NY/NJ/PHL Metropolitan Area Airspace Redesign

Identification of the Preferred Alternative and Next Steps

Presentation to: Congressional Staffers

Name: Steve Kelley

Date: March 23, 2007

Federal Aviation Administration

Overview of This Briefing

- Present the the preferred alternative
- Present some of the impacts created by this decision
- Identify potential mitigation strategies that may address some of those impacts
- Review project timeline

Top 10 Delayed Airports (1998 – 2006)

Highest Percentage of Delayed Flights by Airport

Rank	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	EWR	EWR	LGA	LGA	ORD	ORD	ORD	EWR	EWR
2	LGA	LGA	EWR	EWR	IAH	EWR	ATL	ATL	LGA
3	SFO	ORD	ORD	ORD	SFO	LGA	EWR	LGA	ORD
4	JFK	SFO	SFO	PHL	PHL	ATL	PHL	ORD	JFK
5	ATL	JFK	BOS	SFO	LGA	IAH	LGA	PHL	PHL
6	ORD	ATL	PHL	BOS	EWR	PHL	IAH	JFK	ATL
7	BOS	PHL	JFK	IAH	ATL	SFO	IAD	BOS	BOS
8	STL	BOS	ATL	JFK	JFK	JFK	SFO	FLL	SFO
9	PHL	PHX	IAH	ATL	DFW	PHX	JFK	SFO	LAS
10	PHX	IAH	DFW	LAX	MSP	IAD	DFW	PHX	IAH

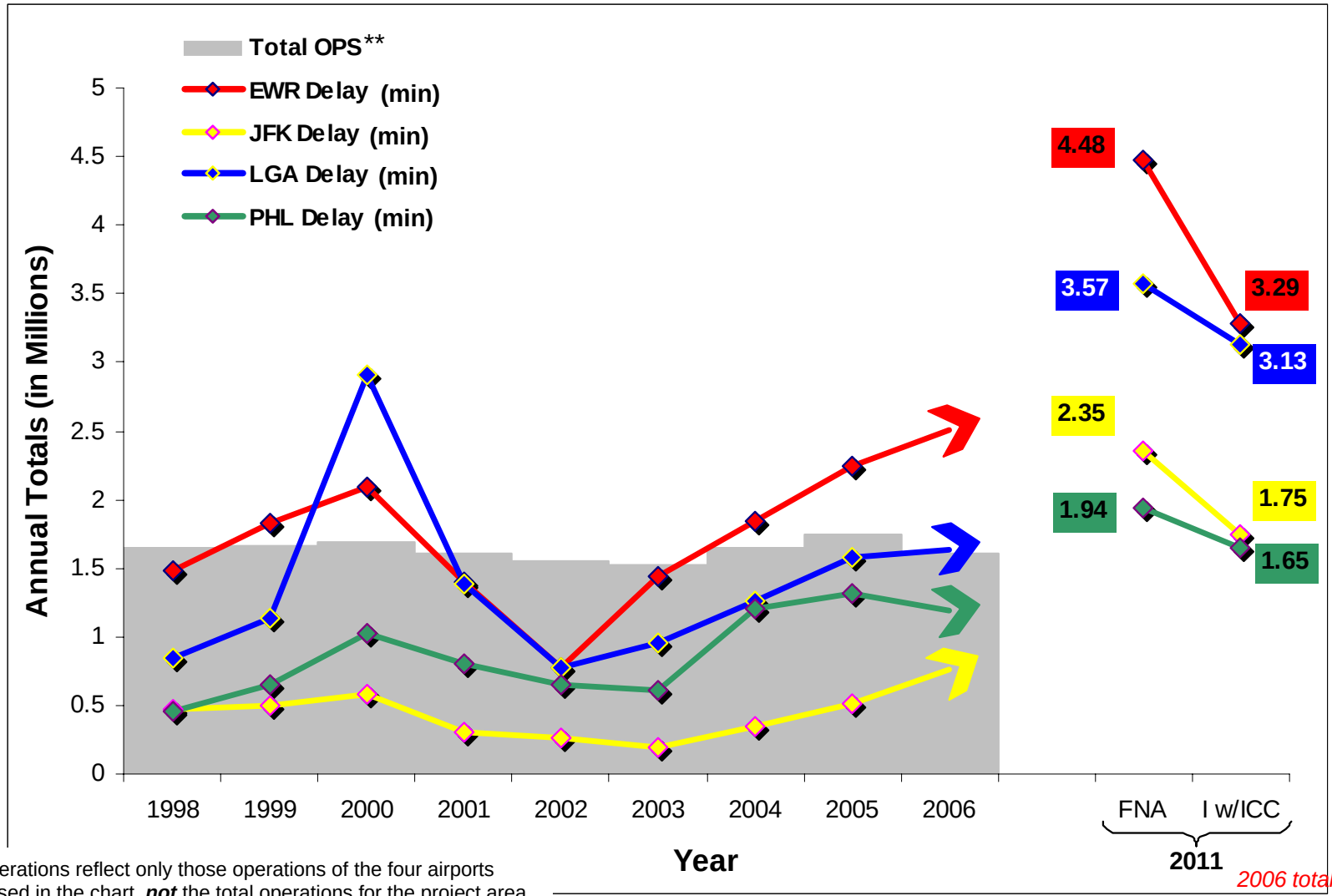
4 of the project airports continue to experience some of the highest percentages of delayed operations each year.

These 4 project airports also have some of the highest average delays per flight in the nation.

