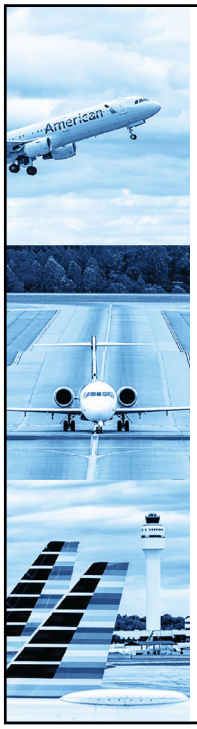
- Runway 18L: RWH
- Runway 18R: 200°

Eliminate the 2-mile restriction and add divergent headings as follows:

- Runway 18L:
  - 120° to follow the Billy Graham Parkway corridor
  - 150° and 165° to follow the W Tyvola Road corridor
- Runway 18R:
  - 220° to follow the Garrison Rd corridor
- Runway 19:
  - Implement the existing RWH
  - 200° and 215° to follow the Steele Creek Road corridor

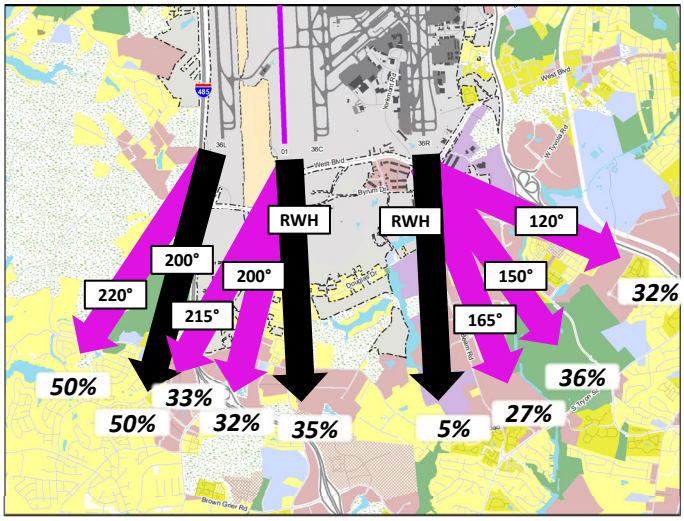
Safety/Feasibility: No safety/feasibility issues identified

59



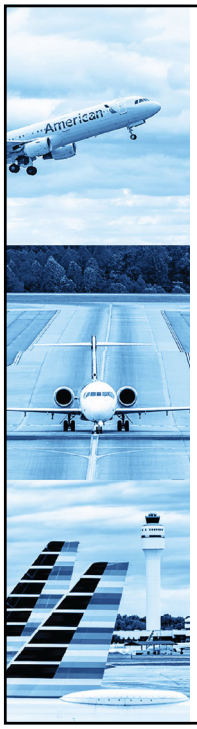
Flight Procedure: Divergent Headings - South Flow

NA-G-3



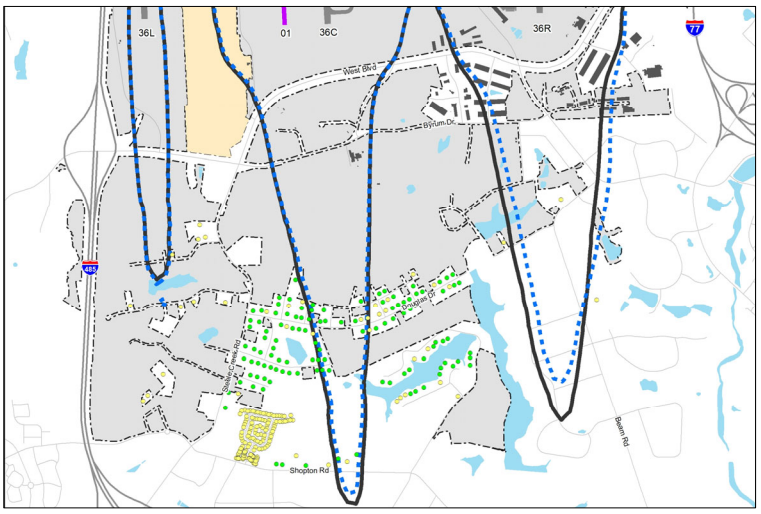
- *% denotes percentage of jet aircraft modeled on each heading for each runway*
- *modeling methodology assumes the same headings and percent use on both Runway 18C and Runway 19*

60

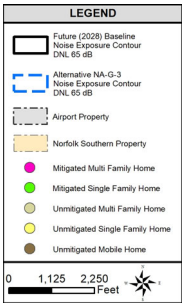


Flight Procedure: Divergent Headings - South Flow

NA-G-3



+ 1 (increase)
- 2 (decrease)
-1 (decrease)
Total reduction of 1 housing unit



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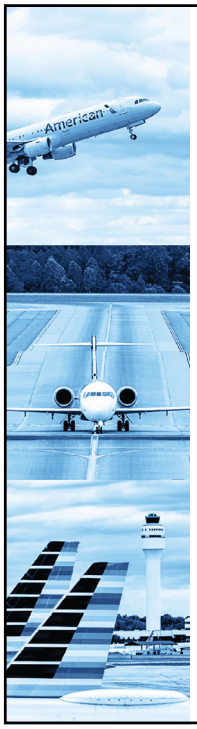


Flight Procedure: Divergent Headings - South Flow

NA-G-3

	65-<70 DNL	70-<75 DNL	75+ DNL	65+ DNL	Future (2028) Baseline 65+ DNL
HOUSING UNITS					
Housing Type					
Single-Family	84	0	0	84	85
Multi-Family	94	0	0	94	94
Manufactured Home	63	0	0	63	63
Total Housing Units	**241**	**0**	**0**	**241**	**242**
POPULATION					
Total Population[1]	**682**	**0**	**0**	**682**	**685**
NOISE-SENSITIVE FACILITIES					
Schools / Day Cares	4	0	0	4	4
Churches / Places of Worship	4	0	0	4	4
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0
Outdoor Music / Amphitheaters	0	0	0	0	0
Other Uses[2]	n/a	0	0	0	0
Total Noise-Sensitive Facilities	**8**	**0**	**0**	**8**	**8**

Notes: 1. Total population estimated based upon the housing counts multiplied by the 2010 Census average household size for each Census Block Group.
2. Other uses that are considered noise-sensitive at or above 70 DNL include sports arenas, zoos, nature exhibits, amusement parks, camps, resorts, golf courses, stables, and office or publicly accessible portions of commercial or manufacturing facilities

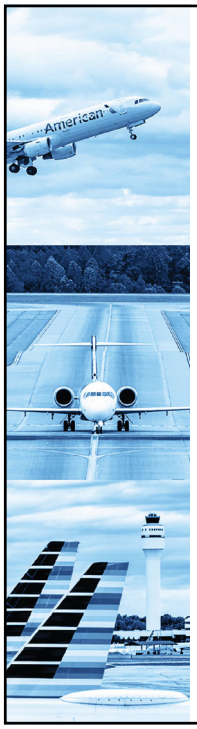
Source: Landrum & Brown, 2023

Reduces impacts in 65 DNL?
Yes. Reduces impacts compared to the Future (2028) Baseline by **1 housing unit** within the 65+ DNL.

Operational impacts:
No operational impacts identified.

Continue in Evaluation

62



Flight Procedure: Divergent Headings - South Flow

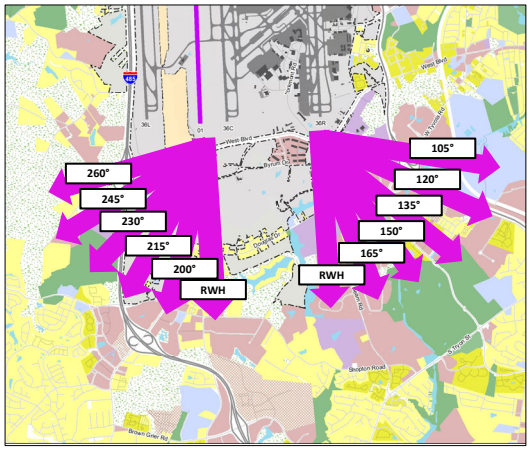
NA-G-4

Maximize the number of divergent headings for south flow departures while maintaining a 15° separation between headings. This would require the elimination of the 2-mile restriction.

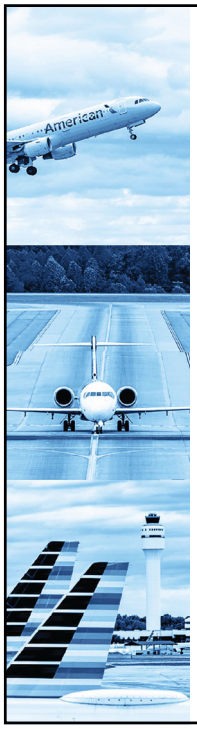
Eliminate the 2-mile restriction and add additional divergent headings as follows:

- Runway 18L: RWH, 165°, 150°, 135°, 120°, 105°
- Runway 19: RWH, 200°, 215°, 230°, 245°, 260°

Safety/Feasibility: No safety/feasibility issues identified

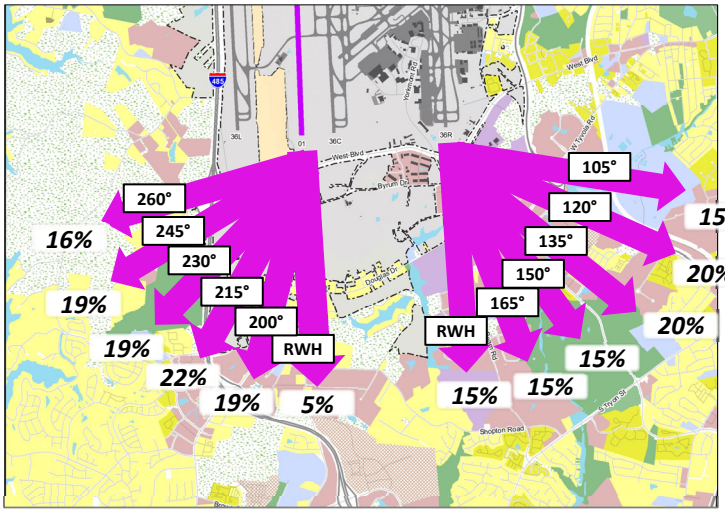


63



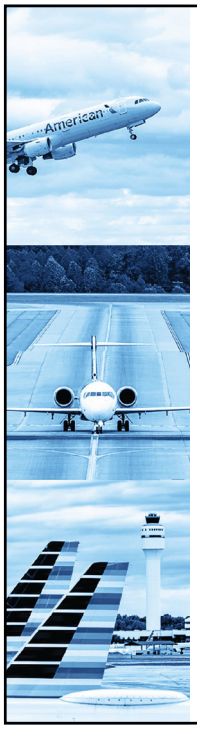
Flight Procedure: Divergent Headings - South Flow

NA-G-4



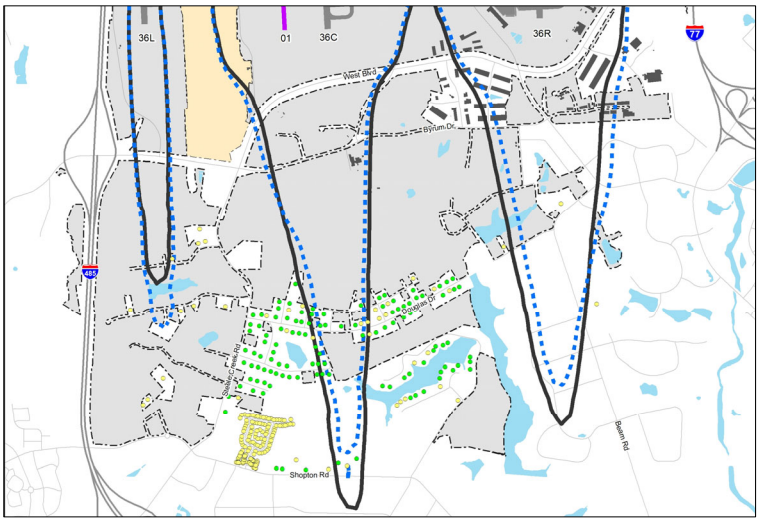
- *% denotes percentage of jet aircraft modeled on each heading for each runway*
- *modeling methodology assumes the same headings and percent use on both Runway 18C and Runway 19*

64



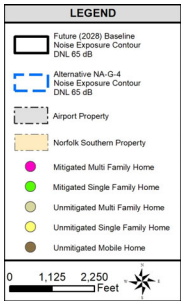
Flight Procedure: Divergent Headings - South Flow

NA-G-4



+ 1 (increase)
- 9 (decrease)
- 8 (decrease)

Total reduction of 8 housing units



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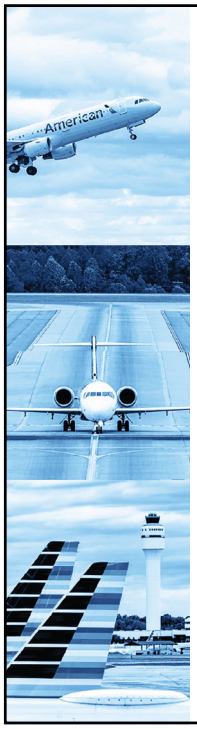


Flight Procedure: Divergent Headings - South Flow

NA-G-4

	65-<70 DNL	70-<75 DNL	75+ DNL	65+ DNL	Future (2028) Baseline 65+ DNL
HOUSING UNITS					
Housing Type					
Single-Family	77	0	0	77	85
Multi-Family	94	0	0	94	94
Manufactured Home	63	0	0	63	63
Total Housing Units	**234**	**0**	**0**	**234**	**242**
POPULATION					
Total Population[1]	**665**	**0**	**0**	**665**	**685**
NOISE-SENSITIVE FACILITIES					
Schools / Day Cares	4	0	0	4	4
Churches / Places of Worship	4	0	0	4	4
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0
Outdoor Music / Amphitheaters	0	0	0	0	0
Other Uses[2]	n/a	0	0	0	0
Total Noise-Sensitive Facilities	**8**	**0**	**0**	**8**	**8**

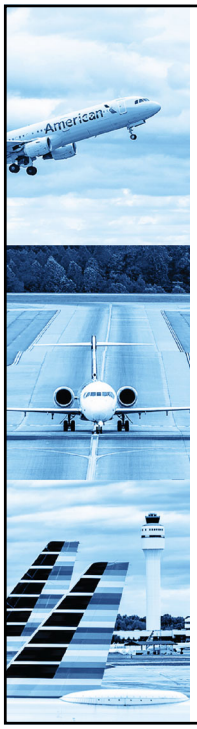
Notes: 1. Total population estimated based upon the housing counts multiplied by the 2010 Census average household size for each Census Block Group.
2. Other uses that are considered noise-sensitive at or above 70 DNL include sports arenas, zoos, nature exhibits, amusement parks, camps, resorts, golf courses, stables, and office or publicly accessible portions of commercial or manufacturing facilities
Source: Landrum & Brown, 2023

Reduces impacts in 65 DNL?
Yes. Reduces impacts compared to the Future (2028) Baseline by **8 housing units** within the 65+ DNL.

Operational impacts:
No operational impacts identified.

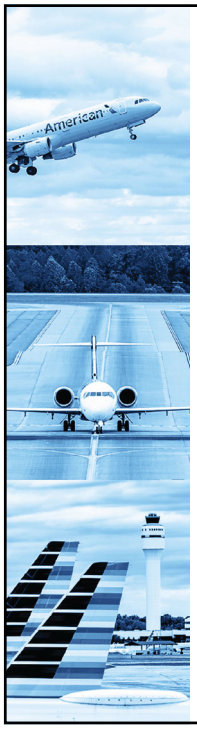
Continue in Evaluation

66



Flight Procedure: Departure Flight Corridors

67



Flight Procedure: Departure Flight Corridors

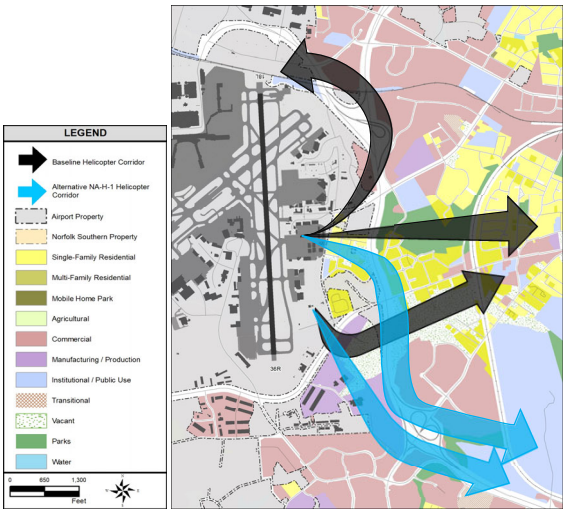
NA-H-1

Evaluate helicopter operations in the south general aviation apron to takeoff towards the south (stay between Yorkmont and Billy Graham Parkway before turning on course)

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.

Eliminate from Evaluation



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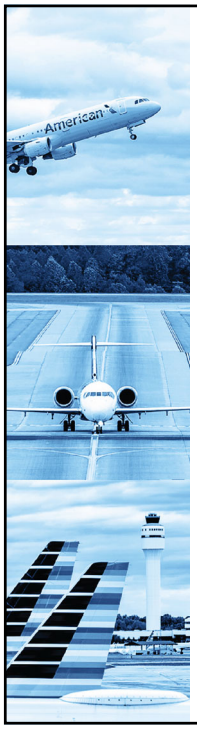


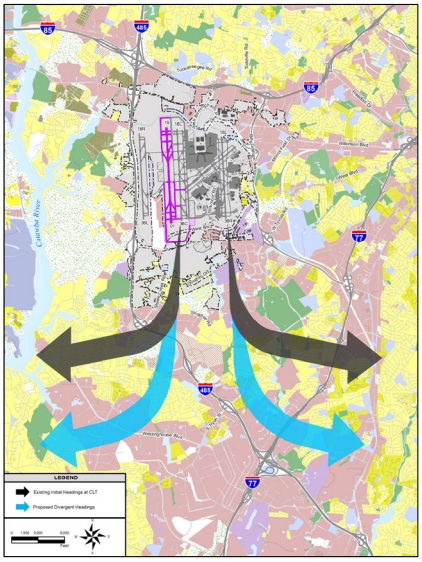
Flight Procedure: Departure Flight Corridors

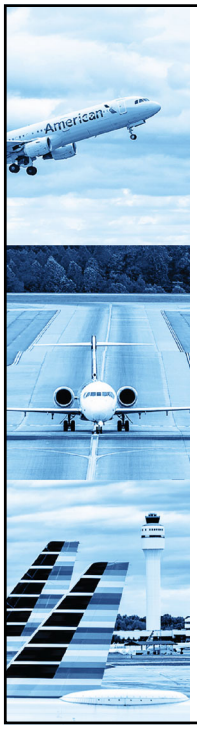
NA-H-2

Change Headings of First Turns off Runways 18L and 18C

Reduce the effect of noise on more densely populated areas and foster the desire by the ACR to return to pre-Metroplex flight paths.

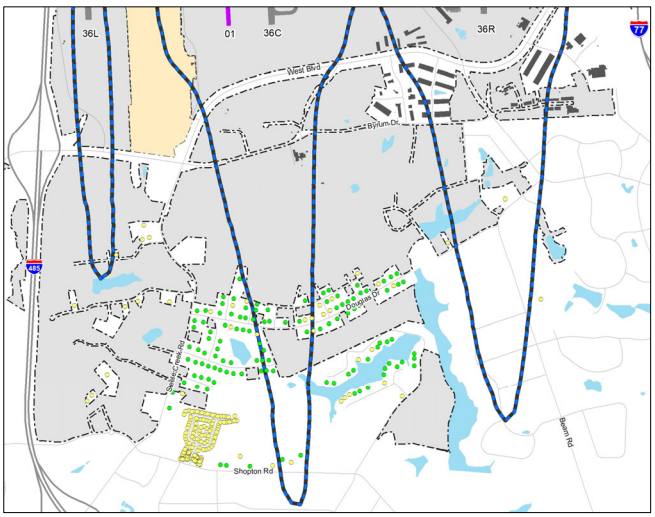
Safety/Feasibility: No safety/feasibility issues identified





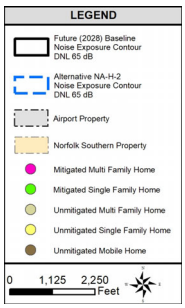
Flight Procedure: Departure Flight Corridors

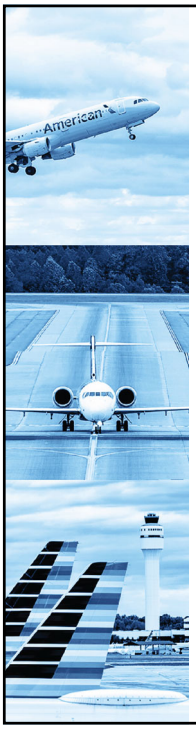
NA-H-2



Reduces impacts in 65 DNL?
No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.

Eliminate from Evaluation





Flight Procedure: Departure Flight Corridors

NA-H-3

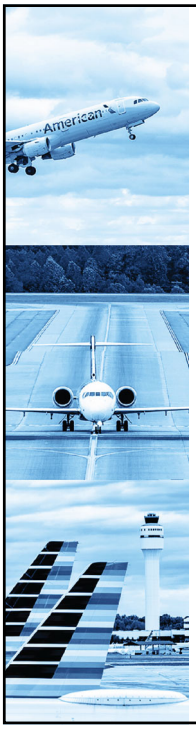
For south flow departures, revert to 2016 procedures where aircraft depart from the Runway 18C at a 183° heading and fly between 2 to 4 nautical miles before turning to a 270° heading.

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Because this alternative targets procedures outside of the 65 DNL, no change would occur when compared to the Future (2028) Baseline 65+ DNL.

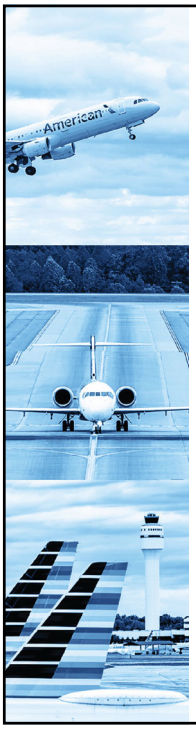
Eliminate from Evaluation

71



Flight Procedure: Arrival Flight Corridors

72



Flight Procedure: Arrival Flight Corridors

NA-I-1

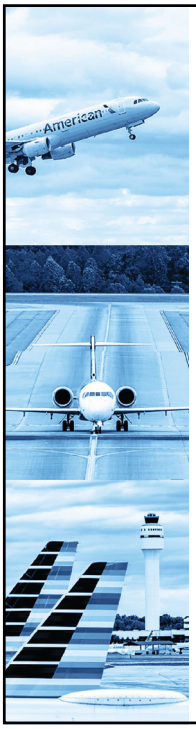
For south flow arrivals along the CHSLY procedure, maintain the published altitude of 6,000 feet at the HEELZ procedure so flights will not cut the corner.

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Because this alternative targets procedures outside of the 65 DNL, no change would occur when compared to the Future (2028) Baseline 65+ DNL.

Eliminate from Evaluation

73



Flight Procedure: Arrival Flight Corridors

NA-I-2

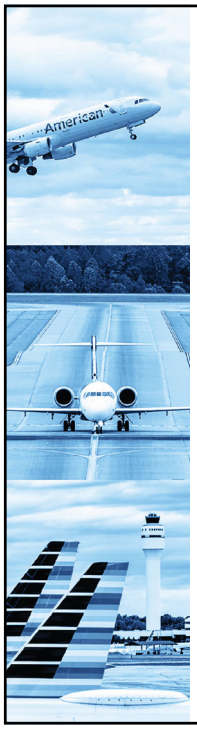
For south flow arrivals, extend the eastern downwind so that flights intercept the final approach over the main channel of Mountain Island Lake keeping an altitude of 6,000 feet until turning final approach course.

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Because this alternative targets procedures outside of the 65 DNL, no change would occur when compared to the Future (2028) Baseline 65+ DNL.

Eliminate from Evaluation

74



Flight Procedure: Arrival Flight Corridors

NA-I-3

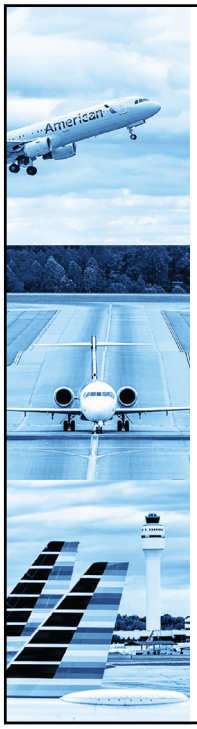
For north flow arrivals, utilize Interstate 77 as a flight corridor.

Safety/Feasibility: No safety/feasibility issues identified

Reduces impacts in 65 DNL? No. Because this alternative targets procedures outside of the 65 DNL, no change would occur when compared to the Future (2028) Baseline 65+ DNL.

Eliminate from Evaluation

75



Screening Process Results Summary

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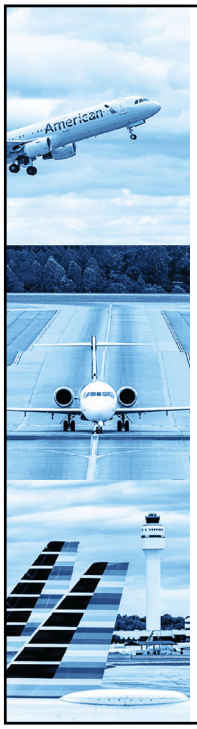

Screening Process Summary: Facility Modification

Alternative	Safety/Feasibility	Reduces impacts in 65 DNL?	Operational Impacts	Implementation Considerations
Run-Up Locations				
NA-A-1	✓	✓	✓	TBD
NA-A-2	✓	✓	✓	TBD
Displaced Arrival Threshold				
NA-B-1	✓	✗		
NA-B-2	✓	✗		
NA-B-3	✓	✓	✗	
NA-B-4	✓	✗		

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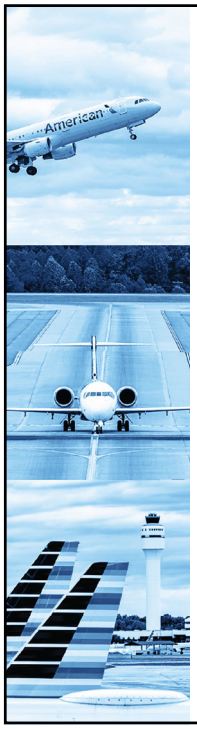

Screening Process Summary: Preferential Runway Use

Alternative	Safety/Feasibility	Reduces impacts in 65 DNL?	Operational Impacts	Implementation Considerations
Airport Flow				
NA-C-1	✗			
NA-C-2	✗			
Daytime Runway Use				
NA-D-1	✓	✗		
NA-D-2	✓	✗		
NA-D-3	✗			
NA-D-4	✓	✓	✗	
NA-D-5	✓	✗		
NA-D-6	✓	✗		
NA-D-7	🔍	TBD	TBD	TBD
NA-D-8	🔍	TBD	TBD	TBD
Nighttime Runway Use				
NA-E-1	✓	✓	✓	TBD
NA-E-2	✓	✓	✓	TBD
NA-E-3	✓	✓	🔍	TBD
NA-E-4	✓	✗		

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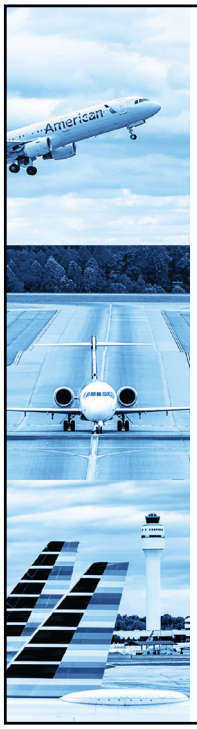

Screening Process Summary: Flight Procedure

Alternative	Safety/Feasibility	Reduces impacts in 65 DNL?	Operational Impacts	Implementation Considerations
Divergent Headings – North Flow				
NA-F-1	✓	✓	✓	TBD
NA-F-2	✓	✓	✓	TBD
Divergent Headings – South Flow				
NA-G-1	✓	✗		
NA-G-2	✓	✓	✓	TBD
NA-G-3	✓	✓	✓	TBD
NA-G-4	✓	✓	✓	TBD
Departure Flight Corridors				
NA-H-1	✓	✗		
NA-H-2	✓	✗		
NA-H-3	✓	✗		
Arrival Flight Corridors				
NA-I-1	✓	✗		
NA-I-2	✓	✗		
NA-I-3	✓	✗		

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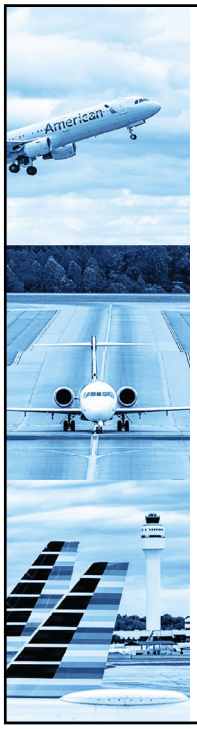

Preliminary Noise Compatibility Program Scenarios

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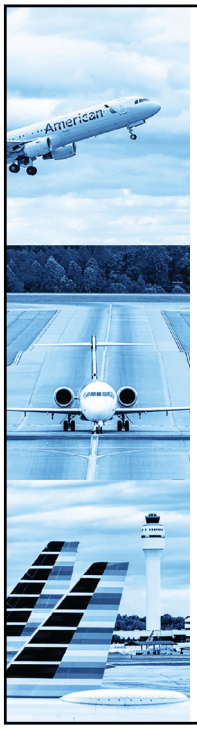
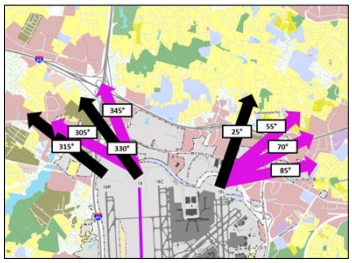


Preliminary Scenario 1

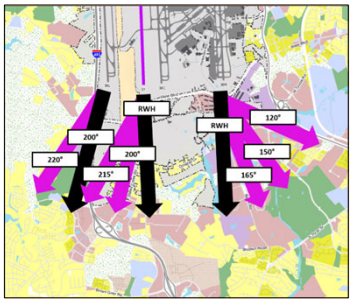
Divergent Headings – North Flow

NA-F-1: Increase the number of departure headings for north flow operations while maintaining existing approved headings and maximizing departure corridors.



Divergent Headings – South Flow

NA-G-3: Increase the number of departure headings for north flow operations while maintaining existing approved headings and maximizing departure corridors.

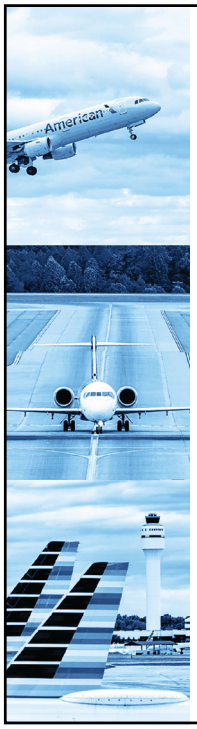


Nighttime Runway Use

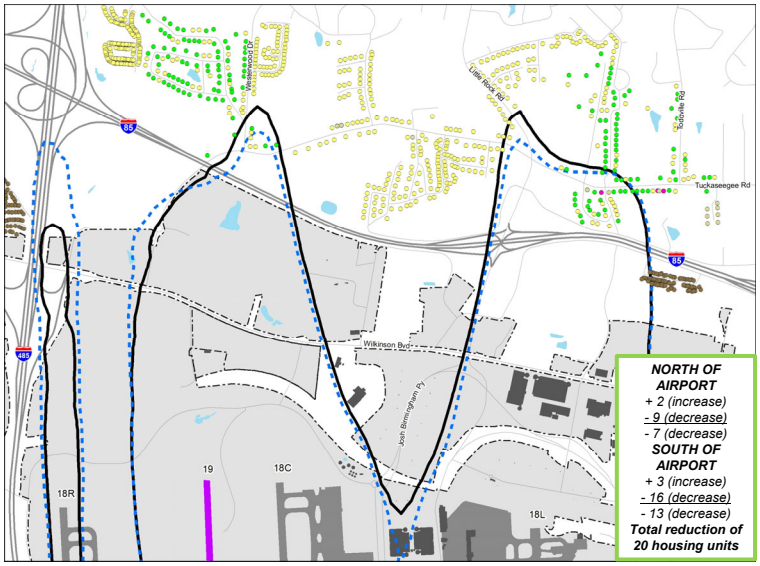
NA-E-1: Designate Runway 36L and 36R as preferred for north flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m.

NA-E-2: Designate Runways 18L, 18C, and 18R for south flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m.

81

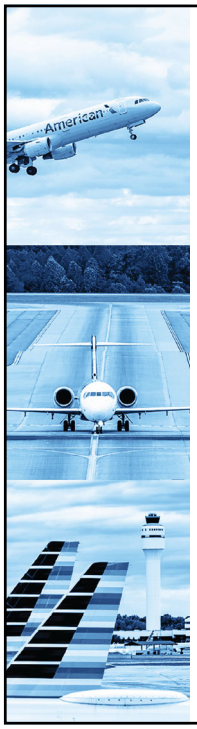


Preliminary Scenario 1



Reduces impacts compared to the Future (2028) Baseline by **20 housing units, 1 daycare, and 1 place of worship** in the 65+ DNL.

