



LOUISVILLE
MUHAMMAD ALI
INTERNATIONAL AIRPORT

Noise Compatibility Program Update

Community Noise Forum Meeting

May 11, 2026



LOUISVILLE NCP UPDATE

Agenda

1

Airport Noise Compatibility Planning Overview

2

Louisville NCP Update – Noise Abatement Measures

3

Louisville NCP Update – Schedule

AIRPORT NOISE COMPATIBILITY PLANNING OVERVIEW

REGULATION

Title 14 of the Code of Federal Regulations Part 150 (14 CFR Part 150 or “Part 150”), “Airport Noise Compatibility Planning”

- Voluntary FAA-defined process for airport noise studies
 - Over 250 airports have participated
- Sets national standards for analysis
- Provides access to FAA funding of some approved measures

TECHNICAL ELEMENTS

Part 150 has two technical elements:

1. Noise Exposure Map (NEM)
 - SDF NEM updated in 2024 and submitted to FAA December 23, 2024
 - Awaiting FAA acceptance
2. Noise Compatibility Program (NCP)
 - This project will update the existing 2003 SDF NCP

2029 SDF Noise Exposure Map



Document Path: G:\Projects\2023\2023-0185A_SDF_Plan\150_Louisville\2023\0185A_SDF_Plan\Figures\2029_Forecast_MEMroad_Author: M.J. Hamilton



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Legend

- | | | | | | |
|-----------------------------------|--------------------------------------|--------------------|----------------------------|---------------------------------------|---------------------------------------|
| 2029 Forecast DNL Contour (60 dB) | 2029 Forecast DNL Contour (65-75 dB) | Municipal Boundary | County Boundary | College/University | Single Family Residential |
| Sound Insulation Completed | Airport Boundary | Expressway | Arterial | Hospitals | Multi-Family Residential |
| Runway / Pavement | Collector | Local | Railroad | Nursing Home | Mobile Home |
| Buildings | Water / Wetland | Historic District | Non-District Historic Site | Library | Transient Lodging |
| | | Water / Wetland | | Place of Worship | Public Use 1 (Non-Compatible) |
| | | | | Agriculture | Public Use 2 (Compatible) |
| | | | | Open Space / Cemeteries / Recreation | Agriculture |
| | | | | Manufacturing, Production and Utility | Open Space / Cemeteries / Recreation |
| | | | | Vacant / Undefined | Commercial Use |
| | | | | | Manufacturing, Production and Utility |
| | | | | | Vacant / Undefined |

DNL 60 dB contour (dashed line) is shown for informational purposes only. Land use compatibility analysis focuses on areas exposed to DNL greater than 65 dB