Highest Average Delay per Flight by Airport

Rank	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	SFO	EWR	LGA	LGA	ORD	ORD	ORD	EWR	EWR
2	EWR	LGA	EWR	EWR	LGA	EWR	EWR	LGA	LGA
3	LGA	ORD	ORD	ORD	EWR	LGA	ATL	ATL	ORD
4	ORD	SFO	SFO	SFO	ATL	ATL	LGA	ORD	PHL
5	STL	JFK	BOS	PHL	SFO	PHL	PHL	PHL	ATL
6	BOS	PHL	PHL	BOS	PHL	SFO	IAD	BOS	JFK
7	JFK	ATL	JFK	ATL	IAH	IAH	SFO	SFO	BOS
8	ATL	BOS	ATL	IAH	JFK	IAD	IAH	JFK	SFO
9	PHL	STL	STL	JFK	DFW	MDW	JFK	FLL	IAH
10	IAH	IAD	DFW	STL	STL	JFK	MDW	IAD	LAS

Annual Delay Continues to Rise



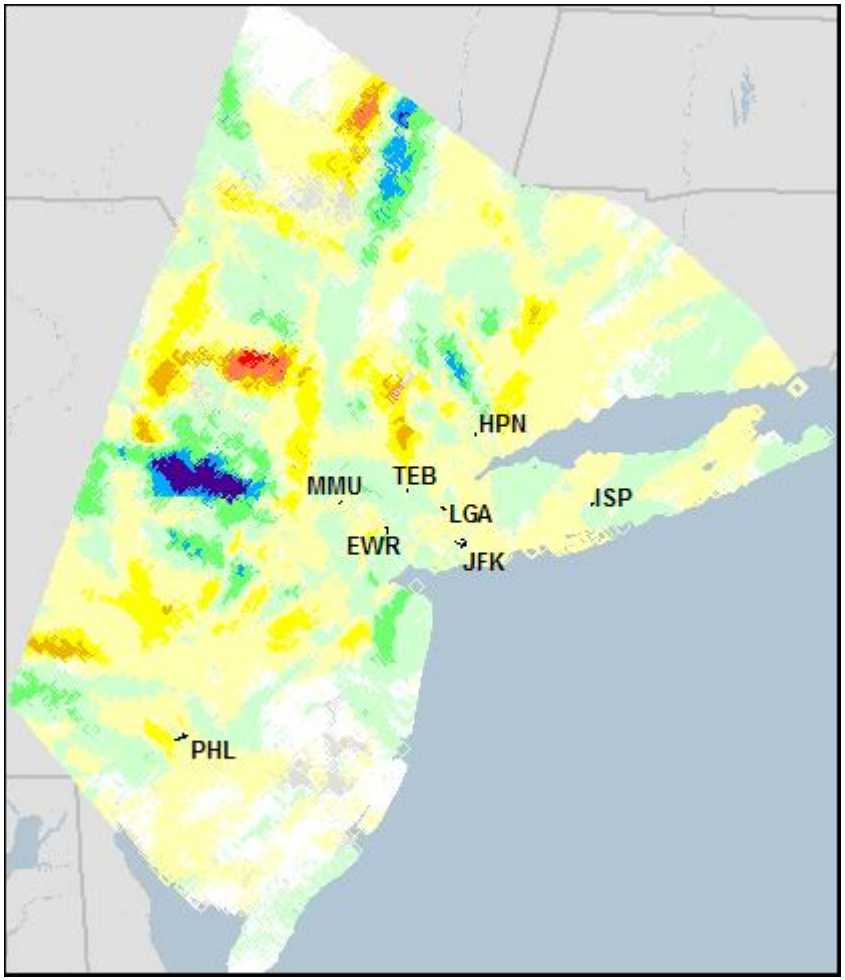
** Total operations reflect only those operations of the four airports addressed in the chart, ***not*** the total operations for the project area.

2006 totals reflect data through mid-November 2006.

The Truth About Noise

- Noise impacts are inevitable when flight paths are moved at low altitudes
- Noise *cannot* be eliminated by just moving routes
- Noise *can* be redistributed and may minimize exposure to residential areas
- Some potential mitigation strategies that allow us to do this are shown on the following pages

