NY/NJ/PHL AIRSPACE REDESIGN

FAA PROPOSAL – DRAFT DEIS

Union County Air Traffic & Noise Advisory Board
Jerome Feder, Acting Chairman
2/9/2006

New Jersey

The Star-Ledger TUESDAY, JULY 14, 1998

Clearer skyways above, less noise below

FAA beginning multi-year reworking of nation's airspace in N.Y.-Newark region

By Jonathan Jaffe
STAR-LEDGER STAFF

Every 68 seconds, a plane takes off or lands at Newark International Airport.

That pace seems pretty impressive — except that Newark still has the worst record of delayed flights among major airports in the nation. Nearby, LaGuardia International Airport ranks second while John F. Kennedy International ranks eighth.

Today, in an effort to make the planes more punctual and safer — and to reduce noise below — the Federal Aviation Administration will embark on perhaps the most ambitious rejiggering of the nation's airspace since the dawn of commercial flight.

It all begins with a makeover of the New York-New Jersey area's crowded airspace, and officials hope the new routes will still be good decades from now, when planes will fly at speeds barely imaginable today.

"Sometime in the next century, we'll be able to travel from New York to Tokyo within an hour-and-a-half," said John Walker, an FAA project manager in Washington who will oversee the project. "We want to plan now for these types of activities so we have a safe airspace structure that can handle anything that is thrown at us."

The stratospheric traffic jam punishes more than edgy passengers. It forces planes to circle, hitting airlines with approximately $100 million in additional fuel, crew and maintenance costs, and bedeviling nearby residents with noise.

The redesign, beginning with the heavily traveled New York-New Jersey metropolitan area, is expected to draw on advances in computer software and satellite tracking to alter routes across the continental United States, the Caribbean Sea and the Pacific and Atlantic oceans.

Other strategies include giving flight crews greater autonomy to plan their routes and rerouting traffic along approach routes based on the day's traffic flow.

"We will look to see, for example, if Kennedy has little traffic at one point in the day, perhaps Kennedy's routes could be used by Newark or LaGuardia," Walker said.

Aviation experts say the redesign of the New York-New Jersey airspace could take three to five years, with some adjustments coming later.