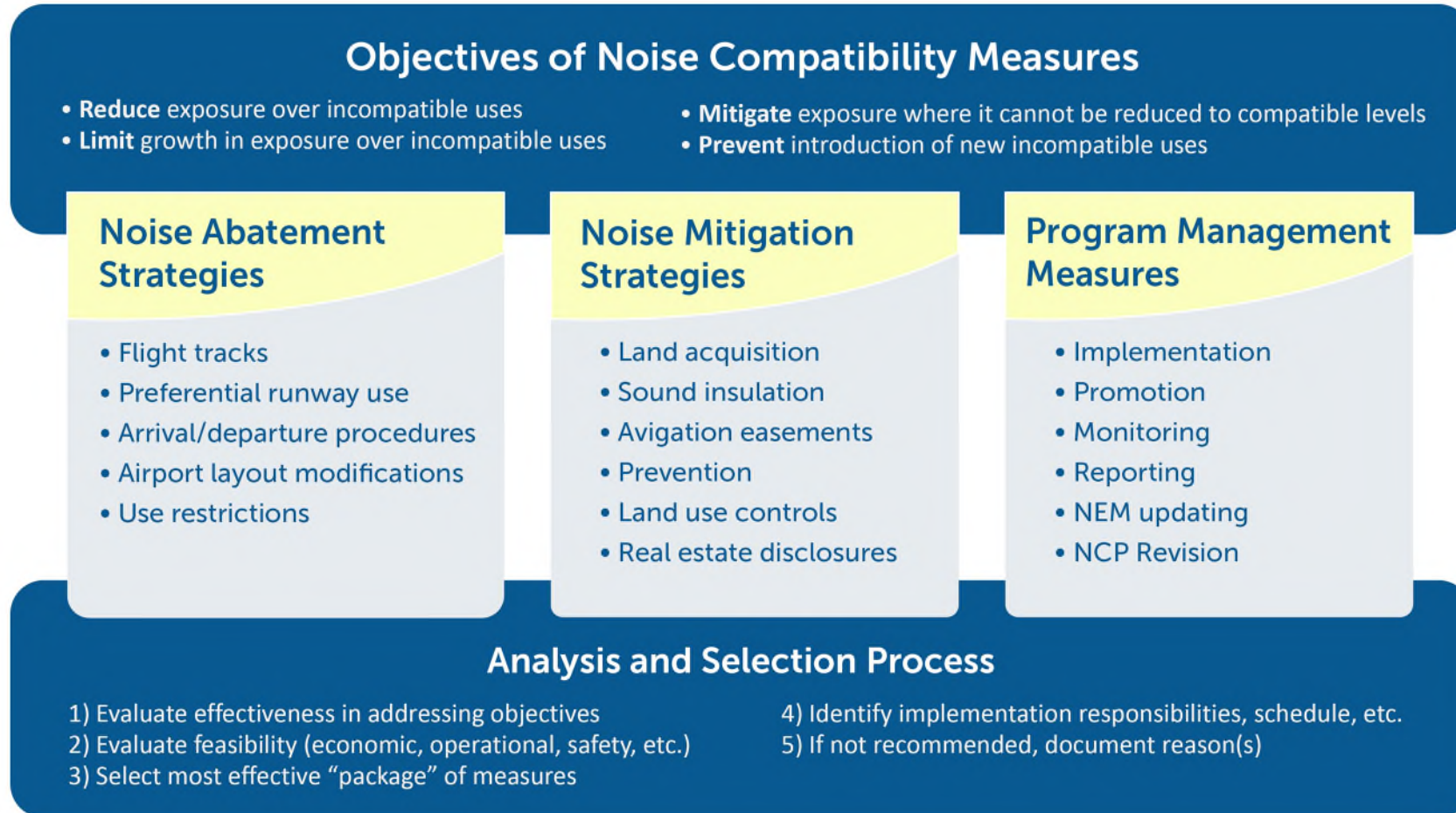
Figure: ES-2

Forecast Condition (2029) Noise Exposure Map



AIRPORT NOISE COMPATIBILITY PLANNING

Noise Compatibility Program Overview



Noise Compatibility Program Development

Step 1

Identify Incompatible Land Uses

Existing conditions Noise Exposure Map
Forecast Conditions Noise Exposure map

Completed with NEM Update

Step 2

Consider Noise Abatement Strategies

Reduce exposure over incompatible uses.
Limit growth in exposure over incompatible uses.

Focus of today's meeting

Step 3

Consider Noise Mitigation Strategies

Mitigate residential incompatible uses.
Prevent introduction of new incompatible uses.

Step 4

Consider Program Management Measures

Implement and *promote* measures.
Monitor and *report* on effectiveness.
Update Noise Exposure Maps.
Revise NCP as appropriate.

LOUISVILLE NCP UPDATE

CNF Input on Noise Abatement Measures

- Any existing measures to remove from NCP?
- Any existing measures to amend/update?
- Any new measures to propose?
- Discuss HMMH suggestions and TAC feedback on following slides



LOUISVILLE NCP UPDATE

Noise Abatement Measures

Preferential Runway Use Measures – For Consideration and Discussion

Number	Measure	Status	For Consideration
NA-1	Maintain South Flow Runway Preference	Implemented	Combine into single preferential runway use measure and refine, based on current implementation
NA-3	Morning North Flow Preference	Implemented Locally	
NA-5	Maintain Contraflow Program	Implemented	
NA-6	Reduce Exceptions to Contraflow	Implemented	
NA-2	Reverse East-West Preference (Day and Night)	Not Implemented	Remove