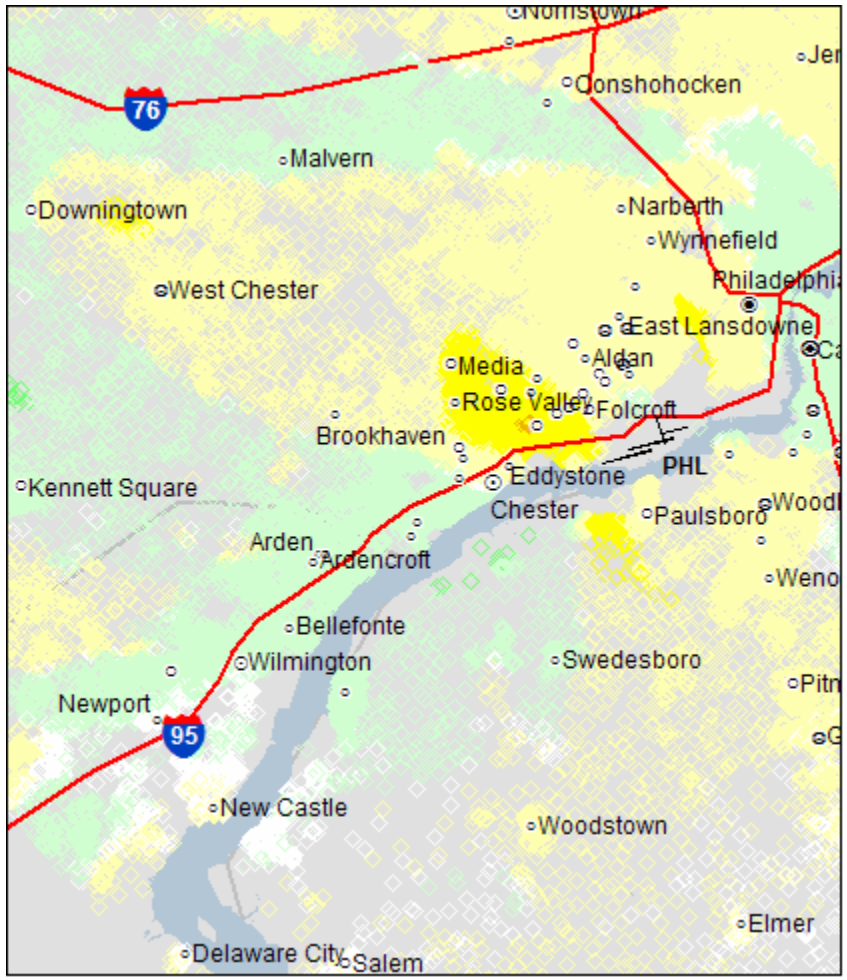
Noise changes: Raw Data Map



Raw Change in Db from Future No Action

				Number of Census Points
20	to	25		(81)
15	to	20		(643)
10	to	15		(1506)
5	to	10		(14194)
0.1	to	5		(160136)
-0.1	to	0.1		(32858)
-5	to	-0.1		(103859)
-10	to	-5		(7542)
-15	to	-10		(1922)
-30	to	-15		(966)

Noise changes: PHL



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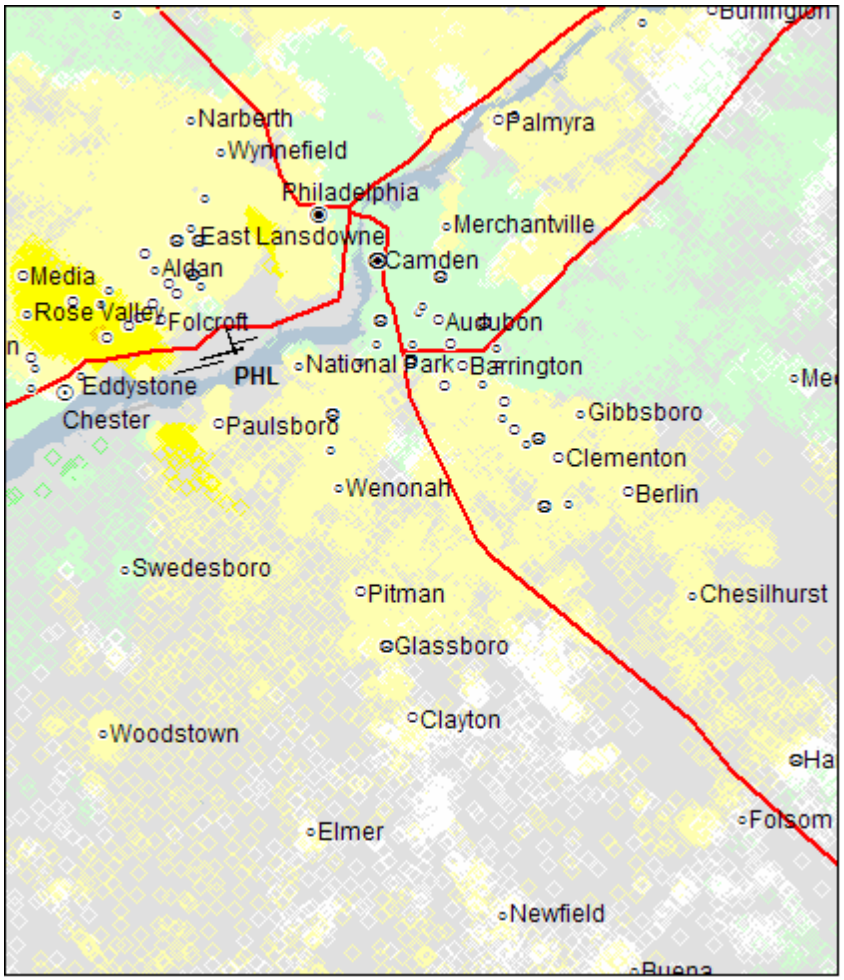
Noise changes: Southern New Jersey