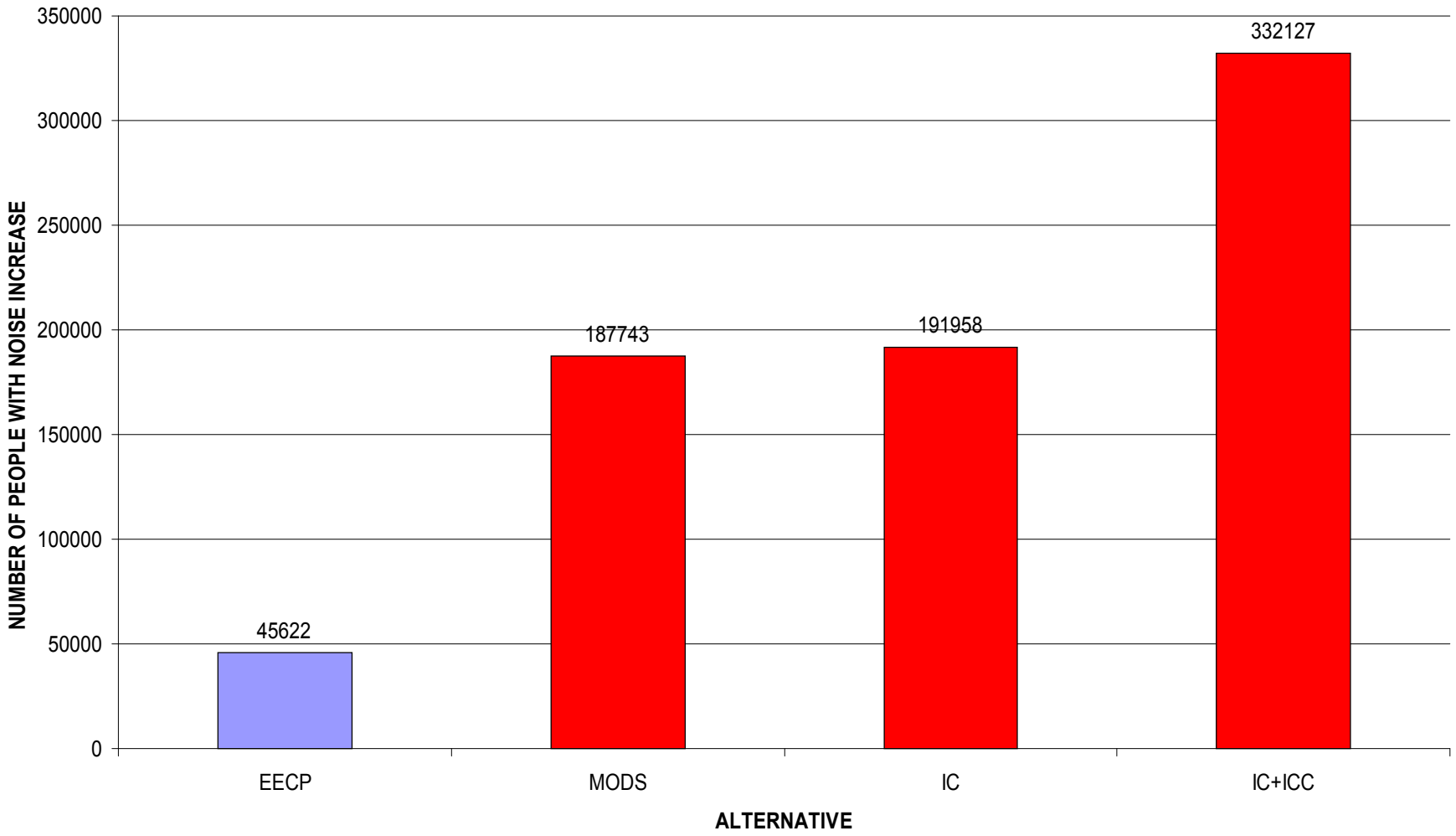
The FAA had set today as

PLEASE SEE FAA, PAGE 16

1998 NEWSPAPER HEADLINE

Summary and Conclusions

- Operational results are promising
  - Without major changes in airport capacity (e.g., new runways), we will not see huge delay reductions or throughput increases
- Airspace improvements will provide operational improvement
  - Increasing departure headings and maximum use of available runways will result in increases of 1-3 operations per hour
- These improvements will have noise impacts
  - Several mitigation techniques are under consideration
- Ocean Routing does not meet the purpose and need of the project
- Integration of the terminal and en route airspace is *crucial* to achieving efficiencies



NOISE EFFECTS OF AIRSPACE CHANGES COMPARED TO EECP

FOUR ALTERNATIVES EXAMINED

1) No action
2) Modifed
3) Ocean routing
4) Integrated Airspace
    a) Airspace changes alone
    b) With new Integrated Control Center (ICC)

CAPACITY BENEFITS SMALL

	Mods to Existing	*Ocean Routing*	*Integrated Airspace*	*Integrated + ICC*
Arrival Throughput	0	0	0	+6.7%
Departure Throughput	+.4%	-7.1%	+.8%	+2.9%

- Optimistic and questionable assumptions. Examples:
  - Integrated + ICC assumes simultaneous arrivals on closely spaced EWR runways. High controller workload and possibly less safe. 2001 simulation results mixed
  - Use short Runway 29 for departures. Impacts Hillside

NOISE IMPACTS LARGE

- Modified and Integrated Airspace proposals dramatically increase noise
  - More noise for more people
  - Union County especially impacted
- Ocean routing shows large noise benefits
  - However, flawed FAA modeling claims reduced EWR departure capacity