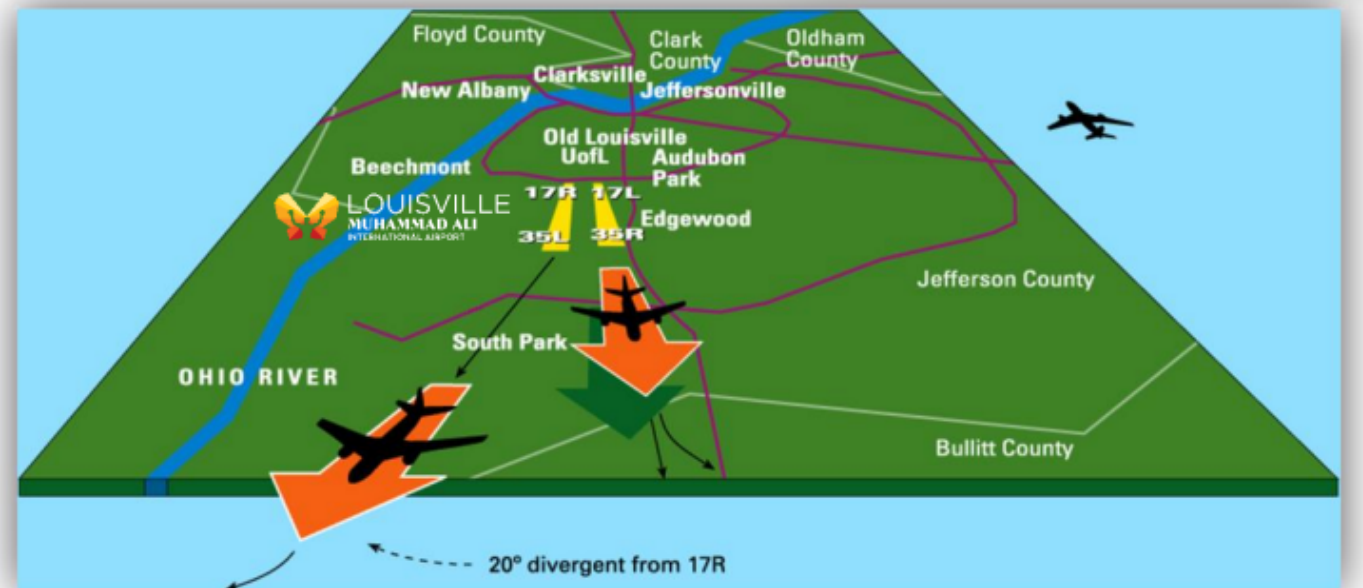
Contraflow Program

re: Measures NA-5 & 6

Inbound



Outbound



Graphic Source: SDF [Community Noise Forum \(CNF\) Contraflow Report](#)

Monthly CNF reports available at:

<https://www.flylouisville.com/corporate/community-noise-forum/>

LOUISVILLE NCP UPDATE

Noise Abatement Measures

Flight Track Measures – For Consideration and Discussion

Number	Measure	Status	For Consideration
NA-4	South Divergence According to Destination	Implemented	Move from preferential runway use to flight track measures
NA-7	Use an Offset Departure from Runway 35L and Offset Approach to Runway 17R	Partially Implemented	Separate into two measures and evaluate feasibility
NA-11	Request FAA ATCT to Require All Aircraft to Intercept the Runway Centerline at or Beyond the Initial Approach Fix	Implemented Locally	Continue or modify

Offset Departure from Runway 35L

re: Measure NA-7

Graphic shows flight tracks as modeled for 2029 forecast NEM, including FAA airspace redesign departure procedures.