82



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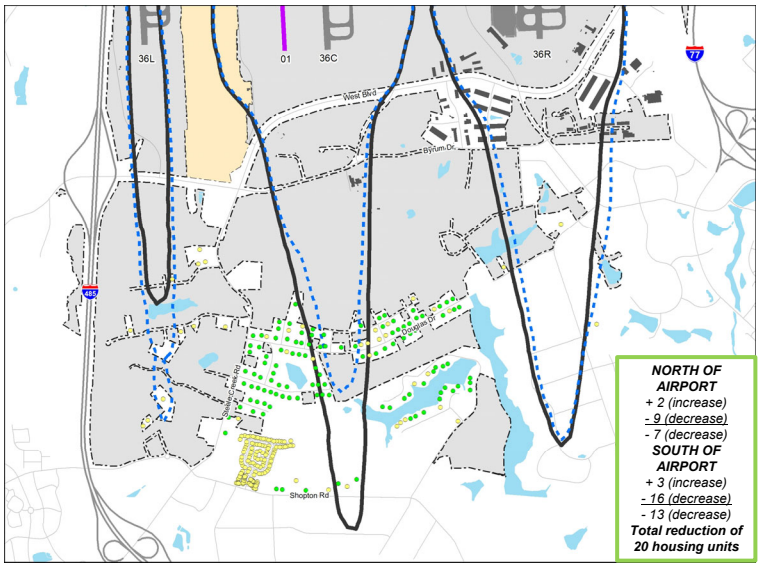

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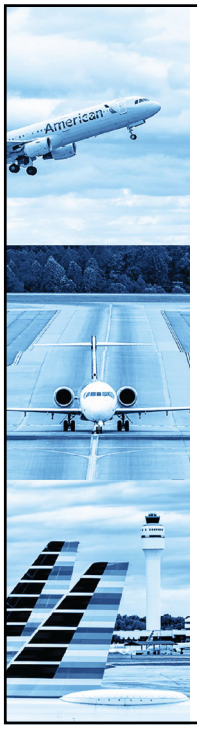


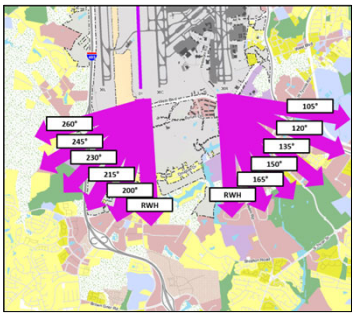
Preliminary Scenario 2

Divergent Headings – North Flow

NA-F-2: Maximize the number of divergent headings for north flow operations while maintaining a 15° separation between headings.

Divergent Headings – South Flow

NA-G-4: Maximize the number of divergent headings for south flow departures while maintaining a 15° separation between headings. This would require the elimination of the 2-mile restriction.



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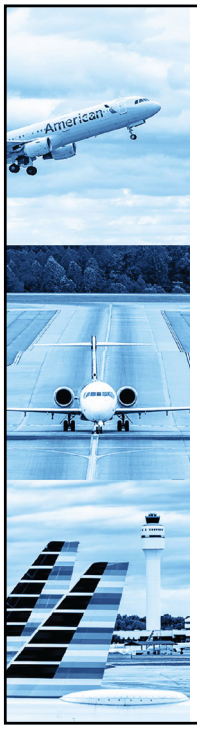

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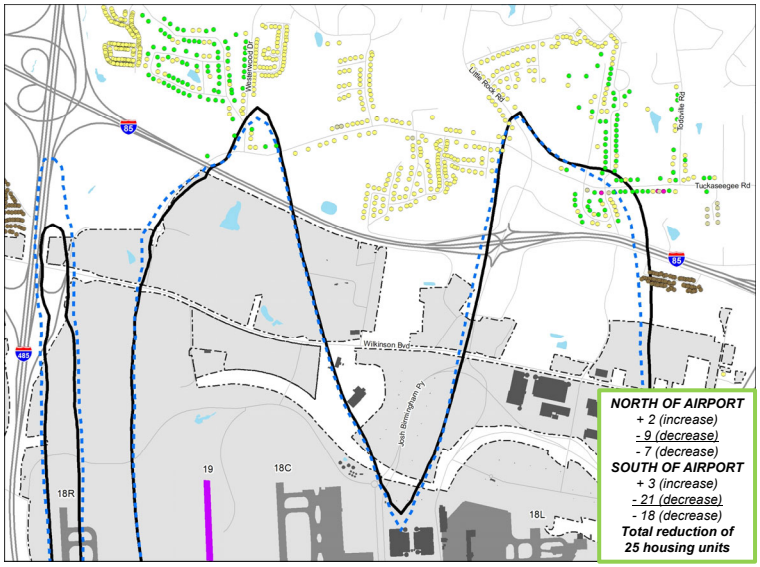
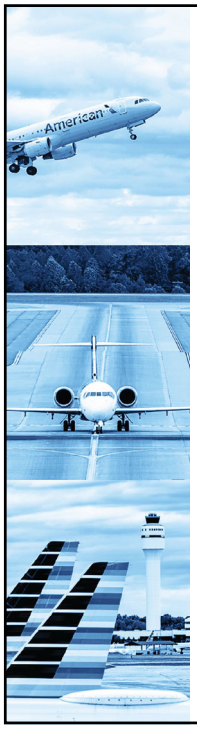


Reduces impacts compared to the Future (2028) Baseline by **25 housing units** in the 65+ DNL.

85



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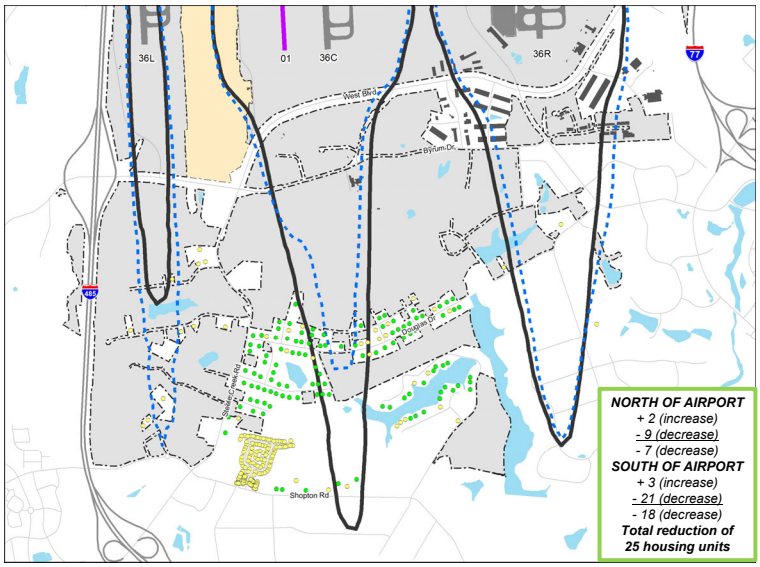

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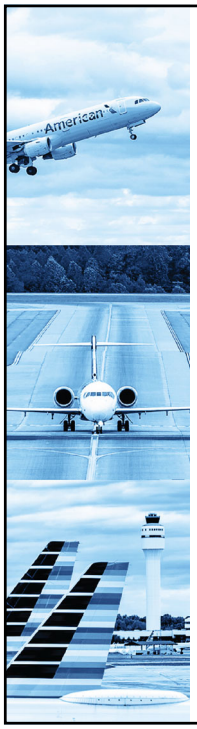
86



Preliminary Scenario 3

Divergent Headings – North Flow

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Divergent Headings – South Flow

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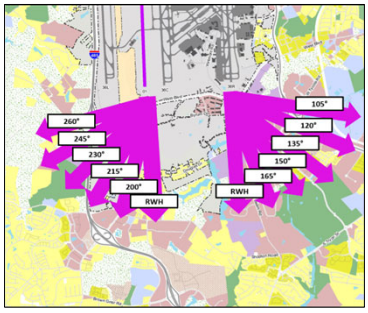

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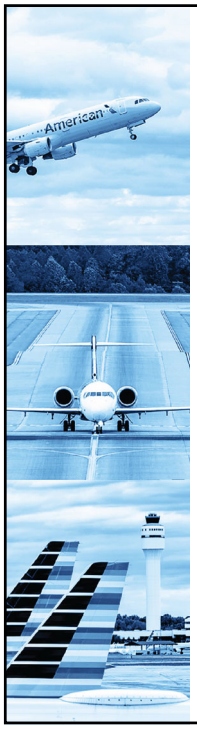

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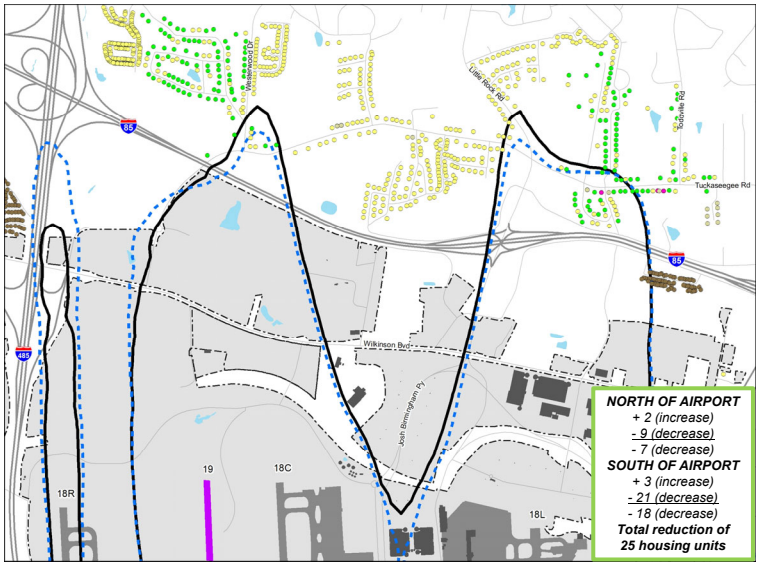

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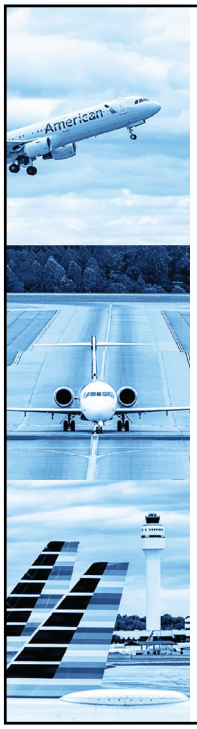

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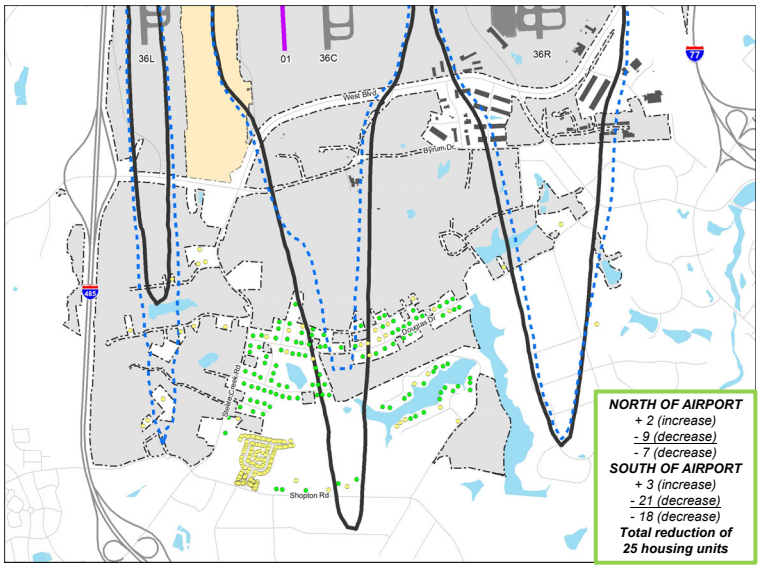

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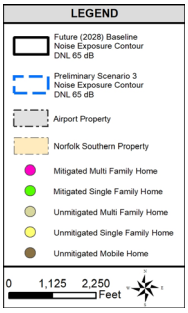

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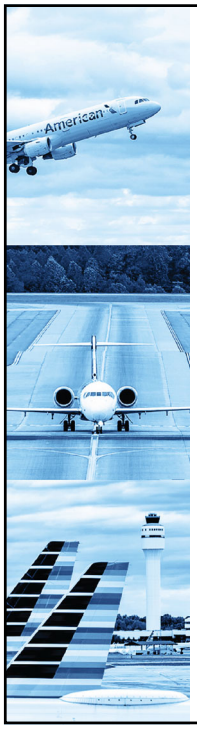

Next Steps / Schedule

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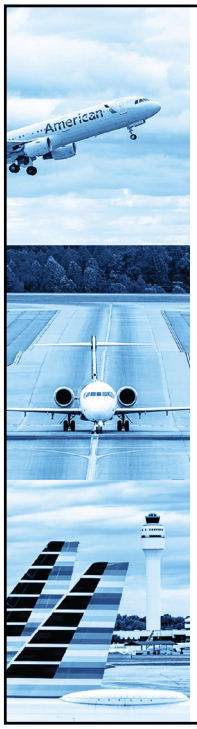
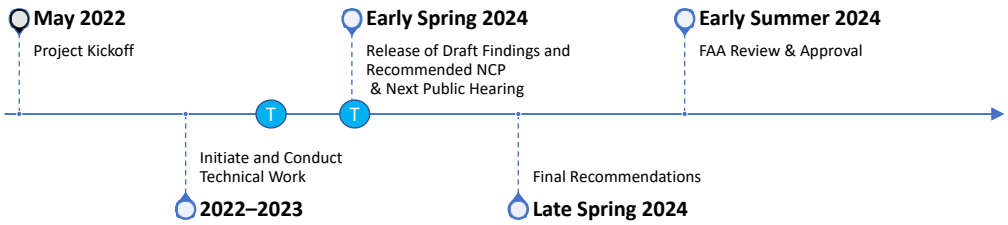


Next Steps / Schedule

- Finalize noise abatement alternative evaluation
  - Operational issues?
  - Implementation considerations (process, timeline, cost, etc)?
- Identify Land Use Management and Implementation Alternatives
- Develop Draft Report



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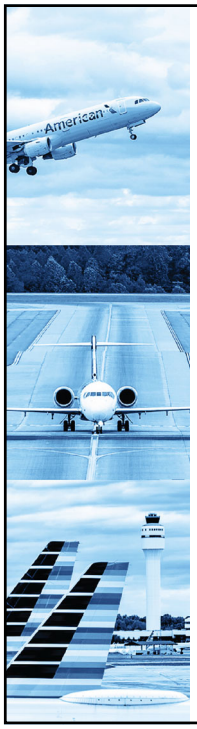

Final Questions & Answers

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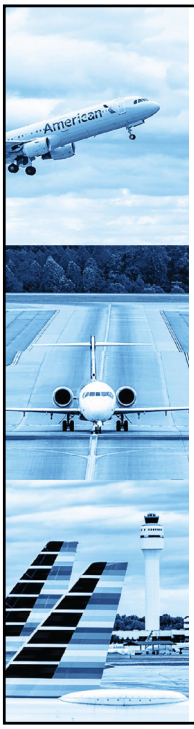

Please submit all comments by

November 30, 2023 to:

gaby.elizondo@landrumbrown.com

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Public Information Meeting #1
March 22 & 23, 2023

Outreach Summary

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Charlotte Douglas International Airport

Part 150 Study Update

Public Meeting #1 Summary Report

March 22 & 23, 2023

CLT
CHARLOTTE DOUGLAS®
INTERNATIONAL AIRPORT

Overview

The City of Charlotte is currently updating the Part 150 Noise Compatibility Study for the Charlotte Douglas International Airport (CLT). The Part 150 Study process uses a balanced approach to identify noise incompatibilities surrounding an airport, and to recommend measures to both correct existing incompatibilities and to prevent future incompatibilities.

The City of Charlotte hosed Public Informational Meetings on Wednesday, March 22, 2023 and Thursday, March 23, 2023. The Public Informational Meetings were open-house style during which boards identifying the status of the Part 150, the work completed to date, and the next steps for the Part 150 process were displayed. The agendas for each meeting were identical and there was an opportunity for the public to submit written comments at each meeting. Comments could also be submitted via email or mail for a month following the meetings. Approximately 29 people signed in at the public meetings.

Public Meeting – Location 1
Wednesday, March 22, 2023
6 p.m. to 8 p.m.

Harris Conference Center, Central Piedmont Community College
3216 CPCC Harris Campus Drive
Charlotte, NC 28208

Public Meeting – Location 2
Thursday, March 23, 2023
6 p.m. to 8 p.m.

Aloft Charlotte Airport
3928 Memorial Parkway
Charlotte, NC 28217

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MEETING MATERIALS

PRINT MEDIA CAMPAIGN

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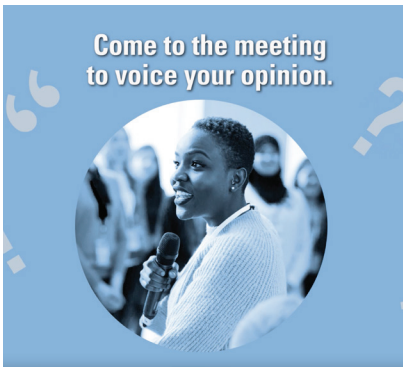
SOCIAL MEDIA CAMPAIGN



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COMMENTS

Meeting Materials

Materials were created for the meeting to help the attending public gain a better understanding of the project. There were 26 boards displayed at both meetings that included a synopsis of the project, the Part 150 process, project maps, and Spanish language display ads were placed in the weekly publications, *Que Pasa Mi Gente* and *La Noticia*. A project overview handout was also available at the meeting, which was printed in English and Spanish. Meeting boards and handouts can be viewed in Appendix A, as a separate attachment.

Print Media Campaign

To make the public aware of the upcoming public meetings, legal notice ads were published in local Charlotte newspapers. In addition, a display ad was placed in *The Charlotte Observer,* and Spanish language ads were placed in *Que Pasa Mi Gente* and *La Noticia*. The ads provided the dates and times of the two meetings, a brief overview of the meeting format, and a link to the project website for more information. The legal and display ads in *The Charlotte Observer* were published 30 days before the public meeting.

Ad published in *The Charlotte Observer* on February 21, 2023

Ad published in *Que Pasa Mi Gente* on March 1, 2023

Ad published in *La Noticia* on March 1, 2023

McCLATCHY

Beaufort Gazette
Belleville News-Democrat
Bellingham Herald
Bradenton Herald
Centre Daily Times
Charlotte Observer
Columbus Ledger-Enquirer
Fresno Bee
The Herald - Rock Hill
Herald Sun - Durham
Idaho Statesman
Island Packet
Kansas City Star
Lexington Herald-Leader
Merced Sun-Star
Miami Herald
el Nuevo Herald - Miami
Modesto Bee
Raleigh News & Observer
The Olympian
Sacramento Bee
Fort Worth Star-Telegram
The State - Columbia
Sun Herald - Biloxi
Sun News - Myrtle Beach
The News Tribune Tacoma
The Telegraph - Macon
San Luis Obispo Tribune
Tri-City Herald
Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
14603	385108	Print Legal Ad-IPL01104740 - IPL0110474		$492.88	1	41 L

Attention: Kevin Price

Landrum & Brown
4445 LAKE FOREST DRIVE 700
CINCINNATI, OH 45242

Notice of Public Meetings for the Charlotte Douglas International Airport Part 150 Study Update

The City of Charlotte will conduct two Public Information Meetings with respect to the Part 150 Study Update being prepared for the Charlotte Douglas International Airport (CLT). The Public Information Meetings will be held from 6:00 p.m. to 8:00 p.m. on Wednesday, March 22, 2023 at the Harris Conference Center at Central Piedmont Community College, 3216 CPCC Harris Campus Drive, Charlotte, NC 28208; and from 6:00 p.m. to 8:00 p.m. on Thursday, March 23, 2023 at the Aloft Charlotte Airport, 3928 Memorial Pkwy, Charlotte, NC 28217. The same information will be presented both nights. No formal presentations are planned. Attendees are welcome to come anytime between 6:00 p.m. and 8:00 p.m. If special accommodations are required for an individual's participation, please call 407-440-1060 by Tuesday, March 7, 2023. These meetings will present preliminary information related to the ongoing Part 150 Study Update for CLT and to provide an opportunity for public comment early in the study process. Airport staff and noise consultants will be available at the Public Information Meetings to answer questions and provide information regarding the study. More information about the Part 150 Study Update is available online at https://cltpart150.com/.
IPL0110474
Feb 21 2023

North Carolina } ss
Mecklenburg County }

Before the undersigned, a Notary Public of said County and State, duly authorized to administer oaths affirmations, etc., personally appeared, being duly sworn or affirmed according to law, doth depose and say that he/she is a representative of The Charlotte Observer Publishing Company, a corporation organized and doing business under the laws of the State of Delaware, and publishing a newspaper known as The Charlotte Observer in the city of Charlotte, County of Mecklenburg, and State of North Carolina and that as such he/she is familiar with the books, records, files, and business of said Corporation and by reference to the files of said publication, the attached advertisement was inserted. The following is correctly copied from the books and files of the aforesaid Corporation and Publication.

1 insertion(s) published on:
02/21/23

Tara Pennington

In Testimony Whereof I have hereunto set my hand and affixed my seal on the 21th day of February,2023

Stephanie Hatcher

Notary Public in and for the state of Texas, residing in Dallas County

STEPHANIE HATCHER
My Notary ID # 133534406
Expires January 14, 2026

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The Charlotte Observer–published on February 21, 2023

3 dead, more than 200 hurt as new quake hits Turkey, Syria

BY SUZAN FRASER
Associated Press

ANKARA, TURKEY

A new 6.4 magnitude earthquake on Monday killed three people and injured more than 200 in parts of Turkey laid waste two weeks ago by a massive quake that killed tens of thousands, authorities said. More buildings collapsed, trapping some people, while scores of injuries were recorded in neighboring Syria too.

Monday's earthquake was centered in the town of Defne, in Turkey's Hatay province, one the worst-hit regions in the magnitude 7.8 quake that struck on Feb. 6. It was felt in Syria, Jordan, Cyprus, Israel and as far away as Egypt, and followed by a second, magnitude 5.8 temblor.

Turkish Interior Minister Suleyman Soylu said three people were killed and 213 injured. Search and rescue efforts were underway in three collapsed buildings where six people were believed trapped.

In Hatay, police rescued one person trapped inside a three-story building and were trying to reach three others inside, HaberTurk television reported. It said those trapped included movers helping people shift furniture and other belongings from the building that was damaged in the massive quake.

Syria's state news agency, SANA, reported that six people were injured in Aleppo by falling debris. The White Helmets, northwest Syria's civil defense organization, reported more than 130 injuries, most of them non-life threatening, including fractures and cases of people fainting from fear, while a number of buildings in areas already damaged by the quake collapsed.

The Feb. 6 quake killed nearly 45,000 people in both countries — the vast majority of them in Turkey, where more than a million and a half people are in temporary shelters. Turkish authorities have recorded more than 6,000 aftershocks since.

HaberTurk journalists reporting from Hatay said they were jolted violently by Monday's quake and held onto to each other to avoid falling.

In the Turkish city of Adana, eyewitness Alejandro Malaver said people left homes for the streets, carrying blankets into their cars. Malaver said everyone is really scared and "no one wants to get back into their houses."

Mehmet Salhaoglullari, from a village near Samandag, said he was eating at a restaurant when the building began to shake.

"We all threw ourselves outside and we continued to shake outside," he said.

In the Syrian city of Idlib, frightened residents were preparing to sleep in parks and other public places, while fuel lines formed at gas stations as people attempted to get as far as possible from any buildings that might collapse.

The Syrian American Medical Society, which runs hospitals in northern Syria, said it had treated a number of patients — including a 7-year-old boy — who suffered heart attacks brought on by fear following the new quake.

President Recep Tayyip Erdogan visited Hatay earlier on Monday, and said his government would begin constructing close to 200,000 new homes in the quake-devastated region as early as next month.

Erdogan said the new buildings will be no taller than three or four stories, built on firmer ground and to higher standards and in consultation with "geophysics, geotechnical, geology and seismology professors" and other experts.

The Turkish leader said destroyed cultural monuments would be rebuilt in accordance with their "historic and cultural texture."

Erdogan said around 1.6 million people are currently being housed in temporary shelters.

The Turkish disaster management agency AFAD on Monday raised the number of confirmed fatalities from the Feb. 6 earthquake in Turkey to 41,156. That increased the overall death toll in both Turkey and Syria to 44,844.

Search and rescue operations for survivors have been called off in most of the quake zone, but AFAD chief Yunus Sezer said earlier that search teams were continuing their efforts in more than a dozen collapsed buildings — mostly in Hatay province.

There were no signs of anyone being alive under the rubble since three members of one family — a mother, father and 12-year-old boy — were extracted from a collapsed building in Hatay on Saturday. The boy later died.

Authorities said more than 110,000 buildings across 11 quake-hit Turkish provinces were either destroyed or so severely damaged by the Feb. 6 quake that they need to be torn down.

ETHAN HYMAN ehyman@newsobserver.com

N.C. Gov. Roy Cooper prepares to crank the warning siren to kick off the Carolina Hurricanes Fan Fest in downtown Raleigh on Friday. The festival was part of the festivities before the Carolina Hurricanes' Stadium Series outdoor game against the Washington Capitals on Saturday at Carter-Finley Stadium.

NC mobile sports betting bill expected to pass in 2023

BY DAWN BAUMGARTNER VAUGHAN
dvaughan@newsobserver.com

RALEIGH

Online sporting betting could become legal in North Carolina this year, with both the Democratic governor and a key Republican lawmaker optimistic on Friday ahead of a big weekend in North Carolina sports.

A new bill is expected to be filed this coming week in the General Assembly.

"You know, I think it's going to pass, from what I hear," Gov. Roy Cooper told reporters on Friday after cranking the siren kicking off the Carolina Hurricanes hockey team's downtown Fan Fest. The Canes play an outdoor NHL game against the Washington Capitals at Carter-Finley Stadium on Saturday. The N.C. State vs. UNC men's basketball game is on Sunday in Raleigh.

That doesn't mean Cooper will be placing bets.

"I would be a poor sports wagerer, because I would wager with my heart and not my mind," he said when asked how much he would bet on the Hurricanes game if it was legal.

People can bet on games at casinos in Western North Carolina, but it would take a change in the law for them to be allowed to wager elsewhere. That would include at lounges located at professional sports venues, and on their cell phones and other devices, The News & Observer reported.

Cooper said he thinks lawmakers are "trying to make sure that we get good legislation that is fair to the taxpayers, but also recognize this is something that's going on anyway."

"So we might as well get benefit for our schools and our state out of it. So we'll see how it goes," Cooper said.

A lead Republican sponsor of previous legislation confirmed Cooper's outlook to The News & Observer on Friday.

"I believe Gov. Cooper is right in his optimism about sports betting," said Rep. Jason Saine, a Lincolnton Republican.

SPORTS BETTING BILL NEXT WEEK

"Last session's process helped identify matters that needed to be worked on with the legislation, as well as giving members (time) to talk to their constituents about the possibility of legalized sports betting," Saine said.

The measure failed by one vote in the House last summer.

"This past week, the bipartisan group of legislators who are formulating the bill saw language of the coming bill and worked to tweak a few items," he said. "We fully expect to see the bill filed this week and begin filing and moving the legislation through the committee process."

Dawn Baumgartner Vaughan: 919-829-4877, @dawnbvaughan

***The Charlotte Observer*–published on February 21, 2023**

La Noticia™

The Spanish-Language Newspaper

AFFIDAVIT

I, Alvaro J. Gurdian (Name), in my capacity as Sales Executive (Title) of the newspaper

La Noticia (Newspaper Name) in Charlotte (City), NC (State)

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Maria E. Benton
NOTARY PUBLIC
Union County, NC
My Commission Expires February 22, 2027

Maria E. Benton
Notary Public Signature

February 22, 2027
Commission Expires

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CLT CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT

Anuncio de Reuniones Públicas
para la actualización del Estudio de Compatibilidad de Ruido Parte 150

La Ciudad de Charlotte te invita a asistir a una Reunión Pública sobre la actualización del Estudio de Compatibilidad de Ruido Parte 150 para el Aeropuerto Internacional de Charlotte.

Miércoles 22 de marzo de 2023
6 p.m. a 8 p.m.
Harris Conference Center
Central Piedmont Community College
3216 CPCC Harris Campus Dr.
Charlotte, NC 28208

Jueves 23 de marzo de 2023
6 p.m. a 8 p.m.
Aloft Charlotte Airport
3928 Memorial Pkwy.
Charlotte, NC 28217

La misma información se presentará en ambas reuniones. No habrá presentación formal; se permite ingresar en cualquier momento. Si se requiere un alojamiento especial para participar en la reunión, comuníquese con el equipo del proyecto, llamando al 407-440-1060 antes del 7 de marzo de 2023.

CLT Para recibir información adicional sobre la actualización del Estudio de Compatibilidad de Ruido Parte 150, visite la página de internet: cltpart150.com

Before the undersigned, a Notary Public of Forsyth County, North Carolina, duly commissioned, qualified, and authorized to make this affidavit and sworn statement, that the notice or other legal advertisement, a copy of which is attached hereto, was published in the QUE PASA Newspaper on the following dates: 02/28/2023 to 03/06/2023

And that the said newspaper in which such notice, or legal advertisement was published, was a newspaper meeting all the requirements and qualifications of Section 1-597 of the General Statues of North Carolina

Publication Fee $ 250.00

Invoice No N217649

Elva Fernandez — Billing Department — 03/01/2023 — Date

Newspaper Reference:

Sworn to and subscribed before me, this 1 day of March 2023

M. Teresita Ysasi-Diaz
Notary Public

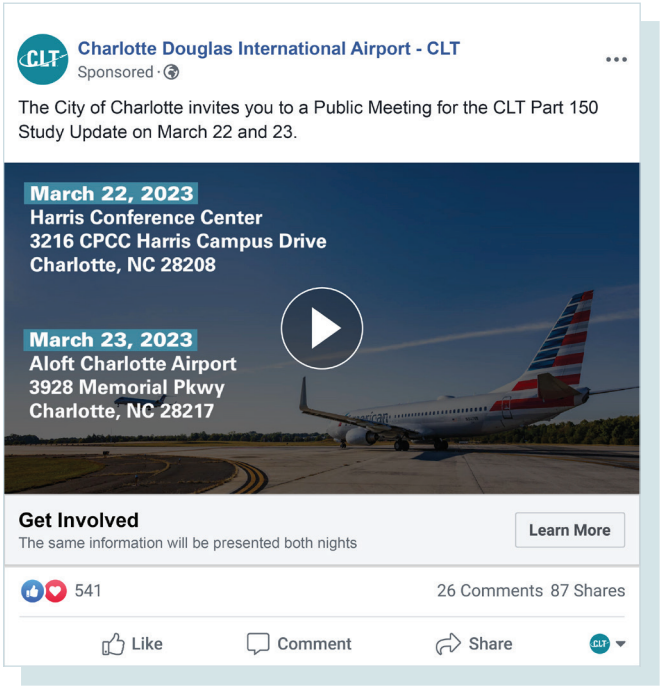
My Commission expires:

M. TERESITA YSASI-DIAZ
Notary Public, North Carolina
Forsyth County
My Commission Expires
December 21, 2027

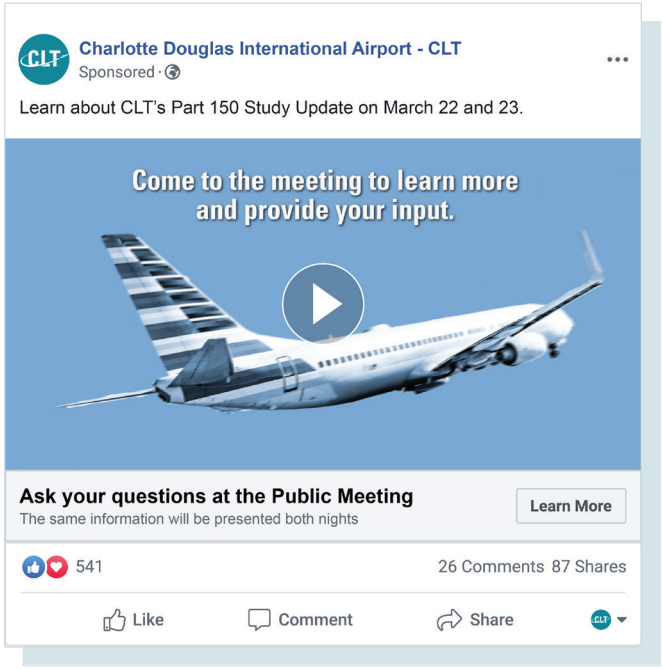
THIS IS NOT A BILL, PLEASE PAY FROM INVOICE, THANK YOU

Social Media Campaign

Two video ads were placed on Facebook and Instagram, running from March 8th to March 23rd, 2023. Targeting included residents within and in a 5-mile radius around the following zip codes: 28214, 28278, 28273, and 28216.



CLT Public Meeting Ad 1



CLT Public Meeting Ad 2

BY THE NUMBERS TABLE

DATE	POST	IMPRESSIONS	REACH	RESULTS (LINK CLICKS)	CTR
3/8	CLT Public Meeting Ad 1	106,789	40,760	1,443	1.35%
3/8	CLT Public Meeting Ad 2	8,013	4,982	153	1.91%
	TOTAL	**114,802**	**43,032**	**1,596**	**AVG: 1.39%**

Impressions: The number of times the ad appeared in someone's feed
Reach: The number of potential unique viewers of the ad
Link Clicks: The number of times the link was clicked within the ad
CTR: The percentage of clicks there were out of the total number of impressions *(Click-through rate)*

Comments

Comments were accepted from the public at both meetings, as well as through email at **CLTPart150@landrumbrown.com**, and through U.S. postal mail to **Gaby Elizondo**, *Landrum & Brown, 4445 Lake Forest Drive, Suite 700, Cincinnati, OH 45242*. In total, 20 comments were received from the public.