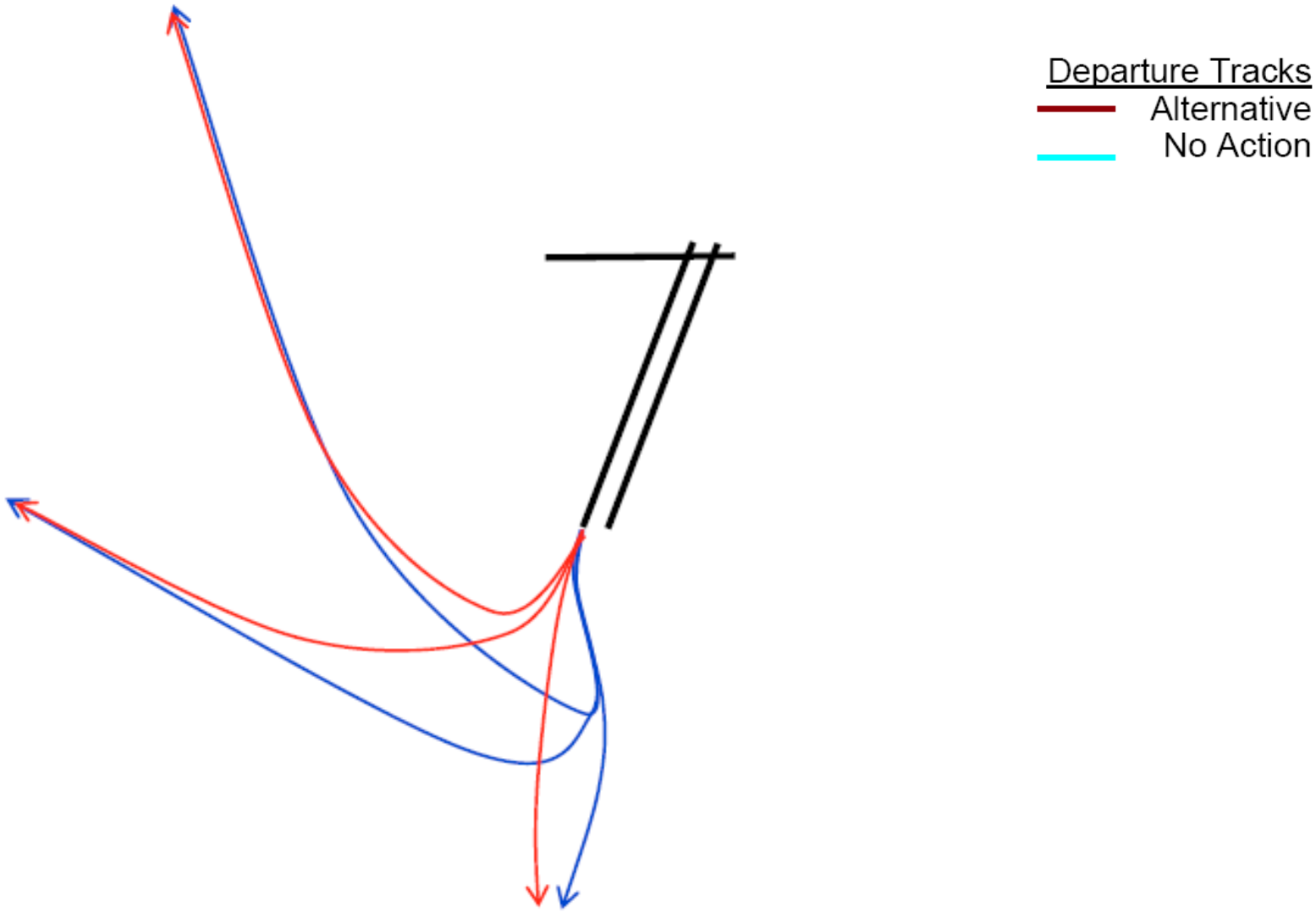
TRI-STATE NOISE AFFECTED POPULATION

*2006 Data Except for Integrated + ICC which shows year 2011

	Mods to Existing	*Ocean Routing*	*Integrated Airspace*	*Integrated + ICC**
Increased Noise	187,743	7,504	191,958	332,127
Decreased Noise	42,599	119,768	43,091	67,597
Difference	145,144	(112,264)	148,867	264,530