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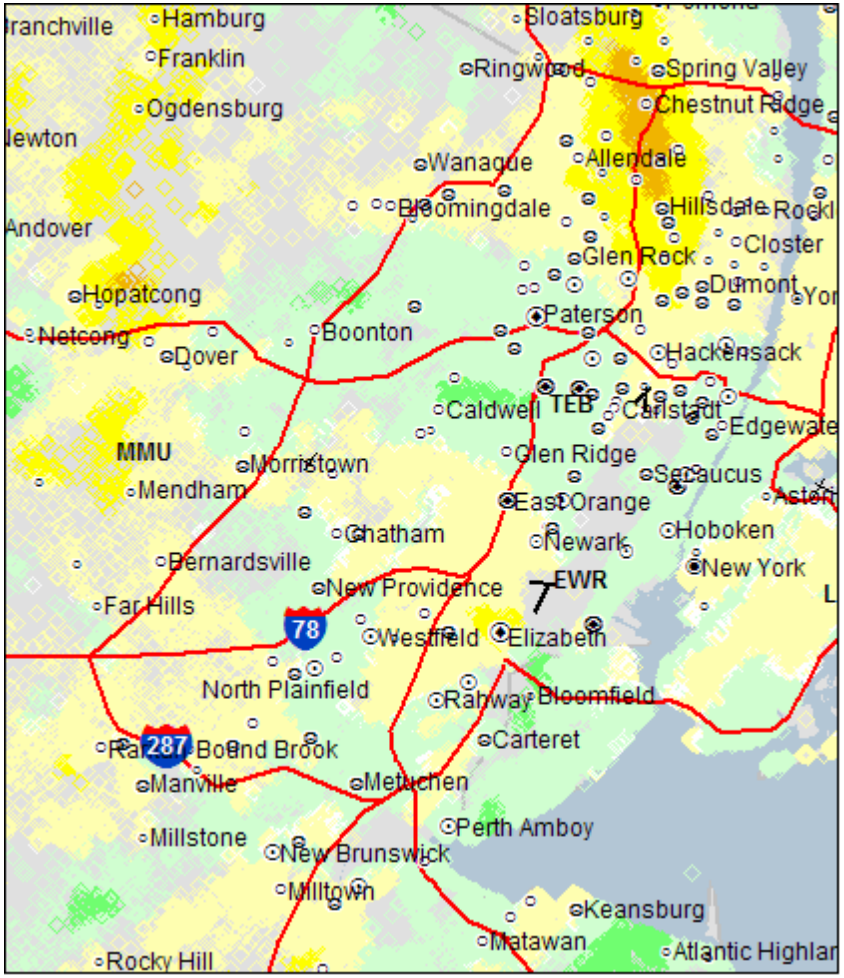
Noise changes: EWR



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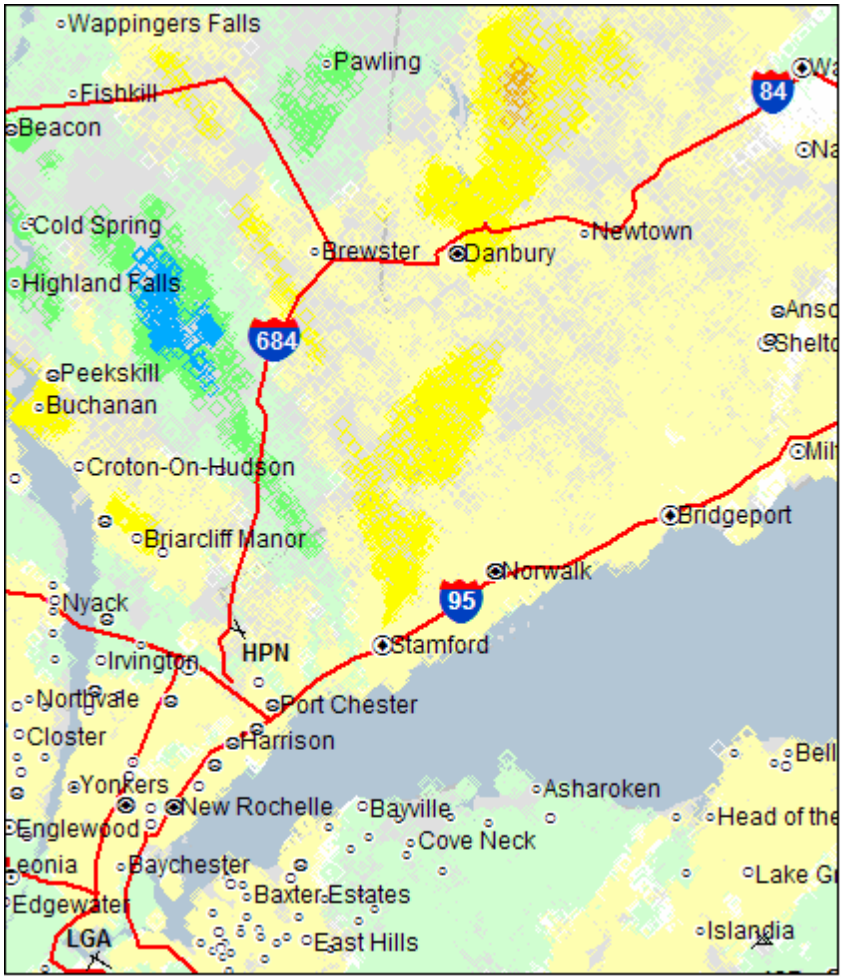
Noise changes: Connecticut