COMMENT	NAME	DATE	SOURCE
Thank you all for doing this! I would love to see additional noise measurement (in addition to the 5-7 days in Oct 2022) as the noise levels fluctuate so much day to day, week to week, month to month. We would also like to see consideration for a wider scope of areas as the noise level effects not only ascends + descends but when the planes turn (seemingly right over our backyard). Lastly, would love better follow up + solution ideation with those who submit noise complaints. They seem to go nowhere. Even short term suggestions about how to better sound proof your hoe would be appreciated. Thank you again! This is important work :)	**Jennifer Laubmeier**	**3/22/23**	**Comment Form**
Receive notifications throughout the Part 150 Study Update process	**Joshua Patton**	**3/22/23**	**Email**
I am requesting to receive notifications throughout the Part 150 Study.	**Jan Robbins**	**3/22/23**	**Email**
Subscribing for updates, thanks.	**Don Webber**	**3/22/23**	**Email**

continue

COMMENT	NAME	DATE	SOURCE
Please send all update	**Rashmi Naladkar**	**3/23/23**	**Email**
Hi, My name is Sandeep and I am a resident of city park Charlotte. We have been hearing lot of flights noise lately, especially those sounds getting imcreased since few days and it's causing lot of disturbance. Could you please help the residents of city park by resolving this issue.	**Sandeep Maryala**	**3/23/23**	**Email**
Hi, Amulya is my name, and I live in Charlotte's Meritage City Park Area. We have been hearing a lot of airplane noise, particularly those that have been getting worse recent and are upsetting us greatly. Because of this, we are having sleepless nights as noise is too loud. Please resolve this problem so the Residents of City Park can benefit. Thanks, Amulya	**Manchana Amulya**	**3/23/23**	**Email**
Hi, My name is Sandeep and I am a resident of city park Charlotte. My home address: 605 Millennium Ave, Charlotte, NC, 28217. We have been hearing lot of flights noise lately, especially those sounds getting increased since few days and it's causing lots of disturbance. Our sleep is getting impacted as its even louder during nights and causing sleepless nights. Our health is also started impacting due to this. Could you please help the residents of city park by resolving this issue. Thanks, Sandeep	**Sandeep Maryala**	**3/23/23**	**Email**
Subscription for the updates. Flights noise is unbearable, i live in city park meritage homes. Its causing health issues and sleep less nights.	**Sandeep**	**3/24/23**	**Email**
I would like to receive notifications. Best, Kenley	**Kenley Farmer**	**3/24/23**	**Email**
Hi, I am a resident of city park Charlotte staying in Meritage homes. We have been hearing lot of flights noise, especially those sounds are getting bigger and bigger since few days and it's causing lot of disturbance. In addition to it, this is making us have sleepless nights thus impacting health. Could you please help the residents of city park by resolving this issue. Thanks in advance. Regards, Sandeep Maryala	**Sandeep Maryala**	**3/26/23**	**Email**

continue

COMMENT	NAME	DATE	SOURCE
Hi, I am a resident of city park Charlotte. We have been hearing lot of flights noise and that noise is getting worse since few days. this is a serious problem, we are having sleepless nights and our daytime work and health impacting too with this. Please help us with this.	**Amulya**	**3/26/23**	**Email**
Subscribe to Part 150 Study updates	**Richard Marby**	**3/29/23**	**Email**
Would like to receive notifications of the Part 150 study. I'm on a 10.1 mile final for Runway 36L, which wasn't there when I build my house in 2007. I'm a pilot. Although I love flying I really like quiet when I'm home. I get woke up at 0505 am when on a northbound operation. As 36L isn't open yet, it has to be a base leg for planes landing on 36C. Thanks so much!	**Diane Powell**	**3/30/23**	**Email**
Would like to receive Part 150 Study Update process.	**Emilie Davis**	**4/17/23**	**Email**
I live close to the airport and would like to receive notifications of the Part 150 study.	**Angela Riggins**	**4/20/23**	**Email**
Requested to receive future notifications	**Andrew Gale**	**4/20/23**	**Email**
Request to receive notifications throughout the Part 150 Study Update process.	**Scott Orloff**	**4/21/23**	**Email**
Sorry, a few more questions on the "Reduces Impacts in 65 DNL", does it make sense that this step requires an actual "reduction" rather than simply not increasing impacts in the 65 DNL? By framing the requirement as "reduction" it would pretty much rule out any measure that is targeted to address noise impacts outside the 65 DNL. Relating to the baseline for this criterion, I believe you confirmed that the baseline should reflect the use of Runway 1/19 as a departures runway. If this is the case, and if an "reduction" in 65 DNL is required, how can proposal NA-J possibly meet this requirement if American is proposing to shift arrivals back to 18C/36C? It will clearly bubble out the 65DNL boundary from north and south of 1/19 back to where it is now north and south of 18C/36C, failing this step. Thanks. Regarding the process as laid out in attached flow diagram from the Part 150 Overview Presentation I had the following questions:  	**Jacob Pollack**	**4/23/23**	**Email**

continue

COMMENT	NAME	DATE	SOURCE
(1) Could you help me to understand how the safety / feasibility criterion is applied. Is this based on objective factors like "65 DNL" or is this based on subjective feedback from the relevant agencies. For example, can FAA and ATC simply look at a proposal and say "we think that makes things less safe" and that's the end of the process? How is "safety" determined? What is to stop an agency from claiming "safety" when any safety concern is truly minimal but the agency just doesn't want to implement the change because it will require more work or delays? (2) Regarding the 65 DNL, could you let me know what data makes up the 65 DNL baseline that will be used? What flight data will be included in this? (3) Regarding "Operational Impacts" and "Implementation Considerations" I have similar questions as #1, that this basically allows an insider stakeholder to say "I don't like that" and that's the end of the process for that proposal. What actual standard is applied to determine if there is a substantive operational or implementation impact? Is there some sort of "de minimus" standard that prevents airlines or the airport from rejecting a proposal just because it raises the cost per passenger of the airport by a penny, or the cost of a $5 billion runway project by $1,000,000 (a de minimus figure truly based on the overall cost) or may increase average gate-to-gate times by 15 seconds? I am quite concerned that these proposals basically give these stakeholders veto powers, while leaving the ACR or affected without similar powers, relying on the unprotective 65 DNL standard. (4) On the Move to Recommend step, exactly how would a measure that snakes its way through this process be stopped? For example, if any of alternatives NA-H, I and J make it to the end because the 65 DNL standard is not impacted and because stakeholders with veto powers at the other steps don't care about noise outside of the 65 DNL boundary, then what stops them from them being automatically implemented?	**Jacob Pollack**	**4/23/23** *(Continued from previous page)*	**Email**

continue

COMMENT	NAME	DATE	SOURCE
(5) Please explain to me the role that political organs like the Charlotte City Council and play in reviewing and approving Part 150 alternatives/recommendations? as #1, that this basically allows an insider stakeholder to say "I don't like that" and that's the end of the process for that proposal. What actual standard is applied to determine if there is a substantive operational or implementation impact? Is there some sort of "de minimus" standard that prevents airlines or the airport from rejecting a proposal just because it raises the cost per passenger of the airport by a penny, or the cost of a $5 billion runway project by $1,000,000 (a de minimus figure truly based on the overall cost) or may increase average gate-to-gate times by 15 seconds? I am quite concerned that these proposals basically give these stakeholders veto powers, while leaving the ACR or affected without similar powers, relying on the unprotective 65 DNL standard. (6) On the Move to Recommend step, exactly how would a measure that snakes its way through this process be stopped? For example, if any of alternatives NA-H, I and J make it to the end because the 65 DNL standard is not impacted and because stakeholders with veto powers at the other steps don't care about noise outside of the 65 DNL boundary, then what stops them from them being automatically implemented? (7) Please explain to me the role that political organs like the Charlotte City Council and play in reviewing and approving Part 150 alternatives/recommendations?	**Jacob Pollack**	**4/23/23** *(Continued from previous page)*	**Email**
Hello, to the extent these proposals are not included on the ACR proposal list, I would like to propose the following for inclusion as Part 150 alternatives for the Part 150 analysis now being conducted for Charlotte Douglas Airport (1) Raise the minimum altitudes for all initial approach fix points for Runways 1, 36C and 36L which are more than 9 nm from the end of the runways by the maximum amounts that can be implemented safely to cause planes to descend at quicker rates into the first IAFs within 9 nm to cause pilots to decrease throttle and associated noise. If it would improve proposal safety and/or diminish operational and implementation issues, expand this proposal to include, as appropriate, Runways 36R, 19, 18R, 18C and/or 18L. (2) Reorder assigned altitudes on airport "downlegs" so that the runway with the most arrivals has the highest assigned altitude, the runway with the second most arrivals the second highest assigned altitude, the runway with the third most arrivals the third highest assigned altitude and the runway with the least arrivals the lowest assigned altitude. The purpose is to raise average flight altitude on the downlegs for noise mitigation and to increase rates of descent through the base legs and initial portions of the final approaches to cause pilots to reduce throttle and associated noise. Thanks. Jacob Pollack 704-517-2317 195 Melbourne Drive Fort Mill, SC 29708 jacobpollack@pollackfamily.us	**Jacob Pollack**	**4/24/23**	**Email**

CLT
CHARLOTTE DOUGLAS®
INTERNATIONAL AIRPORT

APPENDIX A

Charlotte Douglas International Airport

Part 150 Study Update

Public Meeting #1 Summary Report

March 22 & 23, 2023

Meeting Materials

Charlotte Douglas International Airport
PART 150 STUDY UPDATE

What is a Part 150 Noise Compatibility Study?

The City of Charlotte is currently updating the Part 150 Noise Compatibility Study for the Charlotte Douglas International Airport (CLT). The study gets its name from Part 150 of the Code of Federal Regulations, which provides guidance for airports preparing a Noise Compatibility Study. Airports prepare Part 150 Studies in accordance with Federal Aviation Administration (FAA) guidance. The Part 150 Study process uses a balanced approach to identify noise incompatibilities surrounding an airport, and to recommend measures to both correct existing incompatibilities and to prevent future incompatibilities.

Part 150 Studies are planning studies.

- They identify noise and land use impacts in accordance with FAA guidance
- They work to develop solutions within the FAA's framework
- The City Council ultimately recommends measures and the FAA approves measures

Part 150 Studies can open funding sources.

- Grants may be available to implement recommendations
- Funding is not guaranteed

Part 150 Studies do not:

- Recommend closing an airport
- Recommend implementing mandatory restrictions

Part 150 Study Primary Elements:

NOISE EXPOSURE MAPS (NEM)	NOISE COMPATIBILITY PROGRAMS (NCP)	PUBLIC INVOLVEMENT
• Description of the noise levels for existing and future (+5 years) conditions • Existing conditions (last 12 months of activity) • Future conditions (2028) (considers physical and operational changes)	• Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts • May reflect short-term (before 2028) and long-term (after 2028)	• Project website and social media • Meeting notices, study process, and draft findings • Comment collection

Previous and Ongoing Noise Compatibility Planning at CLT

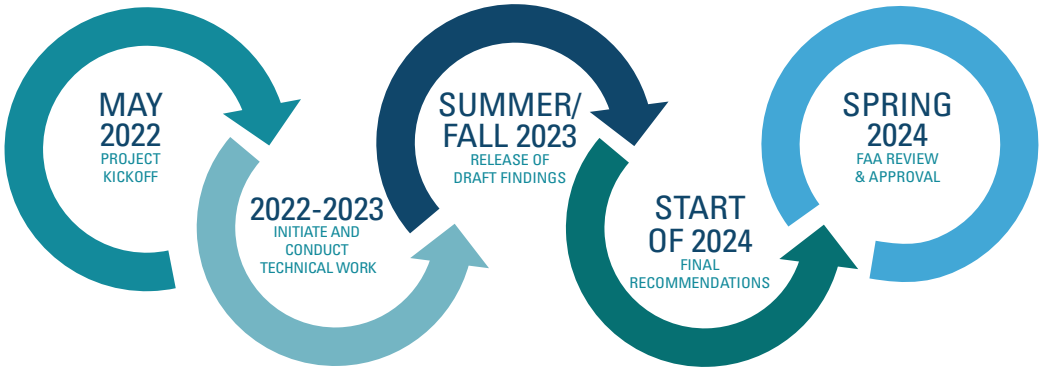
There is a long history of noise compatibility planning at CLT. The Airport began to implement its first federally-approved Federal Aviation Regulation (FAR) Part 150 NCP in 1987. The program was designed to use various methods to mitigate noise impact. The study was updated in 1996 and updated NEMs were developed in 2015. Since the NCP's inception, the Airport has spent more than $120 million in local community projects directly related to reducing or mitigating airport noise issues through a Residential Sound Insulation Program and Residential Acquisition Program.

Progress to Date

Since this Part 150 Study Update began in the Summer 2022, the study has concentrated on data collection and the development of preliminary noise contours for the existing conditions and the five-year future condition. The Part 150 Study Update will re-evaluate noise with respect to the decommissioning of runway 5/23 that took place in 2022 and the implementation of multiple previously-approved airfield and terminal improvement projects, including the construction of a new runway, to be operational by 2028. The following lists the major tasks completed for the Part 150 Study Update to date:

- Held kickoff with Technical Advisory Committee
- Compiled and evaluated radar flight track and noise monitoring data
- Conducted field noise measurements (week of October 4, 2022)
- Prepared preliminary existing and future baseline noise contours

Anticipated Schedule & Next Steps



What are the Opportunities for Providing Input?

Members of the public may comment at the meeting by completing and submitting a comment form. Please submit your comments by **April 24, 2023** using one of these methods:

Email:
CLTpart150@landrumbrown.com

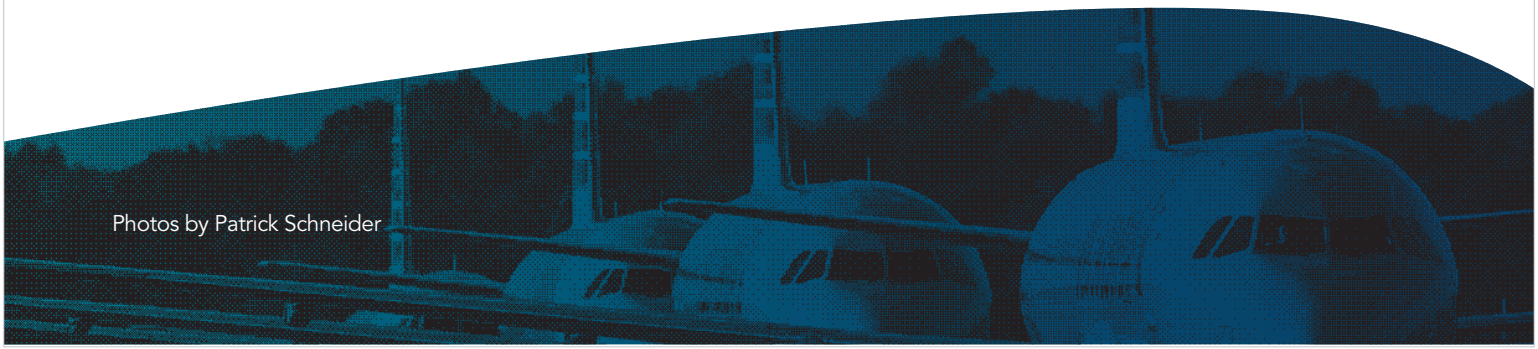
Mail:
Gaby Elizondo
4445 Lake Forest Dr,
Suite 700
Cincinnati, OH 45242
(Postmarked by April 24, 2023)

Online:
Visit the project website and submit a comment on the "Contact" page: **CLTPart150.com**

The public will have additional opportunities to provide input and comments throughout the Part 150 process.

For additional information regarding the EA, please visit: CLTpart150.com

The website will be updated throughout the Part 150 process with project updates, meeting information, status reports and schedules, and other information.



Photos by Patrick Schneider

Charlotte Douglas International Airport
ACTUALIZACIÓN ESTUDIO PARTE 150

¿Qué es un Estudio de Compatibilidad de Ruido Parte 150?

La Ciudad de Charlotte se encuentra actualizando el Estudio de Compatibilidad de Ruido Parte 150 para el Aeropuerto Internacional de Charlotte Douglas (CLT). El estudio recibe su nombre de la Parte 150 del Código de Regulaciones Federales, que brinda orientación para los aeropuertos que eligen preparar un Estudio de Compatibilidad de Ruido. Los aeropuertos preparan los estudios de la Parte 150 de acuerdo con la guía de la Administración Federal de Aviación (FAA por sus siglas en inglés). El proceso de estudio de la Parte 150 utiliza un enfoque equilibrado para identificar las incompatibilidades de ruido que rodean a un aeropuerto y para recomendar medidas, tanto para corregir las incompatibilidades existentes, como para prevenir futuras incompatibilidades.

Los estudios Parte 150 son estudios de planeación:

- Identifican los impactos del ruido y el uso de la tierra de acuerdo con la guía de la FAA
- Trabajan para desarrollar soluciones dentro de los lineamientos de la FAA
- La municipalidad finalmente recomienda las medidas, la FAA las aprueba

Los estudios Parte 150 pueden abrir fuentes de financiamiento:

- Pueden ser elegibles para subsidios adicionales con el fin de implementar recomendaciones
- El financiamiento no está garantizado

Los estudios Parte 150 no:

- Recomiendan cerrar un aeropuerto
- Recomiendan la implementación de restricciones obligatorias

Elementos principales del Estudio Parte 150:

MAPAS DE EXPOSICIÓN DE RUIDO (NEM POR SUS SIGLAS EN INGLÉS)

- Descripción de los niveles de ruido para las condiciones existentes y futuras (+5 años)
- Condiciones existentes (últimos 12 meses de actividad)
- Condiciones futuras (2028) (considera cambios físicos y operativos)

PROGRAMAS DE COMPATIBILIDAD DE RUIDO (NCP POR SUS SIGLAS EN INGLÉS)

- Recomendaciones para reducir, minimizar y/o mitigar el ruido de las aeronaves y los conflictos por el uso del suelo
- Podrían reflejarse a corto plazo (antes de 2028) y a largo plazo (después de 2028)

PARTICIPACIÓN PÚBLICA

- Sitio web del proyecto y redes sociales
- Avisos de reuniones, proceso de estudio y borradores de conclusiones
- Recolección de comentarios

Planeación de compatibilidad de ruido previo y en curso en el CLT

Hay una larga historia de planificación de compatibilidad de ruido en el CLT. El aeropuerto comenzó a implementar su primer Reglamento Federal de Aviación (FAR por sus siglas en inglés) Parte 150 NCP aprobado por el gobierno federal en 1987. El programa fue diseñado para utilizar varios métodos para mitigar el impacto del ruido. El estudio se actualizó en 1996 y se desarrollaron NEMS actualizados en 2015. Desde el inicio del NCP, el aeropuerto ha gastado más de $120 millones en proyectos en la comunidad local, directamente relacionados con la reducción o mitigación de los problemas de ruido del aeropuerto a través de un Programa de Aislamiento Acústico Residencial y un Programa de Adquisición de Residencias.

Progreso hasta la fecha

Desde que comenzó esta actualización del Estudio Parte 150 en el verano de 2022, el estudio se ha concentrado en la recopilación de datos y el desarrollo de contornos de ruido preliminares para las condiciones existentes y las condiciones futuras a cinco años. La actualización del Estudio Parte 150 volverá a evaluar el ruido con respecto al desmantelamiento de la pista 5/23 que tuvo lugar en 2022, y la implementación de múltiples proyectos de mejora de terminales y aeródromos previamente aprobados, incluyendo la construcción de una nueva pista, para que esté operativa en el 2028. A continuación, se enumeran las principales tareas completadas para la actualización del Estudio Parte 150 hasta la fecha:

- Se realizó una reunión de lanzamiento con el Comité Técnico Asesor
- Se recopiló y evaluó la data de rastreo de vuelos por radar y monitoreo de ruido
- Se realizaron medidas de ruido de campo (semana del 4 de octubre de 2022)
- Se prepararon contornos preliminares de ruido de referencia existentes y futuros

Calendario previsto y próximos pasos

¿Cuáles son las oportunidades para proporcionar información?

El público puede comentar en la reunión, completando y enviando un formulario de comentarios. Por favor, envía tus comentarios hasta el **24 de abril de 2023** utilizando uno de estos métodos:

Email:
CLTpart150@landrumbrown.com

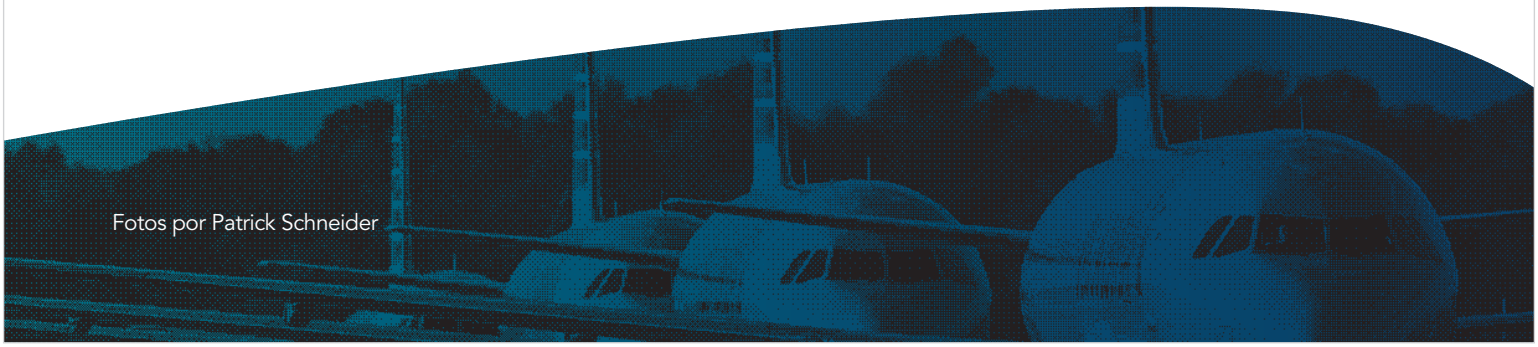
Correo:
Gaby Elizondo
4445 Lake Forest Dr, Suite 700
Cincinnati, OH 45242
(Con timbre postal hasta el 24 de abril de 2023)

Online:
Visita el sitio web del proyecto y envía un comentario en la página "Contacto": **CLTPart150.com**

El público tendrá oportunidades adicionales para brindar aportes y comentarios a lo largo del proceso de la Parte 150.

Para obtener información adicional sobre el EA, visita CLTpart150.com

El sitio web se actualizará a lo largo del proceso Parte 150 con actualizaciones del proyecto, información de la reunión, informes de estado, calendarios y otra información.



Fotos por Patrick Schneider

CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT

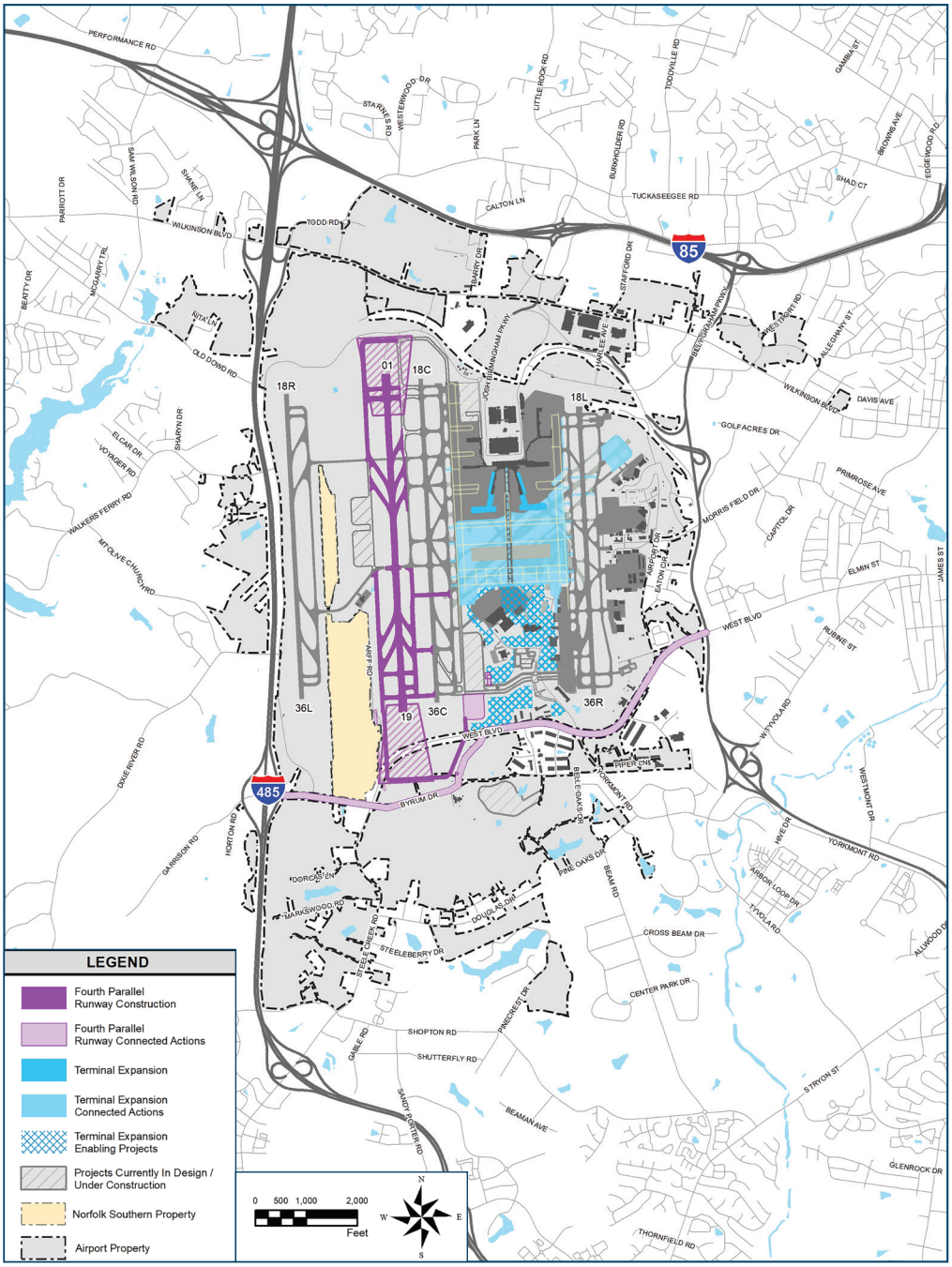
Welcome to the

Public Information Meeting

What is a Part 150 Study?

- **Code of Federal Regulations (14 CFR) Part 150**
  - » Part 150 is the common name for the process outlined in 14 CFR Part 150
  - » The purpose of a Part 150 study is to identify where land uses are not compatible with aircraft noise and to recommend solutions
  - » Airports prepare Part 150 studies in accordance with Federal Aviation Administration (FAA) guidance
- **Part 150 Studies are Planning Studies**
  - » Identify noise and land use impacts in accordance with FAA guidance
  - » Work to develop solutions within the FAA's framework
  - » City Council ultimately recommends measures, FAA approves measures
- **Part 150 Studies *can* open funding sources**
  - » May be eligible for grants to implement recommendations
  - » Funding is not guaranteed
- **Part 150 Studies do *not*:**
  - » Recommend closing an airport
  - » Recommend implementing mandatory restrictions
- **Purpose for conducting this Part 150 Study**
  - » Re-evaluate noise with respect to the decommissioning of Runway 5/23 and implementation of multiple previously-approved airfield and terminal improvement projects to be constructed and operational by 2028
  - » Develop a balanced and cost-effective plan for reducing noise impacts from the updated airfield and to limit additional impacts in the future where possible

Airfield Improvements – Previously Approved



PLANNED CONSTRUCTION TIMELINE

2022 EARLY

FAA Issued Finding of No Significant Impact/Record of Decision

2022 MID

Initiate Design

2023 to 2028

Construction

2028

Project Completion

Part 150 Process

Part 150 Study – Primary Elements:

Noise Exposure Maps

- Description of the noise levels for existing and future (+5 years) conditions

Noise Compatibility Programs

- Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
- May reflect short-term and long-term

Public Involvement

- Project website and social media
- Meeting notices, study process, and draft findings
- Comment collection

History of Noise Compatibility Planning at CLT

1987
Part 150 Noise Compatibility Study

1996
Part 150 Study Update

- Prepared NEMs for 1996 and 2001 conditions
- 2001 NEM included construction of the third parallel runway

2015
Noise Exposure Map (NEM) Update

- Prepared NEMs for 2015 and 2020 conditions

CLT has invested more than $120 million in local community projects directly related to reducing or mitigating airport noise issues through a **Residential Sound Insulation Program** and **Residential Acquisition Program**. To date, nearly 1,000 homes, six churches and three schools have been insulated. Additionally, almost 400 properties in high noise zones, including mobile home parks, have been purchased by the Airport.

History of Noise Compatibility Planning

CURRENTLY APPROVED NOISE ABATEMENT MEASURES

Measure ID	DESCRIPTION	STATUS
NA-1	Continue periodic monitoring procedures, initiated as a result of the 1990 Part 150 Noise Compatibility Program (NCP), within the Airport Environs. (Continuation of implemented Measure NA-1 of adopted 1990 NCP.) (Phase I) Approved in 1996	Inactive
NA-4	Provide monthly reports on late night (11:00 p.m. to 7:00 a.m.) runway utilization and variances from NCP assumptions to Air Traffic Control Tower management and frequent nighttime operators. Conduct follow-up with FAA and carriers to enhance voluntary adherence to existing program. (Phase I) Approved in 1996	Active
NA-5	Designate Runway 18C or 18L as preferred for takeoffs by turbojet and large four-engine prop aircraft between 11:00 p.m. and 7:00 a.m. when, under the current preferential runway use program, Runway 23 or Runway 5 cannot be used for reasons of wind, weather, operational necessity, or required runway length. (Phase I) Approved in 1996	Active
NA-6	Reaffirm Airport user policy which designates locations and procedures for aircraft engine runups. Establish a runup position on the USAir ramp parallel to Runway 5/23. (Phase I) Approved in 1996	Active
NA-7	Departing Runways 36R and 36C, turbojet and large four-engine prop aircraft initiate turns at the 2.6 and 2.5 DME north of the CLT VOR/DME, respectively. (Phase I) Approved in 1996	Active
NA-8	After construction of Runway 18R/36L, 3,700 feet west of Runway 18C/36C, establish an initial departure turn for Runway 18R, to be made as soon as practicable by turbojets and large four-engine prop aircraft, to a heading of 195 degrees. (Phase II) Approved in 1996	Active
NA-9	After commissioning of a third parallel runway west of Runway 18C/36C, establish an initial departure turn, as soon as practicable, by turbojets and large four-engine prop aircraft to a heading of 315 degrees from Runway 36L. (Phase II) Approved in 1996	Active

*Measures that are not active and have been revoked are not included.