EWR CHANGES HURT UNION COUNTY

- Propose eliminate EWR south flow noise abatements.
  - Developed and “honed” by PA over many years
- “Straight out,” 240, and 260 degree headings direct main paths over populated areas
  - Elizabeth, Linden, Hillside, Roselle, and Roselle Park and Union especially impacted
  - Paths moved away from industrialized areas where they currently have little impact

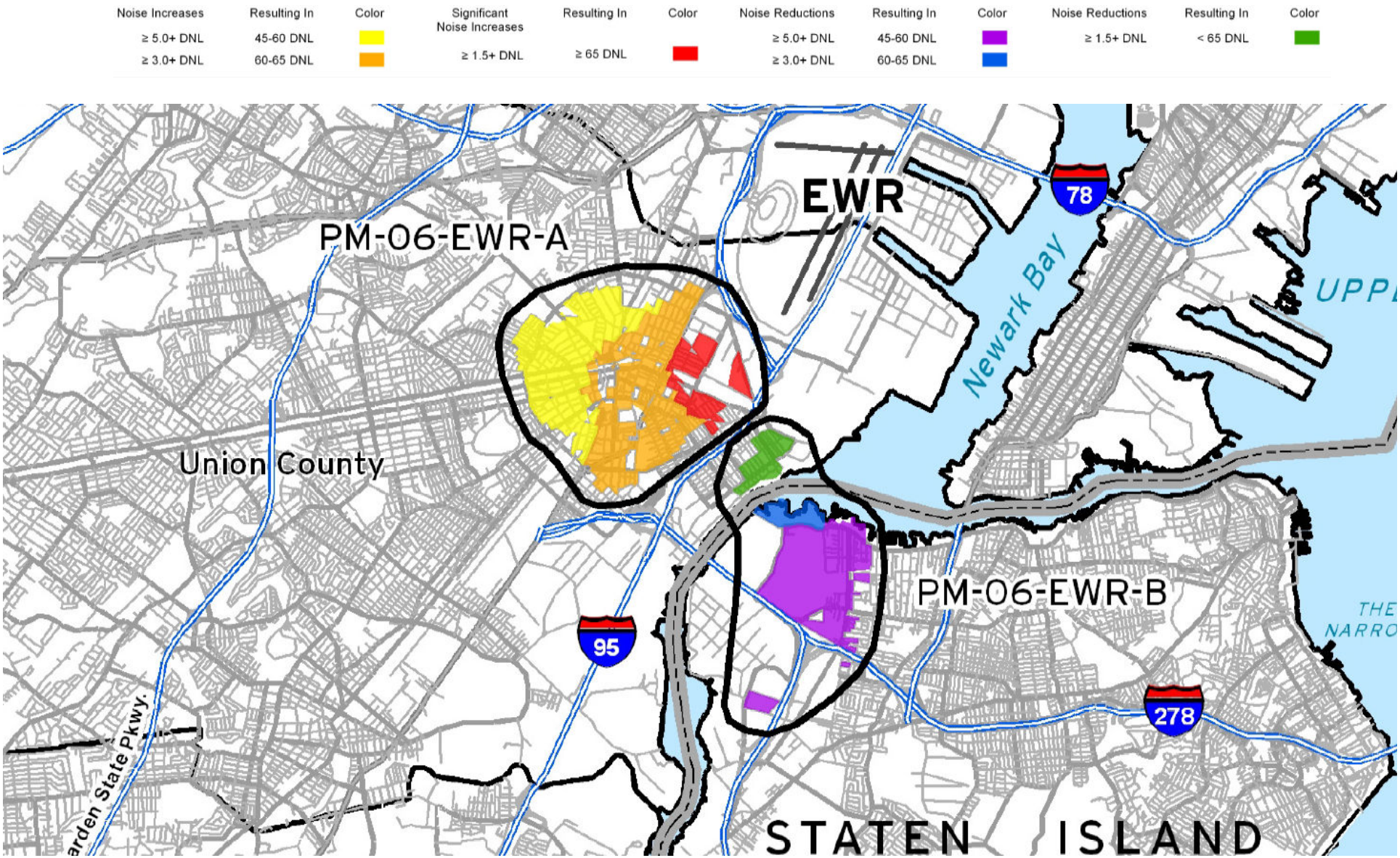


EWR DEPARTURE "FANNING"