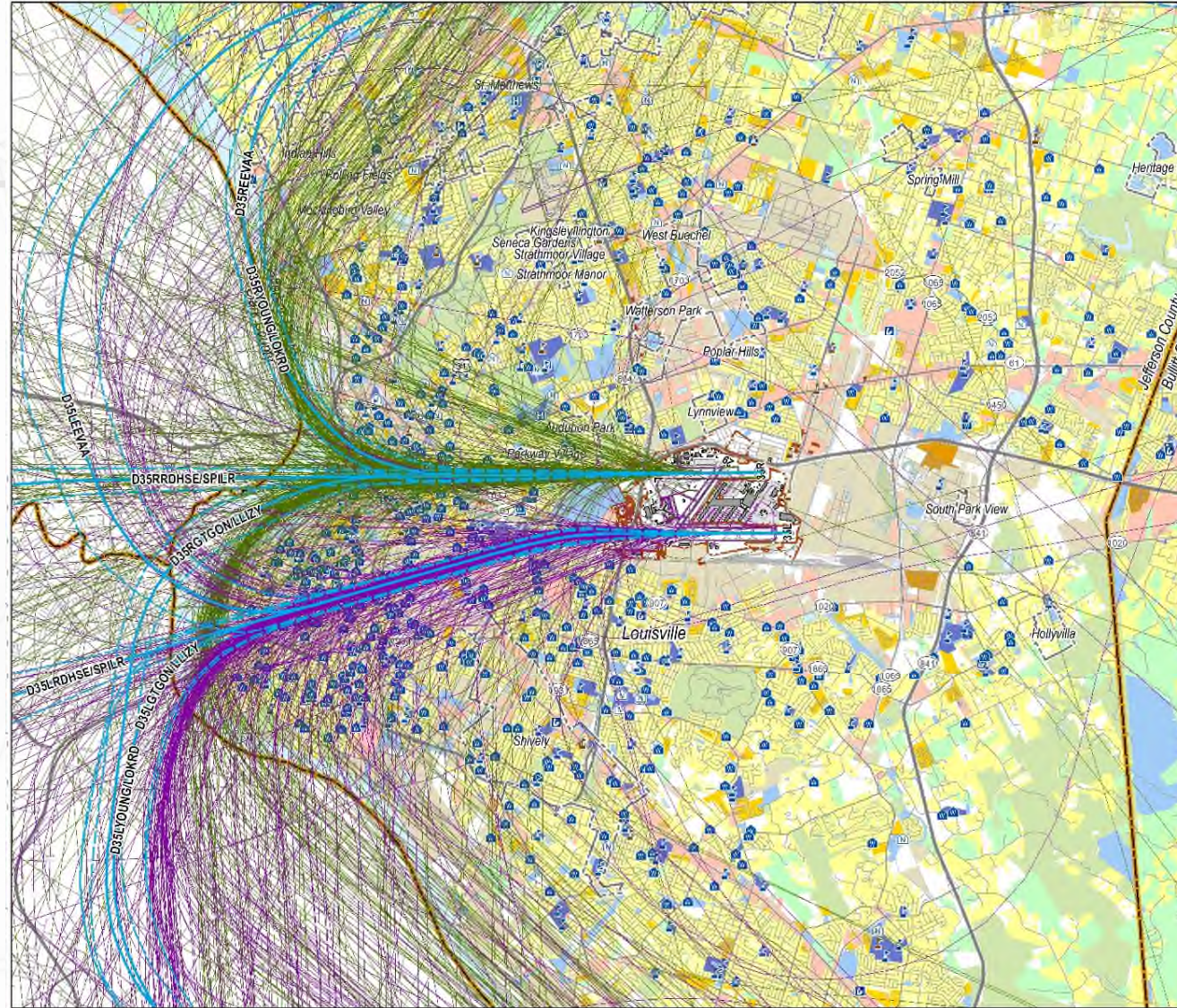


Figure 5-9
2029 Future Conditions North Flow Departure Flight Tracks (10% Sample)

Legend

- Backbone Model Track
- Dispersed Model Track
- Other North Flow Departure Tracks (35L)
- Other North Flow Departure Tracks (35R)

 Airport Boundary	 Single Family Residential
 Runway / Pavement	 Multi-Family Residential
 Buildings	 Mobile Home
 Municipal Boundary	 Transient Lodging
 County Boundary	 Public Use 1 (Non-Compatible)
 Expressway	 Public Use 2 (Compatible)
 Arterial	 Agriculture
 Collector	 Open Space / Cemeteries / Recreation
 Local	 Commercial Use
 Railroad	 Manufacturing, Production and Utility
● College/University	 Vacant / Undefined
● Schools	
● Hospital	
● Nursing Home	
● Library	
● Place of Worship	
 Historic District	
● Non-District Historic Site	
 Water / Wetland	