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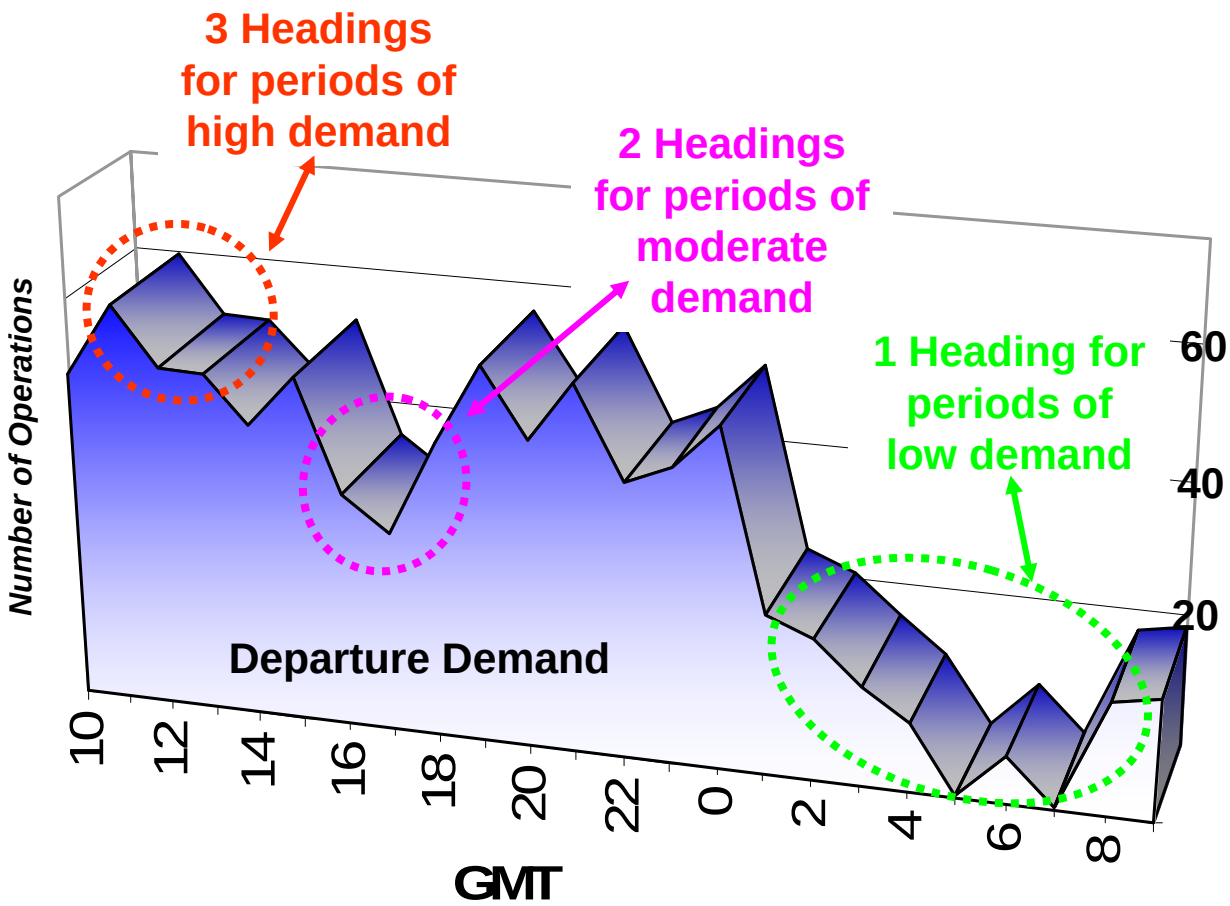
Use Time of Day Headings

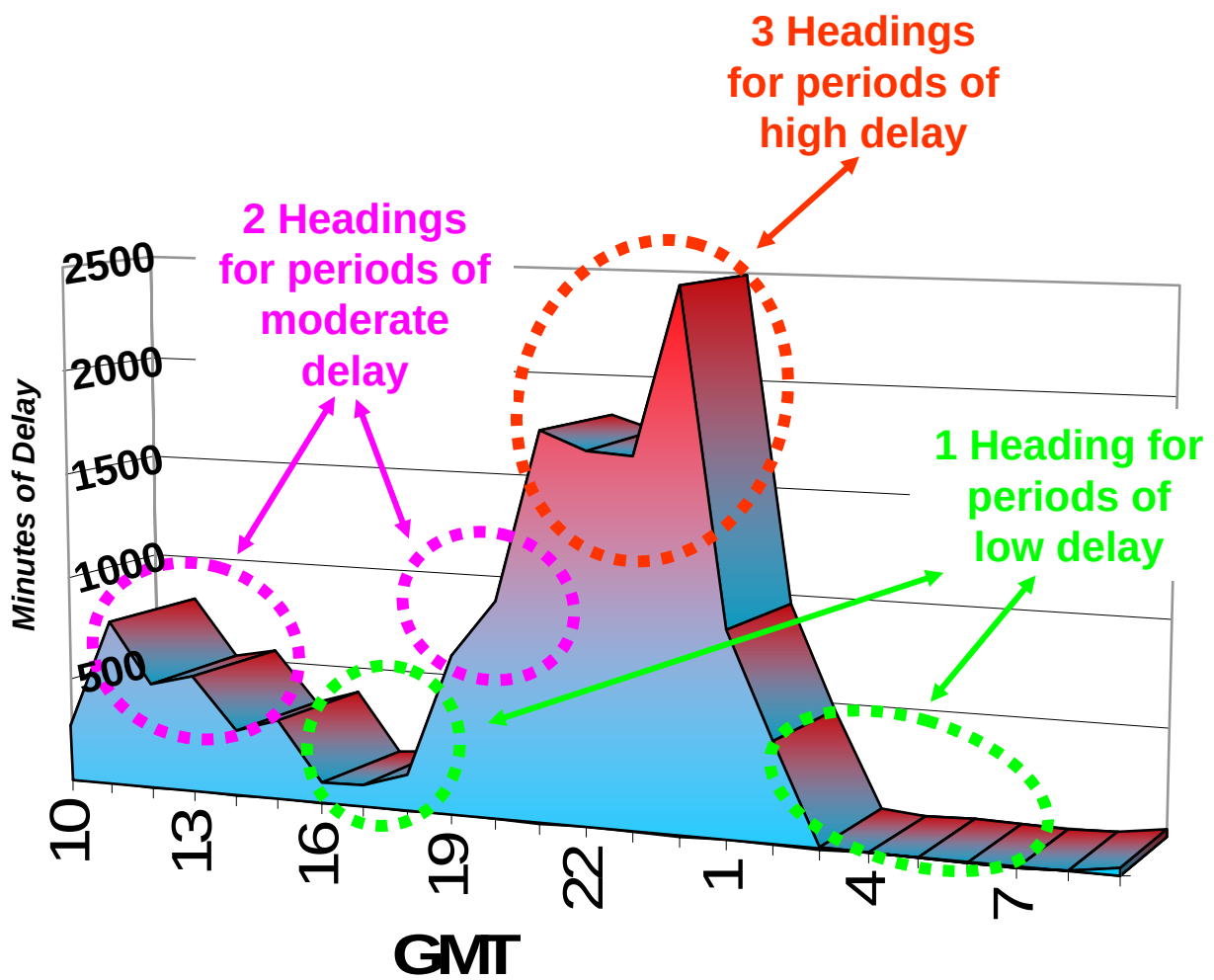
Another mitigation option for minimizing noise exposure due to departure headings is to project the demand for a given day and schedule the use of additional headings for only those periods* in which they are needed to maintain efficient flow of traffic.