[December 20, 2005 Congressional Briefing]

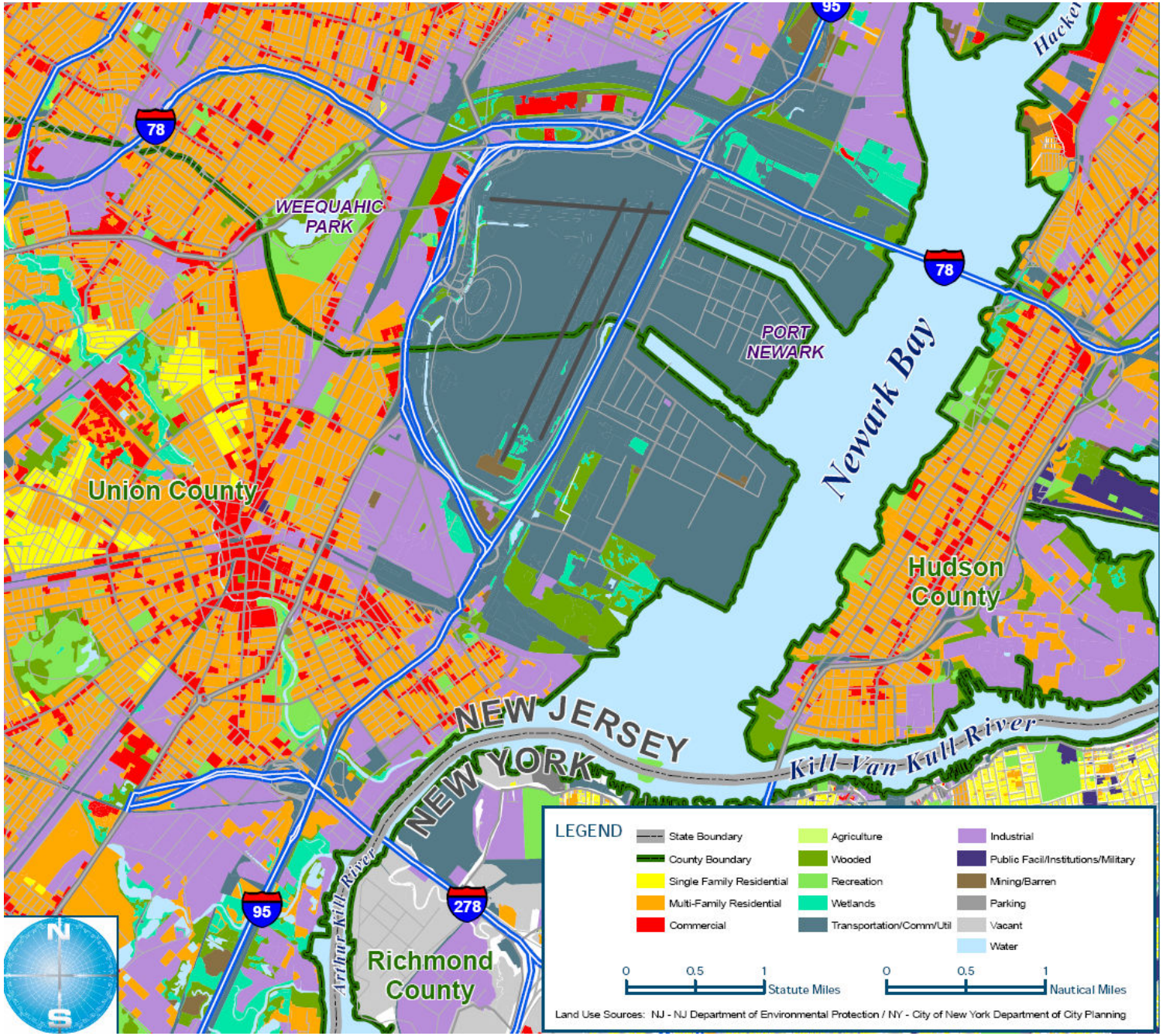
DEIS NOISE THRESHOLLDS

	Overall Noise Level – Decibels DNL	*FAA Threshold for Noting Change*	*Actual Noise Change*
Most of Affected Study Area	45 - 60	5 decibels	**3.2 times**