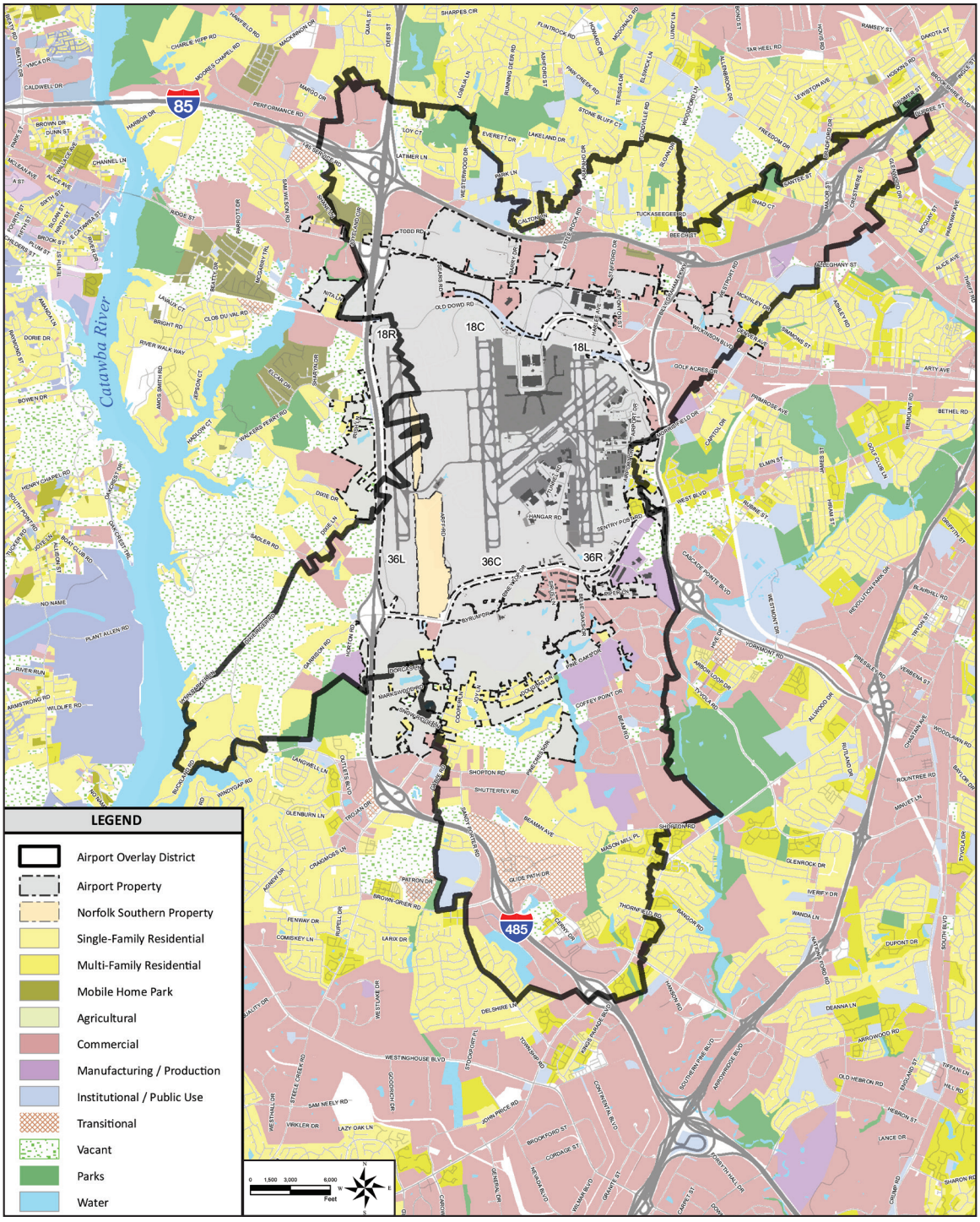
History of Noise Compatibility Planning

CURRENTLY APPROVED LAND USE CONTROL MEASURES

Measure ID	DESCRIPTION	STATUS
LU-1	Promote compatible land use planning within the 65 DNL of the combined 1996 NEM contours and 1996 NCP contours. (Phase I) Approved in 1996	Active
LU-2	Pursue zoning for compatible development. (Phase I) Approved in 1996	Active
LU-4	Require the dedication of an avigation easement as a condition to approval of development of property located in the Airport Environs. (Phase I) Approved in 1996	Active
LU-7	Pursue the establishment of an Airport Overlay District that corresponds to the Airport Environs. (Phase I) Approved in 1996	Active
LU-8	Pursue amending the state building code to authorize the City of Charlotte and Mecklenburg County to raise the minimum building standards (Noise Level Reduction requirements) by incorporating noise attenuation requirements for new residential construction within an Airport Overlay District. (Phase I) Approved in 1996	Active
LU-9	Develop a purchaser disclosure notice and pursue method of enforcement. (Phase I) Approved in 1996	Active

*Measures that are not active and have been revoked are not included.

Airport Noise Disclosure Overlay District



History of Noise Compatibility Planning

CURRENTLY APPROVED LAND USE MITIGATION MEASURES

Measure ID	Description	Status
NM-1	Establish a public information program which distributes noise and noise abatement information to the public. (Phase I) Approved in 1996	Active
NM-2	Sound insulate noise-sensitive public building intended for public use, instruction (e.g., schools) or assembly (e.g., churches) located within the 65 DNL noise contour of the combined 1996 NCP/NEM contours, whichever is greater. (Phase I) Approved in 1996 and again in 1998 to add churches	Active
NM-3	Sound insulate eligible houses located within the 65 DNL noise contour of the 1996 NCP/NEM contours, whichever is greater, which may be benefited under the FAA design criteria. (Phase I)	Active
NM-4	Reduce existing noise-sensitive uses within 70-75 DNL zone of the 1994 NEM via purchase assurance, sound insulate residences to NLR standards, purchase avigation easements, or acquisition of developed incompatible property. (Phase I) Approved in 1996	Completed
NM-5	Acquire property within the 75 DNL of the 1994 NEM contours. Listed for numeric continuity.	Completed
NM-6	Acquire mobile homes located within the 70 DNL noise contour of the 1996 NCP and 1996 NEM, whichever is greater. (Phase I) Approved in 1996	Active
NM-7	At the Airport's option, purchase avigation easements, sound insulate, or acquire houses within the combined 65 DNL of the 1996 NEM/NCP contour, whichever is greater, where sound insulation is infeasible or not cost-effective because the property does not comply with the Building Code. (Phase I) Approved in 1996	Active
NM-8	Sound insulate eligible houses located within the 65 DNL noise contour of the 2001 NCP, if any remain to be treated. (Phase II) Approved in 1996	Active
NM-9	Acquire mobile homes located within the 65 DNL noise contour of the 2001 NCP. (Phase II) Approved in 1996	Active

Land Use Noise Sensitivity Matrix

Per Part 150:

Compatible | Compatible with Sound Insulation | Incompatible

	OUTDOOR NOISE LEVEL		
	< 65 DNL	65-75 DNL	75+ DNL
Residential			
			
1-2 Family	Compatible	Compatible with Sound Insulation	Incompatible
Multi-Family	Compatible	Compatible with Sound Insulation	Incompatible
Mobile Homes	Compatible	Incompatible	Incompatible
Dorms, etc.	Compatible	Compatible with Sound Insulation	Incompatible
Institutional			
			
Schools	Compatible	Compatible with Sound Insulation	Incompatible
Places of Worship	Compatible	Compatible with Sound Insulation	Incompatible
Hospitals	Compatible	Compatible with Sound Insulation	Incompatible
Nursing Homes	Compatible	Compatible with Sound Insulation	Incompatible
Libraries	Compatible	Compatible with Sound Insulation	Incompatible
Recreational			
			
Sports/Play	Compatible	Compatible	Incompatible
Amphitheaters, Music Shells	Compatible	Incompatible	Incompatible
Camping	Compatible	Compatible	Incompatible
Commercial*			
All Uses	Compatible	Compatible	Compatible
Industrial*			
All Uses	Compatible	Compatible	Compatible
Agricultural			
All Uses	Compatible	Compatible	Compatible

*Appropriate noise level reduction must be incorporated into the design of areas where the public is received, office areas, and other noise-sensitive areas.

How Noise Contours are Generated

AVIATION ENVIRONMENTAL DESIGN TOOL (AEDT)

Data Sources

- Airport Layout Plan
- Radar Data
- Air Traffic Control Tower Counts
- Forecasted Operations

+

Input Data

- Runway Layout
- Operating Levels
- Fleet Mix
- Runway Use
- Flight Tracks
- Flight Profiles

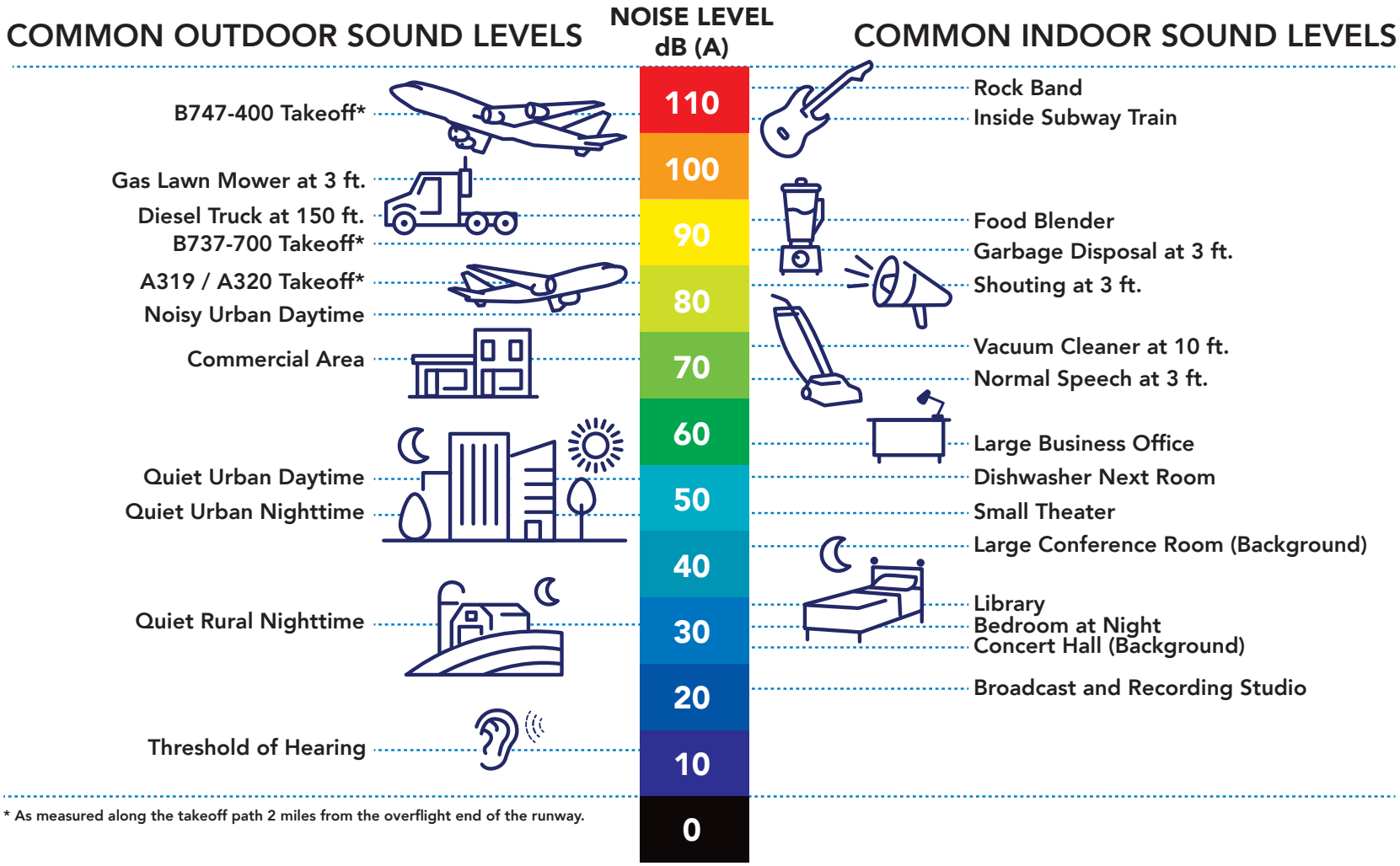
- Aircraft Database
- Aircraft Performance Data
- Aircraft Noise Data

Noise Contours

Tabular Reports

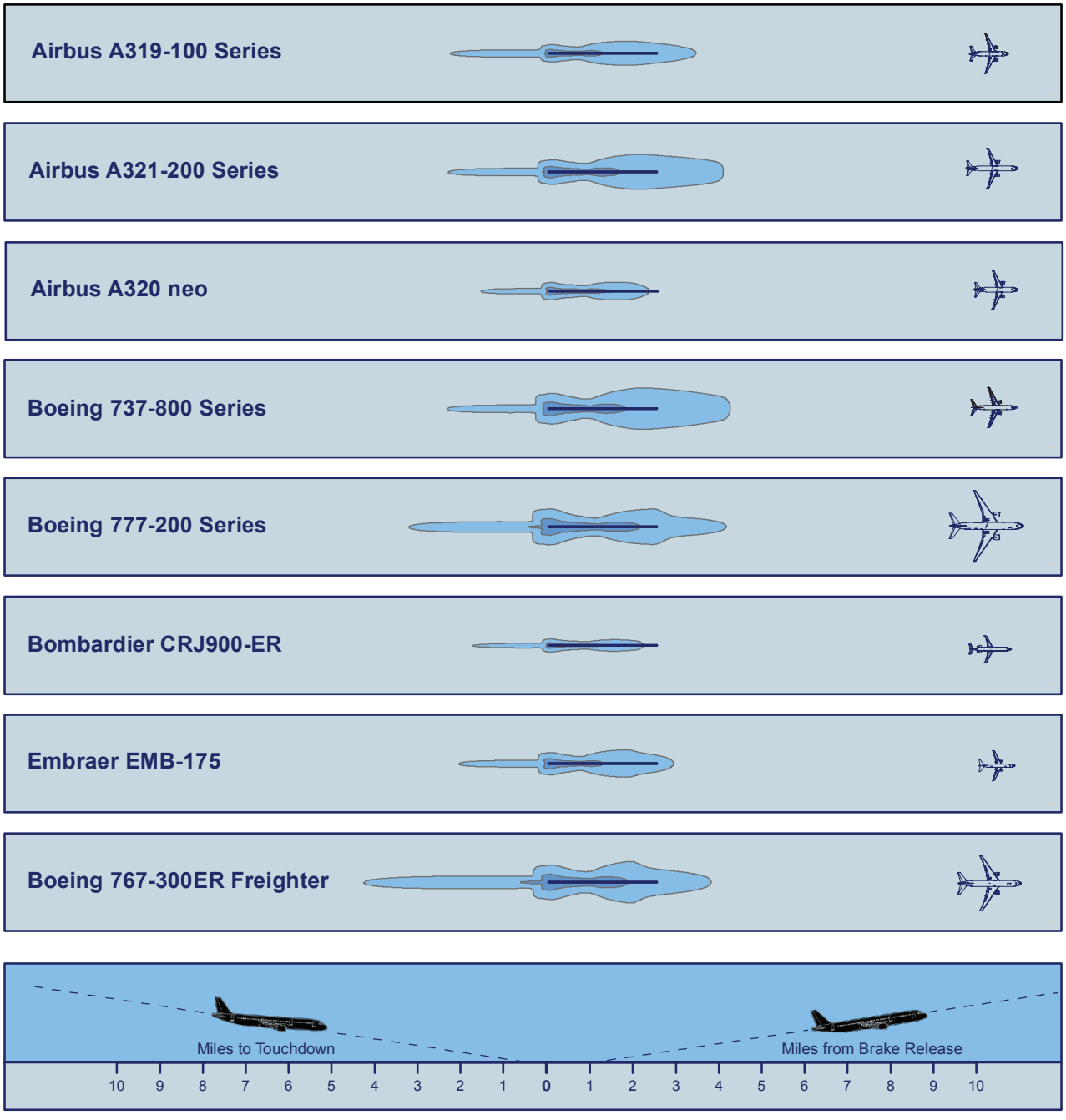
Grid Point Analysis

Comparison of Noise Levels

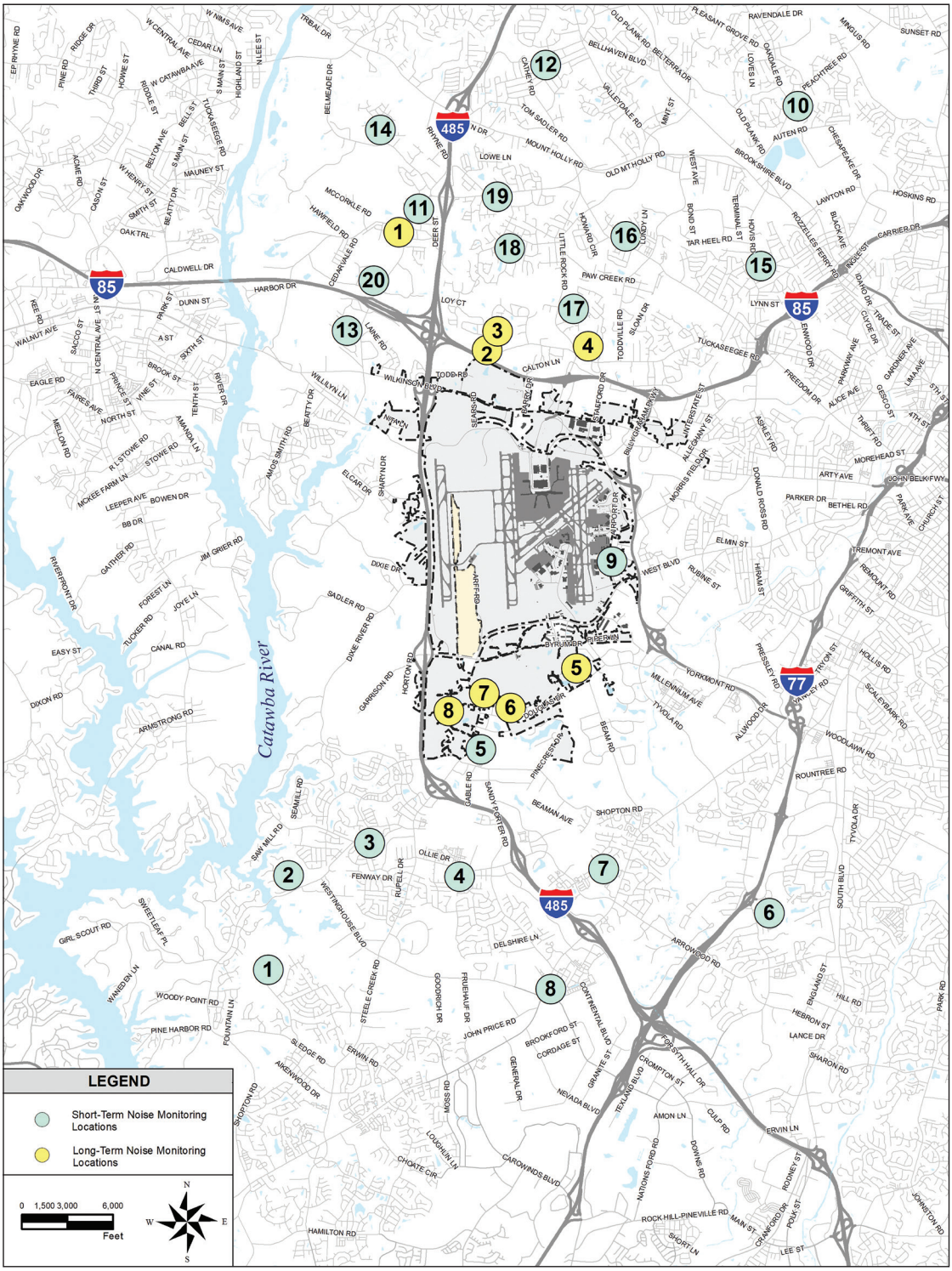


* As measured along the takeoff path 2 miles from the overflight end of the runway.

Aircraft Noise Footprints



Noise Monitoring Program



Noise Monitoring Program

PURPOSE:

- Validate and verify the input data in the AEDT
- Obtain "real-life" noise measurements to assist in understanding the total noise environment

METHODS:

- Conducted the week of October 4, 2022
- Collected noise measurements at 20 short-term sites (approximately one hour at each site) and eight long-term sites (up to seven days)
- Correlated noise measurement data to radar data

LONG-TERM SITE RESULTS:

- Results showed that the AEDT profiles were consistent with actual conditions

SHORT-TERM SITE RESULTS:

Site ID	Site Description	Date	Time of Measurement	Type of Event	# of Events	Loudest Aircraft
1	Winget Park	10/6/22	3:42 pm to 4:18 pm	Departures	11	B737
2	River Cabin Lane	10/6/22	5:45 pm to 6:32 pm	Departures	19	A319
3	Berewick Commons Parkway near Loch Lomond Drive	10/6/22	4:46 pm to 5:24 pm	Departures	27	A320
4	Griers Fork Drive & Brown Grier Rd	10/10/22	1:59 pm to 2:51 pm	Arrivals	15	A321
5	Gerald Drive at Sullivan Trace Drive	10/6/22	9:21 am to 10:08 am	Arrivals	34	A319
6	Treetops Apartments	10/6/22	2:37 pm to 3:12 pm	Departures	15	B737
7	Thornfield Road west end cul-de-sac	10/11/22	8:33 am to 9:18 am	Arrivals	5	B737
8	Central Steele Creek Church	10/5/22	9:06 am to 9:49 am	Arrivals	30	CRJ9
9	Harvest Center Church	10/6/22	10:46 am to 11:46 am	Departures	30	A321
10	Peachtree Road & Emmanuel Drive	10/10/22	12:40 pm to 1:27 pm	Departures	13	A321
11	Prairiegrouse Lane	10/4/22	10:12 pm to 11:12 pm	Departures	11	A306
12	Coulwood Drive & Fielding Road	10/11/22	10:29 am to 10:55 am	Departures	7	CRJ9
13	Community west of Sam Wilson Road on Farrhill Road	10/5/22	5:55 pm to 6:37 pm	Departures	16	CRJ9
14	Verde Creek Road west of San Gabriel Avenue	10/5/22	11:12 am to 11:53 am	Departures	25	B737
15	Chappell Baptist Church	10/5/22	3:36 pm to 4:49 pm	Departures	13	A320
16	Eagles Landing Drive	10/4/22	9:05 am to 10:05 am	Departures	3	B757
17	Still Pond Court	10/5/22 10/6/22	7:09 pm to 8:03 pm 1:19 pm to 1:51 pm	Departures Arrivals	23 11	B737 B737
18	Cabe Lane	10/5/22	2:35 pm to 3:33 pm	Departures	22	A321
19	St Johns Chapel Baptist Church	10/10/22	4:23 pm to 5:24 pm	Departures	55	B777
20	Taimi Drive	10/5/22	4:51 pm to 5:32 pm	Departures	25	A321

Existing (2023) Operating Levels and Fleet

Aircraft Category	2023 Existing Operations		
	Annual Operations	Average Annual Day	Percent
Air Carrier & Commuter	499,472	1,368.4	94.9%
General Aviation	25,785	70.6	4.9%
Military	1,197	3.3	0.2%
Total	**526,454**	**1,442.3**	**100.0%**

AEDT Airframe Type	Average Annual Day Operations
Heavy Passenger Jet	
Airbus A350-900 series	0.7
Boeing 777-200-ER	7.6
Subtotal	**8.3**
Large Passenger Jet	
Airbus A319-100 Series	119.4
Airbus A320-200 Series	69.5
Airbus A320-NEO	5.5
Airbus A321-200 Series	192.4
Boeing 717-200 Series	23.8
Boeing 737-700 Series	8.6
Boeing 737-8	2.2
Boeing 737-800	195.4
Boeing 737-900-ER	0.3
Bombardier CRJ-700	4.0
Bombardier CRJ-700-ER	154.6
Bombardier CRJ-900	6.7
Bombardier CRJ-900-ER	283.0
Embraer ERJ170	18.3
Embraer ERJ170-LR	14.5
Embraer ERJ175-LR	78.9
Embraer ERJ190-AR	2.7
Subtotal	**1,179.7**
Regional Jet	
Embraer ERJ135	3.8
Embraer ERJ145-LR	131.9
Subtotal	**135.7**
Cargo Jet	
Airbus A300F4-600 Series	3.3
Boeing 757-200 Series Freighter	2.9
Boeing 767-200 Series Freighter	1.8
Boeing 767-300 ER Freighter	4.6
Boeing MD-11 Freighter	1.4
Subtotal	**14.1**
Commuter / General Aviation Prop	
Cessna 172 Skyhawk	1.5
Pilatus PC-12	6.8
Piper PA-32 Cherokee Six	0.6
Raytheon Super King Air 300	6.2
Subtotal	**15.1**

AEDT Airframe Type	Average Annual Day Operations
General Aviation Jet	
Bombardier Challenger 300	9.0
Bombardier Challenger 600	2.4
Bombardier Global Express	0.6
Bombardier Learjet 45	0.8
Cessna 550 Citation II	1.0
Cessna 560 Citation Excel	6.7
Cessna 560 Citation V	4.8
Cessna 560 Citation XLS	2.2
Cessna 650 Citation III	0.7
Cessna 680 Citation Sovereign	3.1
Cessna 680-A Citation Latitude	12.0
Cessna 750 Citation X	1.6
Dassault Falcon 2000	4.6
Dassault Falcon 50	0.7
Dassault Falcon 900	4.4
Dassault Falcon 900-EX	1.9
Gulfstream G280	2.9
Gulfstream G400	2.0
Raytheon Beechjet 400	3.5
Raytheon Hawker 800	1.9
Raytheon Premier I	0.8
Cessna 525	2.9
Cessna 525A	1.9
Cessna 525B	2.7
Embraer Phenom 100	0.8
Embraer Phenom 300	4.8
Gulfstream G650	1.4
Gulfstream G-5 Gulfstream 5 / G-5SP Gulfstream G500	1.2
Subtotal	**83.2**
Helicopter	
Agusta A119	0.3
Eurocopter EC-130	2.3
Bell 407 / Rolls-Royce 250-C47B	0.4
Subtotal	**3.0**
Military	
Boeing C17A	3.3
Subtotal	**3.3**
Grand Total	**1,442.3**

Future (2028) Operating Levels and Fleet

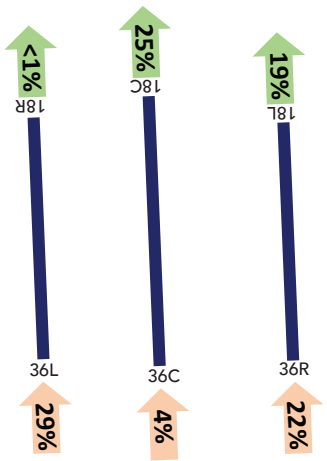
Aircraft Category	2028 Forecast Operations		
	Annual Operations	Average Annua l Day	Percent
Air Carrier & Commuter	611,620	1,675.7	95.6%
General Aviation	25,487	69.8	4.0%
Military	2,676	7.3	0.4%
Total	**639,783**	**1,752.8**	**100.0%**

AEDT Airframe Type	Average Annual Day Operations
Heavy Passenger Jets	
Airbus A330-200 Series	7.3
Airbus A350-900 series	1.5
Boeing 787-9 Dreamliner	7.3
Subtotal	**16.0**
Large Passenger Jet	
Airbus A319-100 Series	215.9
Airbus A320-100 Series	24.8
Airbus A320-200 Series	7.3
Airbus A321-200 Series	218.8
Airbus A321-NEO	42.3
Boeing 717-200 Series	10.2
Boeing 737 MAX 7	1.5
Boeing 737 MAX 8	55.4
Boeing 737 MAX 9	2.9
Boeing 737-700 Series	11.7
Boeing 737-800 Series	16.0
Boeing MD-90	2.9
Bombardier CRJ-700-ER	249.5
Bombardier CRJ-700-LR	2.9
Bombardier CRJ-900-ER	319.5
Embraer ERJ170	7.3
Embraer ERJ175	93.4
Embraer ERJ190-AR	11.7
Subtotal	**1,294.0**
Regional Jet	
Bombardier Challenger 300	10.1
Bombardier CRJ-200-LR	236.3
Bombardier Global Express	7.0
Bombardier Learjet 45	10.7
Cessna 525 Citation Jet	5.4
Cessna 560 Citation XLS	5.4
Cessna 750 Citation X	16.1
Dassault Falcon 2000	14.9
Dassault Falcon 50	7.0
Dornier 328 Jet	5.4
Embraer 505	21.5
Subtotal	***355.7***
Cargo Jet	
Airbus A300F4-600 Series	9.6
Boeing MD-10-1 Freighter	1.6
Subtotal	**11.2**

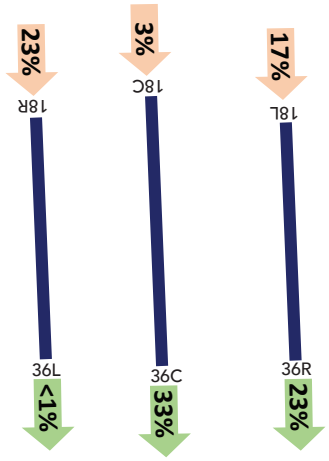
AEDT Airframe Type	Average Annual Day Operations
Commuter / Cargo Prop	
Embraer EMB120 Brasilia	10.7
Raytheon Super King Air 300	5.4
Subtotal	**16.1**
General Aviation Jet	
Bombardier Challenger 600	1.6
Bombardier Learjet 60	1.6
Cessna 525A Citation Jet	1.6
Cessna 525B Citation Jet	1.6
Cessna 550 Citation II	3.2
Cessna 560 Citation Excel	4.9
Cessna 560 Citation V	4.8
Dassault Falcon 900	1.6
Gulfstream G150	1.6
Gulfstream G200	1.6
Gulfstream G280	3.2
Gulfstream G500	1.6
Gulfstream G650	1.6
Subtotal	**30.3**
General Aviation Prop	
Cessna 303 Crusader (FAS)	1.6
Cirrus SR22	1.6
DAHER TBM 900/930	1.6
Pilatus PC-12	9.5
Raytheon Beech Baron 58	1.6
Raytheon King Air 90	1.6
SOCATA TBM 850	1.6
Subtotal	**19.0**
Helicopter	
Agusta A119	0.3
Eurocopter EC-130	2.3
Bell 407/Rolls-Royce 250-C47B	0.4
Subtotal	**3.0**
Military	
Boeing C17A	7.3
Subtotal	**7.3**
Grand Total	**1,752.8**

Existing (2023) Baseline Runway Use Average Annual Conditions*

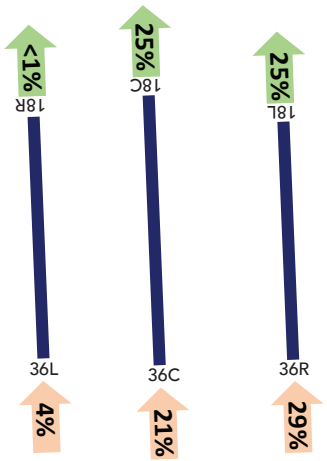
DAYTIME – NORTH FLOW



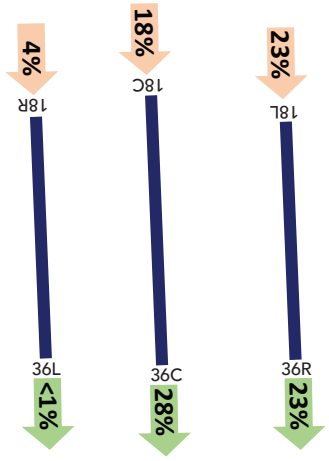
DAYTIME – SOUTH FLOW



NIGHTTIME – NORTH FLOW



NIGHTTIME – SOUTH FLOW

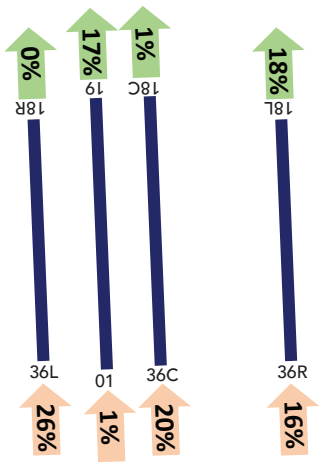


*Totals may not equal 100% due to rounding.

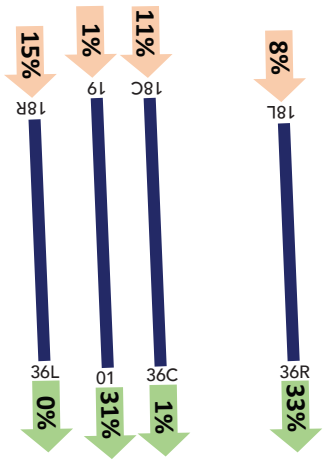
Arrivals Departures

Future (2028) Baseline Runway Use Average Annual Conditions*

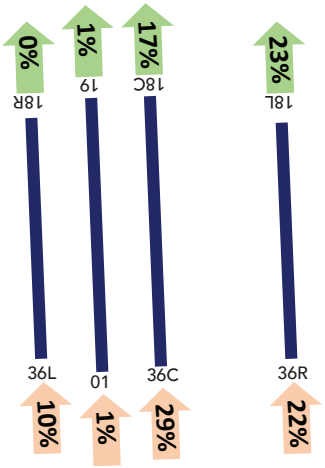
DAYTIME – NORTH FLOW



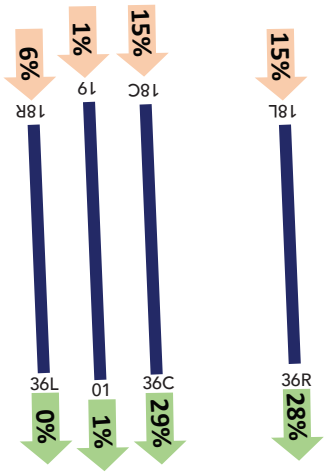
DAYTIME – SOUTH FLOW



NIGHTTIME – NORTH FLOW



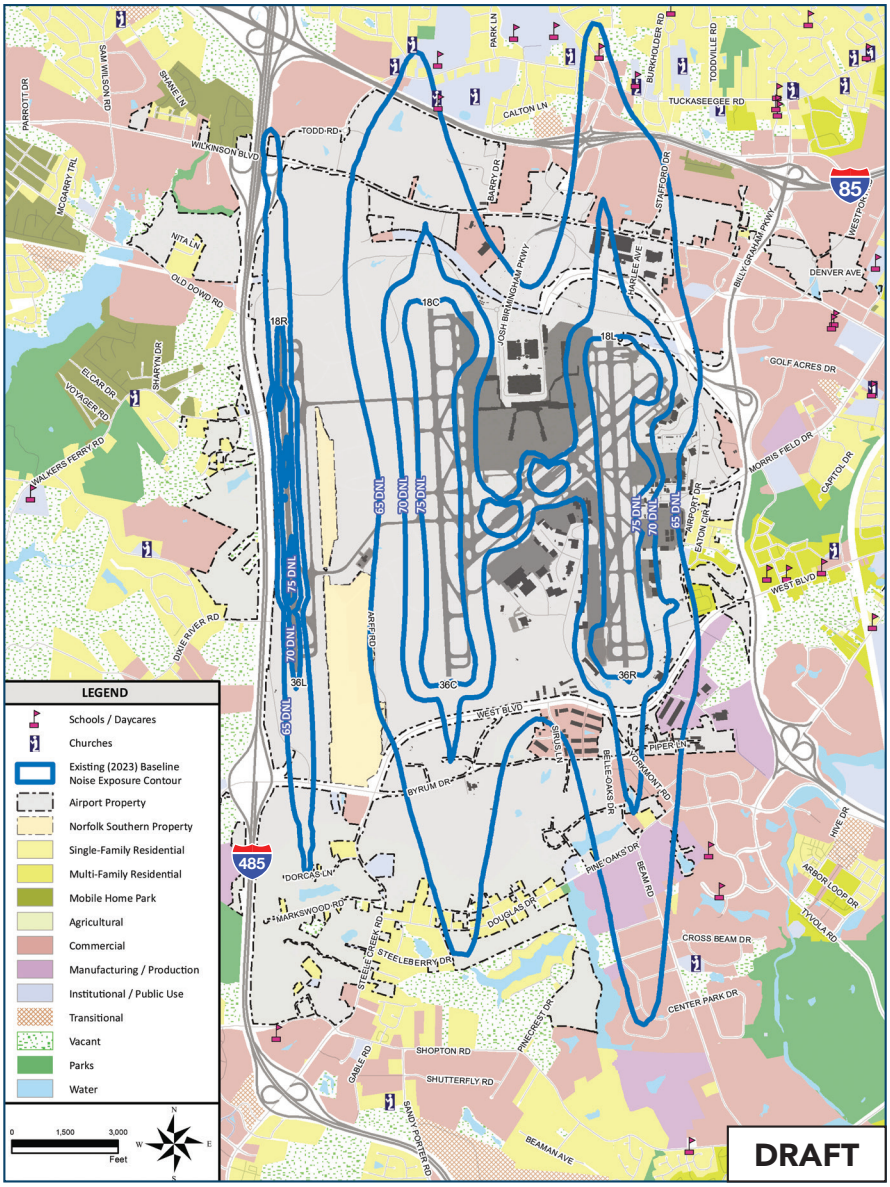
NIGHTTIME – SOUTH FLOW



*Totals may not equal 100% due to rounding.