* *It should be noted that traffic demand may change over time.*

Use Delay Triggered Headings

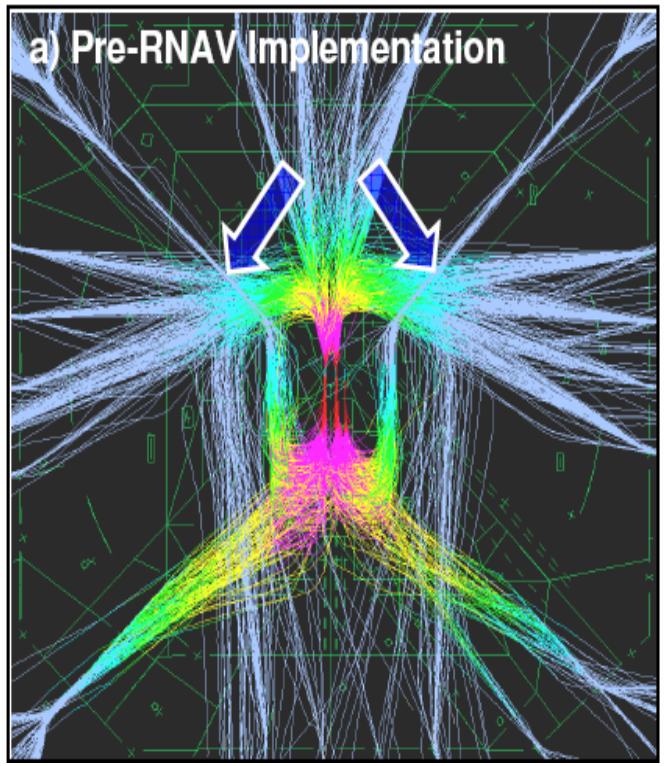
Delay Triggered headings is a mitigation strategy that entails the monitoring of departure delay throughout the day and the employment of additional headings during periods of increased delay. As delay subsides to predetermined levels, the additional headings are removed.

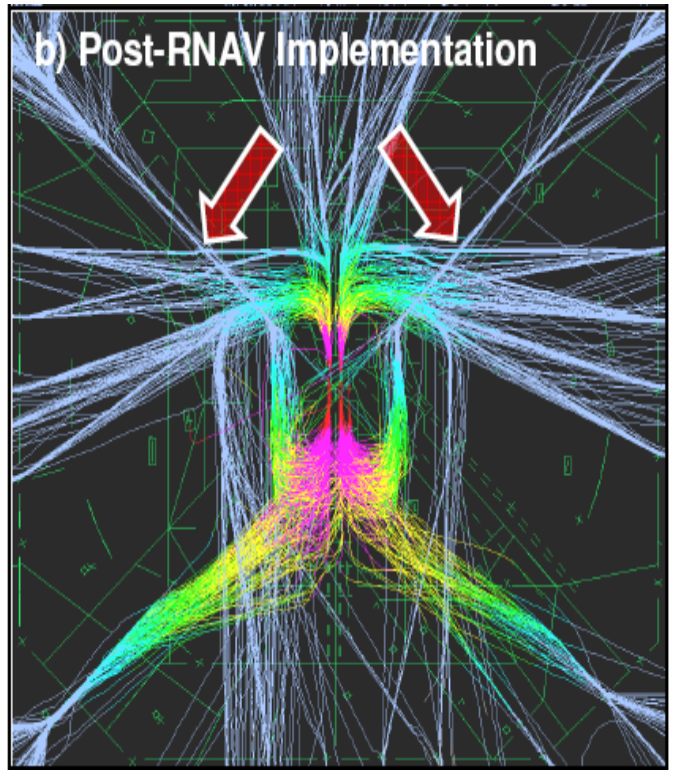


RNAV Overlay of Departure Paths

RNAV overlays of departure tracks would allow flight tracks to be focused along the lateral path. This reduces dispersion—the variation of the flight tracks. Noise is reduced for those communities on either side of the newly focused track.

However, households living directly below the focused path may experience an increase in noise, as each flight on the track will fly precisely over the same ground path.