Closer to Airport (several miles)	60 - 65	3 decibels	**2 times**
Apt. Immediate Vicinity (1–2 mi)	65 or higher	1.5 decibels	**1.41 times**



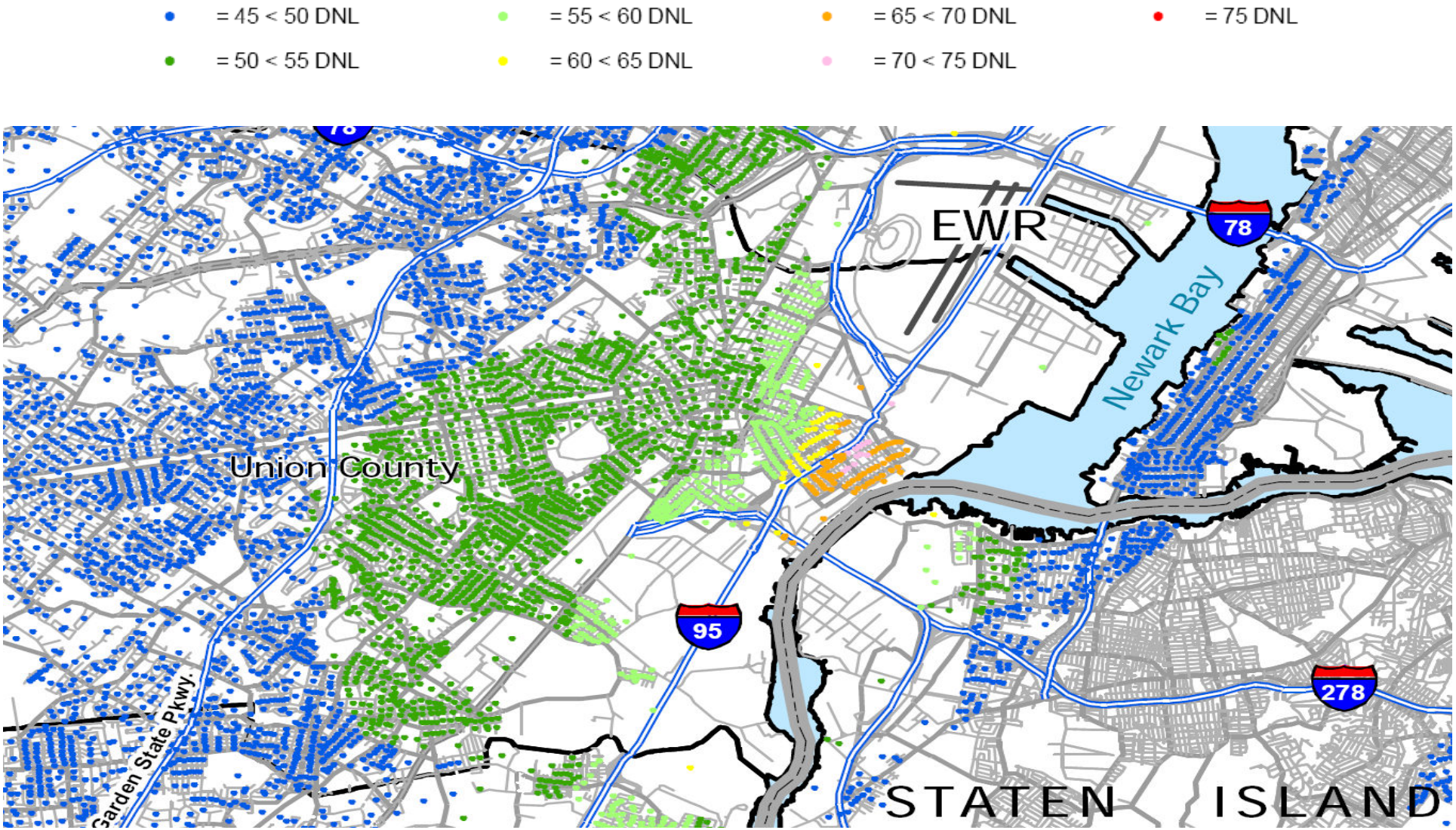
NOISE IMPACT OF EWR DEPARTURE "FANNING"