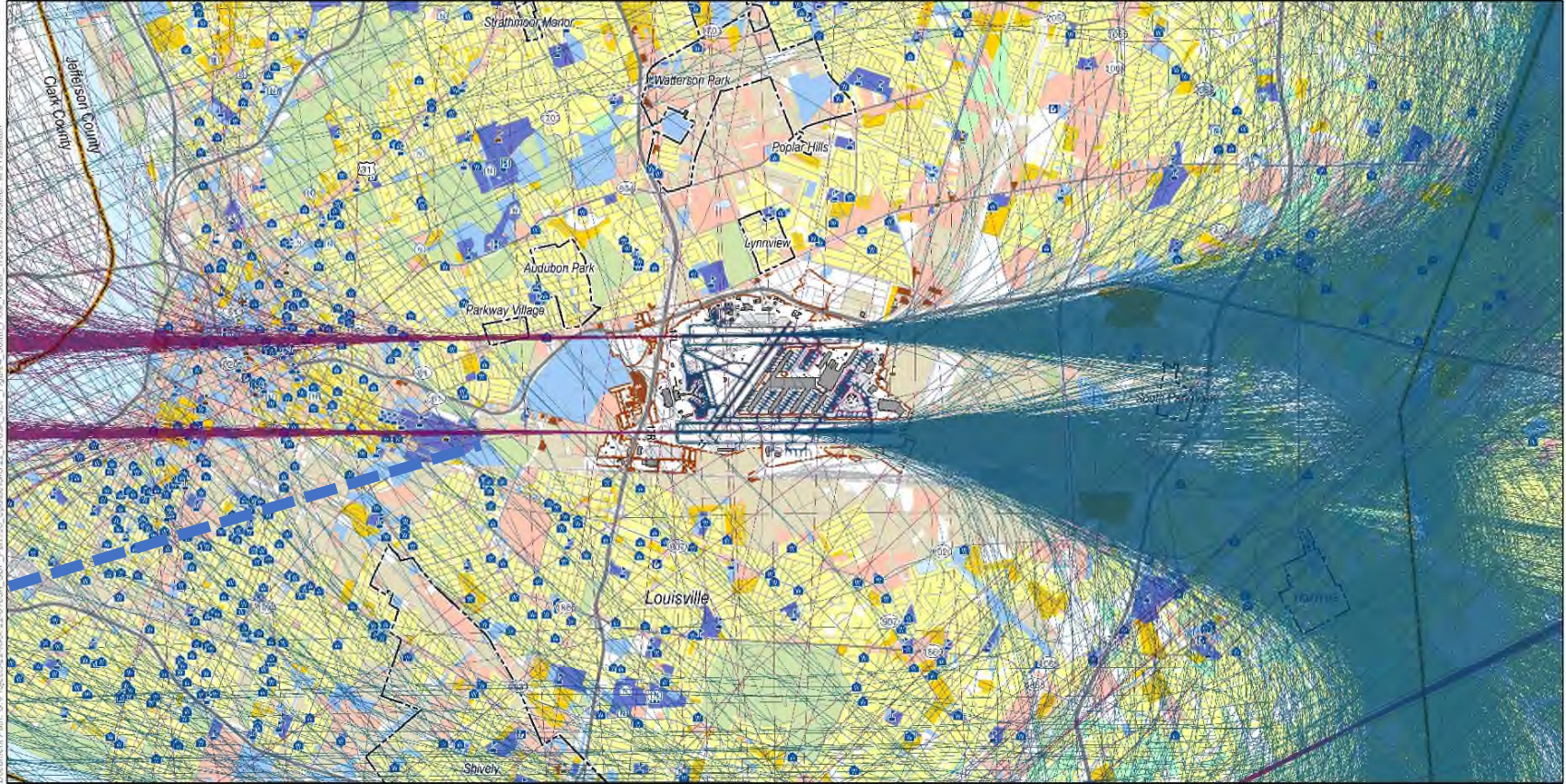
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Consider Offset Approach to Runway 17R

re: Measure NA-7

Graphic shows existing south flow without offset approach to Runway 17R.



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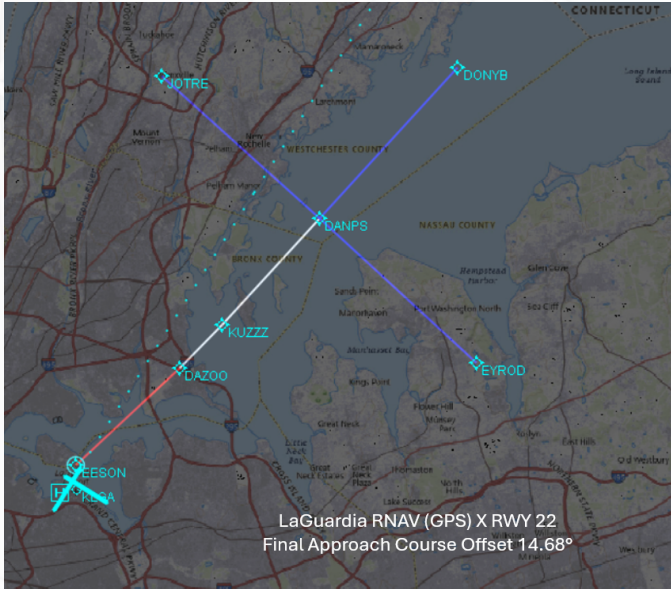
South Flow Arrival Tracks	Municipal Boundary	College/University	Single Family Residential
South Flow Departure Tracks	County Boundary	Schools	Multi-Family Residential
Airport Boundary	Expressway	Hospital	Mobile Home
Runway / Pavement	Arterial	Nursing Home	Transient Lodging
Buildings	Collector	Library	Public Use 1 (Non-Compatible)
	Local	Place of Worship	Public Use 2 (Compatible)
	Railroad	Historic District	Agriculture
		Non-District Historic Site	Open Space / Cemeteries / Recreation
		Water / Wetland	Commercial Use
			Manufacturing, Production and Utility
			Vacant / Undefined