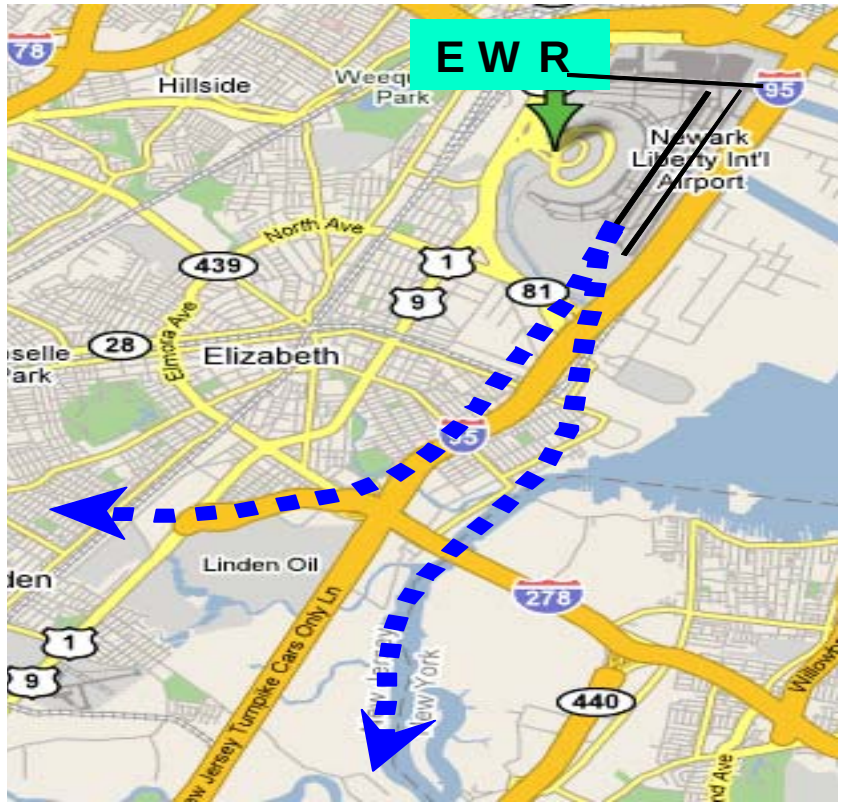




Photos taken from: Mayer_Haltli_Klein_DASC_2006_060831

Route Flights Over Non-Residential Areas

Departure noise may also be mitigated by routing flights over non-residential areas. For example, flights may be routed over an interstate, an industrial area, or a river. These flights gain altitude over the non-residential areas before being dispersed to their respective departure fixes

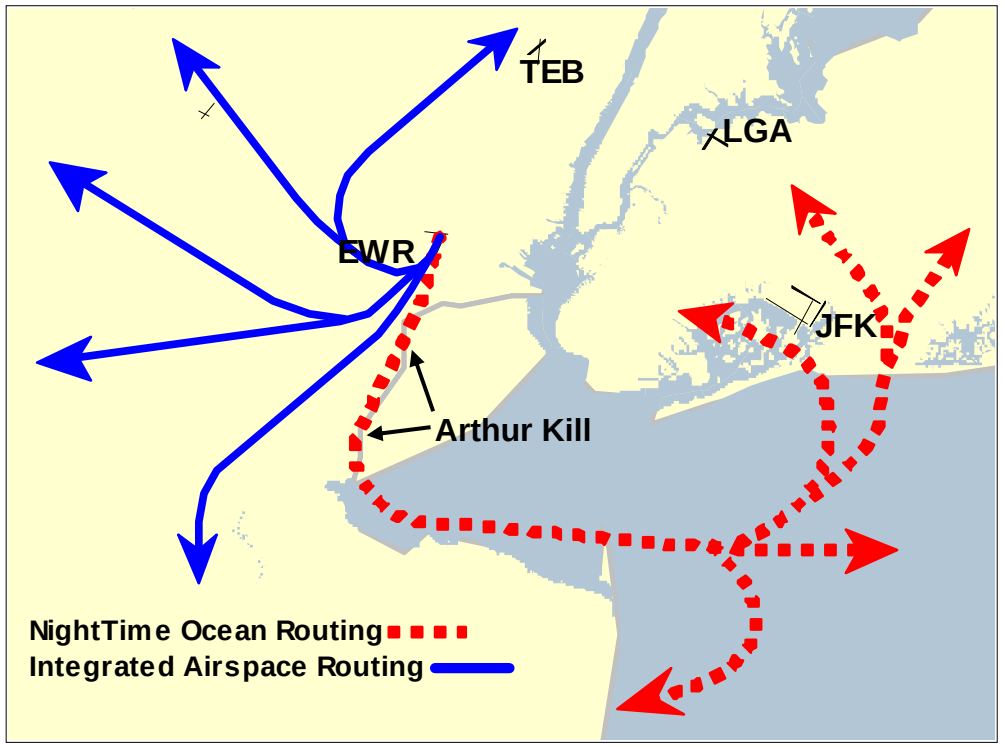


Create Night Time Ocean Routes

The noise impacts of the diverging headings are amplified in the nighttime hours. This nighttime traffic over residential areas is particularly offensive to the residents of the communities south of EWR's runways 22L and 22R.