[DEIS Fig 4.9]



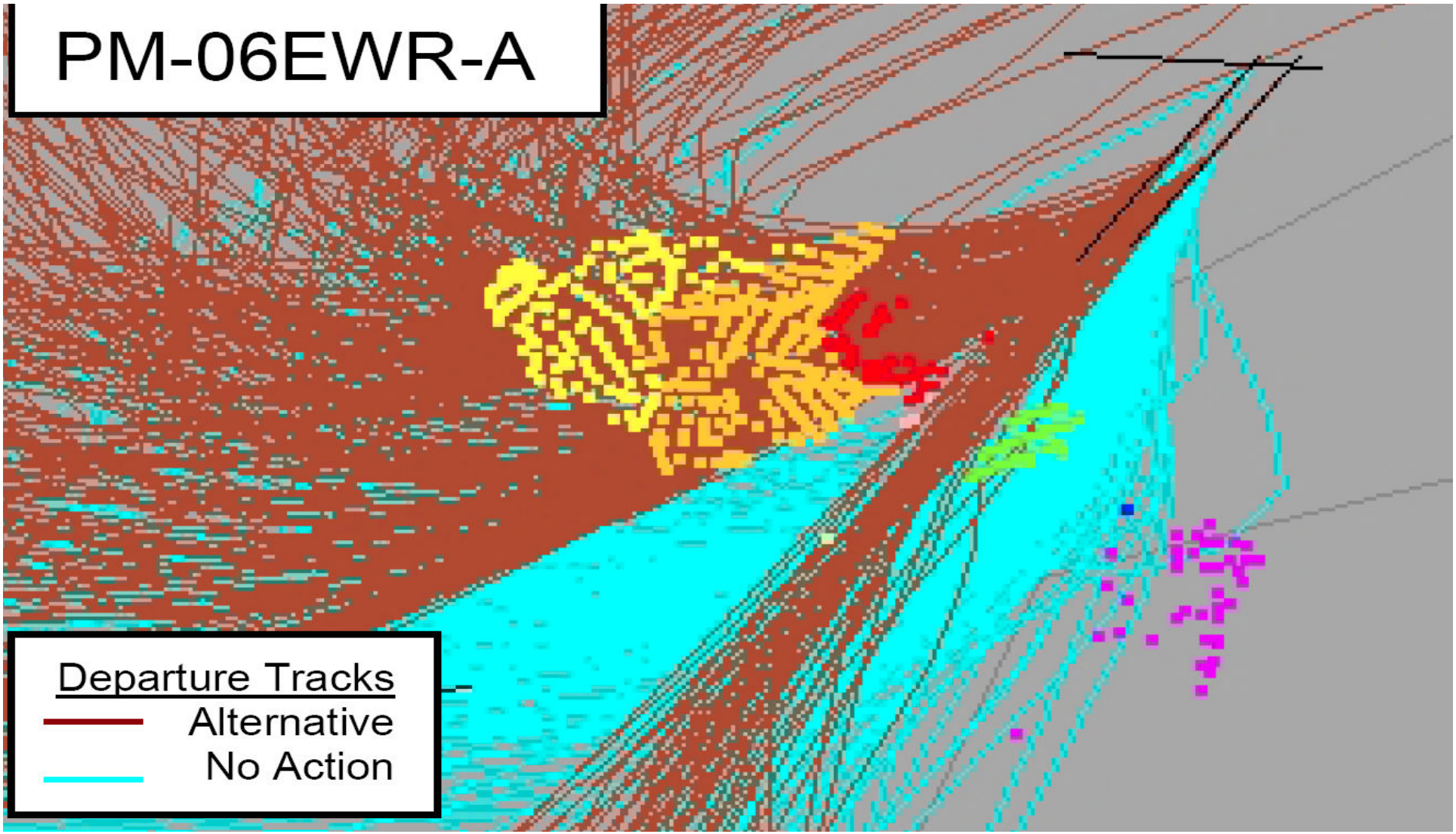
EWR GENERALIZED LAND USE

[DEIS Fig. 3.10]



2006 "NO ACTION" NOISE EXPOSURE

[DEIS Appendix E; Fig. 12a]



EWR DEPARTURE FANNING FLIGHT TRACKS AND NOISE IMPACTS

[DEIS Appendix E. Page E49]

EWR DEPARTURE "FANNING" IMPACT

	Number of People Affected
Increased Noise	70,689
Decreased Noise	13,895
Difference	56,794

ENVIRONMENTAL JUSTICE

- FAA audited only those impacted at very high (65+ DNL) noise levels.
- For EWR “fanning” 5480 affected people are 82% minority
- DEIS vaguely outlined but did not explore possible mitigations
  - Proposed mitigations won’t work
  - Should have investigated before releasing DEIS

PROPOSED ENVIRONMENTAL JUSTICE MITIGATIONS WON'T WORK

- Continuous descent
  - NA because noise is from departures
- Use non-noise sensitive areas
  - NA because that is where aircraft are currently
- Change procedures at night
  - Won't help much and has "side effects"
- Soundproofing
  - Doesn't help outdoors or when windows are open

ADDITIONAL IC + ICC IMACTS TO NJ

	Rwy 22 Arrival Changes	Rwy 4Arrival Changes	"PENNS" Arrival
Increased Noise	98,714 (Rutherford & Fairlawn)	1,523 (Plainsboro)	40,596 (Morris, Passaic,Sussex)
Decreased Noise	16,145	5,058	19,804 (PA + NJ)
Difference	82,569	(3,535)	20,792

OCEAN ROUTING

- 2006 results show ocean routing would reduce noise for a net 112,000 people
  - FAA found some operational benefits but also found reduced departure capacity
- However, operational results differ from NJCAAN consultant
  - FAA did not take advantage of departure elimination to improve arrival operation