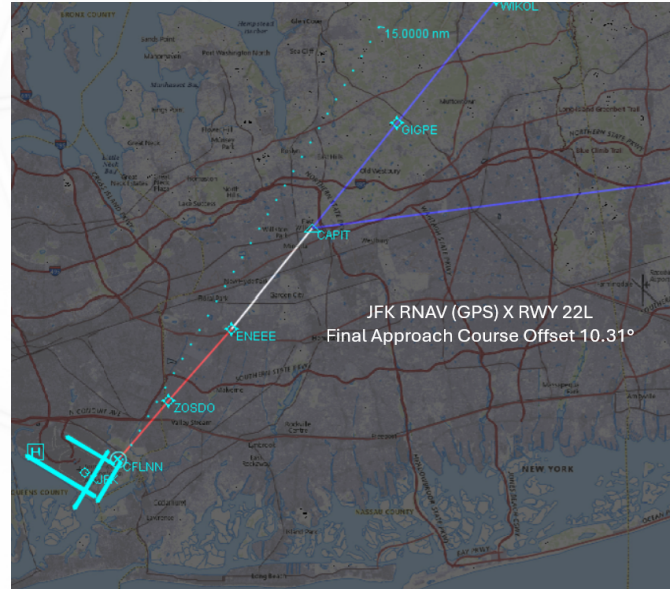
Figure 4
South Flow Arrival and Departure Flight Tracks
(10% Sample)



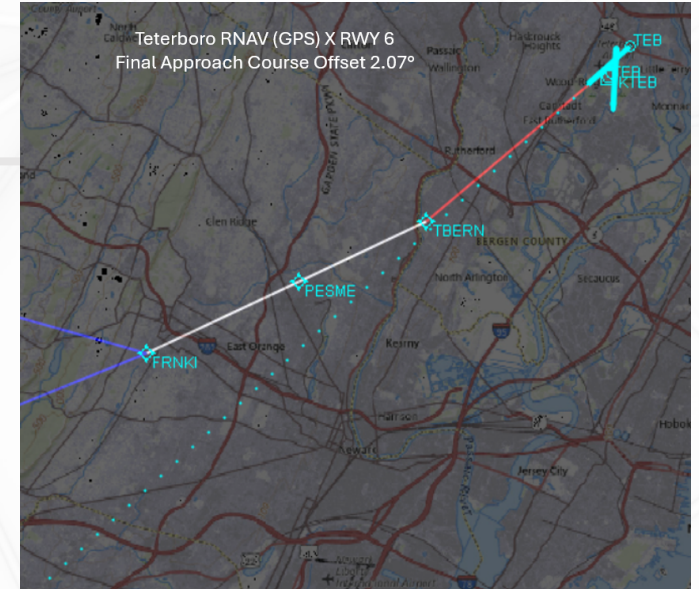
Examples of Offset Approaches at Other Airports



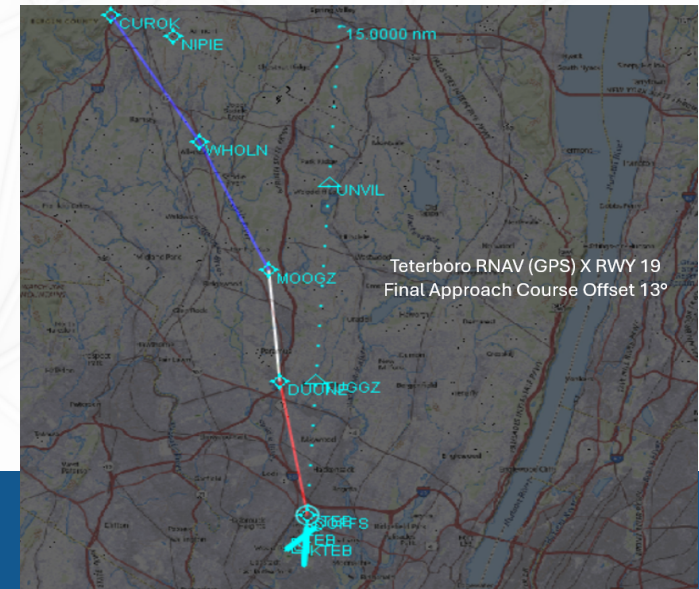
LGA, New York



JFK, New York



TEB, New Jersey



LOUISVILLE NCP UPDATE

Noise Abatement Measures

more Flight Track Measures – For Consideration and Discussion

Number	Measure	Status	For Consideration
NA-8	Designate Departure and Arrival Flight Tracks to be Used by All Turboprop Aircraft Weighing Over 12,500 lbs.	Partially Implemented	Eliminate and replace with measures that capture existing FAA airspace redesign noise abatement procedures
NA-9	Assign GPS/FMS or RNAV Equipped Aircraft to Defined FMS/GPS Departure and Arrival Flight Tracks for Turbojet and Military Aircraft	Partially Implemented	
NA-10	FMS/GPS Departure and Arrival Flight Tracks for Turboprop Aircraft Over 12,500 lbs.	Partially Implemented	
NA-12	Request FAA to Publish a Standard Instrument Departure (SID) Procedure for Each Runway to be Used in All Weather Conditions Including VFR Conditions	Implemented	
NA-13	Request FAA to publish a Standard Terminal Arrival Route (STAR) for each runway to be used in all weather conditions including VFR conditions – No action	Implemented	
NA-14	As Part of an Ongoing Noise Management Program, Extend Noise Abatement Flight Tracks Beyond Those Identified in Measure NA-8 through NA-11	Partially Implemented	