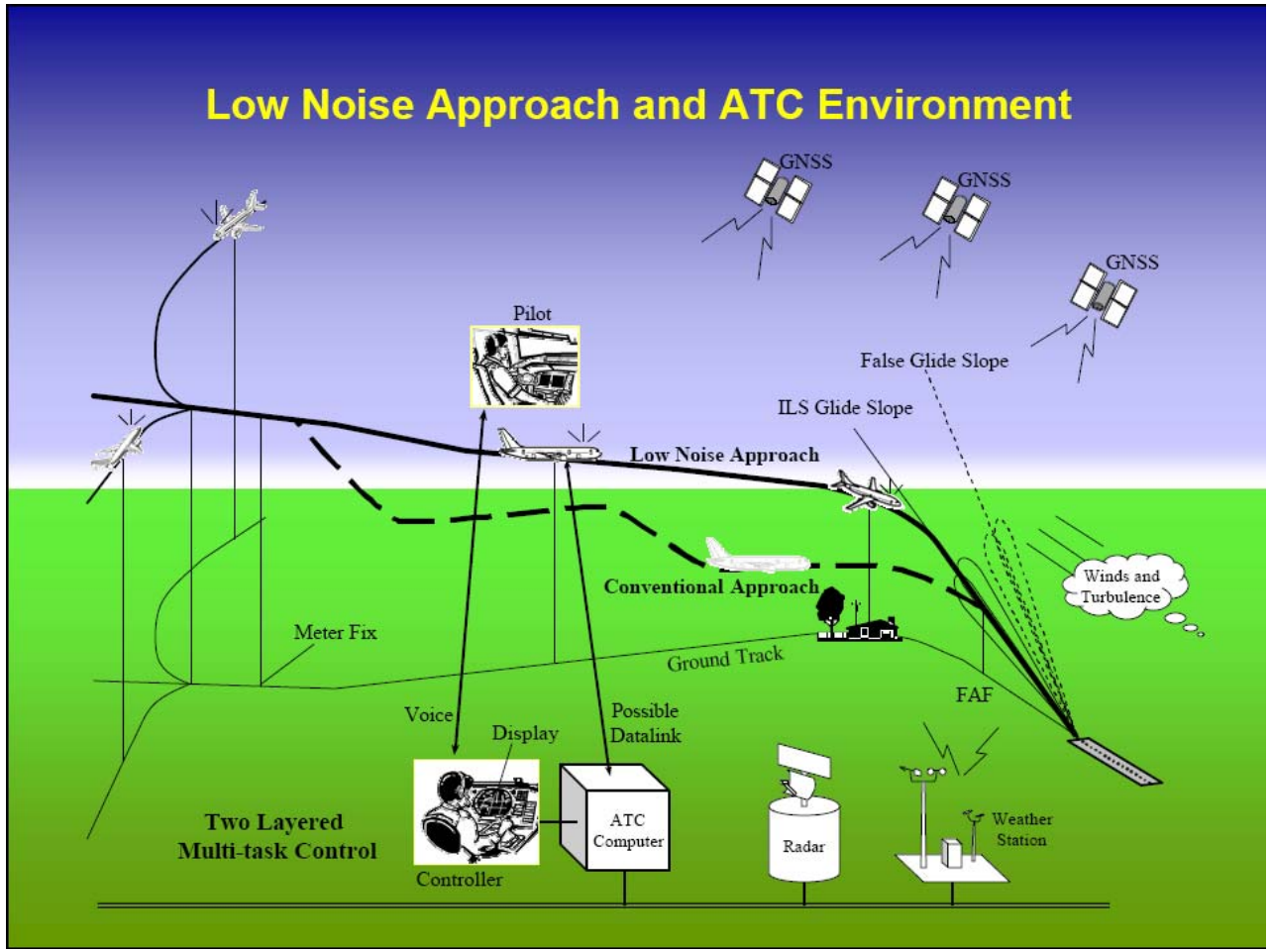
One mitigation strategy that may be effective for the reduced volumes of night-time traffic is to route all of the departures down the Arthur Kill and across the ocean to gain substantial altitude before turning back across the land.

Note: Night time for this procedure would be defined as between the hours of midnight to 6am.



Continuous Descent Approach

The application of Continuous Descent Approach (CDA) may provide noise relief for those communities underneath the lateral approach path of the arriving flights. CDAs use lower engine power over a considerable distance of the lateral path.



Graphic courtesy of Dr. J.P. Clarke, Georgia Institute of Technology

Next Steps and Schedule

• Complete noise analysis of mitigation strategies	March 2007
• Publish Noise Mitigation Document	April 2007
• Hold information meetings with public • Five meetings, one in each state	April 23-May 1, 2007
• Comment Period on Noise mitigation document closes	May 11, 2007
• Publish FEIS	June 2007
• Publish Record of Decision (ROD)	August 2007

Congressional Workshop

We will host a Congressional Workshop as follows:

April 16, 2007
FAA Headquarters
9th Floor
800 Independence Ave
Washington DC

10am to 3pm

At this session we will present the information that will be used at the public meetings and answer your questions.

Meeting Sites for Noise Mitigation Meetings

Date	Day	Location	Venue	Time
April 23	Monday	**NY**	Marriott Hotel NY LaGuardia Airport Marriott 102-05 Ditmars Blvd East Elmhurst, NY 11269	6:00pm – 10:00 pm
April 24	Tuesday	**CT**	Holiday Inn Select 700 East Main Street Stamford CT 06901	6:00pm – 10:00pm
April 25	Wednesday	**NJ**	Sheraton Newark Airport Hotel 128 Frontage Road Newark, NJ 07114	6:00pm – 10:00 pm
April 30	Monday	**DE**	Concord H.S. 2501 Ebright Road Wilmington, DE 19810	6:00pm – 10:00 pm
May 1	Tuesday	**PA**	Holiday Inn Philadelphia Int'l Airport 45 Industrial Highway Essington, PA 19029	6:00pm – 10:00 pm

Questions?