Arrivals Departures

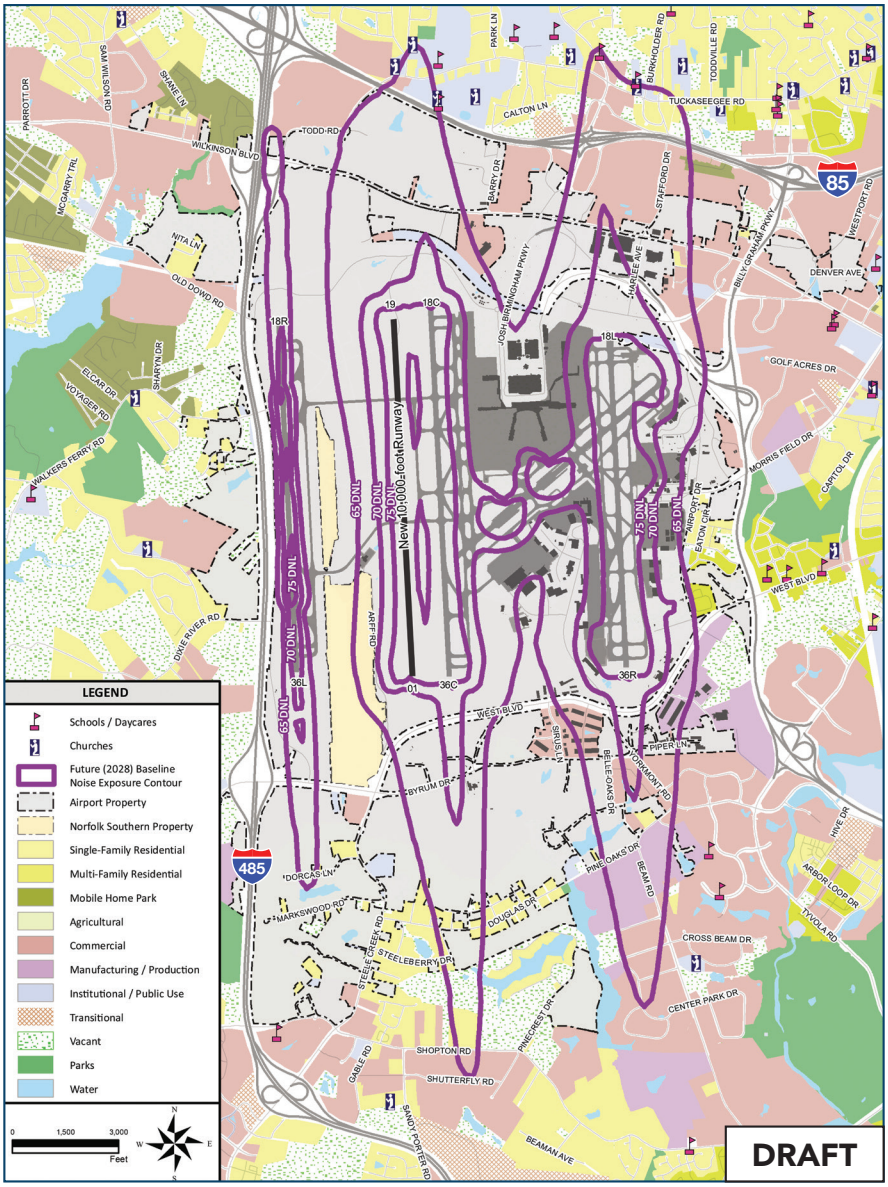
Existing (2023) Baseline Noise Exposure Contour



Housing Units within the 65 DNL	
Single-Family Residential	**51**
Mitigated	15
Not Mitigated	36
Multi-Family Residential	**90**
Not Mitigated	90
Manufactured Home	**1**
Not Mitigated	1
Total Housing Units	**142**

Noise Sensitive Facilities within the 65 DNL	
Churches / Places of Worship	4
Schools / Educational Facilities	3
Libraries	0
Hospitals	0
Nursing Homes	0
Total Noise Sensitive Facilities	**7**

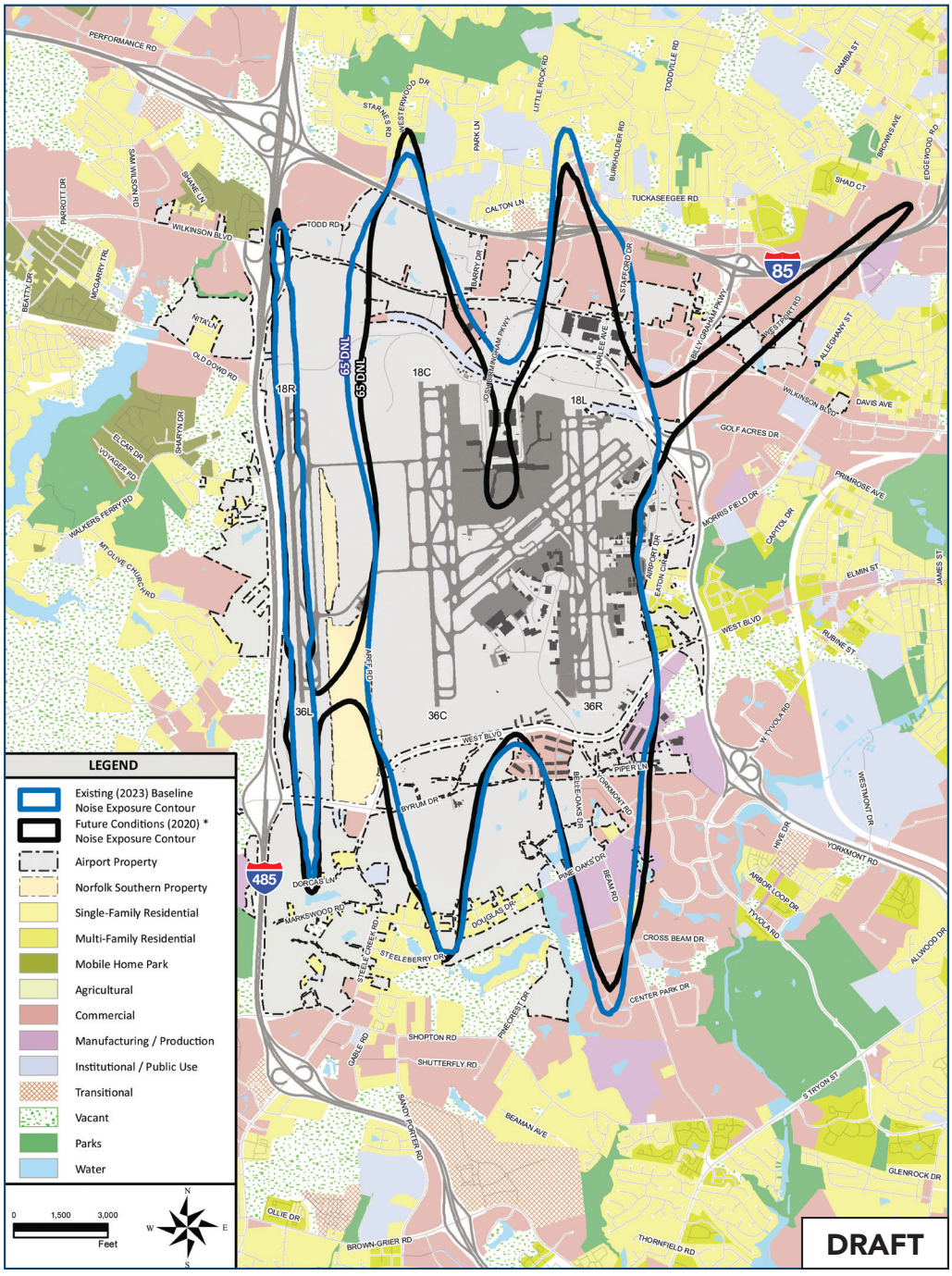
Future (2028) Baseline Noise Exposure Contour



Housing Units within the 65 DNL	
Single-Family Residential	**85**
Mitigated	47
Not Mitigated	38
Multi-Family Residential	**96**
Mitigated	2
Not Mitigated	94
Manufactured Home	**63**
Not Mitigated	63
Total Housing Units	**244**

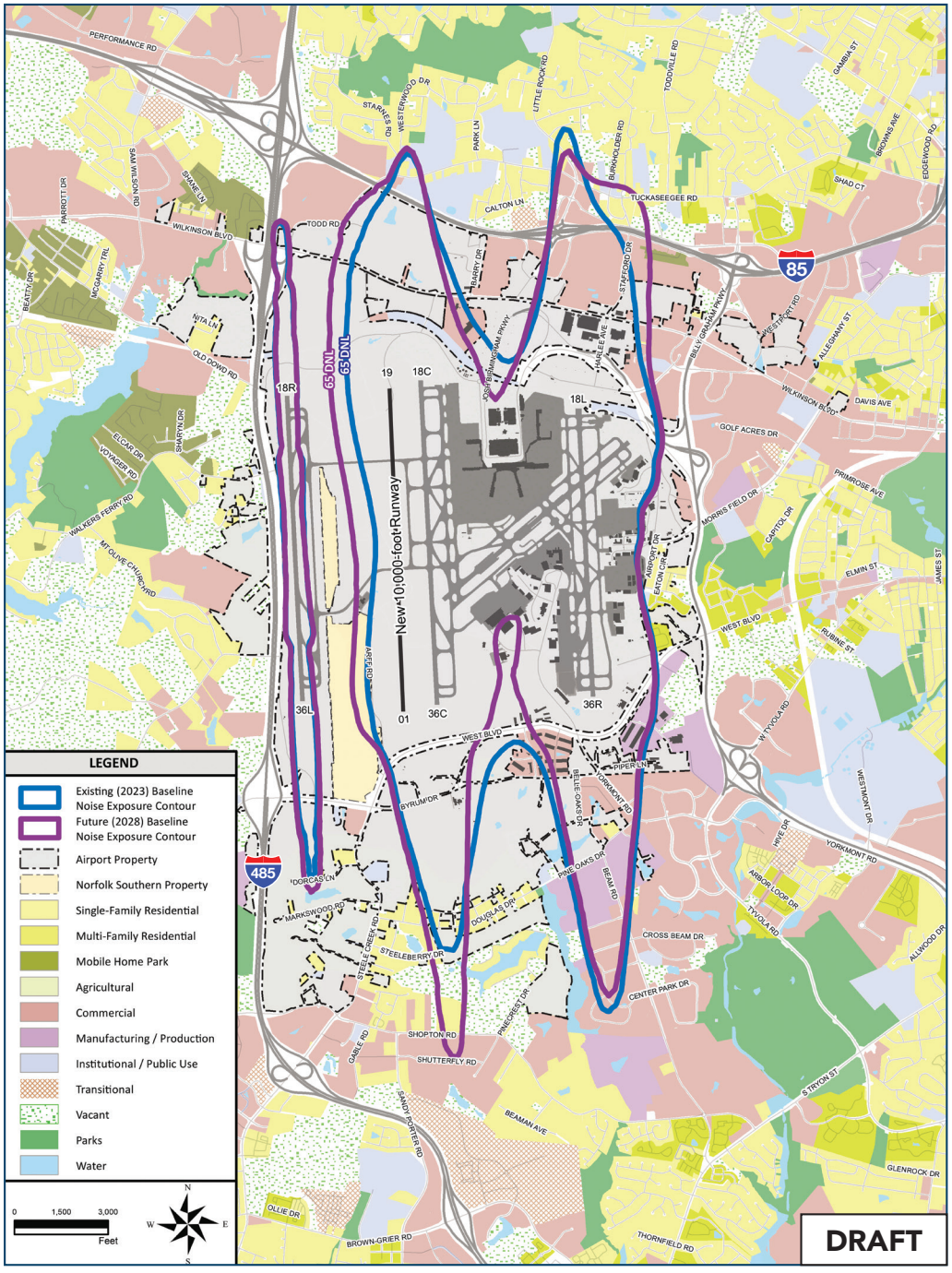
Noise Sensitive Facilities within the 65 DNL	
Churches / Places of Worship	4
Schools / Educational Facilities	4
Libraries	0
Hospitals	0
Nursing Homes	0
Total Noise Sensitive Facilities	**8**

Existing (2023) Baseline vs. Previous Part 150 (2020) Noise Exposure Contour



* Future Conditions (2020) Noise Exposure Contour was taken from a previous Part 150 Study modeled in 2015

Existing (2023) Baseline vs. Future (2028) Baseline Noise Exposure Contour



Examples of Noise Compatibility Measures

1. NOISE ABATEMENT MEASURES

Measures to control noise at the source (i.e. aircraft)

- Flight location (e.g., departure flight corridors)
- Runway use program (e.g., how often runway ends are used)
- Ground activity restrictions (e.g., run-up locations/time)
- Facility modifications (e.g., runway extensions, berms)
- Flight management (e.g., restrictions)

2. LAND USE MEASURES

Preventive Strategies

- **Prevent** the introduction of additional noise-sensitive land uses within existing and future noise exposure contours
- May also be applicable outside of the 65 DNL noise contour
- Examples:
  – Zoning Codes
  – Subdivision Regulations
  – Airport Environs Overlay Zone

Corrective / Remedial Strategies

- **Mitigate** existing and projected future unavoidable noise impacts in areas of existing incompatible land use
- Applicable to 65+ DNL noise contour
- Examples
  – Voluntary Property Acquisition
  – Voluntary Sound Insulation
  – Avigation Easements

3. IMPLEMENTATION MEASURES

Measures designed to assist with the implementation and management of the Noise Compatibility Program (NCP)

- Noise Program Office and Staff Support
- Flight Tracking / Noise Monitoring System
- Focus Groups / Roundtables
- Periodic Review / Update to the Program

Next Steps / Schedule

How to Comment

Please submit your comments by April 24, 2023 using one of these methods:

IN PERSON
Members of the public may fill out and submit their comment forms today

MAIL
Gaby Elizondo
4445 Lake Forest Dr. Suite 700
Cincinnati, OH 45242

EMAIL
CLTPart150@landrumbrown.com

PROJECT WEBSITE
Visit the project website and submit a comment on the "Contact" page:
CLTPart150.com

All comments must be submitted or postmarked by

April 24, 2023

Public Information Meeting #2
November 14 & 16, 2023

Outreach Summary

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Charlotte Douglas International Airport

Part 150 Study Update

Public Meeting #2 Summary Report

November 14 & 16, 2023

CLT
CHARLOTTE DOUGLAS®
INTERNATIONAL AIRPORT

Overview

The City of Charlotte is currently updating the Part 150 Noise Compatibility Study for the Charlotte Douglas International Airport (CLT). The Part 150 Study process uses a balanced approach to identify noise incompatibilities surrounding an airport, and to recommend measures to both correct existing incompatibilities and to prevent future incompatibilities.

The City of Charlotte hosed Public Informational Meetings on Tuesday, November 14, 2023 and Thursday, November 16, 2023. The Public Informational Meetings were open-house style during which boards identifying the status of the Part 150, the work completed to date, and the next steps for the Part 150 process were displayed. The agendas for each meeting were identical and there was an opportunity for the public to submit written comments at each meeting. Comments could also be submitted via email or mail for a month following the meetings. Approximately 29 people signed in at the public meetings.

Public Meeting – Location 1
Tuesday, November 14, 2023
6 p.m. to 8 p.m.

Harris Conference Center, Central Piedmont Community College
3216 CPCC Harris Campus Drive
Charlotte, NC 28208

Public Meeting – Location 2
Thursday, November 16, 2023
6 p.m. to 8 p.m.

Embassy Suites by Hilton Charlotte
4800 South Tyron Street
Charlotte, NC 28217

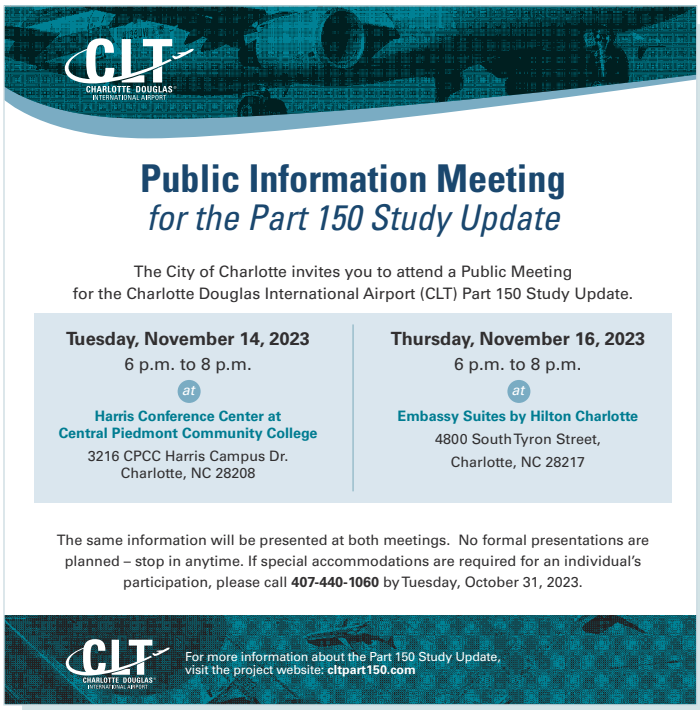
Table of Contents

Meeting Materials

Materials were created for the meeting to help the attending public gain a better understanding of the project. There were 27 boards displayed at both meetings that included a synopsis of the project, the Part 150 process, project maps, and Spanish language display ads were placed in the weekly publications, *Que Pasa Mi Gente* and *La Noticia*. A project overview handout was also available at the meeting, which was printed in English and Spanish. Meeting boards and handouts can be viewed in Appendix A, as a separate attachment.

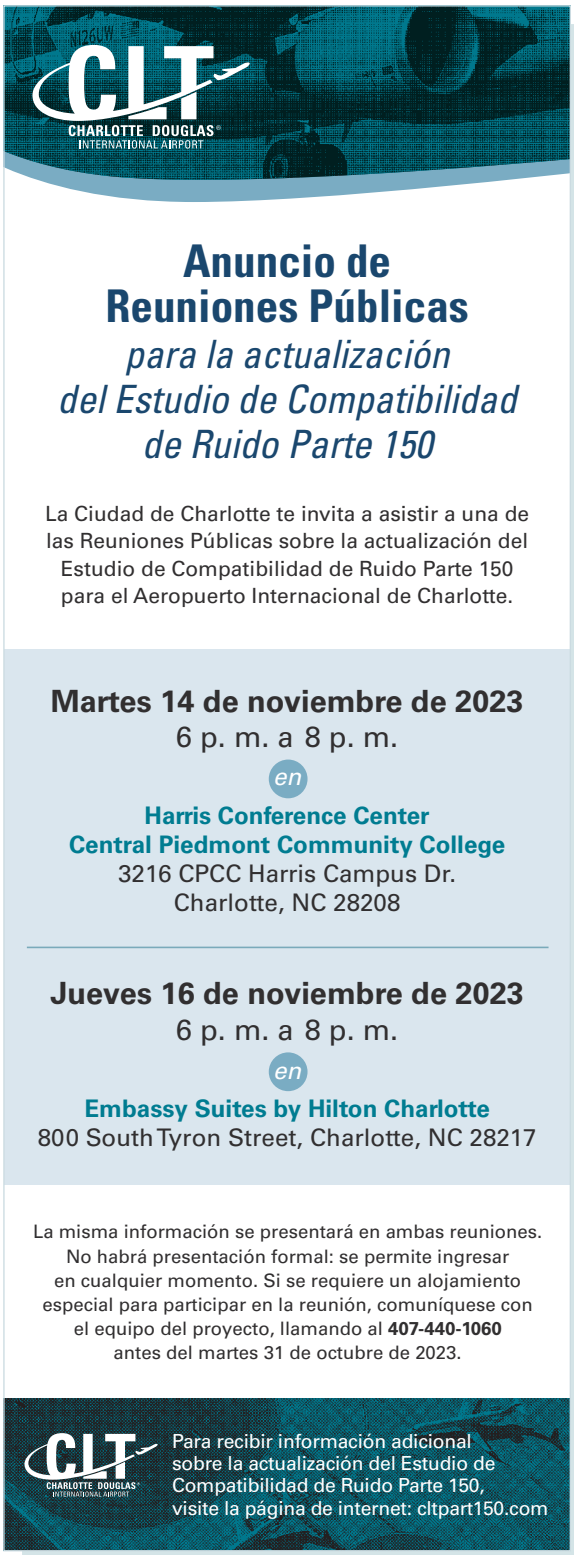
Print Media Campaign

To make the public aware of the upcoming public meetings, legal notice ads were published in local Charlotte newspapers. In addition, a display ad was placed in *The Charlotte Observer,* and Spanish language ads were placed in *Que Pasa Mi Gente* and *La Noticia*. The ads provided the dates and times of the two meetings, a brief overview of the meeting format, and a link to the project website for more information. The legal and display ads in *The Charlotte Observer* were published 30 days before the public meeting.



Ad published in *The Charlotte Observer* on October 16, 2023

Ad published in *Que Pasa Mi Gente* on October 31, 2023



Ad published in *La Noticia* on October 25, 2023

MCCLATCHY

Beaufort Gazette
Belleville News-Democrat
Bellingham Herald
Bradenton Herald
Centre Daily Times
Charlotte Observer
Columbus Ledger-Enquirer
Fresno Bee
The Herald - Rock Hill
Herald Sun - Durham
Idaho Statesman
Island Packet
Kansas City Star
Lexington Herald-Leader
Merced Sun-Star
Miami Herald
el Nuevo Herald - Miami
Modesto Bee
Raleigh News & Observer
The Olympian
Sacramento Bee
Fort Worth Star-Telegram
The State - Columbia
Sun Herald - Biloxi
Sun News - Myrtle Beach
The News Tribune Tacoma
The Telegraph - Macon
San Luis Obispo Tribune
Tri-City Herald
Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
14603	478397	Print Legal Ad-IPL01436550 - IPL0143655		$529.68	2	21 L

Attention: Kevin Price

SHARP & COMPANY
4445 LAKE FOREST DRIVE 700
CINCINNATI, OH 45242

gelizondo@landrum-brown.com

Notice of Public Meetings for the Charlotte Douglas International Airport Part 150 Study Update

The City of Charlotte will conduct two Public Information Meetings with respect to the Part 150 Study Update being prepared for the Charlotte Douglas International Airport (CLT). The Public Information Meetings will be held from 6:00 p.m. to 8:00 p.m. on Tuesday, November 14, 2023 at the Harris Conference Center at Central Piedmont Community College, 3216 CPCC Harris Campus Drive, Charlotte, NC 28208; and from 6:00 p.m. to 8:00 p.m. on Thursday, November 16, 2023 at the Embassy Suites by Hilton Charlotte, 4800 South Tryon Street, Charlotte, NC 28217. The same information will be presented both nights. No formal presentations are planned. Attendees are welcome to come anytime between 6:00 p.m. and 8:00 p.m. If special accommodations are required for an individual's participation, please call 407-440-1060 by Tuesday, October 31, 2023. These meetings will present information related to the ongoing Part 150 Study Update for CLT and provide an opportunity for public comment on the study process. Airport staff and noise consultants will be available at the Public Information Meetings to answer questions and provide information regarding the study. More information about the Part 150 Study Update is available online at https://cltpart150.com/.
IPL0143655
Oct 13 2023

North Carolina } ss
Mecklenburg County }

Before the undersigned, a Notary Public of said County and State, duly authorized to administer oaths affirmations, etc., personally appeared, being duly sworn or affirmed according to law, doth depose and say that he/she is a representative of The Charlotte Observer Publishing Company, a corporation organized and doing business under the laws of the State of Delaware, and publishing a newspaper known as The Charlotte Observer in the city of Charlotte, County of Mecklenburg, and State of North Carolina and that as such he/she is familiar with the books, records, files, and business of said Corporation and by reference to the files of said publication, the attached advertisement was inserted. The following is correctly copied from the books and files of the aforesaid Corporation and Publication.

1 insertion(s) published on:
10/13/23

Tara Pennington

In Testimony Whereof I have hereunto set my hand and affixed my seal on the 13th day of October,2023

Stephanie Hatcher

Notary Public in and for the state of Texas, residing in Dallas County

STEPHANIE HATCHER
My Notary ID # 133534406
Expires January 14, 2026

Extra charge for lost or duplicate affidavits.
Legal document please do not destroy!

***The Charlotte Observer*–published on October 16, 2023**

Palestinian death toll surpasses 2,300, Israel 1,300

BY DON JACOBSON
UPI.com

The Palestinian death toll in the 9-day-old conflict between Israel and Hamas has reached 2,329, Gaza health officials announced Sunday, as violence spread to Israel's northern border with Lebanon.

In addition to those killed, 9,042 have been wounded in the Palestinian enclave since the start of the conflict, triggered last weekend when Hamas militants staged an unprecedent rocket and ground attack against civilian targets inside Israel.

Israel casualties in the conflict stand at 1,300 killed and more than 3,400 wounded.

The Gaza Ministry of Health said the number of Palestinian killed in the current conflict already surpasses the death toll of the 2014 Israel-Hamas war that lasted 51 days, which it said "confirms that the crimes they commit against our people have been promoted to ethnic cleansing."

Meanwhile, the health situation inside the besieged Gaza Strip is quickly deteriorating as Israeli forces have massed at the northern border in preparation for an anticipated ground invasion. The Israeli Defense Forces have ordered a mass evacuation of 1.1 million residents from the area ahead of what it promises will be an "attack with great force."

Electricity and water supplies have been cut off in anticipation of the assault, greatly escalating what aid workers have called a humanitarian disaster in the making.

Palestinian health officials said Sunday that 70% of the residents of both Gaza and North Gaza regions "are deprived of health services for refugees" after UNRWA, the United Nations Palestine refugee agency, evacuated its centers and withdrew its services in the face of a massive Israeli bombardment.

UNRWA chief Philippe Lazzarini urged Israel to protect Palestinian civilians in Gaza, declaring that with water supplies running dry and utilities cut off, "it has become a matter of life and death."

"It is a must," he said. "Fuel needs to be delivered now into Gaza to make water available for 2 million people."

The World Health Organization on Saturday strongly condemned Israel's order for 22 hospitals in northern Gaza to be evacuated, describing it as a "death sentence" for the sick and injured.

The health organization said the hospitals hold around 2,000 "desperately ill patients" and warned that forced evacuation of patients and health workers "will further worsen the current humanitarian and public health catastrophe."

Palestinians and foreign nationals struggling to escape the fighting have gathered at the Rafah border crossing into Egypt, which remained closed.

British and American diplomats said Saturday they have "not been successful" in their efforts to negotiate its reopening with Hamas, Egypt and Israel, all of whom control access to the critical chokepoint.

The much-anticipated ground invasion of northern Gaza appeared to be on hold early Sunday as heavy rains pelted the region, adding to the plight of the evacuees.

Israel Prime Minister Benjamin Netanyahu on Saturday visited troops in the border area for the first time since the conflict began. He appeared at the kibbutzim of Be'eri and Kfar Aza to view the homes destroyed in what he called the "horrific massacre" of last weekend, his office said.

"I've seen our amazing soldiers who are now on the front line," he said Sunday before the first meeting of Israel's emergency Cabinet, during which he vowed to "demolish Hamas."

ILAN ASSAYAG Xinhua/Sipa USA/USA TODAY NETWORK

This photo, taken on Sunday from the Israeli side of Sderot near the Israel-Gaza border, shows smoke billowing after an Israeli airstrike.

Poles vote in most pivotal election since Berlin Wall's fall

BY ANTHONY FAIOLA AND ANNABELLE CHAPMAN
Washington Post

Poles were voting Sunday in their most pivotal election since the fall of the Berlin Wall, with stark consequences for the future of Polish democracy, European unity and the West's effort to confront Russian aggression.

The highly charged campaign included some of the largest rallies on Warsaw's streets since the restoration of democracy three decades ago. Opposition leader Donald Tusk is seeking a "breakthrough moment" in his long and personal fight against the hard-right Law and Justice party (PiS) led by Jaroslaw Kaczynski. In eight years of rule, the archconservatives have boosted Poland's economy while exerting control over the courts and the media, backing severe restrictions on abortion, targeting LBGTQ+ rights and undermining the bonds of the European Union.

The campaign has been swathed in nationalism, with both sides staking out anti-migrant stances. Tusk has also sought to portray the vote as a referendum on democracy.

"The stakes are the highest possible," Tusk – Poland's prime minister from 2007 to 2014 and a former president of the European Council – told supporters on Friday.

Kaczynski, currently Poland's deputy prime minister, though long considered the country's most powerful politician, reviles Tusk. Last week, he encouraged his countrymen to vote for continuity for "peaceful development and a safe future."

Nearly 30 million Poles were eligible to vote in what was projected to be the highest turnout in years. At noon Sunday, the National Election Commission said turnout stood at 22.59%, higher than at the same time in 2019. Especially if the vote is inclusive, it could take days or longer for a government to emerge and could lead to another vote next year.

Some analysts question whether Law and Justice would go peacefully if it loses or seek to challenge the results. It has already limited the independence of the National Electoral Commission and the Supreme Court, which would probably be involved in adjudicating a contested vote.

In what many analysts have criticized as a bid to stoke support for the ruling party, Poles are also being presented with four referendum questions. One asks whether "you support the admission of thousands of illegal immigrants from the Middle East and Africa." The opposition has encouraged voters to boycott the referendum, but to do that, they must actively decline the referendum ballot – making their private voting preference known to poll workers.

The outcome is being especially watched in Washington, Brussels, Kyiv and Moscow, as Poland is central to the West's response to the Russian invasion of Ukraine. It has equipped Ukraine with German-made Leopard 2 tanks and Polish MiG-29 fighters. It has also taken in millions of Ukrainian refugees since the start of the war.

But domestic politics have clouded that support. Last month, a dispute over the impact of Ukrainian grain exports on Polish farmers escalated to the point where Prime Minister Mateusz Morawiecki raised the prospect of an end to Polish arms shipments.

***The Charlotte Observer*–published on October 16, 2023**

La Noticia™

AFFIDAVIT

I, Hilda Gurdian (Name), in my capacity as Sales Executive (Title) of the newspaper

La Noticia (Newspaper Name) in Charlotte (City), NC (State)

hereby certify that the ☒ ROP/☐ Preprinted Inserts (choose one) for _____ (Advertiser)

Sharp & Company

it was published in the above newspaper on 10/25/2023 (Run Date)

Signature of Person Making Affidavit

Subscribed and sworn to before me in the County of Mecklenburg (County) in the State of NC (State), on this 11 (Date) day of December (Month), 2023 (Year).

Notary Public Seal:

Maria E. Benton
NOTARY PUBLIC
Union County, NC
My Commission Expires February 22, 2027

Maria E. Benton
Notary Public Signature

February 22, 2027
Commission Expires

***La Noticia*–published October 25, 2023**

Advertising Affidavit

Date: 11/1/2023

SHAR05-Sharp & Company
1701 Rhode Island Ave. NW
Washington, DC 20036

QUE PASA
LATINO COMMUNICATIONS,LLC
PO BOX 12876
WINSTON SALEM, NC 27117

CLT
CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT

Anuncio de Reuniones Públicas

para la actualización del Estudio de Compatibilidad de Ruido Parte 150

La Ciudad de Charlotte te invita a asistir a una de las Reuniones Públicas sobre la actualización del Estudio de Compatibilidad de Ruido Parte 150 para el Aeropuerto Internacional de Charlotte.

Martes 14 de noviembre de 2023
6 p. m. a 8 p. m.

Harris Conference Center
Central Piedmont Community College
3216 CPCC Harris Campus Dr.
Charlotte, NC 28208

Jueves 16 de noviembre de 2023
6 p. m. a 8 p. m.