LOUISVILLE NCP UPDATE

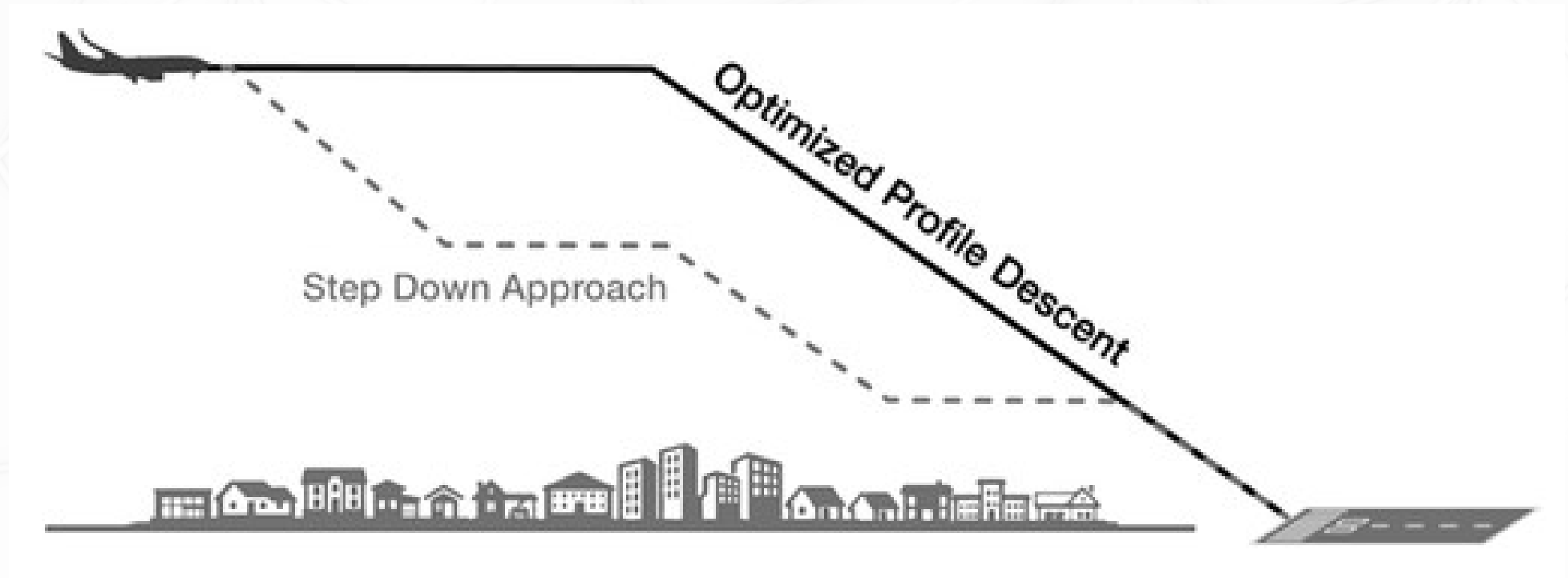
Noise Abatement Measures

Flight Procedure & Airport Layout Measures – For Consideration and Discussion

Number	Measure	Status	For Consideration
NA-15	Elimination of Early Descent	Not Implemented	Modify and encourage use of Optimized Profile Descents
NA-16	Request the Airlines Serving the Airport to Use the FAA Distant Noise Abatement Departure Procedure in Advisory Circular (AC) 91-53A, Noise Abatement Departure Procedure	Implemented	Evaluate and update
NA-17	Continue Airport Regulation Restricting Aircraft Engine Run-Ups to Certain Hours and Locations	Implemented	Evaluate and update
NA-18	Limit the Use of North Runway Extension to Aircraft Needing Full Runway Length and South Extension for Departures to the North	Not Implemented	Eliminate