  - Did not optimize runway use
- Adjustments in ocean routing scenario might make it an attractive choice

FAA PREFERRED ALTERNATIVE

- DEIS developers pressing for Integrated Airspace + ICC alternative
  - MITRE Appendix says that this is only one worth implementing
  - Alternative has by far highest implementation cost ($2.5 billion) plus highest environmental impacts
- FAA not yet committed to because of operational, safety, and budget uncertainty

OTHER SOLUTIONS: EWR CAPACITY POORLY USED

- Carriers converted to small regional jets
  - FAA projected based on 2000 data: 16%
  - Actual observed in 2004: 38%
- Port Authority would like to use larger aircraft holding 2X – 3X as many people
  - Potential 10% - 15% traffic reduction
- Carriers increase peak operations until delays become intolerable, defeating attempts to reduce
  - Airspace changes may promote more crowded, less safe, skies without reducing delays

POSITIONS OF OFFICIALS

- Governor Corzine, plus Senators Lautenberg and Menendez already voiced strong opposition
  - Waiting for positions from our Congressmen

LEGAL SITUATION

- Numerous grounds for opposing
  - Federal Advisory Committee Act violations already under litigation by NJCAAN
  - NEPA issues
  - Environmental justice
  - Technical and modeling errors.

SUMMARY

- Redesign proposals have weak and questionable benefits. Cost of most promoted alternative is very high
- All proposals have high noise impacts plus environmental justice concerns
- We must stop EWR “fanning” proposal because of highly negative impact on Union County