Embassy Suites by Hilton Charlotte
4800 South Tryon Street
Charlotte, NC 28217

La misma información se presentará en ambas reuniones. No habrá presentación formal; se permite ingresar en cualquier momento. Si se requiere un alojamiento especial para participar en la reunión, comuníquese con el equipo del proyecto, llamando al 407-440-1060 antes del martes 31 de octubre de 2023.

CLT
CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT

Para recibir información adicional sobre la actualización del Estudio de Compatibilidad de Ruido Parte 150, visite la página de internet: cltpart150.com

Before the undersigned, a Notary Public of Forsyth County, North Carolina, duly commissioned, qualified, and authorized to make this affidavit and sworn statement, that the notice or other legal advertisement, a copy of which is attached hereto, was published in the QUE PASA Newspaper on the following dates:

10/31/2023 to 11/6/2023

And that the said newspaper in which such notice, or legal advertisement was published, was a newspaper meeting all the requirements and qualifications of Section 1-597 of the General Statues of North Carolina

Elva Hernandez
Signature of Person Making Affidavit
Date: 11/1/2023

Newspaper Reference:
Sworn to and subscribed before me,

this 1st day of November, 2023.

M. Teresita Ysasi-Diaz
Notary Public

M. TERESITA YSASI-DIAZ
Notary Public, North Carolina
Forsyth County
My Commission Expires
December 21, 2027

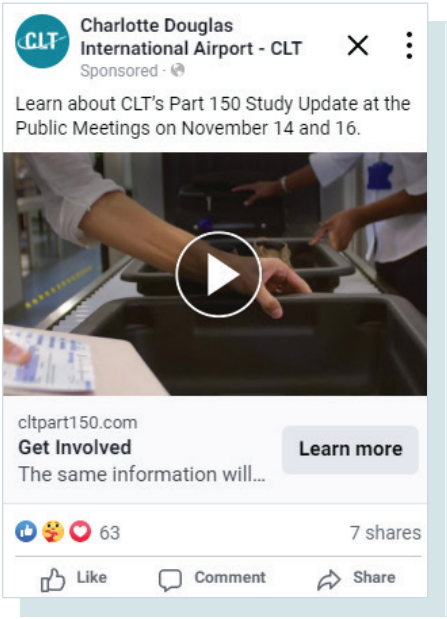
My Commission expires: _____.

THIS IS NOT A BILL, PLEASE PAY FROM INVOICE, THANK YOU

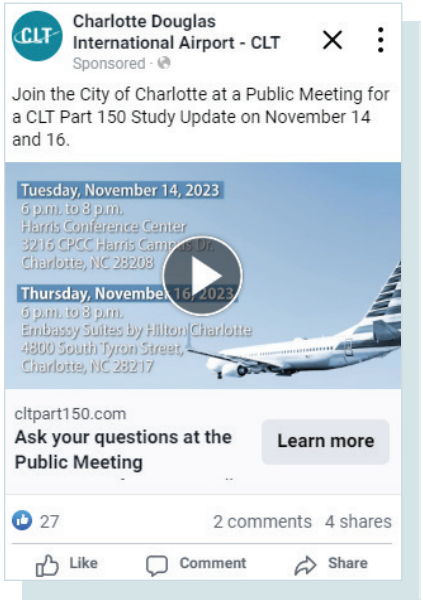
***Que Pasa Mi Gente*–published on October 31, 2023**

Social Media Campaign

Two video ads were placed on Facebook and Instagram, running from October 31st to November 16th, 2023. Targeting included residents within and in a 5-mile radius around the following zip codes: 28214, 28278, 28273, and 28216.



CLT Public Meeting Ad 1



CLT Public Meeting Ad 2

BY THE NUMBERS TABLE

DATE	POST	IMPRESSIONS	REACH	RESULTS (LINK CLICKS)	CTR
10/31	CLT Public Meeting Ad 1	55,139	22,743	904	1.64%
10/31	CLT Public Meeting Ad 2	46,208	19,874	559	1.21%
	TOTAL	**101,347**	**42,617**	**1,463**	**AVG: 1.44%**

Impressions: The number of times the ad appeared in someone's feed
Reach: The number of potential unique viewers of the ad
Link Clicks: The number of times the link was clicked within the ad
CTR: The percentage of clicks there were out of the total number of impressions *(Click-through rate)*

Comments

Comments were accepted from the public at both meetings, as well as through email at **CLTPart150@landrumbrown.com**, and through U.S. postal mail to **Gaby Elizondo**, *Landrum & Brown, 4445 Lake Forest Drive, Suite 700, Cincinnati, OH 45242*. In total, 14 comments were received from the public.

COMMENT	NAME	DATE	SOURCE
Planes increased over South Shore Residents will greatly decrease property values in the near future.	**Scott Daukus**	**11/15/23**	**Email**
Sign me up for updates. I live Mclean South Shore.	**Christine Bury**	**11/15/23**	**Email**
And the noise of the air traffic– all hours of the night from freight flights – wakes us up.	**Christine Bury**	**11/15/23**	**Email**
Against any reduction in the noise abatement program.	**George Cline**	**11/15/23**	**Email**
Far too many CLT departures flying far too low and far too near my home.	**Jeffrey Diamond**	**11/15/23**	**Email**
Why don't you focus on all the 2nd hand smoke from airport employees instead? Disgusting.	**Paul Lustig**	**11/16/23**	**Email**

continue

COMMENT	NAME	DATE	SOURCE
To Whom it May Concern: I am writing to express concern about changes I understand being considered that might generate increased flight noise in the area west of the Charlotte airport. Particularly concerned to hear about what I understand may be a proposal to lift the 2 mile restriction for departures from CLT. Doing so would appear to project more frequent, low altitude flights over the peninsula area south of Belmont. We already have plenty of flight noise in that area and many of us who have built homes here in recent years will not welcome an increase. While I very much support the factors, like the airport, that contribute to economic growth in our area, I do believe there need to be reasonable restrictions on things like flight noise that have a significant impact on the quality of life for residents in the area. One thing in particular that makes this area problematic for flight noise is its proximity to Lake Wylie since noise of any kind carries much further and can be amplified due to the surface water. Innovative and high impact steps should be taken to make sure that noise associated with the airport's growth is contained or abated in every way possible. I was not able to attend either of the public hearings on this topic, but wanted to share my concerns. Thanks.	**William Menefee**	**11/16/23**	**Email**
Looking to stay up-to-date with the project.	**Justin Martin**	**11/16/23**	**Email**
You should have a meeting closer to Belmont where the impact will be. For us, to get to Charlotte at rush hour is ridulous and not allowing folks an opportunity to really submit/voice their concerns. Be well, Christine	**Christine Bury**	**11/16/23**	**Email**
I am a homeowner in Mclean South Shore on Lake Wylie in Belmont and am very interested in how we can control the current noise. All hours of the night over our homes and future projects that will bring more traffic and hours.	**Christine Bury**	**11/16/23**	**Email**
I believe serious consideration must be given to reduce noise caused by hundreds of flights that approach the airport over the same routes each day. The CLT airport favors northbound arrivals which causes too many planes to flying at low altitudes above communities like mine on Fort Mill SC. Airport staff has told me the goal is to "spread the pain" of noise as much as possible; but the fact that arrivals are northbound the majority of the time condenses noise pollution to the south of the airport. Arriving flights could maintain a higher altitude upon approach along with using a zipper merge method that would put noise over different areas versus condensing it in Fort Mill and other communities.	**Kevin Harvel**	**11/16/23**	**Email**

continue

COMMENT	NAME	DATE	SOURCE
Thank you for arranging and hosting the update meetings the week of November 13th. I attended one of the meetings and received some new information. I later researched the CLT 150 web site and found additional interesting information. On a more depressing note, I learned that my house is directly under an arrival flight path. I always thought I had a lot of traffic, but this now confirms that thought (attached). My question is "Is this flight path set in stone, regardless of the three or four runway scenarios, or does the FAA review these paths periodically to help ensure not one set of residents is constantly subject to the noise pollution?" Thanks again for your recent forum. Steve	**Steve & Maralee**	**11/18/23**	**Email**
We moved to Steele creek close to RiverGate in 2019. We would see airplanes in the sky at that time but noise really wasn't an issue. Now it seems like the planes are directly overhead and the noise is super loud, like the planes are gonna land on our house. Are the landing paths going to change again?	**Zachary**	**11/23/23**	**Email**
I think the terms noise compatibility part 150 needs a clearer explanation for non-technical individuals. The displays are helpful but current and proposed i.e. 2023/ 2028 should be together at some point to compare. Thanks.	**Thelma**	**11/14/23**	**Comment Form**

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CHARLOTTE DOUGLAS®
INTERNATIONAL AIRPORT

APPENDIX A

Charlotte Douglas International Airport

Part 150 Study Update

Public Meeting #2 Summary Report

November 14 & 16, 2023

Meeting Materials

Charlotte Douglas International Airport
PART 150 STUDY UPDATE

What is a Part 150 Noise Compatibility Study?

The City of Charlotte is updating the Part 150 Noise Compatibility Study for the Charlotte Douglas International Airport (CLT). The study gets its name from Part 150 of the Code of Federal Regulations, which provides guidance for airports choosing to prepare a Noise Compatibility Study. Airports prepare Part 150 Studies in accordance with Federal Aviation Administration (FAA) guidance. The Part 150 Study process uses a balanced approach to identify noise incompatibilities surrounding an airport, and to recommend measures to both correct existing incompatibilities and to prevent future incompatibilities.

Part 150 Study Primary Elements:

NOISE EXPOSURE MAPS (NEM)

- Description of the noise levels for existing and future (+5 years) conditions
- Existing conditions (last 12 months of activity)
- Future Conditions (2028) (considers physical and operational changes)

NOISE COMPATIBILITY PROGRAMS (NCP)

- Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
- May reflect short-term (before 2028) and long-term (after 2028)

PUBLIC INVOLVEMENT

- Project website and social media
- Meeting notices, study process, and draft findings
- Comment collection

Purpose of this Meeting:

The Airport is hosting the second in a series of public informational meetings to invite the public to comment on the findings of the Part 150 Study Update. The purpose of this meeting is to review noise abatement alternatives developed to help minimize impacts from previously approved airfield improvements, including a new runway. Potential noise impacts from each noise abatement alternative are also presented. The public is encouraged to provide written comments regarding the study and its findings to date.

Noise Abatement Alternatives:

A Noise Compatibility Program includes noise abatement alternatives, which are developed to address aircraft operating procedures. For the purpose of this Part 150 Study Update, noise abatement alternatives have been developed based on input from the Airport and local stakeholders, including airlines, air traffic controllers, and the Airport Community Roundtable. Alternatives being considered for noise abatement as part of this Part 150 Study Update fall into the following categories:

Facility Modification

- **Run-Up Locations:** Alternatives that would change the designated locations on the Airport where aircraft engine testing is conducted
- **Displaced Arrival Threshold:** Alternatives that would change the location on the runway where arriving aircraft would land. This would reduce the length of runway available for landings.

Preferential Runway Use:

- **Airport Flow:** Alternatives that would change the amount of time the Airport operates in north flow and south flow
- **Daytime Runway Use:** Alternatives that would change the previously approved use of runways in the future (when the new runway is constructed) in the daytime (7am to 10pm)
- **Nighttime Runway Use:** Alternatives that would change the previously approved use of runways in the future (when the new runway is constructed) in the nighttime (10pm to 7am)

Flight Procedure:

- **Divergent Headings:** Alternatives that would change the existing departure flight procedures for aircraft departing to the north and south and eliminate the two-mile restriction for aircraft departing to the south
- **Departure Flight Corridors:** Alternatives that would change where departing aircraft fly for specific flight corridors
- **Arrival Flight Corridors:** Alternatives that would change where arriving aircraft fly for specific flight corridors

Screening Process

Alternatives will only be considered for implementation if they do not present potential safety or feasibility issues, would result in a reduction in noise impacts within the 65 DNL, have no or minimal operational impacts, and do not present insurmountable implementation issues.

Anticipated Schedule & Next Steps

What are the Opportunities for Providing Input?

Members of the public may comment at the meeting by completing and submitting a comment form.
Please submit your comments by **November 30, 2023** using one of these methods:

Email:
CLTpart150@landrumbrown.com

Online:
Visit the project website and submit a comment on the "Contact" page: **CLTPart150.com**

Mail:
Gaby Elizondo
4445 Lake Forest Dr, Suite 700
Cincinnati, OH 45242
(Postmarked by **November 30, 2023**)

The public will have additional opportunities to provide input and comments throughout the Part 150 process. **For additional information regarding the EA, please visit: CLTpart150.com**

The website will be updated throughout the Part 150 process with project updates; meeting information; status reports and schedules; and other information.

Photos by Patrick Schneider

Charlotte Douglas International Airport
ACTUALIZACIÓN ESTUDIO PARTE 150

¿Qué es un Estudio de Compatibilidad de Ruido Parte 150?

La ciudad de Charlotte está actualizando el Estudio de Compatibilidad de Ruido Parte 150 para el Aeropuerto Internacional de Charlotte Douglas (CLT). El estudio recibe su nombre de la Parte 150 del Código de Reglamentos Federales, que proporciona orientación a los aeropuertos que deciden realizar un Estudio de Compatibilidad de Ruido. Los aeropuertos preparan los Estudios Parte 150 de acuerdo con las directrices de la Administración Federal de Aviación (FAA por sus siglas en inglés). El proceso del Estudio Parte 150 identifica las incompatibilidades del ruido alrededor de un aeropuerto y recomienda medidas tanto para corregirlas como para evitarlas en el futuro.

Elementos principales del Estudio Parte 150:

MAPAS DE EXPOSICIÓN AL RUIDO (NEM por sus siglas en inglés)

- Descripción de los niveles de ruido en las condiciones actuales y en el futuro (más de 5 años).
- Condiciones existentes (últimos 12 meses de actividad).
- Condiciones futuras (2028) (considera cambios físicos y operativos).

PROGRAMAS DE COMPATIBILIDAD DE RUIDO (NCP por sus siglas en inglés)

- Recomendaciones para reducir, minimizar y/o mitigar el ruido de las aeronaves y los conflictos por el uso del suelo.
- Puede reflejar el corto plazo (antes de 2028) y el largo plazo (después de 2028).

PARTICIPACIÓN PÚBLICA

- Sitio web del proyecto y redes sociales.
- Avisos de reuniones, proceso de estudio y borradores de conclusiones.
- Recopilación de comentarios.

Propósito de esta reunión

El aeropuerto está organizando la segunda de una serie de reuniones públicas informativas, para invitar al público a comentar sobre los resultados de la Actualización del Estudio Parte 150. El propósito de esta reunión es revisar las alternativas de reducción del ruido, desarrolladas para ayudar a minimizar los impactos de las mejoras del aeropuerto previamente aprobadas, incluyendo una nueva pista. También se presentarán los posibles impactos acústicos de cada alternativa de reducción del ruido. Se invita al público a presentar comentarios por escrito sobre el estudio y sus conclusiones a la fecha.

Alternativas para la reducción del ruido

Un programa de compatibilidad de ruido incluye una serie de alternativas de reducción del ruido que se desarrollan para abordar los procedimientos operativos de las aeronaves. Para efectos de esta actualización del Estudio Parte 150, se han desarrollado alternativas de reducción del ruido, basadas en los aportes del aeropuerto y las partes locales interesadas, incluidas las aerolíneas, los controladores de tráfico aéreo y la mesa redonda de la comunidad aeroportuaria. Las alternativas que se están considerando para la reducción del ruido como parte de esta actualización del Estudio Parte 150, se califican en las siguientes categorías:

Modificación a las instalaciones:

- **Lugares de prueba:** Alternativas que cambiarían las ubicaciones designadas en el aeropuerto donde se realizan las pruebas de motores de las aeronaves.
- **Desplazamiento del umbral de la pista de llegada:** Alternativas que implican cambiar el punto de inicio de la pista donde las aeronaves tocan tierra al aterrizar. Esto efectivamente reduce la longitud de la pista utilizada para aterrizajes.

Uso preferencial de pistas:

- **Flujo aeroportuario:** Alternativas que modificarían la cantidad de tiempo que el aeropuerto opera en flujo norte y sur.
- **Uso de pistas durante el día:** Alternativas que cambiarían a futuro el uso de pistas, previamente aprobado, (cuando se construya la nueva pista) durante el día (de 7 a. m. a 10 p. m.).
- **Uso de pistas durante la noche:** Alternativas que cambiarían a futuro el uso de pistas, previamente aprobado, (cuando se construya la nueva pista) en el horario nocturno (de 10 p. m. a 7 a. m.).

Procedimiento de vuelo:

- **Rumbos divergentes:** Alternativas que modificarían los procedimientos actuales de salida de vuelos para aeronaves que despegan hacia el norte y el sur, y eliminarían la restricción de dos millas para aeronaves que despegan hacia el sur.
- **Corredores de salida de vuelos:** Alternativas que modificarían la ruta de vuelo de las aeronaves que despegan en corredores de vuelo específicos.
- **Corredores de llegada de vuelos:** Alternativas que modificarían la ruta de vuelo de las aeronaves que llegan por corredores de vuelo específicos.

Proceso de selección

Solo se considerarán alternativas que, para su proceso de implementación, no presenten posibles problemas de seguridad o viabilidad, que tengan como resultado una reducción de los impactos del ruido dentro del 65 DNL, que tengan mínimos o nulos impactos operativos y que no presenten problemas de implementación insuperables.

Programa previsto y próximos pasos

¿Cuáles son las opciones para proporcionar comentarios?

El público puede comentar en la reunión completando y enviando un formulario de comentarios.

Por favor, envíe sus comentarios antes del **30 de noviembre de 2023** utilizando uno de estos métodos:

Correo electrónico:
CLTpart150@landrumbrown.com

En línea:
Visite el sitio web del proyecto y envíe su comentario en la página de "contacto": **CLTPart150.com**

Correo:
Gaby Elizondo
4445 Lake Forest Dr, Suite 700
Cincinnati, OH 45242
(con sello postal antes del **30 de noviembre de 2023**)

El público tendrá oportunidades adicionales para proporcionar sus opiniones y comentarios a lo largo del proceso de la Parte 150. **Para obtener información adicional sobre el Estudio Ambiental, por favor visite: CLTpart150.com**

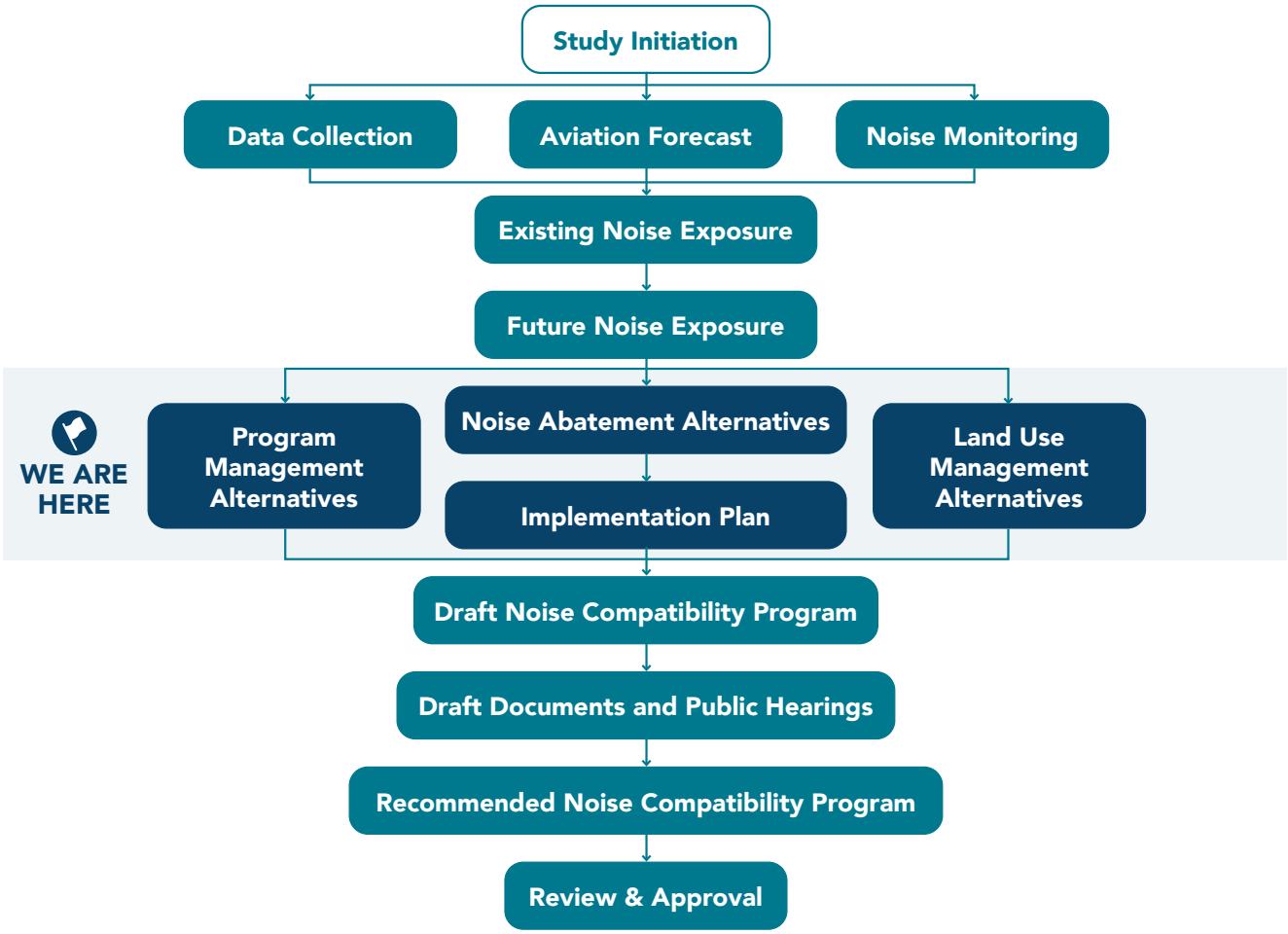
El sitio web se mantendrá al día durante todo el proceso de la Parte 150 con actualizaciones del proyecto, información sobre reuniones, informes del estado, horarios y otra información.

Photos by Patrick Schneider

Welcome to the

Public Information Meeting

Part 150 Process



Part 150 Study – Primary Elements:

Noise Exposure Maps	Noise Compatibility Programs	Public Involvement
• Description of the noise levels for existing and future (+5 years) conditions	• Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts • May reflect short-term and long-term	• Project website and social media • Meeting notices, study process, and draft findings • Comment collection

How Noise Contours are Generated

AVIATION ENVIRONMENTAL DESIGN TOOL (AEDT)

Data Sources

- Airport Layout Plan
- Radar Data
- Air Traffic Control Tower Counts
- Forecasted Operations

+

Input Data

- Runway Layout
- Operating Levels
- Fleet Mix
- Runway Use
- Flight Tracks
- Flight Profiles

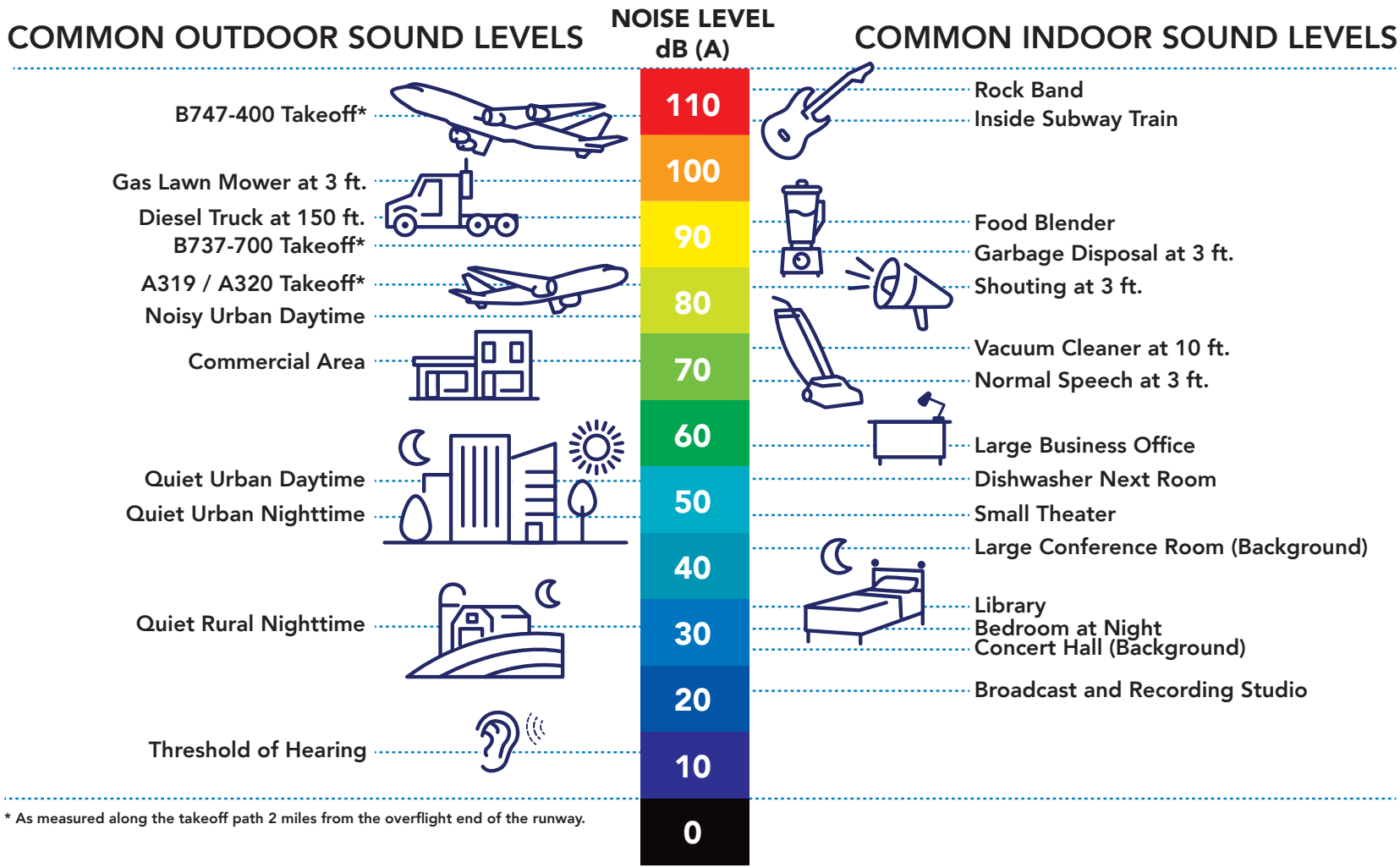
- Aircraft Database
- Aircraft Performance Data
- Aircraft Noise Data

Noise Contours

Tabular Reports

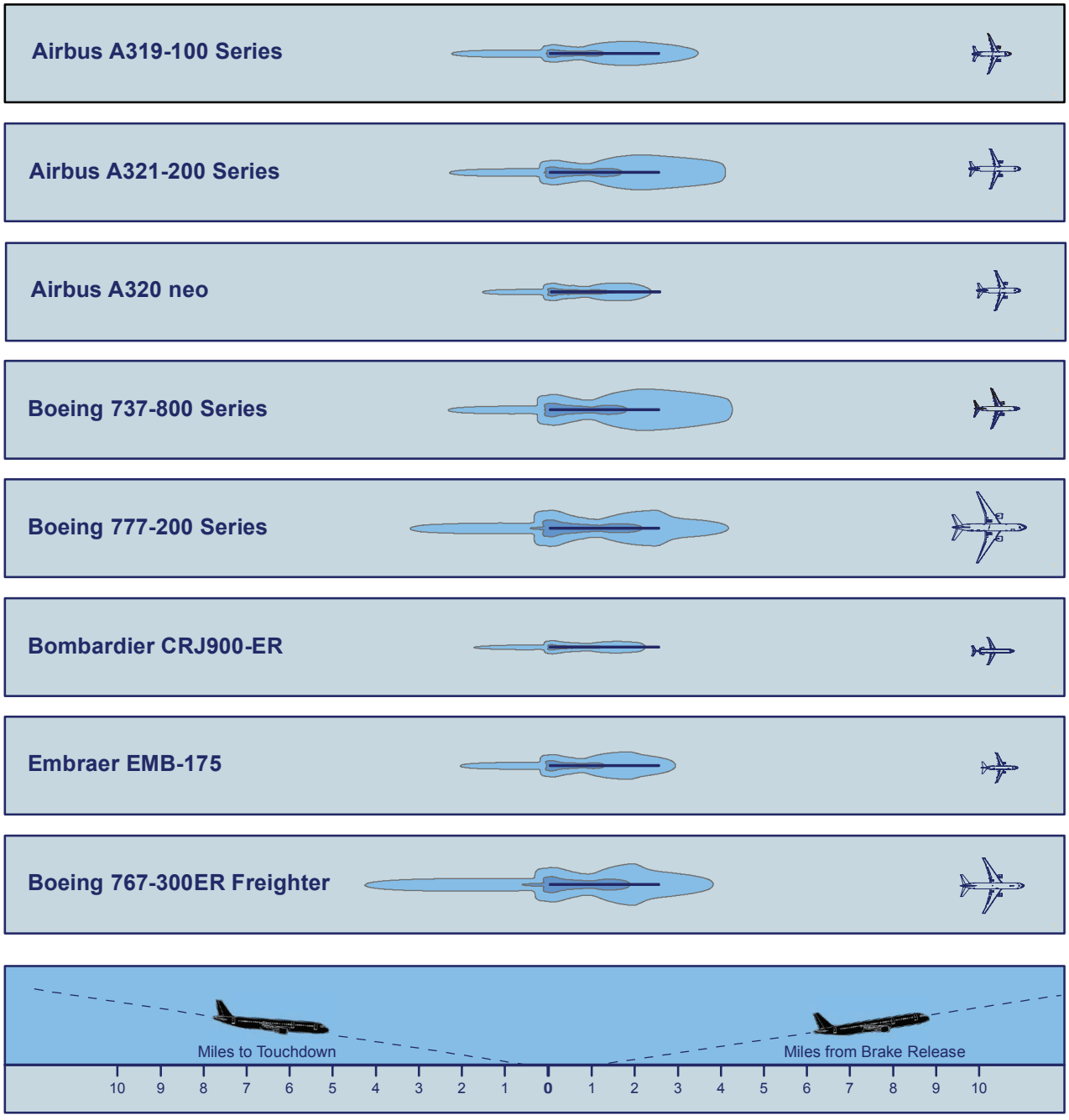
Grid Point Analysis

Comparison of Noise Levels

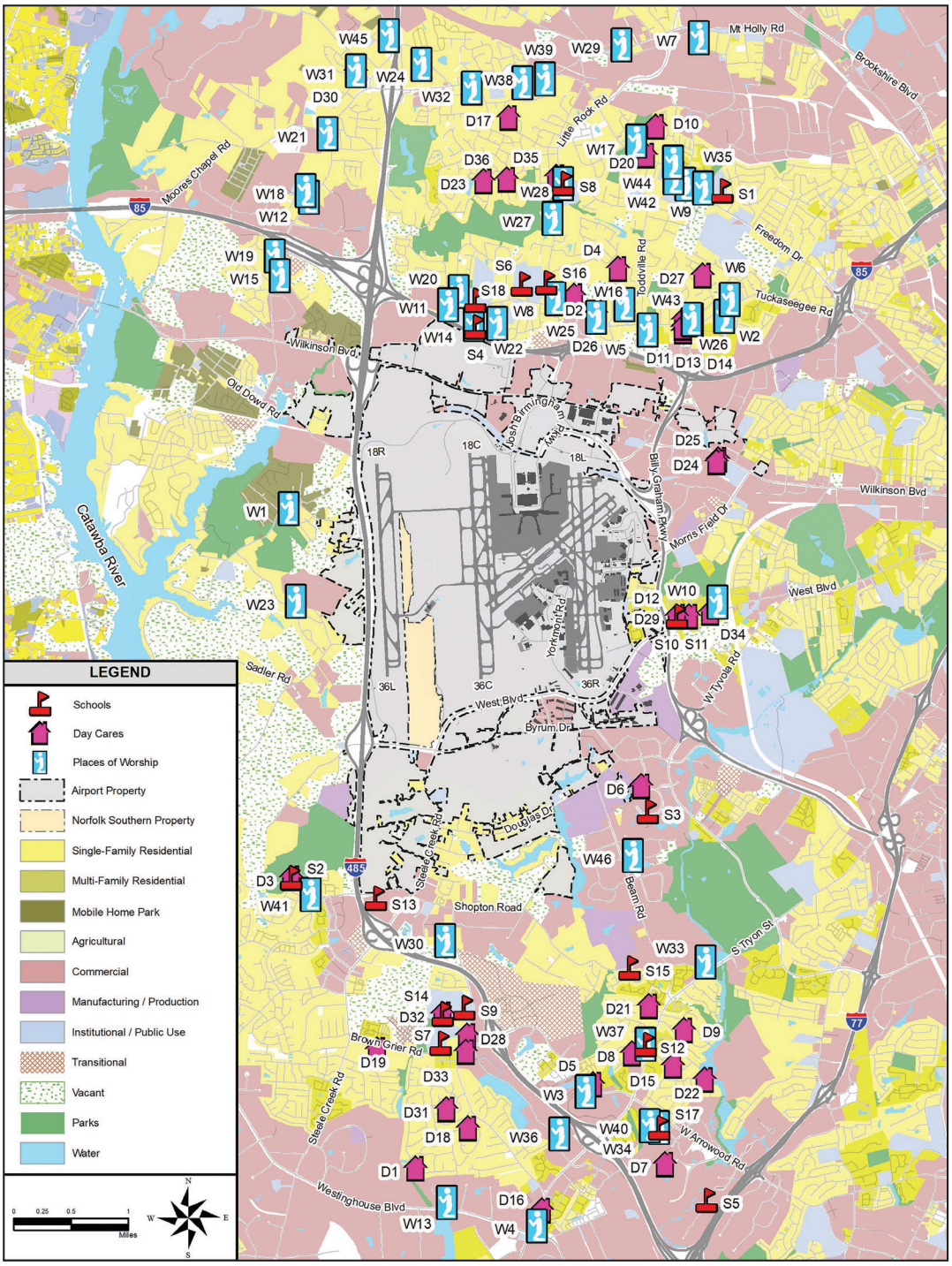


* As measured along the takeoff path 2 miles from the overflight end of the runway.