Optimized Approach Profile

re: Measure NA-15

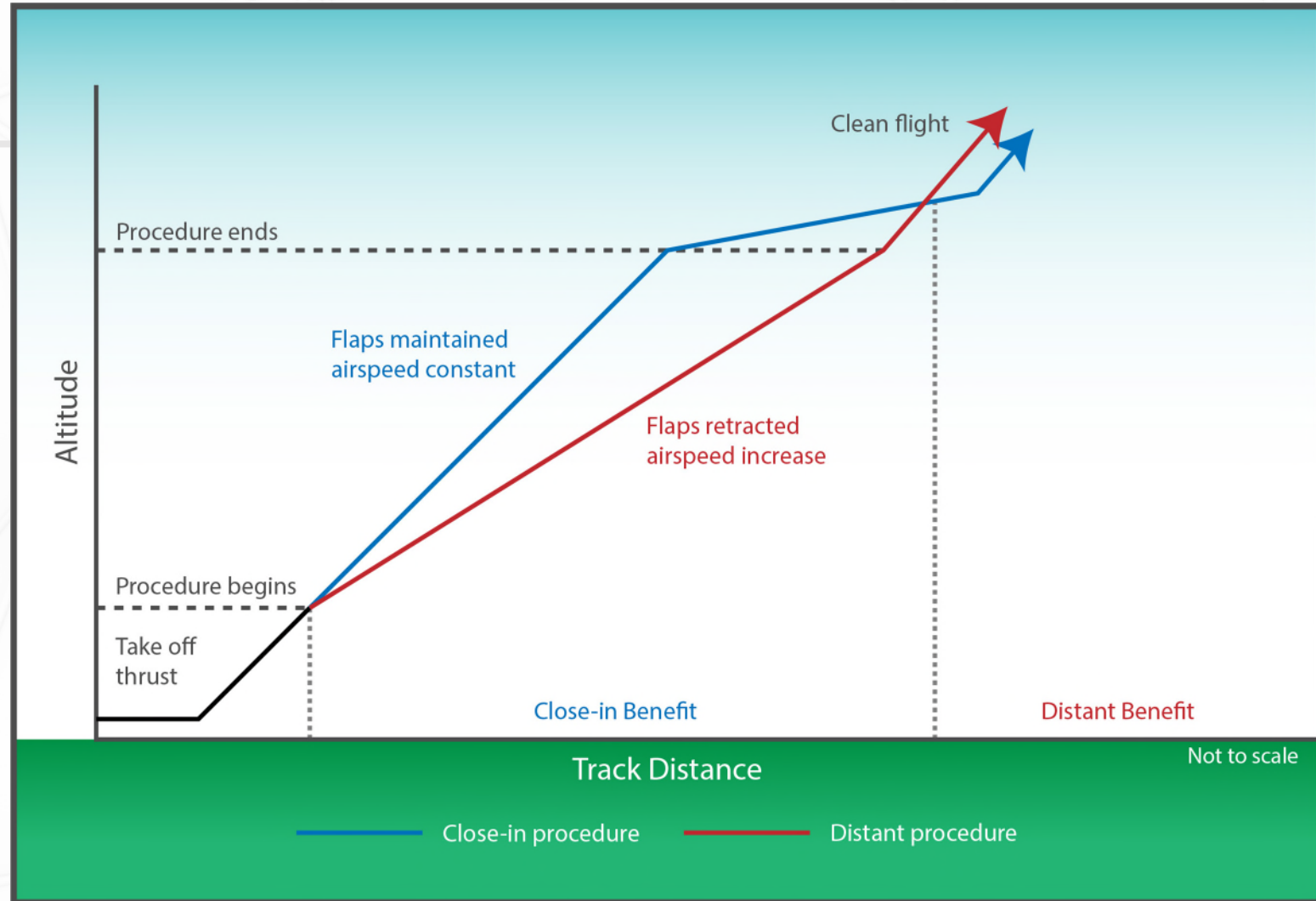


Optimized Profile Descent Compared to Step Down Approach

Source: <https://www.faa.gov/newsroom/faa-implements-more-efficient-descent-procedures-reduce-fuel-burn-emissions>

FAA-recommended Noise Abatement Departure Procedures

re: Measure NA-16



LOUISVILLE NCP UPDATE

Preliminary Schedule

Meetings/Milestone	Topic	Expected Timeframe
CNF Meeting 1	NCP Kickoff	<i>February 2026</i>
CNF Meeting 2, TAC Meeting 1 & Public Open House 1	Noise Abatement Strategies	<i>May 2026</i>
CNF Meeting 3, TAC Meeting 2 & Public Open House 2	Noise Mitigation Strategies	<i>July 2026</i>
CNF Meeting 4 and TAC Meeting 3	LRAA-Recommended Measures	September 2026
Submit Preliminary Draft NCP to FAA		October 2026
CNF Meeting 5, TAC Meeting 4 & Public Open House 3	Draft NCP	October 2026
NCP Public Comment Period and NCP Public Hearing		December 2026
Submit Final NCP to FAA		January 2027



Thank you!

Website: www.flyLouisville.com/NCPUpdate

Email: Engineering@flylouisville.com