Aircraft Noise Footprints



Airport Environs



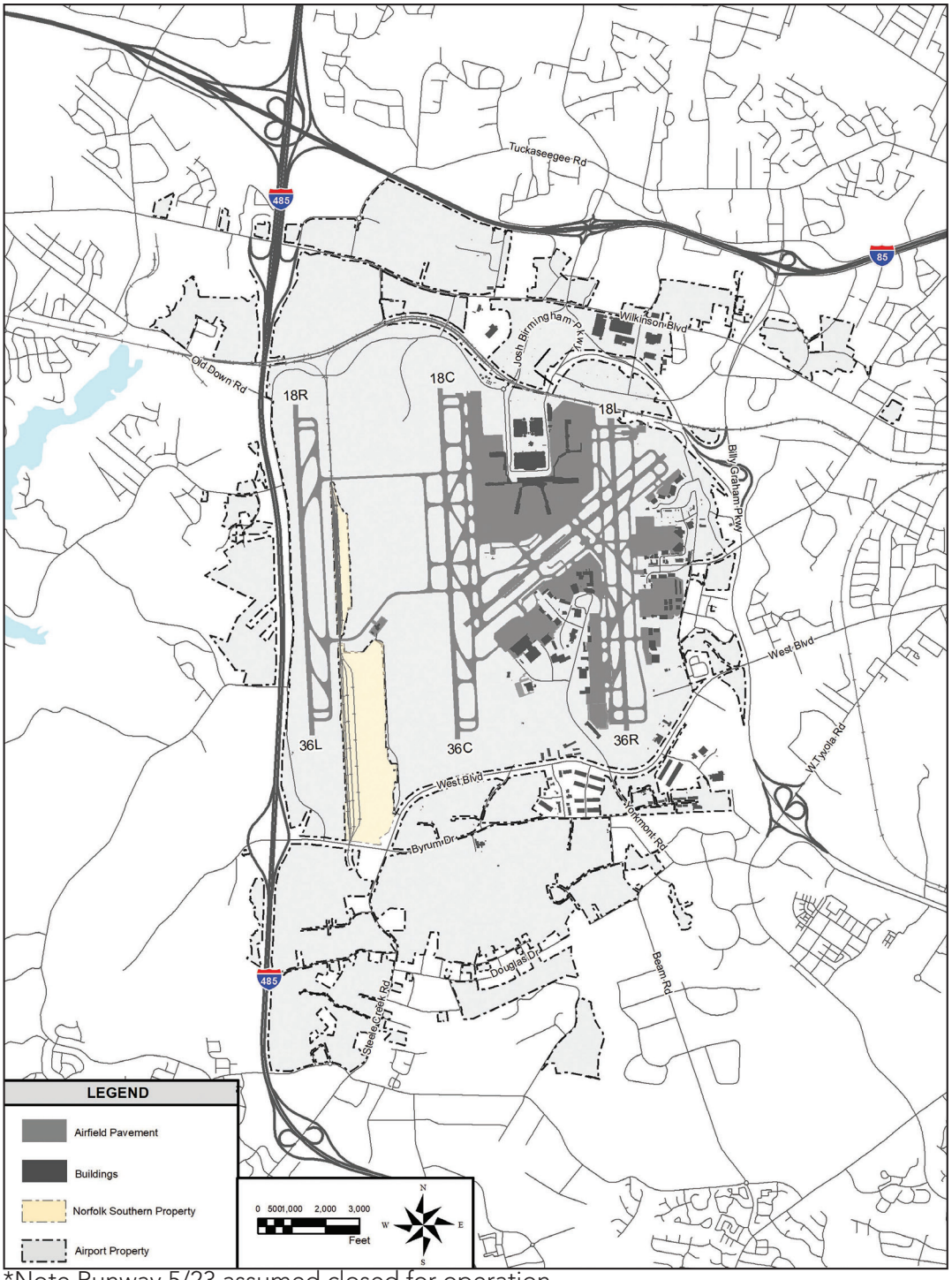
Airport Environs

Schools	
ID	Name
S1	Allenbrook Elementary School
S2	Berewick Elementary School
S3	Central Piedmont Community College
S4	East Voyager Academy of Charlotte
S5	Gordon-Conwell Theology
S6	J.W. Wilson Middle School
S7	Kennedy Middle School
S8	Mountain Island Day School
S9	Olympic High School
S10	Renaissance West Elementary School
S11	Renaissance Middle Elementary School
S12	Rod of God Christian Academy
S13	Southwest Charlotte STEM Academy
S14	Steele Creek Elementary School
S15	Steele Creek Preparatory Academy
S16	Tuckaseegee Elementary School
S17	Unity Classical Charter School
S18	West Mecklenburg High School

Day Cares	
ID	Name
D1	Anthony's Day Care Home
D2	Beginning Years Day Care
D3	Berewick Elementary A.S.E.P.
D4	Busy Beez Child Care
D5	Cadence Academy Preschool, Whitehall
D6	Children's Academy At Lakepointe
D7	Dogwood Lane Children's Academy
D8	Ebenezer Child Care Home Sylvia Pauling
D9	Gallmon Family Small Day Care Home
D10	Gina's Learn-N-Play Home Day Care
D11	Gleaton's Learning Immersion Academic Center
D12	Howard Levine Child Development Center
D13	Humpty Dumpty Academy I
D14	Humpty Dumpty Academy II
D15	Jaznee's Wonderland
D16	La Petite Academy
D17	Lachriston Large Day Care Home
D18	Lacy's Little Ones
D19	Lil' Bundles Of Joy
D20	Little Dove's In Home Day Care
D21	Little Miracles Home Day Care
D22	Miss Ethel's Day Care Home
D23	Miss Miss C's Child Care
D24	Mrs. Chris Play And Learn #2
D25	Mrs. Chris Play And Learn Preschool
D26	Mulberry Head Start
D27	Precious Little Angels
D28	Primrose School Of Lake Wylie
D29	Renaissance West A.S.E.P.
D30	Shady Brook Baptist Child Care Center
D31	Spectrum Kids
D32	Steele Creek A.S.E.P.
D33	The Learning Experience
D34	The Learning Tree Child Care Center
D35	Tiny Treasures Child Development Center
D36	Vantoinette J. Savage Small Day Care Home

Places of Worship	
ID	Name
W1	Berryhill Baptist Church
W2	Blessed Assurance Community Church
W3	BOLD Church
W4	Central Steele Creek Presbyterian Church
W5	Charlotte Chin Baptist Church
W6	Charlotte Immanuel Church of All Nations
W7	Connections - An Assurance Faith Community
W8	Covenant United Methodist Church
W9	Durham Memorial Baptist Church
W10	EPIC Church Charlotte/ Hedges and Highways Church
W11	Every Nation Church
W12	Garden Memorial
W13	Greater Newbirth Fellowship
W14	Harvest Church
W15	Hope Community Church of Metrolina
W16	Iglesia Catolica Nuestra Senora de Guadalupe
W17	Kingdom Christian Church
W18	Kingdom Embassy International
W19	Liberty Baptist Church
W20	Montagnard Alliance Church
W21	Moores Chapel
W22	Mt Carmel Baptist Church
W23	Mt Olive Presbyterian Church
W24	Mt Zion Missionary Baptist Church
W25	Mulberry Baptist Church
W26	Mulberry Presbyterian Church
W27	New Bethel Church of God in Christ
W28	Paw Creek
W29	Paw Creek Presbyterian Church
W30	Saint Joseph Catholic Church
W31	Shadybrook Baptist Church
W32	St Johns Chapel Baptist Church
W33	Steele Creek AME Zion Church
W34	Steele Creek Church
W35	The Church of Pentecost Charlotte Central
W36	The Restoration Place Church
W37	The Rod of God Ministries
W38	Thrift Baptist Church
W39	Thrift United Methodist Church
W40	Trinity Baptist Church
W41	Trinity Worship Center
W42	West Charlotte Church at Freedom
W43	West Charlotte Spanish SDA Church
W44	Westview Christian Church
W45	Woodland Presbyterian Church
W46	World Worship Church

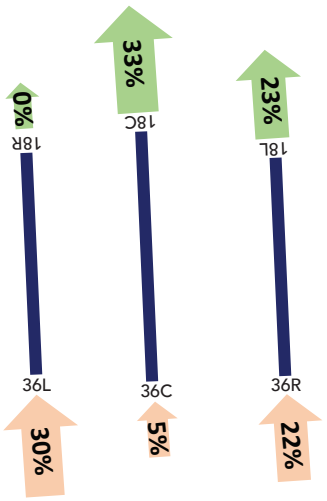
Existing Airfield



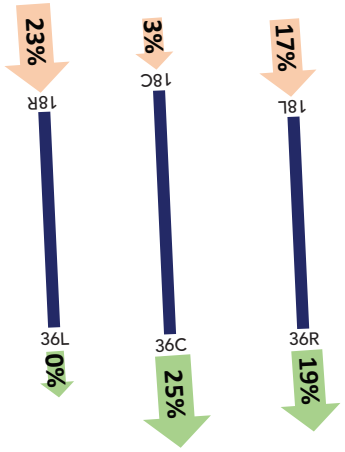
*Note Runway 5/23 assumed closed for operation

Existing (2023) Baseline Runway Use Average Annual Conditions*

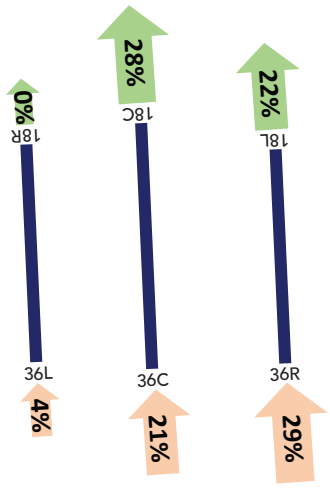
DAYTIME – NORTH FLOW



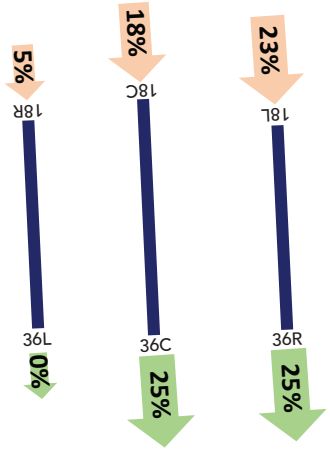
DAYTIME – SOUTH FLOW



NIGHTTIME – NORTH FLOW



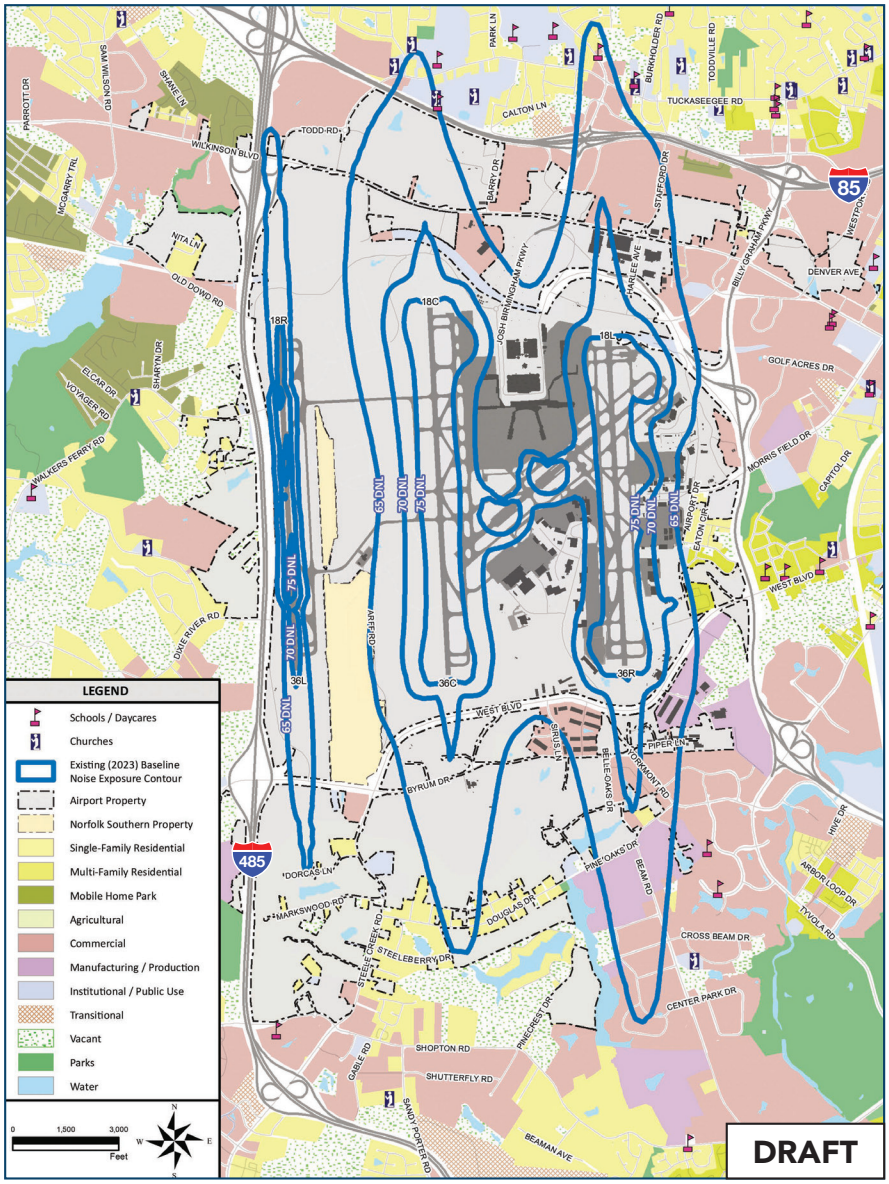
NIGHTTIME – SOUTH FLOW



*Totals may not equal 100% due to rounding.

Arrivals Departures

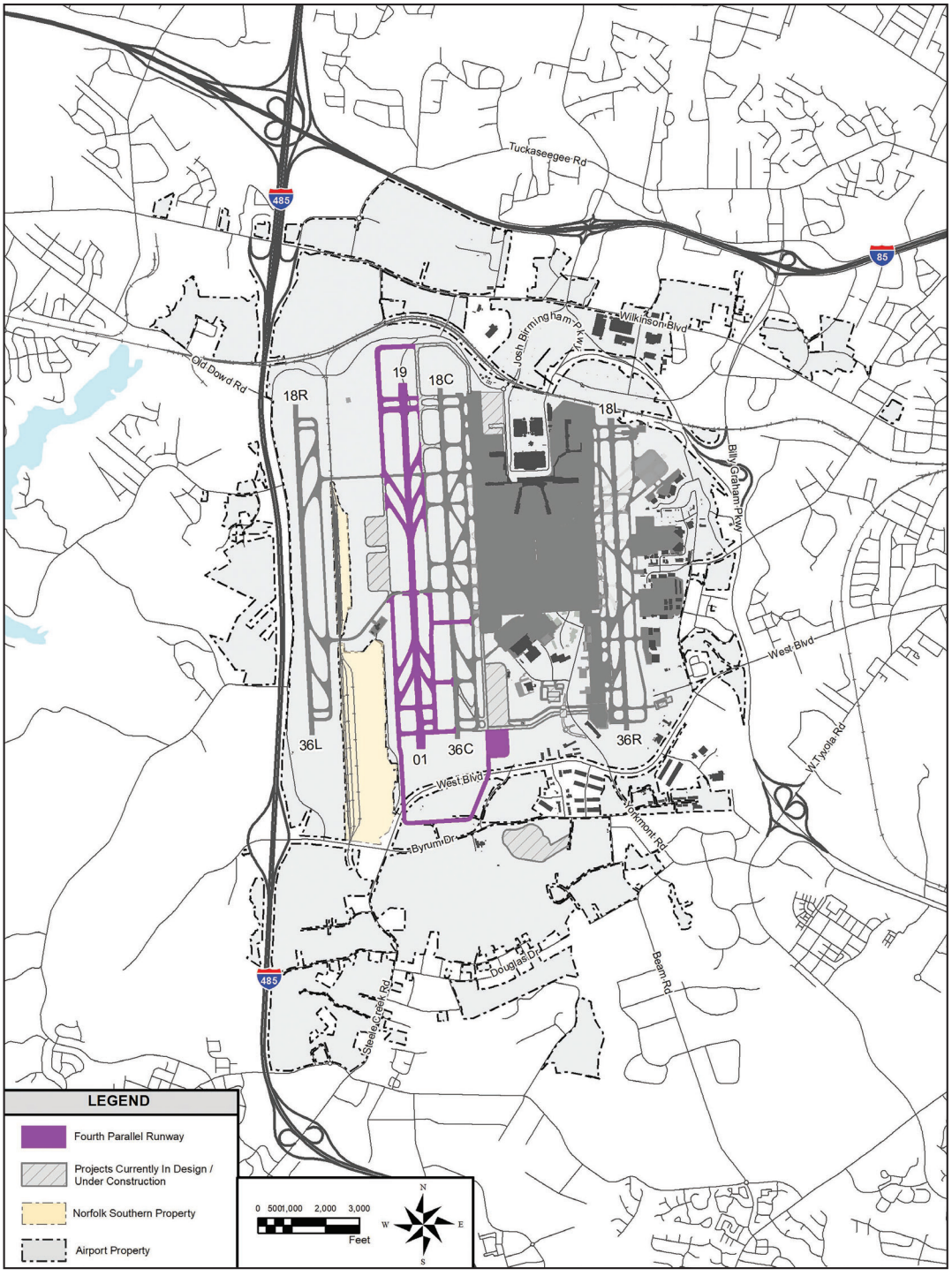
Existing (2023) Baseline Noise Exposure Contour



Housing Units within the 65 DNL	
Single-Family Residential	**51**
Mitigated	15
Not Mitigated	36
Multi-Family Residential	**88**
Not Mitigated	88
Manufactured Home	**1**
Not Mitigated	1
Total Housing Units	**140**

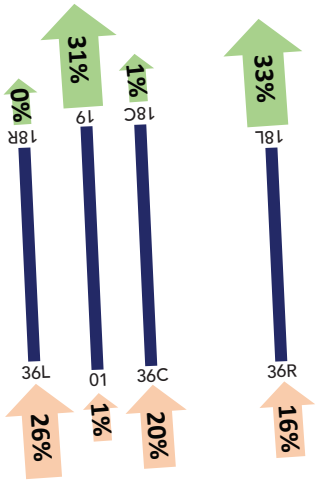
Noise Sensitive Facilities within the 65 DNL	
Churches / Places of Worship	4
Schools / Education	3
Libraries	0
Hospitals	0
Nursing Homes	0
Total Noise Sensitive Facilities	**7**

Future Airfield

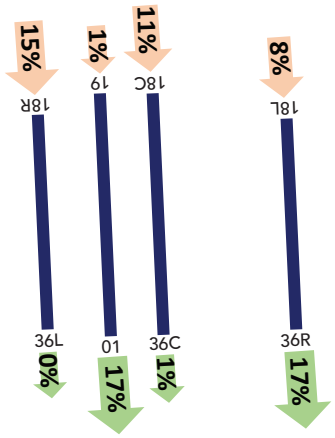


Future (2028) Baseline Runway Use Average Annual Conditions*

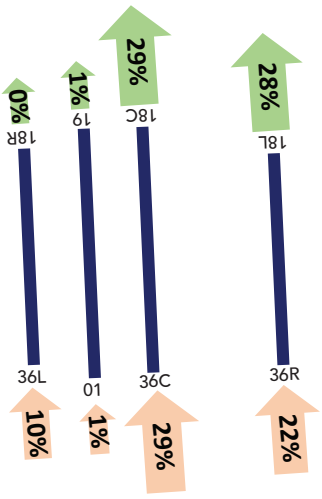
DAYTIME – NORTH FLOW



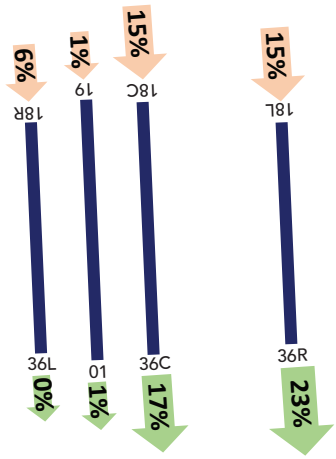
DAYTIME – SOUTH FLOW



NIGHTTIME – NORTH FLOW



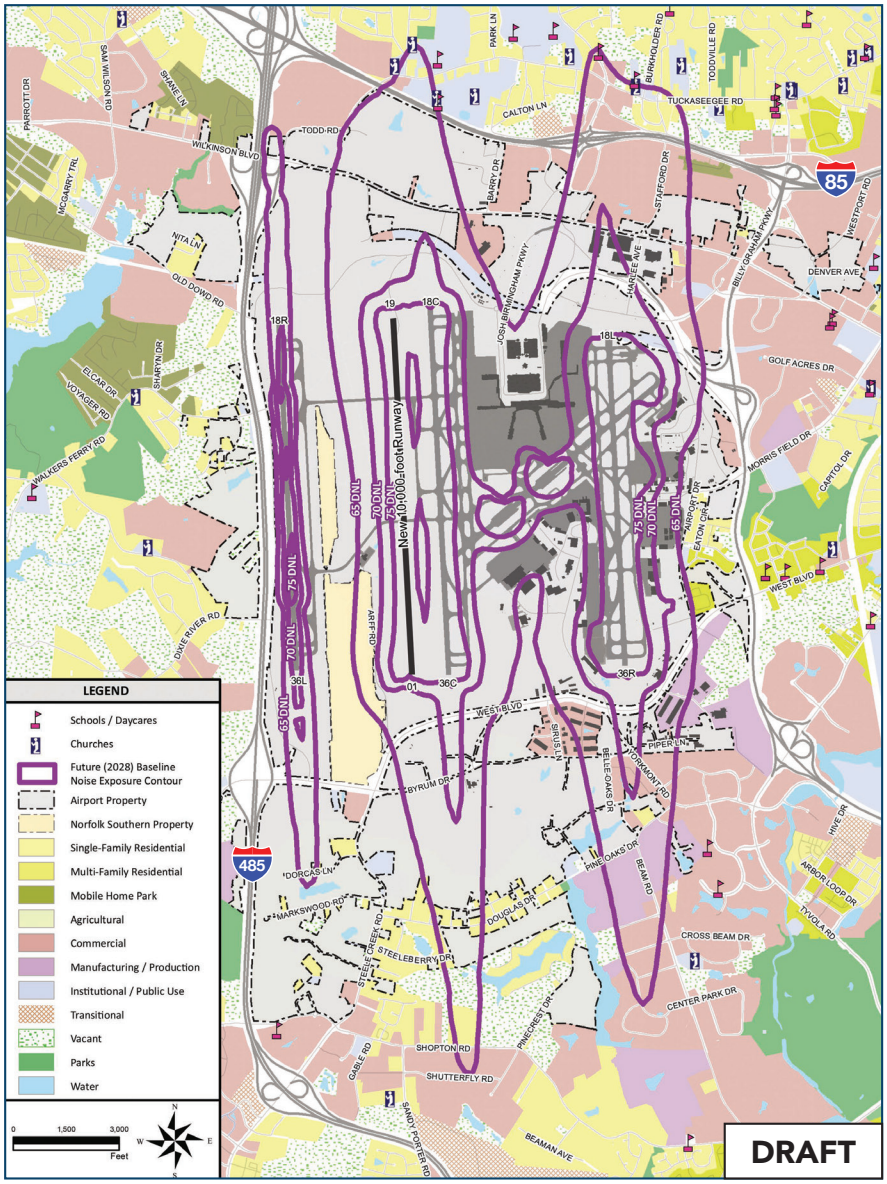
NIGHTTIME – SOUTH FLOW



*Totals may not equal 100% due to rounding.

Arrivals Departures

Future (2028) Baseline Noise Exposure Contour



Housing Units within the 65 DNL	
Single-Family Residential	**85**
Mitigated	47
Not Mitigated	38
Multi-Family Residential	**94**
Mitigated	2
Not Mitigated	92
Manufactured Home	**63**
Not Mitigated	63
Total Housing Units	**242**

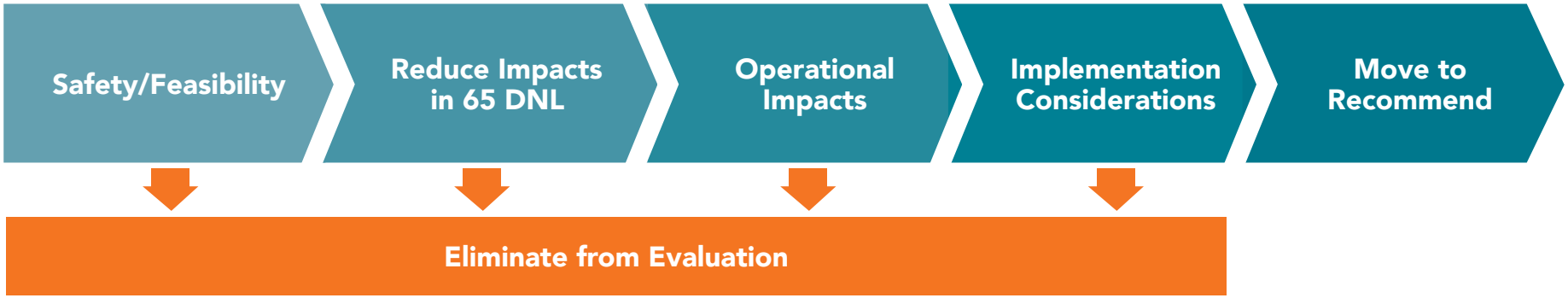
Noise Sensitive Facilities within the 65 DNL	
Churches / Places of Worship	4
Schools / Education	4
Libraries	0
Hospitals	0
Nursing Homes	0
Total Noise Sensitive Facilities	**8**

History of Noise Compatibility Planning

CURRENTLY APPROVED NOISE ABATEMENT MEASURES

Measure ID	DESCRIPTION	STATUS
NA-1	Continue periodic monitoring procedures, initiated as a result of the 1990 Part 150 Noise Compatibility Program (NCP), within the Airport Environs. (Continuation of implemented Measure NA-1 of adopted 1990 NCP.) (Phase I) Approved in 1996	Inactive
NA-4	Provide monthly reports on late night (11:00 p.m. to 7:00 a.m.) runway utilization and variances from NCP assumptions to Air Traffic Control Tower management and frequent nighttime operators. Conduct follow-up with FAA and carriers to enhance voluntary adherence to existing program. (Phase I) Approved in 1996	Active
NA-5	Designate Runway 18C or 18L as preferred for takeoffs by turbojet and large four-engine prop aircraft between 11:00 p.m. and 7:00 a.m. when, under the current preferential runway use program, Runway 23 or Runway 5 cannot be used for reasons of wind, weather, operational necessity, or required runway length. (Phase I) Approved in 1996	Active
NA-6	Reaffirm Airport user policy which designates locations and procedures for aircraft engine runups. Establish a runup position on the USAir ramp parallel to Runway 5/23. (Phase I) Approved in 1996	Active
NA-7	Departing Runways 36R and 36C, turbojet and large four-engine prop aircraft initiate turns at the 2.6 and 2.5 DME north of the CLT VOR/DME, respectively. (Phase I) Approved in 1996	Active
NA-8	After construction of Runway 18R/36L, 3,700 feet west of Runway 18C/36C, establish an initial departure turn for Runway 18R, to be made as soon as practicable by turbojets and large four-engine prop aircraft, to a heading of 195 degrees. (Phase II) Approved in 1996	Active
NA-9	After commissioning of a third parallel runway west of Runway 18C/36C, establish an initial departure turn, as soon as practicable, by turbojets and large four-engine prop aircraft to a heading of 315 degrees from Runway 36L. (Phase II) Approved in 1996	Active

Noise Abatement Alternative Screening Process



Safety / Feasibility

- Our team of experts will evaluate each alternative for safety/feasibility issues
- If no safety or feasibility issues identified, move to the next step

Reduces Impacts in 65 DNL

- Would the alternative result in a net reduction in non-compatible land uses within the 65 DNL?
- If there is a net reduction in impacts within the 65 DNL, move to the next step

Operational Impacts

- Does the alternative negatively impact operational efficiency (increased delays, reduced capacity, increased flight time, etc.)?
- If there are no operational impacts identified, move to the next step

Implementation Considerations

- Who is responsible to implement or support the implementation of the alternative?
- Consideration of the process, timeline, and cost of implementation
- If no implementation issues are identified, move to the next step

Move to Recommend

- Include the alternative as a recommended measure for further evaluation with other recommended measures
- Various scenarios of recommended measures will be evaluated

ID	CATEGORY	DESCRIPTION	ASSESSMENT METHOD	SAFETY / FEASIBILITY	REDUCES IMPACTS IN 65DNL?	OPERATIONAL IMPACTS?
			RUN-UP LOCATIONS			
NA-A-1	Facility Modification	Maximize the use of midfield run-up locations (ID 2, 3) over those located on the east side of the Airport (ID 4, 5, 6). (Short-Term)	Qualitative	No safety/feasibility issues identified	Has potential	No operational impacts identified.
NA-A-2	Facility Modification	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. (Long-Term)	Qualitative	No safety/feasibility issues identified	Has potential	No operational impacts identified.
			DISPLACED ARRIVAL THRESHOLD			
NA-B-1	Facility Modification	Implement a 1,235-foot displaced arrival threshold on Runway 36C	Quantitative	No safety/feasibility issues identified	No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.	
NA-B-2	Facility Modification	Implement a 1,376-foot displaced arrival threshold on Runway 36R	Quantitative	No safety/feasibility issues identified	No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.	
NA-B-3	Facility Modification	Implement a 1,376-foot displaced arrival threshold on Runway 18L	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 6 housing units within the 65+ DNL.	Yes. Negative operational impacts would occur due to the existing high-speed taxiways not being positioned for a displaced threshold. The results would be greater runway occupancy times, longer taxi distance, and potentially increased congestion due to where aircraft would exit the runway. These operational impacts could be resolved by redesigning and reconstructing all of the taxiways along the runway. However, the cost of that would far exceed any benefits.
NA-B-4	Facility Modification & Preferential Runway Use	*Evaluate the new runway as an arrival runway:* Evaluate the new runway as an arrival runway and implement an 1,100-foot arrival displaced threshold on Runway 01	Quantitative	No safety/feasibility issues identified	No. Increases impacts compared to the Future (2028) Baseline by 15 housing units within the 65+ DNL.	
			AIRPORT FLOW			
NA-C-1	Preferential Runway Use	*Balanced Mix of North v. South Flow:* Increase the amount of time the Airport operates in south flow to achieve a 50/50 balance of north v. south flow	Qualitative	Safety/Feasibility concerns. Direction of flow is primarily determined by wind direction and wind speed on the surface and aloft (above the ground). It is also determined by the location of severe weather for a hundred miles from the Airport. Based on these factors, it is not feasible for the ATCT to maintain an annual runway flow and to try and force it would likely reduce safety. As such, the implementation of such policy would limit the air traffic controller's ability to choose the safest direction of flow for the operation of the Airport.		
NA-C-2	Preferential Runway Use	*Limit One Direction Flow to a Maximum # Days:* Prevent continuous flow in one direction over more than [two consecutive days] to bring relief to people who have been getting noise/flow from one type of operation continuously for multiple days. After [two consecutive days] of flow in the same direction, flow should be reversed at the first reasonable opportunity and maintained in the reverse direction for a reasonable period.	Qualitative	Safety/Feasibility concerns. Direction of flow is primarily determined by wind direction and wind speed on the surface and aloft (above the ground). It is also determined by the location of severe weather for a hundred miles from the Airport. Based on these factors, it is not feasible for the ATCT to maintain an annual runway flow and to try and force it would likely reduce safety. As such, the implementation of such policy would limit the air traffic controller's ability to choose the safest direction of flow for the operation of the Airport.		

ID	CATEGORY	DESCRIPTION	ASSESSMENT METHOD	SAFETY / FEASIBILITY	REDUCES IMPACTS IN 65DNL?	OPERATIONAL IMPACTS?
DAYTIME RUNWAY USE						
NA-D-1	Preferential Runway Use	*Evaluate the new runway as an arrival runway* Designate Runways 18R/36L and 01/19 as preferred for arrivals and Runway 18C/36C and 18L/36R as preferred for departures by turbojet aircraft between 7:00 a.m. and 10:00 p.m.	Quantitative	No safety/feasibility issues identified	No. Increases in impacts compared to the Future (2028) Baseline by 18 housing units within the 65+ DNL.	
NA-D-2	Preferential Runway Use	*Spread Operations:* At low periods, spread operations to avoid concentration of a particular mode of operation (e.g., most/all departures or most/all arrivals) to a single runway, leaving others underutilized for the same mode of operation. For example: Avoid sending all arrivals to Runway 18R while Runways 18L and 18C are held open for occasional departures.	Qualitative	No safety/feasibility issues identified. In general, this is how the Airport currently operates.	No. This recommendation is already accounted for in the Future (2028) Baseline scenario. There would be no reductions in impacts compared to the Future (2028) Baseline within the 65+ DNL.	
NA-D-3	Preferential Runway Use	*Cap Arrival/Departure Mix by Runway:* Ensure that the new fourth parallel runway (Runway 01/19), Runway 18R/36L (for arrivals), and Runway 18C/36C (for departures) will never have more, in the aggregate, than [50%] of arrivals/departures over any single daily period.	Qualitative	Safety/Feasibility concerns. The suggestion of caps on runways inherently creates barriers to implementation from a feasibility perspective because the airport is a dynamic environment that may require the use of runways that would exceed the limits of this alternative. To force caps and percentages into a complex system like the one at CLT would reduce operational capability and potentially reduce safety. As such, this alternative is not feasible for implementation.		
NA-D-4	Preferential Runway Use	*Require Departures on 18R/36L:* Set guidelines that require a minimum allocation of departures for Runway 18R/36L for a given timeframe (e.g., over the course of a quarter or year), with the goal of achieving at least ten percent of daily departures on that runway.	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 12 housing units within the 65+ DNL.	Yes. Runway 18R/36L was planned (location) and designed (length) to primarily be used as an arrival runway. It has the capability to be used for departures, but due to its location in relationship to the terminal area it is used for departures only under extenuating circumstances. Implementation of this alternative would require aircraft to routinely taxi across two active runways (Runway 18C/36C and Runway 01/19), which reduces the operational efficiency of those active runways due to the need to create safe gaps. This would result in significantly increased delay to insure no runway incursions occur. Therefore, this alternative is not considered feasible due to operational and safety concerns.
NA-D-5	Preferential Runway Use	*Avoid Dual Stream Arrivals during Non-peak Daytime Operations:* Between 7a-10p, do not use the new fourth parallel runway (Runway 01/19) and Runway 18R/36L to receive arrivals in "dual stream" mode during non-peak periods.	Qualitative	No safety/feasibility issues identified. In general, this is how the Airport currently operates.	No. This recommendation is already accounted for in the Future (2028) Baseline scenario. There would be no reductions in impacts compared to the Future (2028) Baseline within the 65+ DNL.	
NA-D-6	Preferential Runway Use	*Alternate Primary Operation for Adjacent Runways:* Alternate use of runways so that no two adjacent runways will be used primarily for the same mode of operation (arrival or departure) over a daily period.	Qualitative	No safety/feasibility issues identified. In general, this is how the Airport currently operates.	No. This recommendation is already accounted for in the Future (2028) Baseline scenario. There would be no reductions in impacts compared to the Future (2028) Baseline within the 65+ DNL.	
NA-D-7	Preferential Runway Use	Utilize Runway 01/19 and Runway 18C/36C primarily for departures and Runway 18R/36L and Runway 18L/36R primarily for arrivals	Quantitative	Currently under review		
NA-D-8	Preferential Runway Use	Utilize Runway 01/19 and Runway 18C/36C for both arrivals and departures	Quantitative	Currently under review		

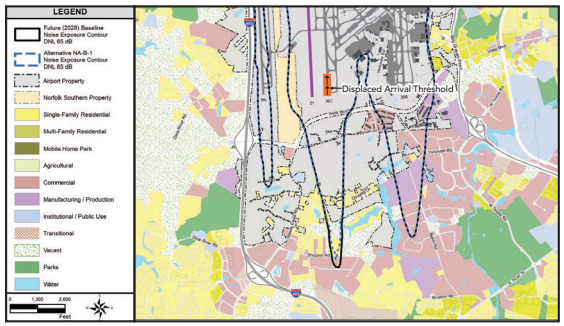
ID	CATEGORY	DESCRIPTION	ASSESSMENT METHOD	SAFETY / FEASIBILITY	REDUCES IMPACTS IN 65DNL?	OPERATIONAL IMPACTS?
PREFERENTIAL NIGHTTIME RUNWAY USE						
NA-E-1	Preferential Runway Use	Designate Runway 36L and 36R as preferred for north flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m.	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 13 housing units within the 65+ DNL.	No operational impacts identified.
NA-E-2	Preferential Runway Use	Designate Runways 18L, 18C, and 18R for south flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m.	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 7 housing units and 1 day care within the 65+ DNL.	No operational impacts identified.
NA-E-3	Preferential Runway Use	Focus nighttime north-flow arrivals on the runway that typically receives fewer arrivals during the full 24-hour period (Runway 36R). Due to their close proximity, consider Runways 1/19 and 18C/36C as one runway by aggregating their volumes when determining which runway receives fewest arrivals.	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 19 housing units within the 65+ DNL.	Currently under review
NA-E-4	Preferential Runway Use	Focus nighttime south-flow arrivals on the runway that typically receives fewer arrivals during the full 24-hour period (Runway 18L). Due to their close proximity, consider Runways 1/19 and 18C/36C as one runway by aggregating their volumes when determining which runway receives fewest arrivals.	Quantitative	No safety/feasibility issues identified	No. Increases impacts compared to the Future (2028) Baseline by 28 housing units within the 65+ DNL.	
DIVERGENT HEADINGS - NORTH FLOW						
NA-F-1	Flight Procedure	Increase the number of departure headings for north flow operations while maintaining existing approved headings and maximizing departure corridors. > Keep existing headings as follows: Runway 36R: 25° Runway 36L: 315° > Add additional divergent headings as follows: Runway 36R: - 85° to follow the Wilkinson Boulevard corridor - 55° and 70° to follow the Interstate 85 corridor Runway 01: - Implement the existing Runway 36C's approved 330° heading - 345° to overfly the Interstate 85/485 Interchange and follow the Interstate 485 corridor - 305° to follow the Wilkinson Blvd corridor	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 5 housing units and 1 day care within the 65+ DNL.	No operational impacts identified.
NA-F-2	Flight Procedure	Maximize the number of divergent headings for north flow operations while maintaining a 15° separation between headings. > Add additional divergent headings as follows: Runway 36R: RWH, 20°, 35°, 50°, 65°, 80° Runway 01: RWH, 345°, 330°, 315°, 300°, 285° While a straight-out heading is identified for Runways 36R and 01, these headings cannot be used simultaneously because a 15-degree separation is required per 7110.65Z.	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 2 housing units within the 65+ DNL.	No operational impacts identified.
DIVERGENT HEADINGS - SOUTH FLOW						
NA-G-1	Flight Procedure	Increase the number of departure headings for south flow operations while keeping the 2-mile restriction on the new Runway 19. > Keep existing headings as follows: Runway 18R: 200° Runway 18L: RWH > Add additional divergent headings as follows: Runway 18R (remove 2-mile restriction): - 220° to follow the Garrison Road corridor Runway 19 (keep 2-mile restriction): - Implement the existing RWH Runway 18L (remove 2-mile restriction): - 120° to follow the Billy Graham Parkway corridor - 150° and 165° to follow the W Tyvola Road corridor	Quantitative	No safety/feasibility issues identified	No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.	
NA-G-2	Flight Procedure	Increase the number of departure headings for south flow operations while keeping the 2-mile restriction on Runway 18L. > Keep existing headings as follows: Runway 18R: 200° Runway 18L: RWH (keep 2-mile restriction) > Add additional divergent headings as follows: Runway 18R (remove 2-mile restriction): - 220° to follow the Garrison Road corridor Runway 19 (remove 2-mile restriction): - Implement the existing RWH - 200° and 215° to follow the Steele Creek Road corridor	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 1 housing unit within the 65+ DNL.	No operational impacts identified.

ID	CATEGORY	DESCRIPTION	ASSESSMENT METHOD	SAFETY / FEASIBILITY	REDUCES IMPACTS IN 65DNL?	OPERATIONAL IMPACTS?
DIVERGENT HEADINGS - SOUTH FLOW (continued)						
NA-G-3	Flight Procedure	Increase the number of departure headings for south flow operations while maintaining existing approved headings and maximizing departure corridors. This requires eliminating the 2-mile restriction for all runways. > Keep existing headings as follows: Runway 18L: RWH Runway 18R: 200° > Eliminate the 2-mile restriction and add divergent headings as follows: Runway 18L: - 120° to follow the Billy Graham Parkway corridor - 150° and 165° to follow the W Tyvola Road corridor Runway 18R: - 220° to follow the Garrison Rd corridor Runway 19: - Implement the existing RWH - 200° and 215° to follow the Steele Creek Road corridor	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 1 housing unit within the 65+ DNL.	No operational impacts identified.
NA-G-4	Flight Procedure	Maximize the number of divergent headings for south flow departures while maintaining a 15° separation between headings. This would require the elimination of the 2-mile restriction. > Eliminate the 2-mile restriction and add additional divergent headings as follows: Runway 18L: RWH, 165°, 150°, 135°, 120°, 105° Runway 19: RWH, 200°, 215°, 230°, 245°, 260°	Quantitative	No safety/feasibility issues identified	Yes. Reduces impacts compared to the Future (2028) Baseline by 8 housing units within the 65+ DNL.	No operational impacts identified.
DEPARTURE FLIGHT CORRIDORS						
NA-H-1	Flight Procedure	Evaluate helicopter operations in the south general aviation apron to takeoff towards the south (stay between Yorkmont and Billy Graham Parkway before turning on course)	Quantitative	No safety/feasibility issues identified	No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.	
NA-H-2	Flight Procedure	*Change Headings of First Turns off Runways 18L and 18C* Reduce the effect of noise on more densely populated areas and foster the desire by the ACR to return to pre-Metroplex flight paths.	Quantitative	No safety/feasibility issues identified	No. Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL.	
NA-H-3	Flight Procedure	For south flow departures, revert to 2016 procedures where aircraft depart from the Runway 18C at a 183° heading and fly between 2 to 4 nautical miles before turning to a 270° heading.	Qualitative	No safety/feasibility issues identified	Because this alternative targets procedures outside of the 65 DNL, no change would occur when compared to the Future (2028) Baseline 65+ DNL.	
ARRIVAL FLIGHT CORRIDORS						
NA-I-1	Flight Procedure	For south flow arrivals along the CHSLY procedure, maintain the published altitude of 6,000 feet at the HEELZ procedure so flights will not cut the corner	Qualitative	No safety/feasibility issues identified	Because this alternative targets procedures outside of the 65 DNL, no change would occur when compared to the Future (2028) Baseline 65+ DNL.	
NA-I-2	Flight Procedure	For south flow arrivals, extend the eastern downwind so that flights intercept the final approach over the main channel of Mountain Island Lake keeping an altitude of 6,000 feet until turning final approach course.	Qualitative	No safety/feasibility issues identified	Because this alternative targets procedures outside of the 65 DNL, no change would occur when compared to the Future (2028) Baseline 65+ DNL.	
NA-I-3	Flight Procedure	For north flow arrivals, utilize Interstate 77 as a flight corridor	Qualitative	No safety/feasibility issues identified	Because this alternative targets procedures outside of the 65 DNL, no change would occur when compared to the Future (2028) Baseline 65+ DNL.	

Displaced Arrival Threshold

ALTERNATIVE NA-B-1

Implement a 1,235-foot displaced arrival threshold on Runway 36C



Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL

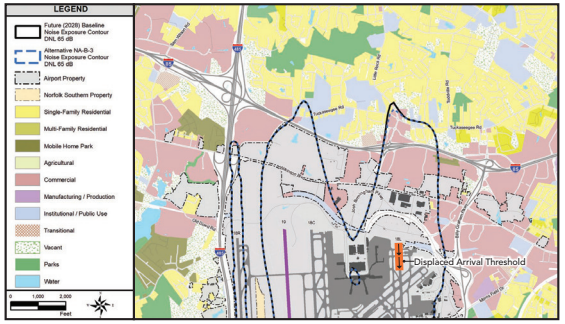
ALTERNATIVE NA-B-2

Implement a 1,376-foot displaced arrival threshold on Runway 36R

Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL

ALTERNATIVE NA-B-3

Implement a 1,376-foot displaced arrival threshold on Runway 18L

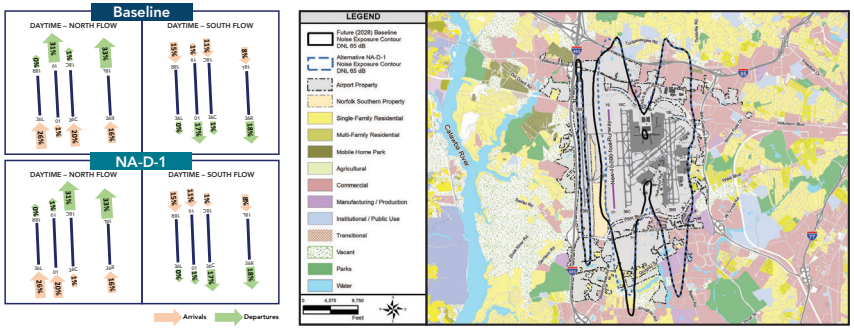


Reduces impacts compared to the Future (2028) Baseline by 6 housing units and 1 day care within the 65+ DNL

Preferential Daytime Runway Use

ALTERNATIVE NA-D-1

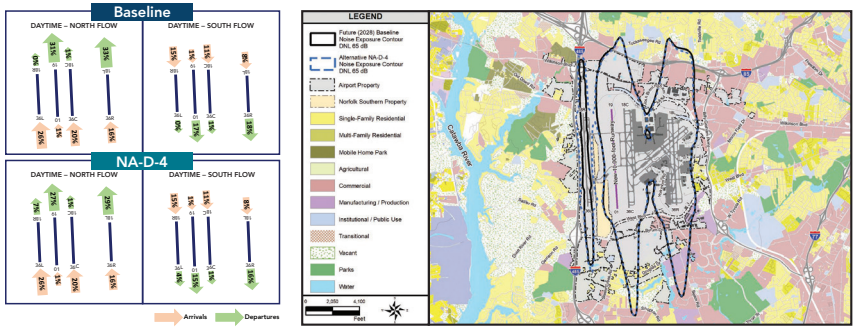
Designate Runways 18R/36L and 01/19 as preferred for arrivals and Runway 18C/36C and 18L/36R as preferred for departures by turbojet aircraft between 7:00 a.m. and 10:00 p.m.



Increases *impacts compared to the Future (2028) Baseline by 18 housing units within the 65+ DNL*

ALTERNATIVE NA-D-4

Set guidelines that require a minimum allocation of departures for Runway 18R/36L for a given timeframe (e.g., over the course of a quarter or year), with the goal of achieving at least ten percent of daily departures on that runway.



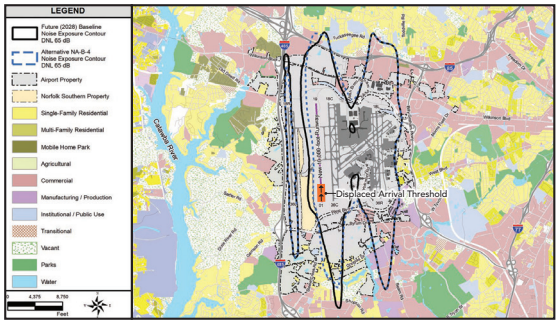
Reduces *impacts compared to the Future (2028) Baseline by 12 housing units within the 65+ DNL*

Preferential Daytime Runway Use & Displaced Arrival Threshold

ALTERNATIVE NA-B-4

Implement a 1,100-foot displaced arrival threshold on Runway 01 when the runway is evaluated as preferred for arrivals.

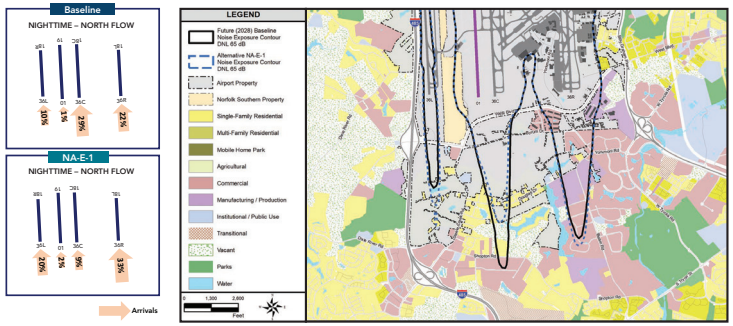
Increases *impacts compared to the Future (2028) Baseline by 15 housing units within the 65+ DNL*



Preferential Nighttime Runway Use

ALTERNATIVE NA-E-1

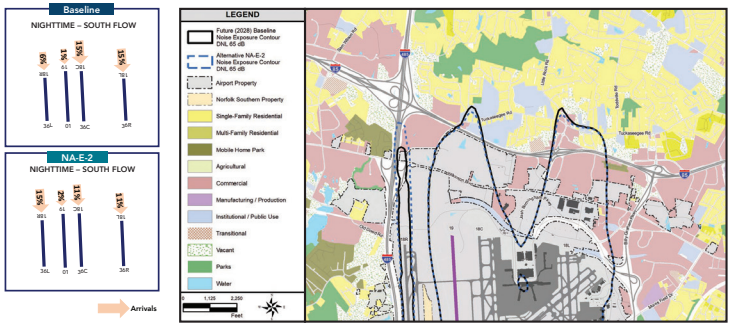
Designate Runway 36L and 36R as preferred for north flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m.



Reduces impacts compared to the Future (2028) Baseline by 13 housing units within the 65+ DNL

ALTERNATIVE NA-E-2

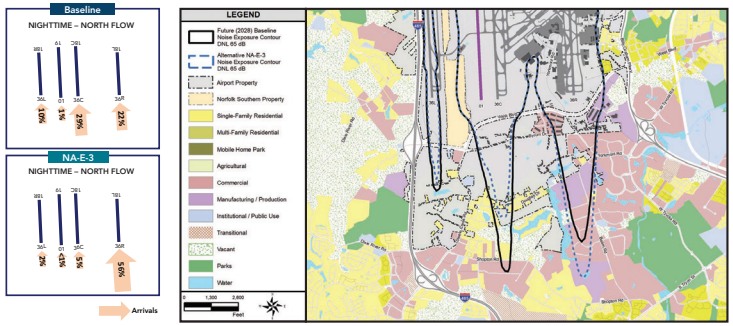
Designate Runways 18L, 18C, and 18R for south flow arrivals by turbojet aircraft between 10:00 p.m. and 7:00 a.m.



Reduces impacts compared to the Future (2028) Baseline by 7 housing units and 1 daycare within the 65+ DNL

ALTERNATIVE NA-E-3

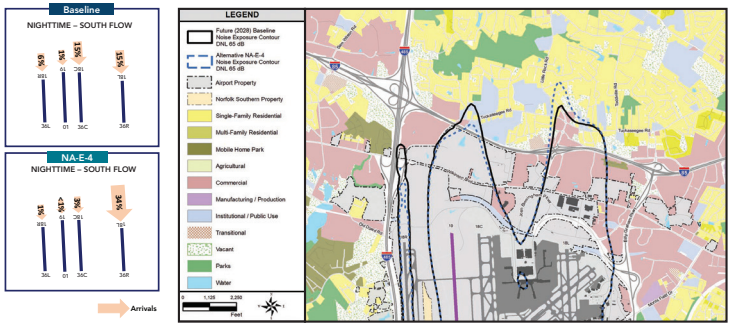
Focus nighttime north-flow arrivals on the runway that typically receives fewer arrivals during the full 24-hour period (Runway 36R).



Reduces impacts compared to the Future (2028) Baseline by 19 housing units within the 65+ DNL

ALTERNATIVE NA-E-4

Focus nighttime south-flow arrivals on the runway that typically receives fewer arrivals during the full 24-hour period (Runway 18L).

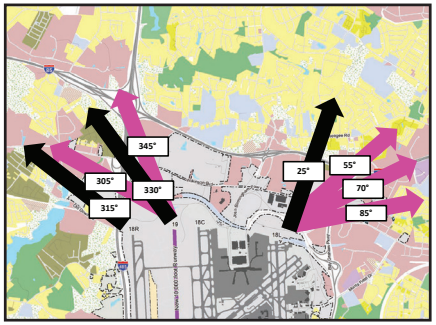


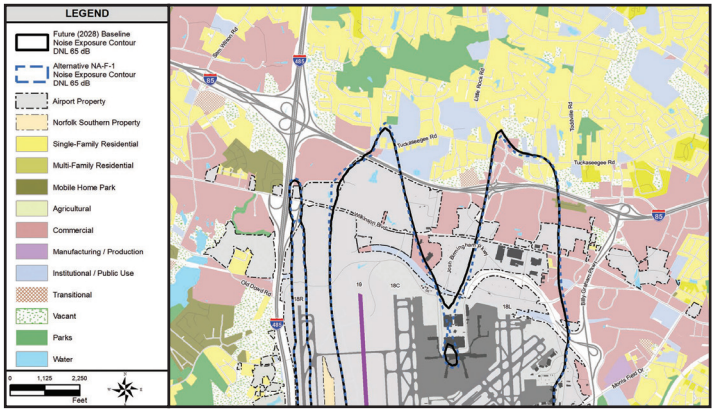
Increases impacts compared to the Future (2028) Baseline by 28 housing units within the 65+ DNL

Divergent Headings – North Flow

ALTERNATIVE NA-F-1

Increase the number of departure headings for north flow operations while maintaining existing approved headings and maximizing departure corridors.

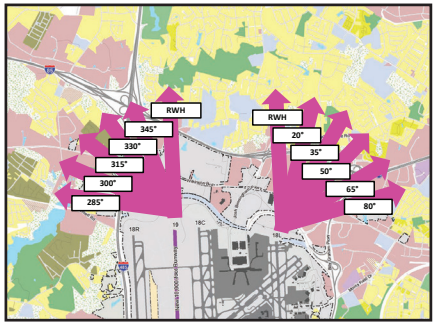


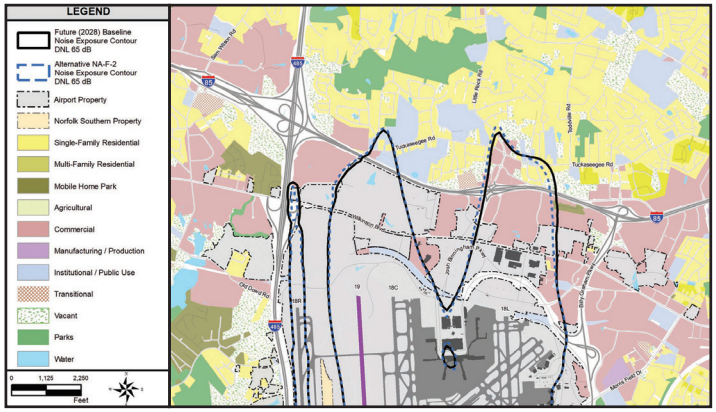


Reduces impacts compared to the Future (2028) Baseline by 5 housing units and 1 daycare within the 65+ DNL

ALTERNATIVE NA-F-2

Maximize the number of divergent headings for north flow operations while maintaining a 15° separation between headings.



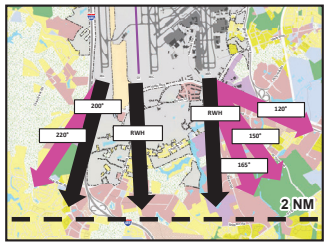


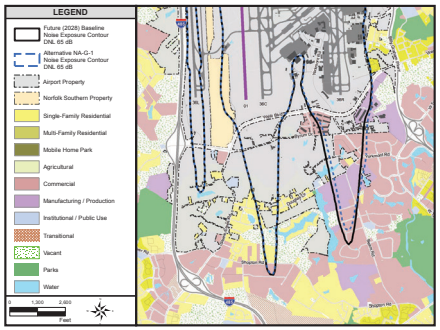
Reduces impacts compared to the Future (2028) Baseline by 2 housing units within the 65+ DNL

Divergent Headings – South Flow

ALTERNATIVE NA-G-1

Increase the number of departure headings for south flow operations while keeping the 2-mile restriction on the new Runway 19.

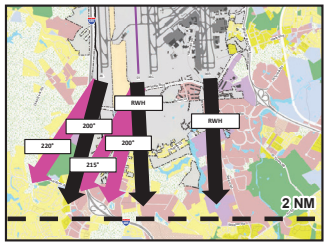


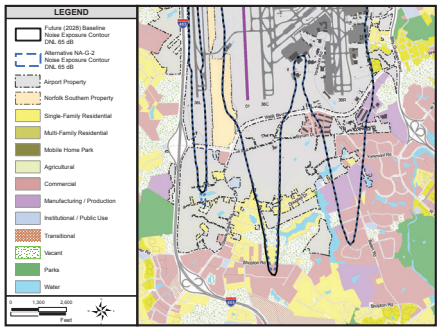


Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL

ALTERNATIVE NA-G-2

Increase the number of departure headings for south flow operations while keeping the 2-mile restriction on Runway 18L.

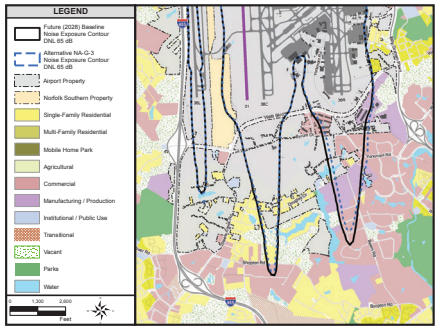




Reduces impacts compared to the Future (2028) Baseline by 1 housing unit within the 65+ DNL

ALTERNATIVE NA-G-3

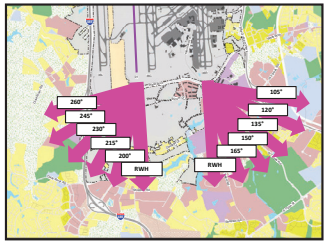
Increase the number of departure headings for south flow operations while maintaining existing approved headings and maximizing departure corridors. This requires eliminating the 2-mile restriction for all runways.

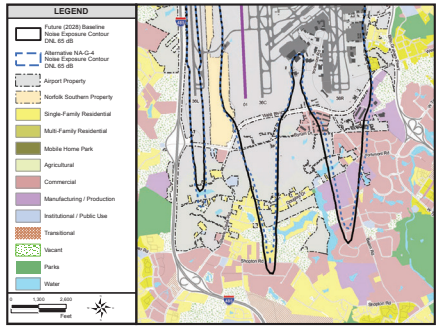


Reduces impacts compared to the Future (2028) Baseline by 1 housing unit within the 65+ DNL

ALTERNATIVE NA-G-4

Maximize the number of divergent headings for south flow departures while maintaining a 15° separation between headings. This requires eliminating the 2-mile restriction for all runways.





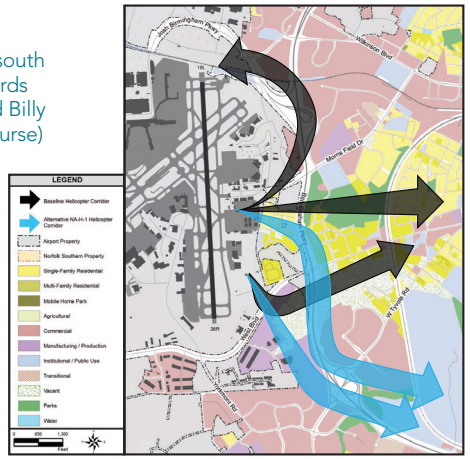
Reduces impacts compared to the Future (2028) Baseline by 8 housing units within the 65+ DNL

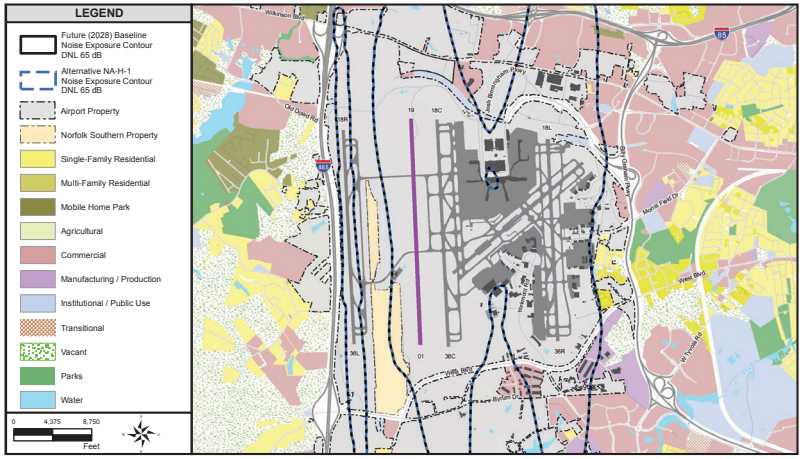
Departure Flight Corridors

ALTERNATIVE NA-H-1

Evaluate helicopter operations in the south general aviation apron to takeoff towards the south (stay between Yorkmont and Billy Graham Parkway before turning on course)

Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL



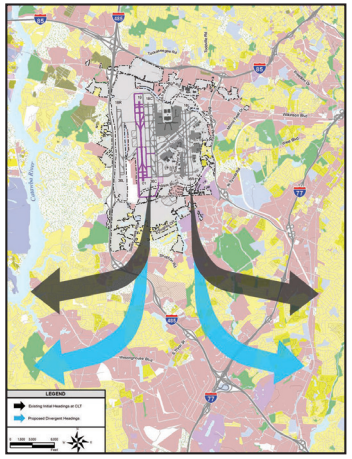


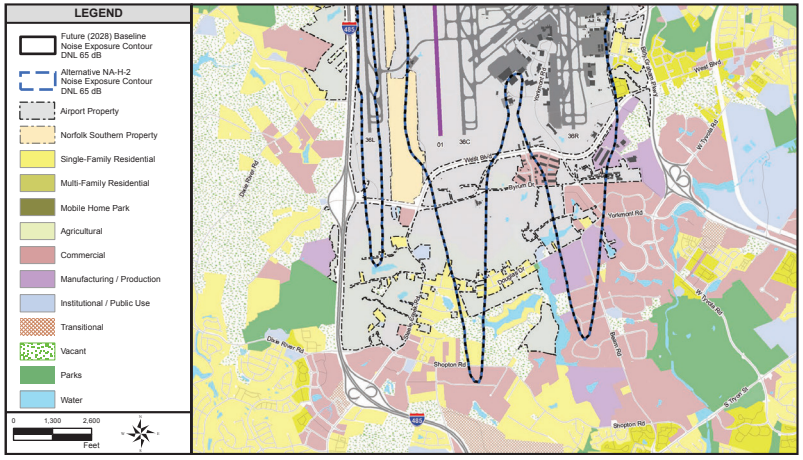
ALTERNATIVE NA-H-2

Change Headings of First Turns off Runways 18L and 18C

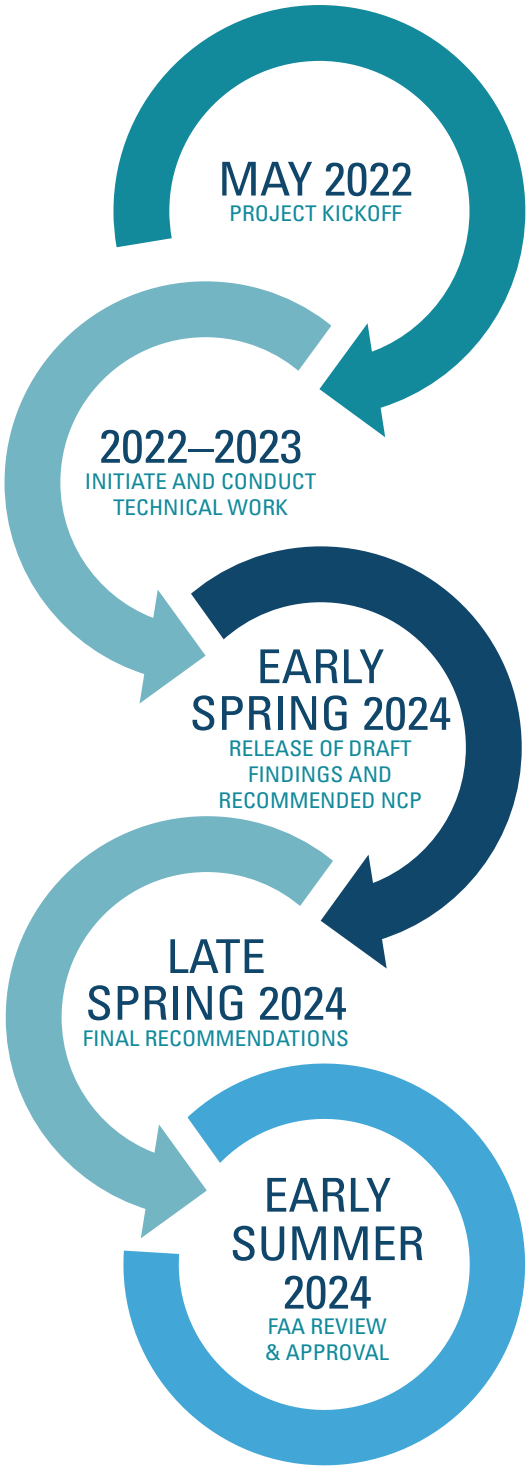
Reduce the effect of noise on more densely populated areas and foster the desire by the ACR to return to pre-Metroplex flight paths.

Does not reduce impacts compared to the Future (2028) Baseline within the 65+ DNL





Next Steps / Schedule



How to Comment

Please submit your comments by November 30, 2023 using one of these methods:

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Members of the public may fill out and submit their comment forms today

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Gaby Elizondo
4445 Lake Forest Dr. Suite 700
Cincinnati, OH 45242

EMAIL
CLTPart150@landrumbrown.com

PROJECT WEBSITE
Visit the project website and submit a comment on the "Contact" page

CLTPart150.com

All comments must be submitted or postmarked by

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